

National Needs and Gap Analysis of Community Engagement in Waterwatch

FULL REPORT

Final



Natural Heritage Trust

Helping Communities Helping Australia

An Australian Government Initiative



November 2004

LANDSCAPE & SOCIAL RESEARCH Pty Ltd

ABN 79 099 014 963

126 Neil's Road

Mount Lonarch VIC 3468

Phone: 03 5466 2320

E-Mail: landscape_social@mac.com

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Assistant Secretary
Australian Government NRM Team
GPO Box 858
Canberra ACT 2601

Author:

Dr Don Thomson
Landscape & Social Research Pty Ltd
126 Neil's Road
Mount Lonarch VIC 3468
Telephone/Facsimile 03 54662320
Email: Landscape_social@mac.com

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ABBREVIATIONS

AG	Australian Government
DAFF	Department of Agriculture, Fisheries, Forestry, Australia (Australian Government)
CMA	Catchment Management Authority
DEH	Department of the Environment and Heritage (Australian Government)
DPI	(Victorian) Department of Primary Industries
DPIWE	Department of Primary Industries, Water and Environment (Tasmania)
DSE	Department of Sustainability and Environment (Victoria).
EA	Environment Australia (now Department of Environment and Heritage)
ICLEI	International Council for Local Environmental Initiatives
LWA	Land & Water Australia (Land and Water Resources Research and Development Corporation, Australian Government).
NHT	Natural Heritage Trust
NHT1	Phase one of NHT (1997-2002)
NHT2	Phase two of NHT (2003-2007)
NRM	Natural Resource Management
NRM&E	Department of Natural Resources, Mines and Energy (Queensland)
WASC	Waterwatch Australia Steering Committee
MOU	Memorandum of Understanding
CRCFE	Cooperative Research Centre for Freshwater Ecology
AusRivAS	Monitoring River Health Initiative Assessment Scheme

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Thank you to Kelly Smith and the numerous local coordinators and who showed me around south-west Western Australia and some of the key sites of Ribbons of Blue/Waterwatch WA and Rivercare activity in that region.

To all the participants in this analysis – the 112 people who participated in the focus groups and the 65 people who returned the coordinator/proponent surveys, I would like to extend my sincere thanks for your time and effort. Many of the focus group participants gave up their own time and travelled at their own cost to participate, demonstrating their commitment to Waterwatch. I would particularly like to thank the 65 community volunteers and teachers who returned the 'community' surveys. Waterwatch is such a big and diverse initiative so there are hundreds of other people out there that have so much to offer a study such as this. It would have been good to involve more of these people, but I am confident that the people who did participate encompass the breadth of experience of, and ideas about Waterwatch.

I hope that this Gap/Needs Analysis goes a small way towards contributing to the fantastic resource that is Waterwatch and that Waterwatch can continue to build its reputation and strengthen its position as a key natural resource management tool.

Don Thomson
Mt Lonarch, Victoria
October 2004

1 INTRODUCTION

1.1 Background

The extension of the Natural Heritage Trust (NHT) from phase 1 (NHT1) to phase 2 (NHT2) in 2002 has resulted in changes to the delivery of funding from a national 'program' basis to strategic investment basis through accredited regional plans.

Under NHT 1, Waterwatch activities were managed as one of 21 discrete programs and had a budget of around \$2.5 million per year. These funds were distributed via the National Waterwatch Office to Waterwatch activities/programs at a State, regional and local level to primarily employ facilitators and provide a small operating budget to assist communities to be active in sustainable water management. Funding was matched by cash and in kind on at least a 1:1 basis within each State or Territory. Waterwatch Australia was guided by national and State Strategic Plans and Steering Committees comprising key stakeholders.

While Waterwatch Australia is no longer a specific funding 'Program', there was a 2000 Government election commitment to '...continue to support more than 50,000 volunteers in every State and Territory in the monitoring of Australia's waterways via Waterwatch Australia'. In October 2003, Minister Kemp made an announcement to fund an additional 15 Waterwatch positions to encourage a Waterwatch facilitator presence in all NRM regions across Australia.

Waterwatch is currently supported at the national level by two staff members within the Joint Natural Resource Management (NRM) Team, Capacity Building Section, who have responsibilities for strategic direction, national partnerships and the development of tools and resources to support community involvement in sustainable water management. The Australian Government NRM Facilitator Network, particularly the State-based Rivercare Facilitators, support Waterwatch from a strategic and policy perspective also. The Capacity Building Team has overall responsibility for supporting the facilitator and coordinator network funded by the Australian Government.

Although Waterwatch operates under different names in some States and regions (e.g. Ribbons of Blue (ROB) in Western Australia, Streamwatch in parts of NSW), throughout this report 'Waterwatch' is used as an overarching term encompassing community-based water monitoring activities. These activities involve, to varying degrees, an education and capacity building focus, and a 'monitoring' or data collection focus, and are variously delivered by employed 'coordinators'.

1.2 Purpose of the Gap/Needs Analysis

This Gap/Needs Analysis was instigated to identify current gaps, future needs and opportunities for Waterwatch activities at a national level to facilitate community engagement in sustainable water management via the Rivercare Program, under the Natural Heritage Trust extension.

The primary purpose of the Gap/Needs Analysis is to provide an opportunity for participants and partners to express their needs for future involvement, tools and resources, support and direction. The transition to regional delivery under the extension of NHT (and also NAP) has significant implications for the sustainability of community-based monitoring and capacity-building initiatives such as Waterwatch. A principal aim of the Gap/Needs Analysis is to identify what support is needed, at a national level, to facilitate the transition to regional delivery.

There is also a small review component of the current study, covering the period of June 1999 (date of Mid Term NHT Review) until June 2004 to build on the 1999 NHT Mid Term review of the Waterwatch Program under NHT1

In addition, the Gap/Needs Analysis builds on previous reviews, including the Waterwatch Australia Needs/Gap Analysis of School Education Activities (2000), the 2003 Hassall Evaluation of the NHT Phase 1 Facilitator, Coordinator and Community Support Networks and recent State Waterwatch reviews.

The target audience for the Gap/Needs Analysis included existing participants (students, teachers, Landcare and environment groups, individuals) and program partners (regional NRM bodies, local government, non government organisations, State and Australian government).

1.3 Method

The methodology adopted to complete this review included both qualitative and quantitative research methods. A range of stakeholders and interested parties were consulted during the process, with the main focus on State/Territory and regional Rivercare and Waterwatch facilitators/coordinators. In keeping with the grass-roots emphasis of Waterwatch, some community monitors were included in the review process to the extent possible within the time-lines and resources available.

1.3.1 Assessment Framework

Developing a methodology for this review was complex because of the diversity of Waterwatch across Australia. This diversity results in wide ranging perceptions about what Waterwatch is, or should be, in each region. An evaluation framework was therefore needed to identify the key drivers of a successful Waterwatch 'program', against which current conditions could be assessed, and an understanding gained of the factors that influenced these conditions.

A Land & Water Australia review of the factors influencing the capacity of communities to engage in riparian restoration (see Thomson and Pepperdine 2003) provided a framework for this Gap/Needs Analysis. The 'Capacity Assessment Tool' developed as part of the project 'Assessing Community Capacity for Riparian Restoration' provided the basic structure of the assessment framework designed for this review. The critical enabling and constraining 'dimensions' identified for this framework were compiled from previous reviews of Waterwatch (see References, page 95), but especially a review of the Victorian Waterwatch Program by Landscape & Social Research (2004). (See Table 7 on page 99 for a complete list of the critical success 'dimensions' for regional Waterwatch delivery).

The evaluation framework was then used to help answer the following key questions:

1. What are the critical enabling and constraining factors (or critical success factors, CSF) for Waterwatch at local, State and national scales?
2. To what degree are these critical success factors common within and between States/Territories and regions, and do different stakeholders have common perceptions of these CSF?
3. What is the status of each State/Territory and region in relation to these 'critical success factors'?
4. How can regions meet these 'critical success factors' and what role does the National Waterwatch office have in facilitating this process?

1.3.2 Consultation Process

There were two principal components to the consultation process. The main component was to conduct 'focus groups' in each State/Territory involving Waterwatch coordinators, representatives of NRM agencies community monitors, and other interested parties to:

- o Review lessons from date of mid-term review to end of NHT1
- o Discuss the impact of changes to institutional and funding arrangements under NHT2
- o Identify gaps and key roles and responsibilities relating to National Waterwatch initiative
- o Document perceptions of critical success factors in engaging the community in Waterwatch

Focus groups were recorded on audiotape and notes taken from the tape recordings. Participants were asked to sign a consent form before tape-recording commenced. Table 1 provides an overview of the schedule of focus groups, their locations and the number of participants at each session.

The second component of the consultation process was to interview key informants. Interviews were conducted in-person, mainly before and after the focus group sessions. Some interviews were conducted by telephone. Forty-

eight people were interviewed during the conduct of the study. These ranged from short 'informal' discussions to one-hour meetings.

In addition, the reviewer attended State meetings of Waterwatch/Rivercare coordinators and facilitators in Western Australia (2 days), Queensland (2 days), NSW (1 day) and South Australia (1 day). The principal investigator also participated in a two-day forum of all State Waterwatch and Rivercare coordinators in Canberra. These meetings/workshops were invaluable in gaining an understanding of the state of Waterwatch in all States/Territories and the issues facing coordinators, hosts, sponsors and regional NRM authority staff in relation to delivering the objectives of Waterwatch and Rivercare.

Table 1: Focus Group Session Details

State	Date	Location	No. Participants
Western Australia	26 May 2004	Fairbridge	7
Northern Territory	31 May 2004	Palmerston (Darwin)	6
Northern Territory	2 June 2004	Alice Springs	3
National	9 June 2004	Canberra	14
Queensland ¹	17 June 2004	Indooroopilly	27
South Australia	21 June 2004	Adelaide	9
New South Wales	24 June 2004	Sydney	20
Victoria ²	28 June 2004	Melbourne	4
Australian Capital Territory	30 June 2004	Canberra	6
Tasmania	1 July 2004	Launceston	10
Tasmania	2 July 2004	Hobart	6
Total:			112

The Western Australian focus group session comprised mainly local 'Ribbons of Blue' (ROB) and Rivercare coordinators plus the State ROB coordinator and AG NRM Facilitator Rivercare for WA. The Palmerston (NT) Focus group comprised mainly State agency representatives, AG NRM Facilitator Rivercare for NT, and representatives of Greening Australia, who were about to take on the coordination of Waterwatch for the NT. In Alice Springs (NT), focus group participants were former Waterwatch Coordinators (one was a former NT Coordinator) and a community volunteer monitor. The Workshop at Indooroopilly (QLD) comprised a diverse mix of current and former Waterwatch coordinators, representatives from the EPA, various other State agencies, and the AG NRM Facilitator Rivercare for QLD. The South Australian Focus Group comprised the AG NRM Facilitator Rivercare for SA, an EPA SA representative (who coordinates community monitoring within SA from a technical perspective), one regional NRM board representative and local Waterwatch coordinators. The Victorian Focus Group comprised the State-agency Waterwatch support staff and the AG NRM Facilitator Rivercare for Victoria. The ACT Focus Group comprised local Waterwatch and catchment coordinators, a regional NRM authority representative, two ACT government representatives and the ACT Waterwatch coordinator. In Tasmania, the two focus groups had a similar mix of participants.

¹ This session was run as a 1 hour workshop and was not tape-recorded, so transcript was made. Not all the names of participants at this workshop appear in Appendix 1.

These were predominantly local Waterwatch coordinators and community volunteers, a former State Waterwatch Coordinator (at Launceston F.G.), the current State Waterwatch Coordinator (Launceston), a State agency water-quality officer (Hobart) and AG NRM Facilitator Rivercare for Tasmania (Hobart).

1.3.3 Coordinator Surveys

As stated, the aim of the coordinator surveys was to gather quantitative information to determine the key elements of a successful Waterwatch initiative, to determine where regions and States/Territories are currently in relation to these elements, and to gather information about the impact of policy and program changes.

The survey was designed as a Microsoft™ Excel® spreadsheet which was emailed to Waterwatch coordinators, regional NRM authority staff, past and present regional Waterwatch steering committee members and other agency staff who had an understanding of Waterwatch in their respective regions.

Collating a sample frame (list of email addresses) for this exercise was a complicated issue. This list was developed by asking the State-level Waterwatch representatives (where relevant) in each State/Territory to forward a contacts list. The alternative method that was also offered was for the State-level coordinators to distribute the survey within their networks themselves. Two States (Tasmania and NSW) took the latter option.

Table 2: Response Rates - Survey of Coordinators

State	No. Surveys Sent	No. Responses (usable)	Response Rate
Australian Capital Territory	19	1	5.3%
New South Wales	24	15	62.5%
Northern Territory	32	4	12.5%
Queensland	23	8	34.8%
South Australia	44	4	9.1%
Tasmania	19	9	47.4%
Victoria	42	14	33.3%
Western Australia	63	10	15.9%
TOTALS	266	65	24.4%

The response rates are variable between States/Territories. The overall response rate is good, providing a good number of responses to enable some confidence in the aggregate statistics presented. The response rates could have been improved by making the survey less onerous, however this would have jeopardised the ability to collect data across a very wide range of issues. Response rates might also have been improved if more time had been allowed.

A copy of the survey is provided in Appendix 2 of this report.

² This session was not tape-recorded so no transcript was made. The Victorian Focus group was small because the Victorian Waterwatch program had been reviewed only 6 months prior to this Gap/Needs Analysis, involving over 60 people in 12 focus groups across the State.

1.3.4 Community Surveys

An aim of the brief was to elicit the perceptions of participants in Waterwatch on a variety of issues. Where possible, Waterwatch participants were included in the consultation process (i.e. the focus groups and interviews), but there was insufficient scope within this study to include a large number of community participants. Therefore, it was deemed appropriate to undertake a smaller survey of some Waterwatch participants. Because contact lists were not available for Waterwatch participants, regional coordinators in 4 States were asked to distribute the survey to a random sample of participants in their Waterwatch programs.

Table 3: Community Survey Responses by State

State	No. Responses (usable)	Proportion of Respondents
New South Wales	29	44.7%
South Australia	8	12.3%
Tasmania	22	33.8%
Western Australia	6	9.2%
TOTALS	65	100.0%

Ideally, participants in all States and Territories would have been sampled, and stricter guidelines given to Waterwatch coordinators in relation to sampling participants. However, the data from the 65 responses do provide a good insight into the perceptions of Waterwatch participants and, possibly more importantly, the degree to which these perceptions differ.

2 THE STATE OF 'WATERWATCH'

2.1 Background to Waterwatch

Waterwatch is a community-based environmental monitoring initiative, focussing on water and aquatic ecosystems, that aims to enhance the participation of community groups and individuals in the protection and management of waterways. The initiative aims to build the capacity of communities in water and catchment management initiatives and to provide useful, credible and reliable data for natural resource management (see Waterwatch Australia Objectives, Box 1).

Waterwatch has operated nationally for over ten years and has a longer history in some States.

Box 1: National Objectives for Waterwatch

- o **Establish and maintain community water monitoring programs**
- o **Heighten awareness, understanding and knowledge of water issues and their relationship to catchment health**
- o **Foster community involvement in planning, decision making and action to address waterway and catchment health issues.**
- o **Create and maintain effective partnerships between all sectors of the community.**

Waterwatch is not based on a network of incorporated groups, like Landcare. It is not a devolved grants program. Waterwatch comprises a network of paid coordinators, funded from federal, State/Territory government, local government and industry contributions. These coordinators commonly utilise standard methods and activities, based on technical manuals and other resources developed at a national level, complemented with resources, methods and protocols developed and/or refined at State/Territory and regional levels. Waterwatch coordinators commonly work with schools, Landcare and other community groups to monitor local waterways and riparian habitats and to learn about catchments and aquatic and riparian ecosystems. Importantly, Waterwatch equips communities with the knowledge and understanding that enables them to more constructively contribute to regional NRM planning and decision-making processes.

In the May 2001 Budget the Australian Government extended the Natural Heritage Trust (NHT) for a further five years, from 2002-03 to 2006-07. The extension, or second phase, of NHT saw a fundamental shift from national funding for local and state level projects through programs such as Waterwatch

towards a more targeted and integrated approach to environmental and natural resource management in Australia. NHT funding is now primarily delivered through regional-scale investment plans. Under regional delivery, the existence of Waterwatch within regions, particularly in respect to the ability of regions to employ Waterwatch coordinators, is dependent on Waterwatch being incorporated into regional NRM investment plans.

2.2 State of Waterwatch up to the end of NHT1 (July 1999 to June 2001) and during the 'interim period' (July 2001 to June 2002).

The Mid-Term Review of the Waterwatch Program by Buxton Connections (1999) identified that:

- The Waterwatch Program objectives were appropriate for achieving the program's goals, but that the Waterwatch Australia charter needed to be updated to incorporate the Waterwatch Australia Strategy.
- The allocation of funds against the major components of the program was appropriate, with regional coordination recommended to receive the major funding allocation.
- The Waterwatch Program was well administered but that the effectiveness of the national office needed to be assured by providing adequate staffing levels to carry out national projects.
- The Waterwatch program operated effectively as a single national program.
- Waterwatch has achieved a uniform national framework for community monitoring, but more emphasis was needed on clarifying that part of the national approach is accepting the diversity of Waterwatch.
- The regional coordination model was the most effective and efficient means of achieving the objectives of Waterwatch and that more emphasis be placed on linking the funding for the employment of regional coordinators with demonstrated commitment by the proponent to incorporate Waterwatch as an integral component of their organisation's activities.
- Waterwatch successfully involved other government departments, non-government organisations, industry and the business sector.
- State/Territory and local governments, regional organisations and catchment management authorities contributed approximately \$2.50 for every \$1.00 of Commonwealth funding provided.
- Waterwatch has secured sponsorship from the private sector at the local level, but has not secured sponsorship at State or national levels.
- Around 5495 sites were being monitored in 246 catchments across Australia under the Waterwatch banner.
- There is anecdotal information to suggest that community data was being used in local catchment planning processes by a range of organisations. An audit of all regional projects to document how Waterwatch data is being used was recommended.

- The extent to which Waterwatch was being incorporated into State and regional resource management initiatives, plans and strategies was not clearly identified, although examples of Waterwatch being incorporated as community education component of regional strategies were cited.
- There was variation in scientific and technical support at the regional level and gaps in the use of Waterwatch data management tools.

During the period between the date of the mid-term review and the end of NHT1 (June 2001), the national Waterwatch office worked towards implementing the recommendations of the mid-term review and essentially fine-tuned the delivery of the program and the support provided. Developing a Data Confidence Framework and re-drafting the Waterwatch Charter were key activities during this period.

The national Waterwatch Network itself continued largely unchanged between November 1999 and June 2001. Regional coordination continued to be the primary focus and while the numbers of coordinators employed fluctuated slightly across the States and Territories, numbers and activities remained fairly consistent.

The number of participants, sites regularly monitored and groups involved fluctuate between the key dates of the date of the mid-term review (November 1999), the end of NHT1 (June 2001) and May 2003, at the peak of the uncertainty regarding Waterwatch funding after the implementation of the extension of NHT (see Table 4). However, it is difficult to usefully interpret these data because of a lack of additional performance indicators for Waterwatch, a situation that this review recommends to be addressed in the short term.

Table 4: Sites, Groups and Participants Data for three key dates

Date	Sites	Groups	Participants
Nov. 1999	5,495	2202	No data
End of NHT1	5,500	3500	50,000
May 2003	6,843	2,295	57,873

The transition period from NHT1 to NHT2 (July 2001 to June 2002) also resulted in little change to the coordinator network across Australia because the existing coordinator positions were 'rolled over' during this interim period whilst regional investment plans were being prepared.

However, after July 2002, significant changes were experienced across the coordinator network to address significant gaps where Waterwatch Coordinators had not been picked up in the regional process to the extent expected, particularly in States/Territories where State-government support was limited. In October 2003, Minister Kemp provided additional funding for 15 FTE coordinator positions across Australia, which equated to approximately 2 FTE positions in each State/Territory.

The changes to NHT2 were felt most significantly in the Northern Territory and in Tasmania. However, as described later in this report, the integrity of the national Waterwatch network is now more secure than it was during this interim period, although there is still much uncertainty in some regions where the regional NRM investment planning processes are still being completed.

2.3 The Current State of Waterwatch: State/Territory 'Snapshots'

2.3.1 Australian Capital Territory

(a) State support

The ACT government and ACT and Murrumbidgee regions NRM plans fund a full-time State Waterwatch Coordinator and 3 part-time coordinators (2.5 FTE total, including State coordinator). There has been no impact on the level of staffing as a result of the changes to regional delivery.

The January 2003 bushfires in the ACT provided the impetus for additional resources to be provided to Waterwatch in the ACT to establish a 'Community Assessment Monitoring Program for Fire Impacted River Ecology' (CAMPFIRE) project. ACTEW (ACT Electricity and Water Corporation) are a key partner of Waterwatch in the ACT.

(b) State of the network

The CAMPFIRE project and strategic alliances between Waterwatch coordinators and catchment groups, with a focus on monitoring on-ground works programs, has enhanced community participation in Waterwatch activities. Waterwatch coordinators also coordinate Frogwatch in the ACT, involving 150 volunteers monitoring 120 sites.

(c) QA/QC and Data Management

The CRC for Freshwater Ecology support six-monthly mystery sample testing.

2.3.2 New South Wales

(a) State support

There is currently no State-level support for Waterwatch, although the Communications branch of DIPNR has been coordinating the biannual Bug Survey. The State-funded State Water Facilitator has been 'overseeing' Waterwatch and providing policy support since October 2003. The State water Facilitator undertook a review of the state of Waterwatch in NSW in early 2004. It was identified through that review that there was a need to establish State coordination and at the time of this analysis the proposal was being pursued through the appropriate process.

(b) State of the network

Waterwatch operates under two brands in NSW: *Waterwatch* operates in regional NSW, *Streamwatch* operates in the Greater Sydney region. Waterwatch is operating in 9 of the 13 NRM regions in NSW, under a range of hosting arrangements (organisation, resources, employment conditions etc).

Waterwatch has been integrated into regional NRM investment strategies in three NRM regions.

Prior to July 2003 there were 16 Waterwatch coordinators (full-time and part-time) and 6 Streamwatch coordinators (full-time). As of May 2004, this has reduced by 9 part-time positions in the non-Streamwatch regions, all in the regions in which Waterwatch has not been incorporated into regional NRM investment plans.

Schools have traditionally been a major focus of Waterwatch in NSW, with schools accounting for 70% of participants.

(c) QA/QC and Data Management

Sydney Water coordinates quality assurance programs, mainly consisting of mystery sample testing and regular equipment maintenance.

2.3.3 Northern Territory

(a) State support

A Territory-wide Waterwatch Coordinator was employed in August 2004 as a result of Minister Kemp's decision to provide additional funding to ensure Waterwatch continued in the NT, after the Landcare Council (the NRM authority for the NT NRM region) gave Waterwatch a low priority³. The Australian Government commitment of additional funding resulted in a proposal submitted to the Joint Steering Committee by Greening Australia NT to re-establish the Waterwatch network in the Territory consisting of 3 local coordinators. With funding provided by the Australian Government, Greening Australia is managing the employment of coordinators and will support the Waterwatch network in the NT in consultation with the NT government and the Landcare Council.

(b) State of the network

The loss of federal funding to Waterwatch in the Territory between early 2003 and August 2004 meant that there was essentially no Waterwatch network in place over that time. Some past coordinators continued on a voluntary basis, but had no resources for maintaining equipment etc. Some community monitors and schools continued with their Waterwatch activities. Minister Kemp decided that Waterwatch should be funded in the Territory, and additional funding was approved to re-establish the Waterwatch network in the NT.

(c) QA/QC and Data Management

In the past, NT Waterwatch participants took part in 6-monthly mystery sample testing and had their equipment calibrated periodically, but there were no other QA/QC systems in place. Greening Australia are currently working on a QA/QC

³ The NT Landcare Committee did not give Waterwatch a low ranking on its list of priorities because there were some very important programs to be funded with limited funds available. They perceived Waterwatch to be a very valuable initiative, but the funding limitations meant that something had to be dropped.

framework after reviewing key monitoring parameters in consultation with scientists from the NT Government.

2.3.4 Queensland

(a) State support

Queensland has a full-time State Community Monitoring Coordinator, funded by the Department of Natural Resources, Mines and Energy. There is also two Project Officers employed under a NAP federal/State partnership for a data confidence project (NAP SIP WQ05), primarily for Queensland's NAP regions, but the tools emerging from this project will have wider application. A part-time (0.2 FTE) 'Integrating Sciences' Project Officer is also funded by the State (NRM&E).

The 'State Community Monitoring Coordinator' role provides support to Queensland's community water monitoring networks generally, not just the 'Waterwatch' network.

(b) State of the network

There are around 12 coordinators (mixture of full- and part-time) undertaking 'community monitoring'-type roles across the 7 NRM regions in Queensland. In five of these regions, coordinators operate under the Waterwatch banner. The majority of these positions are funded under NAP programs, one under the Coastal Catchments Initiative and Minister Kemp's gap funds support two regional Waterwatch positions in South East Queensland.

(c) QA/QC and Data Management

A key outcome of the NAP SIP QW05 project will be improved Quality Assurance for community-based data capture programs, enhanced data comparability between community groups at a regional level and improved integration of community data into regional NRM processes.

2.3.5 South Australia

(a) State support

The EPA in South Australia provided State coordination and support for the Waterwatch network until late 2003. The reduction in federal funding for State coordination prompted the EPA to review its support roles, and it now provides QA/QC support only through a Waterwatch/Watercare Regional Liaison Officer and the Community Monitoring Scientific Officer. The EPA still maintains an involvement in State-wide promotion of Waterwatch events, maintains the Waterwatch SA website, provides financial support for State snapshots and QA/QC and oversees State-wide standards and policy for program delivery, all from a QA/QC perspective.

(b) State of the network

Waterwatch currently operates in 4 of the 8 NRM regions, but there are several sub-regional programs with varying hosting arrangements. There is a strong network of regional and local Waterwatch coordinators (of which there are approximately 12, 7 full-time and 5 part-time project officers). This is similar to the level of coordination under NHT1, but Minister Kemp's gap funding is supporting several of these positions. There is a commitment from the catchment boards in the Mount Lofty Ranges Greater Adelaide (MLRGA) NRM region to support Waterwatch until the regional NRM investment plan is completed. The AG NRM Rivercare Facilitator is working with regional Waterwatch coordinators, catchment board and MLRGA NRM board representatives to develop a business plan for Waterwatch to ensure its inclusion in the NRM investment strategy.

(c) QA/QC and Data Management

The EPA has overseen QA/QC for Waterwatch for many years, providing mystery samples, equipment maintenance and calibration and training. The EPA also facilitates data management.

2.3.6 Tasmania

(a) State support

A new position was created within the Department of Primary Industries, Water and Environment under the bilateral agreement between the Tasmanian and Australian Governments to support community involvement in land and water management. The Community Engagement Coordinator (Sustainable Land and Water Management) acts as a liaison person between Waterwatch facilitators and groups and DPIWE. A key task of this position (in a Waterwatch context) is to identify training needs and facilitate the delivery of training. The AG NRM Rivercare Facilitator for Tasmania has played a support role during the interim period by project managing the employment of Waterwatch coordinators under the Kemp 6-month interim funding, and is supporting the integration of Waterwatch into the regional NRM planning process. The AG NRM Rivercare Facilitator also sits on the Waterwatch State Steering Committee.

(b) State of the network

Waterwatch has currently been incorporated into two of the three NRM regions in Tasmania. Minister Kemp's interim funding is being used to maintain continuity of Waterwatch in all three regions presently, but regional priority projects will ensure Waterwatch continues in the North West and North NRM regions. As of June 2004 there were 3 part-time (total of 1.4 FTE) positions in the North NRM region, 3 part-time positions (1.5 FTE) in the North West NRM region and 3 part-time positions (1.5 FTE) in the South NRM region (the latter funded from Minister Kemp's interim funding).

Local coordinators are reluctant to reinvigorate volunteer groups because on-going funding has been uncertain.

Two NAP projects run by the State Water Quality Assessment Branch (DPIWE) have provided further opportunities for Waterwatch across the majority of the Northern and Southern NHT regions. These projects aim to enhance community capacity to provide valuable data as part of the State Surface Water Quality Monitoring Strategy, the State perceives the Waterwatch network as a key to achieving this. These projects will enhance training of coordinators, data management, QA/QC, technical sample training (including AusRivAS accreditation).

(c) QA/QC and Data Management

QA/QC frameworks and systems are currently being overhauled as part of the NAP Surface Water Quality Monitoring Strategy, and these will have broader implications across all three NRM regions.

2.3.7 Victoria

(a) State support

The State government is very supportive of Waterwatch, funding three State-support positions. The Department of Sustainability and Environment fund a State Waterwatch Manager, employed on a full-time basis within the River Health Program, a Waterwatch Program Officer, also full-time, who provides technical support and coordinates events and communication across the Victorian network of regional and local coordinators. A State Science Coordinator, funded through an Associated Project with the CRC for Freshwater Ecology and DSE, is employed to coordinate the development of data confidence plans across all the regions and to generally oversee QA/QC issues. This position is funded under current arrangements until November 2004, but is a State priority for on-going funding.

(b) State of the network

The Waterwatch network is very healthy in Victoria, with around 44 coordinators, spread across all 10 Catchment Management Authority regions (plus one 'central highlands' region which crosses the upper reaches of three CMAs).

Waterwatch Victoria has developed close partnerships with a wide range of groups and agencies particularly local government, water authorities, catchment and management authorities. Other key partners are various State agencies, community groups and the corporate sector. Many of these stakeholders also sponsor Waterwatch, in cash or in kind.

These partnerships are largely the outcome of the strategic approach adopted by the Victorian Waterwatch program over many years to actively seek partnerships, in order to reduce its reliance on federal funding sources. This strategy has placed Victoria in good stead in relation to the introduction of regional NRM delivery because the partnerships had already been formed at the regional level. The fact that Catchment Management Authorities have been in place in Victoria

since 1997 (and since 1994 as Catchment and Land Protection Boards) has also significantly helped the transition towards regional delivery.

The combined effects of the past work on developing strategic partnerships, establishing diverse funding streams and having a strong network of coordinators and community participants, has enabled Waterwatch in Victoria to really benefit from the shift to regional delivery. In most regions, funding for Waterwatch has increased through the regional processes.

A review of the Waterwatch program in Victoria (see Landscape & Social Research 2004) identified similar issues associated with the variable perceptions of the 'purpose' of Waterwatch in Victoria, among other findings, and recommended a focus on data quality, data management, capacity building and community engagement.

(c) QA/QC and Data Management

Data quality and management have been a focus for the Victorian program over the past three years. Victoria are well down the path of rolling out 'data confidence plans' across all 11 Waterwatch regions. Prior to this, a 4-tiered data quality system was introduced which sets minimum standards for sampling and testing, training, data management, etc. This system allows data of a known standard to be published. Data collected under the two higher levels in the 4-tiered system are posted on the State Data Warehouse, along with 'official' data.

2.3.8 Western Australia

(a) State support

Waterwatch in Western Australia is known as 'Ribbons of Blue' (ROB). Western Australia was one of the first States to develop community-based water monitoring as a community capacity-building and engagement tool, and this commitment continues. Western Australia's ROB network is well supported at the State-level, with a full-time 'Community Education Program Manager – ROB/Waterwatch WA' who coordinates ROB across the State, as well as a part-time person providing administration support ('Community Education Coordinator ROB/Waterwatch WA'). Significantly, ROB/Waterwatch WA has a full-time Education Officer, funded through a Partnership Agreement (2004-2007) between the Department of Environment and the Department of Education and Training. This position has been funded since 1999.

(b) State of the network

There are ROB regional coordinators in five of the six NRM regions in WA. The shift to NHT2 has resulted in the loss of about one FTE overall. Some additional resources were provided as gap funding, but there is uncertainty (at the time of this review) about future funding because regional investment plans were still being completed.

(c) QA/QC and Data Management

Calibration solutions and mystery solutions are distributed quarterly as a quality control procedure. The Review of Ribbons of Blue by Stamfords (2003) suggested different quality control standards for 'education and awareness' and 'data collection' activities, where the latter would have higher data quality standards.

2.4 Summary – The State of Waterwatch

This State-by-State overview of the current status of Waterwatch around Australia highlights the following points:

- State-level support is variable, but in most cases is not well resourced. This has implications for designating responsibilities for support at various levels in the hierarchy. Victoria and Western Australia have the strongest State-level support, reflecting the commitment of these State governments to Waterwatch.
- The Waterwatch network has declined in some NRM regions and within some States, but grown in other regions and States. A key driver in this is the degree to which Waterwatch has been incorporated into the regional NRM process and the additional money approved by Minister Kemp in October 2003 has been essential in maintaining support during the transition period.
- QA/QC systems are variable across Australia, although each follows, to varying degrees, the national QA/QC framework. This is an outcome of the flexibility inherent in Waterwatch, the different levels of commitment to Waterwatch by each State/Territory and the varying degrees of maturity of Waterwatch in each State/Territory and region.

3 GAPS AND NEEDS IN REGIONAL DELIVERY OF 'WATERWATCH'

3.1 Introduction

This chapter is structured around key themes that emerged from the focus group discussions. Of the Gaps and Needs in regional delivery of Waterwatch, the key themes identified were;

- Diversity
- Purpose of Waterwatch
- Opportunities for Engaging the Community in Waterwatch
- The Impact and Implications of Regional Delivery
- Branding and Marketing Waterwatch
- Communications
- Monitoring and Evaluating Waterwatch delivery
- State Coordination/support
- National coordination/support

3.2 Diversity

Traditionally, Waterwatch has operated differently within and between different States and Territories, as a response to local social, institutional and environmental conditions. This ability to respond to local needs is a key strength of Waterwatch and is one of the main reasons why it has survived for so long in so many diverse communities across Australia. Participants in the focus groups were very aware of the flexibility and diversity inherent in Waterwatch, and are very positive about the benefits of this flexibility, for example:

I don't think we've ever shied away from the diversity within the program, I think that's been one of the strengths of the program and I wouldn't be worried about that at all.

Focus Group participants recognised that the National Strategies and objectives flowed down to the State/Territory and regional levels and were adopted, in whole or in part with some local variation, within State/Territory and regional strategic plans. This is the key mechanism that ensured some degree of commonality between all Waterwatch programs. But, Focus group participants said that it was in the interpretation and implementation of these objectives where diversity emerges.

Under the 'old' Waterwatch model, diversity in program focus and delivery was driven, to a large degree, by the preferences and skill-sets of regional and local coordinators and by the perceptions of Waterwatch of the decision-makers of hosts/proponents and partners in regional Waterwatch programs.

Waterwatch is driven by the capacity and skill of the local level facilitator.

Another important source of diversity mentioned during the focus groups was derived from the way community groups use Waterwatch: groups (and individuals) have diverse needs and expectations, and so will want different things from Waterwatch. Therefore, the mix of groups within a region will influence the shape of regional Waterwatch delivery and, as illustrated in the following quote, this will change over time as different groups play relatively larger roles...

Exactly how [Waterwatch] works will depend on what groups are out there and what they're interested in and where the coordinators are...I mean you look at northern Australia and there's all those emerging indigenous land management organisations...that have a role to play...

Diversity within jurisdictions also emerges from differential allocation of resources and program emphasis. This is mentioned in the above quote, and there were a couple of examples cited within the focus groups of resources and Waterwatch focus being directed towards urban areas because, it was perceived, there was a political motive to 'get Waterwatch to where the people were'.

Of course the biophysical and climatic differences between regions is also a key factor contributing to the diversity of Waterwatch. The relative abundance and quality of surface water is a key influence on the focus of regional programs.

But the nature of the way in which Waterwatch has been shaped by regional context is likely to change under regional delivery. Now, probably more so than before, there is a need for Waterwatch to *deliver* on outcomes that regional NRM authorities dictate. If Waterwatch does not respond to the needs of regional NRM authorities, funding will be jeopardised. This in itself is, then, another source of diversity – the shape of regional Waterwatch delivery will, more than ever before, be shaped by the perceptions held by regional NRM groups about the role of Waterwatch within regional NRM programs and processes. Most people participating in the focus groups accept this, but there is a proportion still clinging to the past. The following quote summarises the feeling of many coordinators who are accepting of the implications of regional delivery in shaping Waterwatch:

I actually think its dependent on the regions, now we're going to regional funding. My region might value Waterwatch as solely an education program, yet in [another] region it might value Waterwatch from the monitoring side of things, so if that's the case then I tend to think education in my region would be important because that's what the NRM group value the program as, and that's what they're going to fund the program for".

Regional NRM boards and communities will have to ultimately decide how Waterwatch can fit best within their own priorities, to help them respond to the particular NRM context of their region. To do this, they need to fully understand what Waterwatch has to offer.

There is some evidence that the shift to regional delivery has had an impact on the shape of Waterwatch in some regions, for example:

Since [NHT2] ... proponents involved have probably changed the components of the program that are actually delivered on ground.

However, there was no sense from the focus groups about the degree of influence of such shifts. The overwhelming impression from the focus group participants is that the regional planning, and investment planning, process is still in its infancy in many States and Territories and so it is hard for coordinators to gauge the impact (this is discussed in more detail in section 3.5). The survey of coordinators paints a more quantifiable picture in that regard (see Appendix 2).

Under the new regional delivery model there will still be a need, perhaps more critically, for Waterwatch to maintain this diversity and flexibility. However, it is imperative that Waterwatch is strategically incorporated into regional NRM initiatives – that it serves a purpose within the regional delivery of NRM outcomes. However, the capacity of regional NRM bodies to mould Waterwatch to suit their needs is dependent on NRM authorities, communities and Waterwatch staff having access to information *about Waterwatch* so that they can make an informed decision about how the considerable investment, nationally, in Waterwatch over the past 10 plus years can be utilised in their current initiatives. The type of information that would be useful includes being able to explain how Waterwatch-type activities can:

- contribute to enhancing the capacity of regional communities to respond to NRM challenges and implement regional NRM strategies;
- be used as community engagement tools/methods; and,
- contribute to collecting data on resource condition targets and management action targets.

Information on successful structures for community-based water-monitoring and engagement, such as having dedicated coordinators to deliver activities and coordinate the monitoring effort by volunteers, also need to be spelled out.

The regional delivery model has the potential to facilitate the integration of Waterwatch into a wide range of NRM programs and community education and capacity building initiatives. This has the potential to open up more opportunities for engaging regional communities in Waterwatch activities (see Section 3.4). This is where the flexibility of Waterwatch, again, stands it in good stead to be able to respond to the many changes in the NRM policies and institutional arrangements. The following quote from a State-level 'coordinator' illustrates this well:

[Flexibility is] the strength isn't it - Waterwatch is engagement, education, capacity building and it's monitoring - I see it as a bit of an all-rounder that can handle different environments...the push is

relevance to regional bodies through monitoring rather than through education at the moment, but that's not to say its going to change. My theory is if you're going to push community monitoring then Waterwatch is a good model...it's the best model. ... It's important that the monitoring is going to meet regional bodies' needs but also you get all that community engagement, education and capacity building that comes along with it...

However, successfully shaping regional Waterwatch delivery so that it meets the needs and expectations of regional NRM authorities AND the needs of regional communities, is dependent on good communications at various levels in the NRM hierarchy. This is a recurring theme throughout this chapter and is discussed in detail within various sub-sections.

The diversity issue highlights the importance in designing inherent flexibility into any products/methods/tools developed at a national scale. For example, diverse biophysical conditions and differences in key dates (such as school holidays) means that national events don't always work well in all States/Territories and regions:

...you've got to look at what's the benefit of having a national event verses a State or regional thing, and we need to have an event that is able to fit with all regions and for some of those [national] events it doesn't fit with all our regions

3.2.1 Implications for national support – Diversity.

There are two key issues the 'diversity' 'problem' raises in relation to national support:

- The risk of national support becoming meaningless or irrelevant if regions implement community water-monitoring programs that are so diverse that they cannot be meaningfully supported at the national scale.
- That anything developed at a national scale has to be flexible enough to be locally relevant and allow fine-tuning or adaptation to suit local applications.

The first issue raises the question 'why have national support at all?', but this gap/needs analysis has identified many good reasons for national support, such as maintaining a national network of community-engagement professionals, providing and continually improving 'Waterwatch' tools and methods and, probably most importantly, assuring the quality of community water-monitoring and NRM education. The integrity of Waterwatch as a *national* network is necessary to maximise opportunities for continuous improvement in the tools, activities and methods.

3.2.2 Summary – Diversity

- The flexibility inherent in Waterwatch over the past 12 years is a key reason behind the success of the initiative across socially and biophysically diverse regions. Under regional delivery, maintaining flexibility and local relevance remains critically important.
- Waterwatch needs to be seen as relevant and useful to all regions if the integrity of the Waterwatch network is to remain intact.
- All Waterwatch 'products' and 'services' must be flexible enough to be applicable to local contexts and needs, or readily modifiable to ensure local application.

3.3 Purpose of Waterwatch

Waterwatch is highly regarded as an environmental education tool, at both school and adult levels in many communities. Waterwatch is, in many jurisdictions, also becoming more highly regarded as a collector of quality data on a range of water and riparian condition parameters. However, there is often a conflict between these and the many other purposes of Waterwatch, mainly because the initiative is very diverse and different people have had varying degrees of exposure to the many components of Waterwatch.

3.3.1 Balancing Monitoring & Education

As one of the key sources of diversity in regional Waterwatch delivery, it is perhaps not surprising that one of the most common themes across all focus groups, in all States and Territories, was a discussion about the relative emphasis Waterwatch should, or could, place on data collection ('monitoring') and 'education'. The 'education' aspects of Waterwatch have, traditionally, been primarily directed towards school-aged children, but also encompass various adult education activities and methods. Waterwatch monitoring is also participatory education, so the distinction between 'monitoring' and 'education' is indistinct.

There are two key contributing factors to this debate, and these two issues are intimately related. One is the fact that Waterwatch is a very diverse initiative – it involves people in many different ways. The second is that people perceive Waterwatch in different ways – principally because they have been exposed to different aspects of it.

This makes Waterwatch a difficult initiative to 'pigeon-hole' into traditional NRM institutional arrangements and funding streams. The following observation from a focus group participant who has been involved in Waterwatch for over 10 years sums this up well:

...how do you fit this program which is multi-faceted into the round or square hole, which is their problem, not ours....because they can't

manage a financial program which says you can't take a bit of finance out of here and there and go and do Waterwatch...its their problem not ours, we're getting people out there involved and if it wasn't successful and the community didn't accept it then we wouldn't still be here...

The complexities of finding a 'place' for Waterwatch are also highlighted in the following quote, which also highlights the variable perceptions of Waterwatch and the impact this has on securing funding:

Everyone loves what Waterwatch does, it's really good, particularly the school kids stuff, but it doesn't take into account the monitoring side and it's very hard to get the data valued in any sense by the regional groups. They're looking at their priorities and saying 'its not going to fit'. And I think it comes back to that discussion earlier about education, once you start talking education they're going to say 'its nothing to do with us' that's education department - shoot it over there. So there's getting Waterwatch looked at differently, I guess that's the key thing for us in terms of moving forward.

That individuals have different perceptions of Waterwatch is hardly surprising given the broad range of activities and methods of engagement the initiative uses. The following sections attempt to unpack the interrelationships between different perceptions of Waterwatch, and the characteristics of Waterwatch as a community education program, capacity building initiative and/or monitoring program.

3.3.2 Perceptions of the Purpose of Waterwatch

There was a sense of frustration among some Waterwatch coordinators that emerged during focus group sessions – that Waterwatch is not well understood, and that this recognition and understanding is important for the sustainability of the initiative. Moreover, Waterwatch coordinators felt as though they could not get the message across. The following quote illustrates this frustration:

It's hard to explain because a lot of you guys sitting here don't really know the ins and outs of Waterwatch...it covers everything we're talking about...it's very broad and involves people in all aspects of land management and water, the issues relating to it, so we did look at the plants growing in it, the weeds, looked at fire impacts on riparian zone and all those things were written down. And if you look at any of the publications by the national office or the regions that were put out, whether different groups up here took that on board is another thing, certainly when we were doing it we were looking at catchment management, we were looking at everything, at that scale.

The people who deliver Waterwatch activities also shape perceptions about what Waterwatch is. Within the focus group sessions, long-term coordinators related stories about how regional NRM groups start seeing Waterwatch as the coordinator – 'it's your program' – and so the shape of the program is perceived to be a reflection of the attitudes and values of the coordinator. In some cases,

this has frustrated efforts to make Waterwatch more applicable to regional bodies in their planning and investment process. Some Waterwatch coordinators seem to not enjoy monitoring. One said “as much as we hate it, it’s probably the way we’re going to go”. Another said “I think the fun part of Waterwatch was the education part of the program”. These observations reinforce the earlier discussion about why regional Waterwatch programs are so diverse and underline the source of much of the variation in perceptions about what Waterwatch is.

3.3.3 Waterwatch as monitoring

Two key issues inform perceptions of Waterwatch as a community-based water-monitoring initiative:

- perceptions of the quality of the data, and
- ideas about whether the community can, and/or should, be involved in monitoring.

These two issues, whilst interrelated, are discussed separately below:

(a) Perceptions of Waterwatch data and its quality

In many States and Territories, Waterwatch coordinators and proponents perceive that one of the main ways in which they can secure funding for Waterwatch in regional NRM investment strategies is to respond to the monitoring & evaluation components of regional plans. Due to the different perceptions of the degree to which Waterwatch can perform these monitoring ‘services’ (see earlier discussion), the debate about the purpose of Waterwatch is heating up.

Waterwatch has always promoted the values of involving the community in monitoring: the initiative is based on the values of experiential learning. There are some distinct advantages of the community being involved in data collection:

- People are more likely to believe things they measure themselves.
- People develop a greater understanding of the issues relating to what they are measuring – the impacts of land use, catchment management, etc. on water quality and riparian health. This knowledge and understanding enhances their capacity to contribute more positively to NRM decision-making processes.

These issues are encapsulated in the following comment by a focus group member who was responding to comments made by scientists and agency managers about the role of the community in collecting data:

The thing is to have not just one person out there [monitoring] – its to have all sorts of people out there doing it and putting in, and sharing that knowledge, and all having an understanding of what’s going on with their local environment. The thing is, you guys think you’re the only ones that can do it, well everyone [can] – the amount of people I talk to will say we don’t believe what you’re saying – they don’t trust government, I don’t know why, but nine times out ten most

people go 'you're bullshitting us - I know, we've lived here for this long and this is what we're seeing is changing, but you're telling us [something different]'.

Of course, from a government and/or regional NRM authority perspective, there are opportunities to get more data more efficiently (in cost terms) if the community is involved.

Perceptions of the quality and scientific rigour of Waterwatch-collected data are variable even among Waterwatch coordinators. Some Waterwatch coordinators don't feel as though they can provide scientifically rigorous data...

[Catchment group name] wouldn't think of coming to us as Waterwatch coordinators to say 'hey, can you monitor the [catchment name] salinity credit trading scheme', we know we can't do that...it has to be absolutely rigorous scientific data and ... dealing with really big companies ... and that sort of monitoring we couldn't do. But we know what's going on, we educate our community about it so every time there's an enquiry or whatever going on we can say 'do you know about the [catchment name] salinity trading scheme, do you need some information about it' and that's the sort of thing we do really really well, so we're ... adding value to what other people are doing...

...Others do:

[Our local water authority are] doing what they call a priority sewerage program and we actually approached them and said 'we will monitor that area you're trying to get hooked up to the sewerage and provide you with data', so as well as building up this relationship ... we can also utilise our data and provide important information for that project, so it is worthwhile sometimes being more strategic in where testing's done.

There's no reason why data collected as part of educational programs cannot be good quality, but in the past there has been little attention to quality in some regions, as illustrated in the following quote:

From what I understand, a lot of the information that was collected in this area was intermittent, because a lot of it was seasonal, and it wasn't as scientifically valid - I don't know how to say that in a more positive way - it was more from an educational side of things in the Centre...some of the more longer term monitoring sites in the north had particularly in relation to subdivision development, have been used by the government

One community monitor admitted that when using the Waterwatch kit they were supplied with, "often the readings are dependent upon who's doing them". The extent of this was dependent on staffing issues: the ability to make calibration fluids available and to maintain equipment.

One of the ways in which proponents of the 'Waterwatch = monitoring' camp see that perceptions of Waterwatch as a monitoring initiative can be improved is to address concerns about data quality. The dominant perception is that if

confidence in Waterwatch data is increased, through QA/QC initiatives, then use will be enhanced.

The idea of accrediting monitors to particular standards was raised at some focus groups as an important method of enhancing the confidence of data users in the data collected by Waterwatch. Most thought some form of accreditation was a good idea, and some discussed the idea of linking accreditation to the use of the Waterwatch brand, for example:

I guess that way if groups do the training and follow certain procedures they'd be able to achieve accreditation and perhaps it could be associated with that that they get to use the Waterwatch brand name...

Part of the problem in the debate about the varying perceptions of 'data quality' is that there is a tendency to focus on the physical/chemical parameters that Waterwatch monitors collect, and not the other contextual information collected as part of this data – riparian vegetation, macros, foreshores etc. In other words, people are comparing 'Waterwatch data' (as in physical chemical parameters) to the 'official' data collected by State agencies, water authorities, contractors, consultants etc. The broader river health parameters which Waterwatch collects data on have traditionally been less commonly collected, until monitoring programs such as Victoria's 'Index of Stream Condition' was introduced in the late 1990's and the national 'Monitoring River Health Initiative', and its associated 'AusRivAS' assessment scheme, was introduced in its earliest form in 1994.

Scientists participating in the focus groups thought that what they called "visual parameters", particularly in relation to pest plants and animals, is where the real strength of Waterwatch is. There was the sense from scientists that monitors rely too much on monitoring instruments and that the selection of equipment (i.e. sensitivity etc.) does not always match the monitoring needs:

Unfortunately the issues are more complicated than the test kit⁴.

Waterwatch coordinators agree, to a point, but say that the kits give them the ability to speak in the language of the scientific community, and this gives Waterwatch more credibility. The following quote is an illustration of this, as well as the value of the many other types of monitoring that they do perform:

Observation is a huge tool and its one of the first things when you go on site - all the sensory things and that's very big on indigenous communities. But its also the history people have that live there and they can see stuff going on - they don't need a test kit to tell them that either. But, when we go to talk to someone about this they want to see the information from the test kit to prove that, so that's where people go 'alright, show us how to use one so we can prove this'

One scientist, in critiquing the way in which sampling was undertaken by Waterwatch, said that they were not criticising Waterwatch: "monitoring water quality is very difficult even with the resources I have available to me".

⁴ 'Test kits' is a general reference to the instruments and equipment used by volunteer monitors.

It is difficult to determine the source of this apparent emphasis on physical chemical parameters. The apparent reliance on water quality testing kits, as discussed above, could be one influence. Waterwatch events, which are widely promoted, could also be an influence, but these are well balanced in this regard. Some events, like Saltwatch do focus on physical/chemical parameters, but bug surveys and photographic competitions etc. emphasise other aspects of riparian and catchment health. Perhaps the reporting of Waterwatch data is biased towards physical/chemical parameters, and this may be an outcome of the structure/content of the Waterwatch Australia database. Whatever the reason, there is a need to place more emphasis on the holistic nature of Waterwatch monitoring. Perhaps something like the following argument should inform future marketing/promotion strategies:

We're not monitoring water quality, we're monitoring river health, so if you haven't got a habitat survey as the first thing that you do then your monitoring is wrong...

The current emphasis on increasing the confidence in Waterwatch data is an important phase in making Waterwatch more widely accepted by a range of current and potential audiences. But there is also evidence that concerns about data quality don't necessarily mean that data will not be used. For example, in one arid area where coordinators and volunteer monitors agreed that their quality control measures could have been better, their efforts still contributed to making a difference because they identified outbreaks of Blue-Green Algae, and even identified an exotic fish, which was then successfully eradicated by responsible authorities. Therefore, data quality should not be achieved at the expense of other important qualities of Waterwatch, particularly if stringent quality control systems detract from people's enjoyment of participating, and therefore their willingness to monitor.

The current emphasis on data confidence raises some very important issues in relation to support, at regional, State and national levels.

collaboration's got to be the only way to go, there's got to be some sort of pay-back to the community groups from the [State/Territory] government, and whether that pay-back is as simple as agreeing to...keep all the data together and then allow them to get reports, I don't know. In my opinion it could be easily...put into something like [State DB name] and just flagged as community-collected data...

There were many comments within the focus group discussions about the relative quality of Waterwatch data compared to some data collected by State/Territory agency people. Some Waterwatch coordinators who had been out in the field with State water quality monitoring officers were shocked at the comparative lack of quality control, with monitoring equipment being "thrown in the back of the ute" and very rarely calibrated.

(b) Perceptions about involving the community in monitoring

In the Victorian review of Waterwatch (Landscape & Social Research 2004) many data users said they used Waterwatch data as one part of the jigsaw puzzle and

were more interested in the spatial representativeness of Waterwatch data than, necessarily, its sample accuracy.

A big challenge for Waterwatch in achieving spatial and temporal requirements of a rigorous monitoring program is the fact that there may not be volunteers in places where data is required, and/or it might be too dangerous to expect volunteers to sample from particular areas (e.g. crocodiles in the Territory). This issue of the problems of achieving broad spatial (and to a lesser degree temporal) coverage of regions was raised at nearly all of the focus groups, in one way or another. The following two quotes illustrate the types of comments raised:

It's a bit of a two-edged sword because there is still this big question, for instance, the data that's required on the state of the environment reports needs monitoring in a particular area, say in the middle of somewhere there's never been a Waterwatch group for historical reasons, and at present there is no real community concern to generate a Waterwatch group in a particular area, and therefore if that becomes a regional priority and there is no group there, but the active groups are in other places, the issue is how you get the issues of concern to groups really reflected in State requirements...its an issue in regions we have to address.

It's a bit of a case of where we can we will provide monitoring, but its very difficult to be strategic with community monitoring because you go where there is enthusiasm, you go where people want to be involved, and you can't move people - you can't tell them 'we really want you to be strategic, can you go over there and do this' - because they're unlikely to do that, so where we can we will...

This is closely related to the issue that emerged from the surveys (see Appendix 2) – that monitoring must reflect the level of commitment and interests of local communities.

But the converse of this problem can also occur – that there are people willing to monitor in areas where there are no immediate perceived threats and/or no plans to undertake works. Focus group participants felt that this monitoring should still be valued and used because it may have value in the future. For example:

We're collecting base-line data in creeks that weren't being collected by anyone so it wasn't that there was necessarily a perceived risk, but they were collecting information randomly over a landscape because no-one else was doing it...and I think that's still a valid use of the program...

A key issue in relation to Waterwatch as a monitoring program is the perceptions of community volunteers towards monitoring. There is an underlying debate about how much regional NRM authorities can expect of community members to perform monitoring 'services'. However, there is a strong case that if volunteers knew that their effort was being valued – by people using and valuing the data they collect – then they will be more willing to put in the effort required to collect

useful, quality data. This is certainly supported by the results of the survey of community participants in Waterwatch undertaken as part of this Gap/Needs Analysis, as reported in Section 0. This is also recognised by some of the focus group participants, and some also aired some of the frustrations some volunteers have, for example:

People are keen to be involved, people are interested in [monitoring], what they find difficult is this wall we keep hitting where [scientists are] sort of saying that community shouldn't be doing it.

The impact of changes to regional delivery and loss of funding has had an impact in some areas in monitor's perceptions of the value of their involvement:

I did lose interest, I have to admit, because I thought the whole thing's falling apart so what's the point... it was falling apart, people had lost interest. But if the money came back again, I think people would say 'oh yes, Waterwatch, lets go again' because there's enough goodwill - it just needs a leader I'd say.

Scientists participating in the focus groups had constructive contributions to make suggesting the appropriateness of community volunteers collecting water quality data. They thought there was some scope, but that the design of the sampling – in terms of experimental design, selection of appropriate parameters, equipment, etc. was critical. Ultimately, they said, it was up to the community to decide the degree to which they would like to participate in monitoring. And...

...if the community doesn't want to get into that scientifically credible stuff, you can't force it and it shouldn't be forced either.

The scientists participating in the focus groups were keen to help in the identification of sound methods of involving communities in monitoring and recognised the importance of community 'ownership' of problems and solutions, as illustrated in the following comment:

You've just got to choose the issues that people have passion about because it comes from the people within the community...and work through sort of methods are best

It would seem then, that there is potential for win-win resolutions to resolving the different perceptions of Waterwatch as a monitoring initiative. The answer is

- good communications to resolve these issues of perception;
- making it easy for people to appreciate the range of 'products' and 'services' Waterwatch has to offer; and,
- enabling NRM authorities and communities, together, to identify how Waterwatch can assist in regional monitoring programs.

There are important roles to be played at national and State levels to facilitate these actions, but it would be appropriate for national support to take the lead in developing the products to support these actions.

However, as illustrated in the following quote, achieving the last of these points may not be easy in some jurisdictions:

That's one way to go but that's the age-old problem - governments shouldn't be telling the community what they should and shouldn't be doing and that's the big problem here. It would be nice if we worked together, that's not going to happen: community doesn't trust government and government doesn't trust the community...

One of the other trends that may emerge in the future, and is already happening in some regions (e.g. in Tasmania and Victoria) is the use of Waterwatch coordinators as water-quality monitors – that is, whether or not they have networks of volunteers to help, some coordinators do monitoring runs at agreed intervals to collect data for their hosts'/proponents' use. For the first time in Tasmania, position descriptions for Waterwatch coordinator positions include the collection of water quality samples to contribute to baseline WQ monitoring. In the Goulburn-Broken region in Victoria, Waterwatch Coordinators have always undertaken monitoring runs themselves.

Involving both the community and Waterwatch coordinators in monitoring activities, it was reported, has the advantage of helping volunteers and coordinators, feel as though their contributions are valued by NRM agencies. It was perceived to be important for the long-term sustainability of Waterwatch that regional NRM authorities value the work that is done by paid and unpaid people.

3.3.4 Waterwatch as 'Environmental Education'

There are two main themes flowing through the concept of Waterwatch as an environmental education initiative.

- 'Community education', which seems to encompass a more general desire to bring up the next generation with a better understanding of water and catchment issues.
- 'Capacity building', which encompasses community education, but is probably more about enabling the participation of people in NRM processes. Adult 'education' is more of a focus here.

But, there is a more integrated perception of the way in which Waterwatch achieves these objectives, as illustrated in the following comment in reference to regional NRM planning:

The plans talk about long-term visions and goals in 5, 10, 20 years. They talk about intergenerational equity and sustainable development...you need to invest in the people who are at school [now], to teach them about these things so they can participate...but there's no clear reference to that...

Again, perceptions about the relative value of Waterwatch in meeting its 'community education' and capacity building objectives are dependent upon people's experiences of the various ways in which Waterwatch is delivered in different regions. Probably the overwhelming perception is that Waterwatch is primarily targeted at schools – "its for the kiddies". But this perception is probably driven by at least three key things:

- Waterwatch coordinators often believe that the primary school activities/programs are what they do best.
- Waterwatch has been more successful in integrating with primary school curricula than secondary school curricula.
- Adult education, apart from through involving adults in monitoring, has generally not been as successful for Waterwatch as some other initiatives in reaching this audience.

Many Waterwatch coordinators are frustrated by a lack of appreciation by some that the monitoring activities that Waterwatch participants are involved in are very valuable in an educational sense. Monitoring encompasses such a broad range of issues, and also often leads to some form of involvement of the monitor in on-ground works. The following three comments from focus group participants sum up the dominant perceptions of the value of the education and capacity-building aspects of Waterwatch.

... that on-ground aspect is really important, teaching landholders about alternative management tools and using the monitoring as a before and after picture of how its changed...doing a test is not the whole of it, and perhaps there's been a perception that that's all it was

I think too that its adult education that we're talking about, if you're talking about capacity building, well education should come before on-ground action anyway so people understand what they're doing and why they're doing it and Waterwatch plays a vital role in doing that in educating people in monitoring ... Its not just school education, its education across the board - if we want people to be involved they need to understand why they need to be involved.

There's a lot of really good educational stuff going on that isn't related to monitoring...I mean they might do that but its not really a monitoring site, but they're getting really good educational stuff from us...

The focus group participant that made the latter comment went on to say that in the past the method of monitoring Waterwatch performance was only recorded in terms of numbers of participants, sites and parameters so much of the educational outcomes were rarely monitored.

The credibility of Waterwatch as an education program has been enhanced by the excellent work done in most States and Territories to develop 'education resource kits'. These are structured so as to maximise the ability for teachers to utilise Waterwatch activities for each core area of the respective State/Territory curriculum. Apart from making Waterwatch more relevant and accessible for schools, one of the reasons for such kits is to take the pressure off Waterwatch coordinators in terms of delivering schools programs. The idea is to build the capacity of teachers to enable them to deliver Waterwatch activities themselves, without necessarily having a Waterwatch coordinator present. Waterwatch coordinators, and other expert visitors, can and are brought in to contribute in specific areas. Waterwatch education resource kits are therefore playing a key

role in building partnerships between schools and a wide range of NRM experts and agencies.

The Environmental Educators Association of Australia (E²A²) has been involved in the development of many of these education resource kits around Australia.

There were many stories related during the focus Group sessions of the impact Waterwatch has had in terms of influencing people's career paths. For example, focus group participants related stories of teachers who did Waterwatch as pupils at primary school and now want to run it for their students. Others related stories about Waterwatch participants going on to do science degrees, particularly in natural resource management. There are examples of Waterwatch coordinators who did Waterwatch in primary school themselves. However, Waterwatch has not fully documented these stories, nor done any research into the relative impact of Waterwatch in influencing the career paths of such individuals. See monitoring & evaluation chapter.

3.3.5 Purpose of Waterwatch in relation to other regional NRM programs

...the real thing the [regional NRM authorities] are going to be worried about is we're not a 'do-good' organisation, we're not there to have fun, really, dead set, we're there to help these guys achieve their targets, and that's what these guys are going to be looking at in the projects that are on the table...

Defining a 'purpose' for Waterwatch within regional NRM delivery is likely to become more complex, and critical, in the future as regional authorities find ways to incorporate Waterwatch into regional programs. There is evidence that this is happening already, as illustrated in the following quote:

My region is going in the direction where it's the Waterwatch and Landcare program that are coming together more to become more of an integrated catchment education/action program. The title of our program will actually be 'building regional capacity for water and land management'. My title may change, but I'll still be out there doing exactly what I've been doing...

There is significant potential for Waterwatch to perform the 'front-line' community engagement tasks of regional NRM authorities, particularly in their river health programs. Some regions are recognising this potential, for example:

we're incredibly lucky in our sub-region in terms of the support because we're seen as the front, the 'face', of what we do in our communities,

There are three other key areas in which Waterwatch can directly be involved in regional plan delivery:

- Helping monitor 'management action targets'
- Helping monitor 'resource condition targets'
- Building the capacity of the community to participate in NRM planning and decision-making processes.

3.3.6 Waterwatch as 'Capacity Building'

'Building' community 'capacity' to tackle NRM issues is a key plank of the regional NRM investment strategies in all NHT and NAP regions in Australia.

Capacity building relates to a range of activities by which individuals, groups and organisations improve their capacity to achieve sustainable natural resource management. Capacity in this context includes awareness, skills, knowledge, motivation, commitment and confidence (AFFA, 2001). In essence, social capacity is 'an ability to act'.

Capacity building for natural resource management goes beyond the traditional, top-down approach of enhancing skills and knowledge through training and provision of technical advice. It focuses on enhancing genuine community engagement in all aspects of NRM, from planning to on-ground actions (AFFA, 2001).

The Intergovernmental Agreement (IGA) for the National Action Plan for Salinity and Water Quality identifies the need to 'support capacity building of communities and landholders to assist them to develop and implement integrated catchment/regional plans'. The IGA defines capacity building broadly, to include such things as access to information, facilitation and support, and research and development.

Thomson and Pepperdine (2003) in their Land and Water Australia project 'Assessing community capacity for riparian restoration' describe social capacity as a *process*. They see capacity as an 'oil' that lubricates the process of accumulation and decline in capital in all its forms (social, human, natural, economic, physical). They define capacity as:

The capability of individuals, groups and institutions to understand and deal with the enabling and constraining elements, dimensions and issues that drive the process of capital accumulation and decline (in all its forms) to produce desirable outcomes (Thomson and Pepperdine 2003:11).

The ability of regional NRM authorities to achieve visions (desired outcomes) shared by the whole community (including institutions, agencies, etc) for the regional environment is dependent on their ability to meaningfully engage communities. Rather than NRM authorities using traditional 'transfer of technologies' approaches to 'teach' the community what they 'need' to know, the capacity enhancement approach recognises that everyone (communities and institutions) has prior knowledge, networks, skills, etc. and that these can be enhanced to achieve more strategically aligned (and shared) outcomes.

Waterwatch fits the 'capacity enhancement' model extremely well. It provides opportunities for people to be meaningfully involved ('engaged') in learning more about 'their patch'. Waterwatch creates a shared 'point of interest' (a river or creek, a water-hole, a catchment) between community and NRM institutions – sites that have meaning to people. Waterwatch activities also allow people to express their values and ideas about natural resource conditions and targets, allowing NRM planners and decision-makers to understand community values and aspirations more fully than attempting to communicate through written plans

and strategies. But what differentiates Waterwatch from many other environmental education and community engagement methods is that the data that Waterwatch participants collect can be used by regional NRM authorities to make decisions about resource management options. This is because Waterwatch data can be collected to high standards of quality control/assurance because there are sound QA/QC protocols documented and readily usable.

Because participants in Waterwatch are trained in water sampling and testing methods, as well as a wide range of biological and habitat assessment methods, Waterwatch is also particularly successful in enhancing knowledge and skills. As illustrated in the following quote, enhancing skills and understanding is critical in achieving meaningful engagement of the community in NRM planning, particularly in setting resource condition targets.

thank goodness that we've got...board members that realise we're not going to be so short-sighted as to just set out and go and tell the people ... that our salinity target ...is going to be 880 ms/cm 80% of the time... 'can you talk to me in sense' they'll say. If you don't have an educated and informed community they're not going to understand what that target is and whether they've reached it or not, and if you can't have as many people as possible involved in that process of measuring salinity or being involved in the management of the environment, then you're not going to reach the target.

While it was widely recognised among focus group participants that Waterwatch has huge potential in fulfilling key components of the 'capacity building' component of regional NRM plans, many participants commented that current plans are "clearly lacking" in their capacity building/community education aspects.

With the 'capacity building' component of regional NRM investment providing a key funding source, it is imperative that Waterwatch be recognised for its capacity enhancement qualities.

3.3.7 Conclusion – Purpose of Waterwatch

At the present time, it seems that despite the range of purposes and activities of Waterwatch, it is primarily still perceived as an education program. This, in itself, is not a bad thing, but it is important that this 'education' be seen to be contributing to enhancing the capacity of regional communities to identify, plan and implement strategic NRM actions.

The relative emphasis or 'balance' between 'monitoring' and 'education' of Waterwatch is currently difficult to measure at the regional level. Perhaps a good indication of the current state of this balance is that the most common end point to discussions within the focus groups about the 'purpose' of Waterwatch seemed to end up with the view that people were aware of the various aspects of Waterwatch, but tended to see more value in the educational aspects of Waterwatch activities. For example:

When we did a perception study in [our State/Territory] of potential data users, it came across very strongly in that that proponents,

catchment boards, ... [agency] technical people and people like that strongly valued the education component of Waterwatch, but they had questions about the data and the data quality...data confidence.

However, people from regional authorities seem to be prepared to support and fund Waterwatch as an education program that also provides some data – the balancing of this will depend on regional perspectives and needs.

But problems may arise if there are conflicting perceptions, between different regional NRM groups, about what the 'best' role for Waterwatch is. This is happening at the moment, particularly in the process of developing regional NRM plans and investment strategies, and is an area in which future negotiations may be needed.

Interestingly enough, everything that's been said about [Waterwatch in the regional plan] is that [the regional NRM authority] want it to be more quality controlled in terms of data. However, when we talked to the Landcare council all they're looking at is the education...

Securing a sustainable future for Waterwatch within the regions is therefore dependent upon being able to communicate effectively with regional stakeholders so that they can make an informed decision about how Waterwatch can fulfil various components of regional NRM delivery. Many coordinators are very accepting of this challenge, as illustrated in the two quotes below, but some others are not necessarily ready for this challenge (see Section 3.5).

I think there is the potential for waterwatch to fulfil both goals successfully and I think we do do the community education really well, and we've developed up a lot of public awareness of other programs by doing those things. But I do believe that there is the potential for Waterwatch to expand its monitoring role and do it better than how we do it now - I don't think we do it really [badly] and I think the potential value of our data is continually underestimated - that would have been raised across many States - but I still see a lot that we can do and the QA/QC procedures we've put in place in [our State/Territory] are going to go a long way, but a large part of that is about promoting that, and promoting it to the people that matter,

Because when it comes down to these regional plans and NRM strategies, we all know they're never going to have enough money to achieve everything that they need to...and I see Waterwatch as a really good way for them to spend their funds efficiently to achieve both part of their monitoring and evaluation components as well as achieve their community capacity building component.

The 'capacity building' component of regional NRM investment strategies provides a possible solution to the 'problem' of balancing education and monitoring aspects of Waterwatch. If Waterwatch is re-defined as a 'capacity building' and community engagement tool, both education and monitoring can be legitimately and constructively resourced. Decisions about the relative emphasis of the two can be fine-tuned to respond to regional contexts.

3.3.8 Implications for National Support – Purpose of Waterwatch

Perhaps the single most important issue for national support, and probably of highest priority too, is how to build Waterwatch into the current rounds of regional NRM investment planning. There is currently no systematic approach being used to secure a place for Waterwatch in regional plans – it has been left primarily up to regional/local coordinators and other key supporters of Waterwatch. The AG NRM Rivercare Facilitators are doing their best to see that Waterwatch is included in regional plans, but because there is no compulsion to include Waterwatch and because decisions about whether to include Waterwatch are primarily based on people's perceptions of what Waterwatch can offer, it is a rather ad hoc situation.

There is a mechanism within the regional NRM investment strategy approval process to mandate the inclusion of 'waterwatch'. To date, the Australian Government has not chosen to utilise this mechanism, instead relying on the voluntary inclusion by regional NRM authorities of Waterwatch-type programs in their investment strategies. However, the findings of this needs/gap analysis would suggest that the voluntary approach has not resulted in a smooth transition of Waterwatch programs to the new regional delivery model, so it is perhaps timely to use the schedules to ensure the potential of Waterwatch as a valuable community engagement and capacity building tool is realised.

Notwithstanding the use of schedules to mandate the inclusion of Waterwatch in regional plans, it is important that, nationally, Waterwatch develop clear tools to enable regional NRM authorities to appreciate how Waterwatch could play key roles in the following three key areas:

- monitoring progress in relation to management action targets
- monitoring progress in relation to resource condition targets
- assisting in community engagement and capacity building

The challenge for national support is ensuring, quickly, that regions have the ability to understand how Waterwatch can help them deliver their regional strategies. A Waterwatch 'toolbox' or similar is required very quickly, as well as some clear communications about Australian Government expectations with respect to Waterwatch.

Ideally the process of working out if, and how, Waterwatch can contribute to the delivery of regional NRM plans would be based on a cooperative, consultative process to identify:

- What 'services' Waterwatch could successfully provide
- The level of 'service' the community is prepared to provide
- Data requirements, including appropriate parameters and the data confidence limits
- Selection of equipment appropriate to the nature of the monitoring being undertaken.

But the regional planning processes are probably too far advanced in most regions for this to happen now. And, from the survey results (see Appendix 2) it

appears that there is still work to be done in enhancing/developing approaches to involve the community in planning monitoring programs.

The process of identifying how Waterwatch will fit regional NRM delivery is something that has to happen at the regional level. Therefore, it is appropriate that the national office produce guidelines for the development of monitoring plans, or a checklist of issues that should be addressed etc., rather than seeking to involve itself in these processes directly. There may be a role for a 'National Waterwatch Network Facilitator' to assist regions through this process by highlighting successful examples, or facilitating communication channels between appropriate regional coordinators.

Another issue in relation to balancing Waterwatch within the regions that may need to be considered from a national perspective is the likelihood that as regional plans go through their various iterations, and are then renewed and updated, their emphasis is likely to change. One focus group participant summed this up well:

I can't help thinking that community education has been left out of NRM at the moment because there's this sort of push to develop plans and indicators...and when the dust settles on that there'll be another resurgence for community awareness...its just not there at the moment.

There is a need at the national scale to develop processes to enable the assessment of the current balance of regional Waterwatch delivery and to consider this balance in light of changes in national, State and regional priorities and policies.

3.3.9 Summary – Purpose of Waterwatch

- Waterwatch is a highly regarded environmental education tool. But, it is also an invaluable community engagement and capacity building tool, although this is not as commonly appreciated, particularly by some regional NRM authorities.
- Waterwatch is highly diverse – with activities ranging from general catchment and water education to the collection of high-quality data through well planned monitoring of strategic sites.
- People's perceptions of the purpose of Waterwatch are informed by their relative exposure to the breadth of these activities. It is less common for individuals to have a holistic understanding of the scope of Waterwatch.
- Waterwatch has the potential to be an invaluable community engagement and capacity building tool for regional NRM authorities.

- This potential is currently being inhibited by bipolar perceptions of the purpose of Waterwatch as an education initiative 'versus' an environmental monitoring initiative. A shift in focus towards Waterwatch as a community engagement and capacity building tool would help overcome this problem of 'competing' perceptions.
- There are some gaps in current support to facilitate the inclusion of Waterwatch into regional NRM planning processes and resources available to 'sell' Waterwatch to regions. This gap occurs at State and national scales, although the National NRM Facilitators – Rivercare are working towards addressing this situation.
- Waterwatch lacks tools that enable regional NRM authorities to recognise how Waterwatch could help them to deliver on their objectives.
- There is an urgent need for promotional/information resources to help regional authorities understand the possibilities for Waterwatch in the delivery of NRM strategies.
- There is a need for national support and facilitation to produce these information sources and to support the network of current and future Waterwatch coordinators to secure a place for Waterwatch in regional NRM delivery, and to liaise with regional, State and Australian Government NRM Facilitators to maximise opportunities for Waterwatch.
- There is a need for a monitoring and evaluation system that allows assessments of the likely impacts of shifts in policies and the maturation of regional NRM authorities' approaches to capacity building on the delivery of 'Waterwatch'.
- There are gaps in many regions between the need for consultative processes to develop regional monitoring programs and current engagement of volunteers in these processes.
- There is a need to ensure that the educational value of Waterwatch is not lost as regional NRM authorities develop and implement their regional investment plans. This requires national-level support and promotion to ensure that regional authorities feel comfortable including educational programs within their investment plans.

3.4 Opportunities for Engaging Communities in 'Waterwatch' activities

The diversity of Waterwatch and the fact that over the years it has evolved to encompass a very wide range of water, river, riparian and catchment issues means that there is scope to engage communities on a wide range of issues. These opportunities have been significantly enhanced by the tradition of Waterwatch to work in close partnership with other NRM groups and agencies.

One of the key strengths of Waterwatch is that, over the years, many innovative activities and methods for engaging a diverse range of people in river rehabilitation and catchment management issues have been tested and refined. These range from activities for early primary school pupils to understand their patch, through to river and catchment models to build the understanding and capacity of farmers and other land managers in river rehabilitation. Throughout these activities is the common thread of testing the quality of water and riparian habitats, which builds the understanding and confidence of participants in the science of water quality and catchment management. But this 'science' is not an end in itself – it is a means to an end. The 'end' is capacity that is built in participants in relation to their knowledge and understanding of water quality issues.

These strengths of Waterwatch are commonly the weaknesses of other NRM programs that tend to engage people in a more technical, agronomic or economic manner. Waterwatch engages people with their local environment and equips them with the knowledge to understand the broader issues that impact on their environment. The current emphasis on catchment and regional NRM planning is often too complex and disengaged from what people know and understand. This means that the opportunities for engaging community members in catchment/regional natural resource management is limited to those few individuals who have the capacity to make sense of these complex 'big picture' issues. While Waterwatch does build capacity in this way, therefore equipping people with the skills and understanding to participate in broader NRM processes, opportunities for meaningful engagement of the broader community will always be greater, and more meaningful, at the local level.

There are therefore significant opportunities for Waterwatch to take a major role in every NRM region in Australia as the primary tool for engaging communities in NRM.

However, to achieve this, Waterwatch will have to think beyond the traditional 'hierarchy of coordinators' model of delivery and more towards instilling Waterwatch as a core component for engaging people in a wide range of NRM programs at the regional level.

The following are just a few approaches and ideas that emerged from the focus group discussions⁵.

⁵ There are literally hundreds of examples of the opportunities for Waterwatch, and for people to become involved in Waterwatch, across Australia. Some of these have probably been published in various 'case study' publications at State and National levels over the years. It is beyond the scope of this study to review these. Suffice to say that many success stories were related during some of the focus groups and interviews. Without reviewing all of the existing examples of community

There are many opportunities for engaging with indigenous communities in Waterwatch that were highlighted especially in Western Australia, Northern Territory and Queensland through Ranger Groups and Indigenous NRM Facilitator network.

Rapport has already been established with the [indigenous] community and, we find that pretty much everywhere that [Waterwatch] is well received because its pretty hands on, as far as getting people involved

Ideally too, all these indigenous facilitators/rangers...they should have training really, really if they're out their living there and doing other land management activities they should have some idea about what's going on with water and should be thinking catchments in my opinion.

Because of indigenous cultural values in relation to waterholes, especially, many focus group participants thought there were great opportunities to develop integrated monitoring and action programs focussing on riparian vegetation, grazing management and weed management.

Another key theme to emerge from the focus groups was the advantages of delivering Waterwatch through existing and new partnerships with other NRM programs. Some examples of the comments made by focus group participants are provided below to illustrate these ideas:

there's all those groups, like the [group name] Landcare and [group name] rangers, they're all out their doing existing stuff and are all resourced to do it through other sources - just tap into those people. And you've probably got more of a chance of it leading on to a works project...

That's right...if you can join Waterwatch up to this water quality group then you've potentially got this whole network doing water quality monitoring and I think that's a way the [State] government can see Waterwatch as being a plus and to be involved in it, is to expand the WQ monitoring network...

...you might not employ a Waterwatch coordinator, you might add it to their list of things that they already do and integrate it into what they're already doing. I mean just talking to people scattered around in arid areas, there's a lot of interest in waterhole protection and the Central Land council has already done some projects with us, fenced water holes for cultural reasons, but there's a flow on environmental effect.

In the Northern Territory, for example, Waterwatch 'groups' and Landcare groups have been more or less the same thing and this model has worked very well in the past. To varying degrees, there has been similar experiences in most States

engagement, it is not possible to assess whether the suggested opportunities listed below are 'new'. They have been included because people in the focus groups thought that they represented opportunities for Waterwatch, but many may have been tried in other jurisdictions.

& Territories. Landcare groups are probably the most obvious, and have been the most commonly 'accessed' group in the past because of their concerns about water and river health. However, there are opportunities to move beyond such groups to encompass other community groups as diverse as service clubs, field naturalists, sporting shooters, etc.

Many examples of more specific opportunities for Waterwatch were raised in the focus groups. These are not described here, as most are already occurring in other regions – things like groundwater monitoring, monitoring water supplies of indigenous communities, monitoring the effects of urban salinity, assessing the impact of urban stormwater runoff in arid regions, etc.

There were reports of some Waterwatch participants promoting their affiliation with a Waterwatch group during environmental demonstrations. It is important for the integrity and credibility of Waterwatch that participants do not use Waterwatch data or their affiliation for political means. This is not to suggest that data collected by Waterwatch participants cannot be used to inform debate about environmental management, but the data must be validated.

3.4.1 Implications for National Support – Opportunities

Opportunities for engaging communities in water-quality monitoring and initiatives to build capacity in relation to river restoration and catchment management would be enhanced if Waterwatch 'products' and 'services' were integrated into other regional NRM programs and delivered by a wider range of coordinators/staff of these programs. This has been happening at the local level for many years, but there are opportunities to 'sell' this as a key strength of Waterwatch – ie. a key tool in the Waterwatch 'toolbox'.

This means, from a national perspective, that more needs to be done to enable Waterwatch coordinators and proponents at the regional scale to offer products and services that are applicable and useful at the local level. This means that any resources that are developed by the national office need to be overarching and generic, and more emphasis is needed on enhancing the capacity of regions to fine-tune such resources to their own needs.

3.4.2 Summary – Opportunities

- Waterwatch methods, products and services provide opportunities to meaningfully engage communities in understanding their local environment and contributing to NRM decision-making processes.
- There is a need to collate examples of the ways in which Waterwatch products and services can be integrated with other regional NRM programs, to help NRM authorities realise the potential of Waterwatch as a community engagement tool.

- There is a need to provide mechanisms for training the coordinators/staff of other regional NRM programs in Waterwatch services and products. This would enhance the integration of NRM actions and enhance the exposure of a broader community to Waterwatch activities.
- Whilst there are advantages in having dedicated 'Waterwatch coordinators' to develop and deliver Waterwatch 'products and services', the impact and potential of Waterwatch would be considerably enhanced if coordinators of other regional programs were trained to deliver Waterwatch as part of their other duties.

3.5 The Impact and Implications of Regional Delivery

Making the change to NHT2 - I just think that's our biggest gap at the moment.

We probably take 100% of our direction now from the region instead of the State or national, I mean they're the ones giving us the dollars, so you've got to.

3.5.1 Introduction

This section focuses specifically on the impacts and implications of the shift to 'regional delivery' of NHT funding, although this is a recurring theme throughout this chapter.

Regional delivery of Waterwatch has changed the 'traditional model' of Waterwatch. This 'traditional model' was essentially a hierarchy and network of coordinators, funded through a national program with State and local matching funds. Although there were local, regional and State partners, and varying amounts of local/State contributions of cash and in-kind support, Waterwatch programs essentially reported to the National office and their shape was informed by the national and State strategic plans. As already discussed, the extent of the change from the 'traditional model' varies from jurisdiction to jurisdiction because of the diverse histories of Waterwatch in different regions. But it is the future 'shape' of Waterwatch at the regional level that is the biggest area of uncertainty at the moment, and much of this centres on the issue of funding.

Although regional delivery has far reaching consequences (many of which are discussed in other parts of this chapter), there are five key issues that need particular focus:

- Funding of regional programs (level of, security in)

- o State/Territory support – the impacts on QA/QC, training, communications, etc.
- o Skill sets of Waterwatch coordinators – are the skills required of Waterwatch coordinators under NHT2 the same as those under NHT1?
- o The need to find a 'place' for Waterwatch within regional investment plans and the shift towards the idea of Waterwatch meeting (biophysical) M&E components of regional plans more so than capacity building.
- o Monitoring, evaluation and reporting of Waterwatch initiatives.

Each of these issues is discussed in the next parts of this section.

3.5.2 Funding of Regional Waterwatch Initiatives

Whereas under NHT1 local, regional and State/Territory Waterwatch programs applied directly to the Australian Government for funding (on an annual basis), regional delivery of NHT/NAP funding means that if Waterwatch is to be funded in a region it must be included as a component in the Regional Investment Plan.

Because the Regional Investment Plans are three-year strategies, there are many potential advantages for regional Waterwatch programs. The main advantage is that there is more security to the funding, which means that issues experienced by Waterwatch programs under NHT1, such as insecurity of tenure for coordinators, is a thing of the past. But, the key to realising these advantages is to ensure that Waterwatch is written in to the Regional Investment Plans.

Getting Waterwatch recognised in Regional Investment Plans is probably the most significant gap, and therefore need, in nearly all States and Territories. Victoria is probably the key exception to this, and the experiences of Victoria provide important lessons for the other States and Territories.

In Victoria, regional delivery has provided more security, more funding, stronger regional partnerships and a better integration of Waterwatch into other regional NRM programs. But this has not been all plain sailing – Waterwatch has had to work hard to be recognised within regional NRM strategies and investment plans, so many of the issues discussed in this section of this chapter are very applicable even to Victoria. Probably the key reason why the Victorian Waterwatch program has come through the shift to NHT2 so well is that Waterwatch has been well entrenched within regional NRM authorities (the Catchment Management Authorities) since the CMAs were gazetted in July 1997.

Other States and Territories are still going through their first iterations of regional plans and investment strategies, and in some States the definition of regional NRM authorities is still being resolved. This is a very difficult climate for regional Waterwatch programs to work within in terms of 'getting a hearing' within the strategic NRM investment planning process.

From the focus group discussions, it is evident that Waterwatch is highly regarded as a worthwhile investment in natural resource management (as discussed previously in section 3.3). Although there might be some confusion and much debate about the 'best' roles for Waterwatch in regional NRM, there is significant support for it. In many of the focus groups, stories were related

about how regional NRM authority board members are big supporters of Waterwatch, but in the end, for some, decisions about funding come down to the reality of making the funds balance, for example:

They were very supportive of Waterwatch initially...we had to keep going back and having cuts because it was a ten million dollar bid, then it was three, so [things] had to be cut and [Waterwatch] was a program that could be left out. It was really difficult for them to leave it out, but once it was left out it wasn't going to be put back in again - it wasn't like 'we'll axe that' there was a lot of debate that went over a series of meetings, so its not that it wasn't a popular program.

In other cases, though, there were stories related about a lack of understanding and appreciation by board members of Waterwatch and that this had contributed to problems of having Waterwatch included in regional plans.

But it seems that one of the biggest frustrations for coordinators and others involved in the focus groups was that getting a hearing with the people preparing the regional plans and investment strategies is a key need. Even if regional NRM authority board members are not fully aware of Waterwatch, many support it when they are informed of it, as illustrated below:

The interesting thing is that if you talk to the boards and the regional bodies, they don't actually know what Waterwatch is, but once they understand it they say 'oh yeah, we can see some merit in working with that', but its actually at the level below that where all the blockages lay, because they're the people that are fighting over the resources and they're the ones putting propositions up to the decision-makers, that's where Waterwatch is getting lost.

Board members cannot make an informed decision about what regional programs they should invest in if they are not presented with all the information. Another key point here, which was raised several times in the focus group sessions, is that the staff and board members of regional NRM authorities, and many of the agency staff helping to write regional plans, are struggling with the 'capacity building' component of the regional investment process. People writing the plans, it is perceived, do not have a good understanding about 'community education' and tend to 'lump it in' with capacity building without really understanding how it will be operationalised. However, focus group participants thought that as the regional planning and investment processes mature and more attention is paid to implementing the 'capacity building' components of plans, more emphasis will be placed on Waterwatch and other community education programs.

Similarly, as regions go through their investment planning processes, focus group participants perceived that Waterwatch would become more important in terms of responding to the various monitoring and evaluation components of regional plans, for example:

Waterwatch is now more important than ever in the kinds of things [our regional NRM authority] want to do. In seeing the connection

between the plan and resource condition ideas and you can see them clicking over that this is the vehicle to help them

There was also recognition among focus group participants that the outcomes of regional planning processes were very dependent upon the juxta-positioning of many factors, for example:

Timing is everything isn't it - timing of the plan and what people are doing and when things are happening, and everyone knowledgeable of that to put the right arguments in so that its written into the plan.

It is unfortunate that in some regions, the transition from NHT1 to NHT2 and the lack of Waterwatch coordinator presence, particularly at the State/Territory scale, may jeopardise the chances of Waterwatch being successfully included in the respective regional plans. And, from a national perspective, if the 'National Waterwatch Program' was perceived to be 'dead' after the end of NHT1, the timing could not have been worse for gaining the recognition of Waterwatch that is required to have it included in regional programs.

The other key issue in relation to timing is the impact of the timelines of the regional NRM investment planning process on the ability of Waterwatch to get a 'hearing'. In nearly all the focus group sessions, participants spoke of how busy the people writing the NRM plans and investment strategies are, and therefore how hard it is to discuss Waterwatch with them.

The regional bodies in [State/Territory] are really under pressure to get their plans out and so we have trouble getting the right people to meet us to really see what's happening... its probably 3-6 months away to really see what their commitment [to Waterwatch] is.

The variable perceptions of Waterwatch (as discussed in section 3.3) can contribute to communication problems within the regional NRM planning and investment process. In one State/Territory, it appears that Waterwatch missed out on being funded through an interim regional investment strategy because the process of developing the investment strategy failed to recognise that Waterwatch was reliant on federal funding. There were two possible reasons for this: a) that it was not acknowledged that Waterwatch funding would not continue to be directly distributed from the national Waterwatch office, or b) that it was believed that Waterwatch was fully funded from local sources.

In summary, from a funding perspective, data gathered from the focus group discussions suggests that the following key areas/issues appear to be determining the success of getting Waterwatch into regional investment strategies:

- The degree to which the people writing the regional plans and investment strategies understand and appreciate the value of Waterwatch.
- That the people writing the plans are, or are perceived to be, too busy, therefore limiting opportunities for Waterwatch coordinators/supporters to put up a case for the initiative.
- The degree to which there is support at State and national levels to ensure Waterwatch is in the plans (see 3.9).

- The degree to which coordinators are able/willing to engage with the process (for various reasons which are discussed in 3.5.4)

Of course, there are some regions that do not rely as heavily on Australian Government funding. For example, Streamwatch is funded by Sydney Water levies and charges; a component of many South Australian regional programs are funded by catchment board levies; and in Victoria a high proportion of the \$2M spent annually across all 11 regional programs comes from sponsorship. But there was no suggestion from any of the focus group participants that Waterwatch would survive without the financial support of the Australian Government.

3.5.3 The Importance of Partnerships

The extent to which Waterwatch is recognised in the region, and therefore the likelihood that it will be included in regional plans and investment strategies is dependent on the past and present success of regional Waterwatch initiatives in working in partnership with other groups and agencies. This maximises the exposure of Waterwatch and the understanding of a broader range of people about the program. Many of the partners of regional Waterwatch programs are involved to varying degrees in the preparation of regional NRM plans and strategies, or at least lobbying for various programs. If these people have had a positive experience of Waterwatch, they are more likely to perceive it as something that would make a valuable contribution.

The practice under the 'traditional model' of Waterwatch delivery of having Waterwatch coordinators housed in other agencies has had a positive impact in forming enduring partnerships. The following are just two of many examples:

I worked in the [State/Territory agency office] and sat next to the rural and urban Landcare coordinators so they then got access to our monitoring equipment and were able to supply the education kit and monitoring gear to the Landcare groups so they were then involved.

Where once there was one person employed, now there's three - its getting to be a bigger investment, much more of a community NRM office - it seems to be getting better...there's more support for what I want to get done and initiate because I can pass the ball up a bit and then they can pull it in with all the other connections, so its much better in that way. As long as I can connect all those people up, instead of them not thinking we exist.

Partnerships are also important as a 'safety net' – some focus group participants felt that if things "got really tough", there is enough goodwill for Waterwatch that other groups seem to rally to fill voids. There are many examples around Australia of partner agencies/groups stepping in to fill gaps in funding, even under NHT1.

One of the other big advantages of forming partnerships in the delivery of Waterwatch regionally and locally is that there are also opportunities for securing sponsorship. Sponsorship from partner agencies and groups such as local

government authorities, water authorities, industry, etc. reduces the reliance on federal funding for Waterwatch at the regional level.

Focus group participants tended to think that regional delivery model would result in a strengthening of regional partnerships. For example:

really in this change from NHT1 to NHT2 we haven't lost any partnerships with regional partners, in fact we've gained some

Regional delivery will potentially bring more funding to regional programs through sponsorship. There are two main reasons for this. Firstly, the current period of insecurity in the transition to full regional delivery has meant that regional Waterwatch coordinators have been more proactive in securing sponsorship. Secondly, the push within regional delivery towards greater integration will bring more groups/agencies together to deliver on plan priorities.

Focus group participants related various stories about the lessons they had learnt through adversity in relation to funding challenges, sponsorships and partnerships. The number of partners in Waterwatch at the regional level was one of the keys to ensuring a sustainable funding stream, it is perceived. An analysis of the reasons why Waterwatch might have survived in some regions and not others by one State-agency person participating in the focus groups found that...

...where [Waterwatch] survived there was at least three partners supporting it. Where you had two partners, the moment one withdraws the other one tends to get out. ...that issue of co-dependence has to be built over time.

In some States/Territories State Waterwatch support teams had been encouraging local Waterwatch coordinators/groups to work with local government, catchment boards, water authorities and various local agencies, particularly before the end of NHT1. The changes to regional delivery were also discussed at length at various Waterwatch Australia Steering Committee meetings in 2000. However, it appears from the research undertaken for this gap/needs analysis that the transition to regional delivery has not been as smooth as it might have been.

With the introduction of new Regional NRM Authorities, there are concerns in some areas about possibly having to rearrange hosting/proponent arrangements. Implications for hosting arrangements will emerge once regional investment plans have been completed. This is another area of insecurity for Waterwatch within those regions where regional arrangements are still being finalised.

The other key area in relation to partnerships relates to the State- and national-level partnerships. These are crucial in securing funding and for providing support for things like water-quality monitoring technical support (including QA/QC issues) and the provision of educational expertise (such as the various partnerships with State education departments for the employment of teachers to support the integration of Waterwatch into school curricula. These are discussed in more detail in section 3.9 and 3.9.2.

There were many comments within the focus groups by Coordinators implying that they have not read, or seen, the detail of regional plans yet and so they don't know what the implications will be on their Waterwatch programs. Some of this is because the regions are in the early stages of developing their plans and so details are not yet available. The other, more worrying, possibility is that coordinators have not been proactive in checking up on the extent to which Waterwatch is in the regional plans. Some States/Territories seemed to be very much sitting back and waiting, even clinging to the misconception that regional delivery will not have much of an impact on them. Others are very proactive in lobbying, reading draft plans, etc.

3.5.4 A Change in Skills Sets Required of Waterwatch Coordinators?

Under NHT1, or the 'old model' of delivery, Waterwatch coordinators were, to varying degrees, employed principally to deliver Waterwatch activities to communities. This is still seen as one of the strengths of Waterwatch; that there was more emphasis on 'doing' and less on planning and administration. Coordinators higher in the hierarchy, the regional and State coordinators, normally handled the funding applications and program administration. Many focus group participants commented that they wished other programs could achieve such efficiency.

Coordinators at all levels in the 'old' hierarchy were involved in building partnerships, but there was possibly less emphasis in many regions on involving everyone in securing sponsorship. In some regions, particularly in Victoria, for example, it was also in Waterwatch coordinator's job descriptions to proactively build partnerships and seek sponsorship.

Focus group participants conveyed a sense of a shift in the roles and responsibilities of Waterwatch coordinators under the regional delivery model, particularly in the short-term while the regional NRM investment planning processes are under way. But also in the longer term, it was felt, there would need to be more of an emphasis by Waterwatch coordinators to market Waterwatch at the regional scale, build partnerships and secure funding. There might also be a higher proportion of coordinator time spent on program administration and reporting in the future, because of the regional structures.

The capacity of Waterwatch coordinators themselves to engage with the regional investment planning process is a critical issue for the long-term survival of Waterwatch at the regional level. Some State-level 'coordinators' lament the inability of some of their colleagues to engage with the process and therefore promote the values and potential of Waterwatch. The following four quotes from focus group participants illustrate the kinds of perceptions held about the range of issues surrounding the challenge of asking Waterwatch coordinators to engage with the NRM planning processes:

Some of the facilitators have the skills and the ability to position themselves, but some of ours that we've had, employed originally as educators and project officers, they haven't had the skills and haven't been able to take ... that support from local government...up to the NRM boards...

The clever ones [Waterwatch coordinators] re-position and repackage themselves through all of this process.

I think it's a big ask to say you've got to be a great educationalist and a master strategist at the same time...

But you're basically asking them to be entrepreneurs and I'm not convinced that entrepreneurs are necessarily the best people [for Waterwatch]...

One focus group participant related the story of a Waterwatch coordinator who, in the face of a shortfall in NHT funding, successfully lobbied all the local government authorities, but still felt that he/she, or the program, was not successful because they hadn't attracted NHT money. This emphasis on securing federal funds may be limiting the potential of Waterwatch to develop into a self-sustaining initiative that is integrated with many regional NRM programs.

There were examples of focus group participants who have invested much of their time in regional planning processes, for example:

I mean I'm looking at paperwork all the time, checking drafts of investment plans and writing submissions and doing follow-up reports and doing budgets and all this sort of thing over the last 12 months, its just been busy as...

It is difficult to assess from the focus group participants the proportion of those involved and those not involved in regional processes. There could be various reasons for the variable involvement. The most common mentioned in the focus groups was simply a lack of time:

I know that we see that as an important part of our role but we're all each so busy trying to meet the on-ground needs everyday that it's so hard to find time to do it, I know its probably just that little bit more important to find the time to do it, but you just can't.

There was also a sense in a few regions that coordinators were 'clinging on to the past', believing that they would still continue to receive federal funding even if they did not really engage in the regional delivery process. A few individuals seemed to have a poor understanding of the implications of the changes to regional delivery on the funding of their programs.

The variable degree to which Waterwatch coordinators are involved in regional planning processes raises an important point about some of the feedback that was collected during this research in relation to the perceived lack of inclusion of Waterwatch in some regional plans. Is this a real problem or is it one that is perceived by coordinators because they are not fully conversed in, or involved in, the regional planning process? It is likely that there is a mixture of factors at play here:

- Some Waterwatch coordinators may not be engaging in regional planning processes because they feel they can't or don't see it as important.
- Waterwatch has been included (or not excluded) from regional investment plans, but is 'hidden' within other funding mechanisms and is therefore not

immediately apparent to Waterwatch coordinators, who may or may not be closely involved in the process and therefore have varying degrees of understanding of the process and the detail.

So, in the short term, there is a need to increase the capacity of Waterwatch staff to engage in the regional NRM planning process, and this is needed as a matter of priority.

As outlined above, there are also some longer-term implications of regional delivery on the roles and responsibilities of 'Waterwatch' coordinators. Depending upon how Waterwatch is built into regional investments, there is the likelihood that the whole nature of the delivery of Waterwatch, and therefore the roles of 'Waterwatch coordinators' could change significantly. Whereas under NHT1 and the interim arrangements, emphasis was given to employing Waterwatch coordinators at various levels in the hierarchy, as the principal delivery tool for Waterwatch. However, with funding delivered through regional processes, there may be less money available for employing coordinators. But regional delivery presents opportunities in this regard because it is designed to provide a more integrated NRM approach. There is likely to be more focus on seeking to support staff on a full-time basis by combining funds from various programs. This presents opportunities to deliver Waterwatch as a component of other programs, such as Landcare, Bushcare, etc. This would help overcome a significant problem that was raised in many past reviews of various Waterwatch programs and within the focus group sessions – the constant battle to secure enough funding to provide coordinators with security of tenure. This problem of the insecurity of funding, and the low level of funding, made attracting and keeping staff difficult, as illustrated in the following comments from one focus group participant:

It's quite difficult to expect professionals to stay in a part-time position. A lot of people I worked with were fairly young and they had to consider their career essentially and if a full-time position became available then often they'd have to take it and that meant losing another coordinator and consistency...

If this possibility of more 'job-sharing' of coordinator-type roles across different programs became common, and the traditional 'Waterwatch coordinator' positions, particularly at the 'local' scale, became a thing of the past, there are significant implications for how Waterwatch is 'badged', marketed and packaged for regional delivery. These are discussed in the next sections of this chapter.

3.5.5 Implications for National Support – Regional Delivery

Obviously, regional delivery is the key driver of many of the identified gaps/needs identified through this review. There are implications, needs and gaps discussed within all the other sub-sections of this chapter that relate to regional delivery.

However, the key overarching implication for national support in relation to regional delivery is facilitating the change to what will, eventually, be a better framework for Waterwatch. Focus group participants lamented the lack of

support at the national level so far in the changeover period, which has led to some feelings of abandonment and of this review being “too little too late”. It is therefore essential that there is effective communications from the national level to the regional and local Waterwatch coordinators and proponents that Waterwatch is still here and is still strong – and will become stronger. However, the degree to which there is a need to support the process of transition to regional delivery will vary from region to region as each is at a different stage in their strategic and investment planning processes.

The other overarching implication of regional delivery is, as discussed previously, the need for flexibility so that regions can shape Waterwatch to suit their needs. This will mean that Waterwatch at the national level needs to be more proactive in providing guidance and facilitation to regional Waterwatch ‘programs’, rather than being reactive to problems that arise.

3.5.6 Summary – Regional Delivery

- The future of Waterwatch is dependent on it being included in regional NRM investment strategies.
- To date, the process of getting Waterwatch included in regional investment planning processes has been difficult in many regions.
- There is an immediate need for communications from the national support team to highlight that Waterwatch is still here, is supported nationally by the Australian Government, and has much to offer regional NRM authorities and communities. Some more general communications are required across all NHT and NAP regions, and some specific communications with particular regions may be required to facilitate the inclusion of Waterwatch within regional plans.
- There is a need for national support to secure a larger role for Waterwatch within regional NRM delivery.
- There is a need for a flexible Waterwatch ‘tool kit’ that highlights Waterwatch methods, products and services. This kit should enable regions to identify how they can shape Waterwatch to their own needs whilst spelling out ‘minimum standards’ or similar mechanisms to maintain the integrity of Waterwatch products and services.

3.6 Branding and Marketing Waterwatch

Waterwatch can be different things in different regions and so I guess we need that flexibility within the framework so it can be that but still have a focus. Because I guess...each region has a different focus and I guess the question is at a national and State level, how do you promote this program that is all things to all people.

The previous section came to the conclusion that the future of Waterwatch under the 'regional delivery model' is dependent upon having Waterwatch included in regional NRM plans and investment strategies. It is therefore paramount that Waterwatch is 'sold' to the people who are developing these plans. Selling implies paying attention to the identity and branding of a product, and the communication of that identity and brand to the selected audiences. Who takes responsibility for marketing Waterwatch is a matter that is discussed in section 3.9 (3.9.2 in particular). This section focuses on the identity of Waterwatch and the nature of its 'brand' now and in the future. The identification of appropriate audiences for this marketing approach is discussed in section 3.7. A marketing strategy for Waterwatch needs to be developed, and this will be informed by the outcomes of this gap/needs analysis report.

3.6.1 Identity of Waterwatch

It's a selling point isn't it, that identity.

The identity of Waterwatch is intimately related to the perceived 'purpose' of the initiative, which, as discussed in section 3.3 is quite variable. But beyond that diversity of perceptions of its purpose, Waterwatch does seem to have its own identity as a national initiative that appears to match fairly closely its goals and mission. But what is "that identity" as quoted in the comment above?

There is no single, clear element or 'thing' that emerged from the focus groups as summing up what the Waterwatch 'identity' is. Perhaps the most common thread is that the Waterwatch identity stems from the fact that it was a national program, and remains a national initiative. The following passage from a focus group participant talking about what it is to be part of a Waterwatch initiative hints at a 'feel' of the program and of there being a support network:

That naming thing's been quite successful - compared to any other national programs that I've been involved in, I would suggest, Waterwatch had the best national support and the best feel of a national program, and a feeling of filtering of information from the top so that the people on the ground had to deal with less crap. And the national office were probably better than some other programs at doing that, and providing good information to the State facilitators, who then filtered it down to the local facilitators and volunteers...

So the whole network of coordinators also form a key part of the 'identity' of Waterwatch. This is also apparent in that in regions where the coordinators have been around for a long time, Waterwatch is seen as 'being' those coordinators –

the coordinators are Waterwatch. While the 'old' Waterwatch Program model (a hierarchy and network of coordinators) no longer exists in the funding distribution sense, the network of Waterwatch coordinators can still exist under regional delivery IF communications are facilitated between the network at the national scale. This is a key role for national support, and is discussed in section 3.7.

Other focus group participants seem to highlight the identity of Waterwatch emerging from the its goals and objectives, and the fact that these are relatively consistent at all levels in the network:

Of the differences that there might be, they're probably quite small - we're still talking about water and we're still talking about involving about community and we're still talking about community education about water and possibly a monitoring component, so people might start taking on water conservation or water allocation but it still comes down to the resource of water and how you look after it, so you can still go with broader objectives from a national and State perspective and bring everyone into it.

The commonalities between Waterwatch programs, even when they come under different brand names, is also illustrated in the following passage as one of the key things that defines the identity of Waterwatch.

And so going to the conference, searching for that commonality, it didn't matter if you were Ribbons of Blue or Streamwatch or all of these banners we come under, we came under one banner and had a commonality and I was a little bit confused as to whether I found it or not but I think that's got to be of value when you've got two things happening in one State.

The identity of Waterwatch is complicated by the fact that there are few 'Waterwatch Groups' (i.e. incorporated groups) that specifically focus on Waterwatch activities.

I think part of the issue is that some people use Waterwatch as an activity, like Landcare groups might do Waterwatch but not call itself a Waterwatch group, then you've got groups that call themselves Waterwatch...

Most 'groups' that do Waterwatch activities are Landcare or other community groups. There were many examples cited in the focus groups of a wide range of community-based groups, particularly Landcare, that undertake Waterwatch activities. Most focus group participants saw no reason why the Waterwatch brand could not be added to the name of groups that do Waterwatch activities, or any other activities for that matter. For example:

You could say something like 'Sixth Creek Catchment Group, part of the Waterwatch network'...just like they're part of Weedbusters and a whole lot of other things...

Other focus group participants raised the problem of identity of Waterwatch if there was a shift to more integrated delivery of NRM, where Waterwatch activities might be delivered through other regional programs:

Identity, that's really important but then if we're all moving into integrated, blended focuses then what is the point of the Waterwatch identity?

3.6.2 What's in a brand?

There was quite some discussion in all focus groups about the value of the Waterwatch name as a brand in a marketing sense. There was a high degree of consensus that the Waterwatch brand was very important to the overall identity and presence of the initiative, and that it should be kept. However, there was quite some debate in a few of the focus groups about the degree to which there needed to be conformity in the use of the brand.

Many participants thought the name was very important in helping people connect with Waterwatch. If they have heard about 'Waterwatch' through its various activities, it is easier, some argued, for people to then be able to link these activities with the people who deliver the program because they are 'Waterwatch coordinators': "they can look up the phone book". But others thought the Waterwatch brand was less important where the coordinators themselves are targeting particular groups or audiences. It was usually agreed at the end of such discussions that the meaning of the brand will depend on how Waterwatch is delivered in the regions – such as whether or not it is more proactive or reactive in its activities.

Perhaps the most compelling reason to maintain the Waterwatch (or Ribbons of Blue or Streamwatch, or whatever the local brand name is) is because of the negative impact of losing continuity and brand recognition. This was commonly recognised in the focus groups, from various perspectives as illustrated in the following examples:

The community doesn't like change and either do schools. If you change it, and that's what's happened in the past...when [first coordinator] started the education program down here ... in 1991 and it lasted 6 months then it was dropped, and it took a while for us to convince teachers that we were going to be there for the long term...

We need to hang on to that 'Waterwatch', whether you like the name or not. I can still call into the [town name] petrol station and there's the lady with the Waterwatch T-shirt on that I helped out ten years ago - there's an historical relevance - so you are capacity building for the long term...

People associate with the brand of Waterwatch and that's something that we've got in our court when it comes to funding because we're a known program - people know Waterwatch, they're involved in Waterwatch, you start changing it round you start losing all those things.

Other focus group participants thought that Waterwatch is now so well established that people would recognise the activities and the products and so even if you changed the name people “would still call it Waterwatch”

The examples of Western Australia’s ‘Ribbons of Blue’ branding and the Streamwatch program in NSW provide good case studies in branding Waterwatch. In both cases, despite the different brand names, focus group participants within these programs still felt that they were part of the Waterwatch network. The Ribbons of Blue example is probably more closely tied to the national identity because of the use of the ‘Ribbons of Blue – Waterwatch WA’ tag line and the use of the Waterwatch logo.

Streamwatch people said they feel part of a bigger Waterwatch network, but don’t really identify that much with the national office. They also tended not to really know what was happening within the rest of NSW, which may have been the result of the decline of State Waterwatch support over the past 2 years in that State. For example one Streamwatch person said:

I guess I knew people were out doing things around the State, but I hardly had any idea, I have nothing to tell my groups about who’s doing what around the State, you run with that almost clichéd line but that’s empty...

Discussions about the name ‘Waterwatch’, tended to encompass issues surrounding the Waterwatch logo. It was sometimes hard to separate the two: many of the discussions about the people identifying with the Waterwatch ‘brand’ certainly encompassed the logo as well.

But the importance of the logo, as distinct from the name, came through in discussions about branding products like reports, guidelines, manuals and promotional materials like T-shirts, etc. The logo was seen as being probably more powerful than the name, particularly because the logo could carry other names such as Ribbons of Blue, State/Territory and region names. The logo is a unifying brand. The Waterwatch logo is probably therefore the key element that promotes the national identity.

But what is the real power of this brand? There were two key themes that seemed to flow through the focus group discussions around this topic. The first is that the national identity and sense of belonging to a national initiative gives regional initiatives, which are often very small, more credence and status. The following comments summarise this theme:

I think it makes it easier to get those corporate partners when you’re running a program with national identity.

I think that it provides status to the whole program and its important that people that you’re talking to realise that it’s a national program and that its accepted nationally, its done elsewhere, so they really feel part of a whole network.

When it comes to funding partners and stuff they’re going to take the national value and say ‘well its been around for years and we know

what it is, we know what we're going to get for our money' so that's an important consideration too.

The other key theme in relation to the power of the Waterwatch brand is that it is somehow 'bigger' than any one partner agency or group. This has advantages in maintaining a sense of community ownership of Waterwatch and fosters a sense of cooperation among all partners and sponsors. In Victoria this identity with and recognition that Waterwatch is 'bigger' than any one agency or group has allowed the State Waterwatch office to come to an arrangement whereby all publications carry just two logos – the Waterwatch logo (which has the relevant name of the Waterwatch program of that region or the State, as applicable) and the NHT logo. From a marketing perspective, it sounds like a negative thing not to acknowledge all sponsors, but the Victorian program has found it to be a very positive method. All the sponsors are happy because particular sponsors are not being outplayed. This approach is unlikely to work universally, but it does demonstrate the faith some partners have in the Waterwatch brand.

Perhaps the biggest threat to the continued use of the brand 'Waterwatch' is the perception: 'if Waterwatch is no longer funded then why use the brand?' This is really a communications issue (see discussion in 3.7). Another key threat to the brand is the need for Waterwatch to be flexible enough to respond to local needs and the strategies and structures of regional NRM authorities, as discussed in the previous section.

In some States/Territories there was an anti-federal government sentiment that is perceived to be a threat to the use of national 'brands' in the respective State/Territory.

The other disadvantage of having a national identity that is tied to the federal government is that some potential sponsors think that 'if it's a national program, the federal government can fund it'. This was reported to be a problem relating to the perceptions of some local government authorities in one State/Territory, but may be a more widespread sentiment.

3.6.3 Creating a demand for Waterwatch

One of the key themes to emerge from the focus groups in relation to marketing Waterwatch was the need to create a demand, and a support base, for Waterwatch. Most focus group participants felt that it was important that the demand for Waterwatch be from the ground up – that community participants are able to voice their support for Waterwatch through the regional NRM planning process. For example:

It can only be resourced if there's a push for it and its seen as a priority [by the region]... There has to be some sort of community support for it to be a priority - so the onus is on all the those people out there who want Waterwatch to continue to create that support and this program ... but it really needs to very quickly generate support.

But probably the most important demand to create is among regional NRM authorities, which must come to recognise how Waterwatch can help to fulfil

regional NRM objectives. Marketing is therefore a key challenge for national Waterwatch support in the short-term.

3.6.4 Marketing

In many of the focus groups, discussions on marketing seemed to focus down into the challenge of identifying the Waterwatch 'niche', seemingly because people did not think that Waterwatch could be all things to all people. Identifying this place for Waterwatch is, of course, very important for the long-term sustainability of regional initiatives.

Perhaps discussions moved in this direction because participants recognised that Waterwatch is one of a number of other 'environmental education' initiatives, and also just one 'tool' by which regional authorities could collect data.

The two main challenges of marketing Waterwatch to regional NRM authorities is the breadth of the initiative and the diverse experiences different players and observers have had of the initiative over the years. There are therefore two possible marketing strategies:

- To promote the breadth of Waterwatch and highlight where it might fit in various aspects of regional NRM delivery, then let regional NRM authorities select from the 'pick list' of options (i.e. reactive)
- Focus on particular niches within regional delivery and market Waterwatch to fill that niche (i.e. proactive).

Regardless of the approach, it is necessary to consider the possible niches of Waterwatch, and this might be why the discussions tended to focus on this issue.

There were several different perspectives on this issue of finding a niche for Waterwatch that were raised in the focus group sessions. There was the view that Waterwatch does not have the resources to attempt to cover everyone in the community, and should therefore be accepting of this and concentrate on what regions are currently doing well. The following two comments from focus group participants illustrate this perspective:

It would take a lot of market research to actually tailor programs to meet the needs of particular audiences and I guess I look at it from a different perspective, that Waterwatch captures a small percent of our audience - its an important thing, but we have other programs to focus on other sectors of the community, so I guess its important to remember that like anything, you can't reach everyone all of the time.

Each program has a niche that they fill and Waterwatch in terms of its education [activities], its target audience at the moment are the kids, in providing them with the knowledge that they need at that age. And then you get the catchment care programs that work with the community groups, who know a bit but more than anything they want to get in and get their hands on and get involved. You get your stormwater programs that focus on industry groups...so they're very targeted, specific programs...

But there is another marketing strategy option – essentially to ‘piggy-back’ Waterwatch on other programs, which could be achieved by focusing more on establishing partnerships at all levels (local, regional, State and national). For example, State EPA’s have various water quality and environment protection policy and they work with industry and industry groups, Waterwatch could work more closely with these types of initiatives. In previous sections of the report, the success of Waterwatch in working cooperatively with Landcare, Indigenous Ranger Groups, Greening Australia, Rivercare programs, etc. highlights the benefits to be gained, for all partners, in working closely together. The key danger in this approach is that the Waterwatch brand could be hidden or lost within the partner program brands and identities. Some focus group participants commented that the way to resolve this problem is to focus on the integrity of the overall umbrella of Waterwatch, the network, as the core element of the brand.

This would help overcome the potential problem of having to burden initiatives/programs/activities with too many brands – e.g. if a program/project had to be branded with all the partner’s logos. This sentiment was based on the cautionary note that:

No matter how good the product is, it can't carry too many brands,

Another key message to emerge from the focus group discussions about marketing the Waterwatch brand was that there has to be something in it for the people involved, and it has to be accessible:

Branding is all about the promise - what's the incentive for people to become involved in Waterwatch. We have to give them something.
And you can't make it too complicated.

But there is a significant threat to the long-term sustainability of Waterwatch if it is adopted only in part, inappropriately used, and/or the ‘intellectual property’ of the activities and methods are used without recognition. There were examples given in the focus group sessions of organisations taking Waterwatch material and running with it as an exercise or as a longer-term initiative within a research program, for example, without recognition and with no consultation with existing Waterwatch programs that might be in the area. Waterwatch coordinators and supporters do not mind if the ‘products’ and resources of Waterwatch are used widely, but they do object when existing networks of Waterwatch coordinators or volunteers are overlooked.

There were some constructive discussions about how the integrity of Waterwatch, the brand and the initiative itself, could be protected. These ranged from the less formal option of developing a ‘memorandum of understanding’ with regions and groups who wished to utilise Waterwatch ‘products’ and ‘services’ and be a part of the ‘Waterwatch network’, to a more formal approach managed through the regional NRM investment planning process:

...it seems to me you've got the basis of a contractual basis of managing the brand through the bilateral agreements and the contracts you're going to sign with all the regions, so there's a legal basis for your brand management. But like all brand management it

needs to be actively managed at all levels so I think its up to the national office to make sure all the national agencies are at least aligned with that, and probably you could even turn it around and say if you're going to go and engage in this...then they'll actually use that, so you can build the brand all the time.

Some focus group participants thought that the whole network of "State coordinators" (meaning State Waterwatch coordinators where they exist plus AG NRM Facilitators – Rivercare for each State, for example) should be the main advocates for the integrity of the national identity and brand rather than national support staff because it...

...gets us away from [the national support staff] having to be the bad guys...its actually the network that say look, we've set out a whole terms of reference and if you want to use Waterwatch this is what we'll require...its actually the State network saying this is our brand...

3.6.5 Merchandising

Waterwatch has traditionally been relatively active in the production of promotional materials such as calendars, T-shirts, hats etc. These kinds of promotional products can play an important part in building up and promoting the Waterwatch brand. Feedback was sought from focus group participants as to whether they considered merchandising to be a worthwhile pursuit. The overall impression from the ensuing discussions is that there is wide support for some carefully managed merchandising program.

The main advantage of producing branded merchandise, it was felt, was the contribution it makes to building the identity of Waterwatch. Clothing with Waterwatch brand is particularly well received by coordinators. One said:

That long sleeve Waterwatch T-shirt, that's worth a million dollars!

Others related stories about how wearing a Waterwatch shirt or jumper whilst out in the field monitoring creates interest among community members in what they are doing. Others cited cases of people 'high up in NRM positions' learning about what Waterwatch is really about by happening across people in the field, recognising them as part of Waterwatch, and talking to them about what they are doing. For example:

[I was] training a community volunteer to monitor the wetlands...and it was QA day, so...we're doing the QA sample...and these four guys arrive...our NRM facilitator and then he introduced the other guys, including [person's name] who's up there somewhere near God...and they ask 'what are you doing?', 'training' I say. 'What do you think of it?' they ask him and he just goes off about how he loves it... 'why are you here?' they ask, 'well it's QA day and we're testing the equipment', and they say 'you mean you do QA?', 'yes of course we do' I say. So we told the whole story of 150 groups sampling the same water with 3 laboratories and...he hands me his card and says 'I'll need to talk to you' ... Now that's good fortune... The point of the story is that that morning I got up and I put my Waterwatch

Australia jumper and so here we've got Waterwatch Australia saying 'caring for catchments' or whatever printed on the back and he says 'can we take a photo'... it's the power of marketing and the badging yourself with the program...its powerful.

3.6.6 Implications for national support – Marketing and Branding

Regional delivery model has potential risks for Waterwatch at the regional delivery because of the flexibility inherent in the initiative.

- o That regional programs are shaped so much at the regional level by regional authorities that they no longer appear to be 'Waterwatch'.
- o That if regions become too self-sufficient and self-reliant that they won't see the value of being part of a bigger network – Waterwatch Australia.

Both these risks have the impact of jeopardising the future of Waterwatch as a 'national initiative' because the sharing of the 'intellectual property' will not occur – it would be insular.

3.6.7 Summary – Branding & Marketing

- o There is significant support among current and former Waterwatch coordinators, hosts, proponents and community participants in Waterwatch, right across Australia, to maintain the Waterwatch name and logo.
- o Dropping the Waterwatch name and/or logo would result in significant loss of good will, identity and support for Waterwatch. Community participants are critical of governments at all levels frequently changing names of departments and programs and they do not want to see the identity of Waterwatch, built up over the last 10-12 years, lost.
- o The network of coordinators – the people who deliver Waterwatch products and services – is an important component of the identity of Waterwatch. It is important that Waterwatch is delivered at the local level by dedicated, skilled coordinators. However, these people may not necessarily be called 'Waterwatch coordinators'. This is increasingly the case under regional delivery.
- o The Waterwatch 'products and services', most of which currently carry the 'Waterwatch' brand (logo) are also key components of the identity of Waterwatch.
- o Being able to identify yourself as a part of a national initiative is a big 'selling point' for promoting participation of individuals, groups and institutions in Waterwatch.

- Because of the increasing diversity in the way in which Waterwatch is delivered currently, and could be in the future, under the regional NRM processes, it is important that the 'network of coordinators' be maintained and enhanced in order to enhance this key aspect of the identity of Waterwatch.
- There is a need to secure the brand of Waterwatch and/or the logo as a trademark.
- Associated with the identified need of protecting the Waterwatch name and logo is the need to clarify naming and branding rights and expectations.
- There is a need to develop guidelines/protocols for regional delivery of Waterwatch, outlining minimum expectations in key areas of community engagement, capacity building, data confidence, etc.
- Under regional delivery, there is an even greater need to maintain and enhance the production of Waterwatch promotional products to maintain and enhance the identity of Waterwatch.

3.7 Communications

Three key issues were raised during the focus group sessions in relation to communication:

- The need for clear articulation of the identity of Waterwatch
- Promoting the purpose of Waterwatch to regional NRM authorities, State/Territory governments and Australian Government departments.
- Network integrity – keeping the communication channels open so that all Waterwatch coordinators and their hosts/proponents, sponsors and partners feel a part of the national Waterwatch network.

Together, these three things need to be brought together to 'market' Waterwatch to current and potential partners and also to keep coordinators focussed and feeling part of a national network and initiative.

3.7.1 Articulating the Identity of Waterwatch

its an important component and the promotion that comes out of that even if we do have a different focus in each region, the identity of the program is really important

There are two key issues in relation to the need to articulate the identity of Waterwatch more clearly.

One is the need to clarify the status of Waterwatch, regionally and nationally. It seems that some people don't appreciate that Waterwatch is still a nationally supported network and is funded by the Australian Government – its just that

now that funding is channelled through different avenues. Waterwatch is still a component of the Rivercare Program. The following excerpt from a focus group discussion, about whether regional and/or State/Territory Waterwatch 'programs' have to use the Waterwatch brand, illustrates the type of confusion some people are experiencing:

Well it hasn't been really clear as to whether that's required - we've left the Waterwatch name, we haven't changed the name under this proposal, but given that there's not a Waterwatch program - well is there or isn't there? We were told there wasn't, now you say there is a Waterwatch office, but its Landcare funded? ... I got the impression from the [regional NRM authority] that they'd like to see it more integrated and it not be seen as Waterwatch but as something that compliments a whole range of things that are happening.

It seems from the comments of some focus group participants that the position of the national office on the issue of branding of regional programs is important, and that many are willing to follow their recommendations. For example, one focus group participant said that their regional NRM authority was asking...

...'what does the national office think of the Waterwatch branding, are they supportive of it?' and if I say, 'yeah, they're supportive and they want to keep it going in our region' then they say well OK then we'll fund that, we'll integrate it with other programs but we'll keep the branding'.

The second key purpose of communications initiatives required in this area is simply to let people, particularly regional NRM authorities, know that Waterwatch still exists. Focus group participants reported a number of examples, the following is just one:

the promotional thing would be good because a lot of people think that Waterwatch is dead in [our State/Territory]

3.7.2 Selling the purposes of Waterwatch

The staff that are there continue to adapt to the new environment but we still have this issue of people not understanding the good things that we do and that seems to be the barrier

As discussed, regional delivery offers many potential advantages to regional Waterwatch programs, but the transition to regional delivery has been difficult for many local Waterwatch initiatives. The primary reason for these difficulties is that Waterwatch coordinators and proponents have, to varying degrees, had trouble engaging with, and/or being 'heard', within the regional NRM investment planning processes. A key reason for this difficulty, according to focus group participants, is that regional NRM authorities do not understand how Waterwatch can help them achieve regional NRM outcomes, particularly in the key areas of community engagement and capacity building.

There is a critical need, therefore, for a set of 'case studies' to accompany a Waterwatch 'tool kit' or similar, that can be used as the basis of meaningful communications with regional authorities to sell the 'purposes' of Waterwatch.

These communication products should be designed for use by local Waterwatch coordinators and proponents in their negotiations with regional NRM authorities, potential sponsors and other partners.

3.7.3 Networking

Collectively, local and regional Waterwatch coordinators have more knowledge and experience than a 'national office' or any single 'National Waterwatch Facilitator' can ever hope to have. Facilitating communications between all members of the Waterwatch network, at all levels, is therefore a critical initiative to enhance the capacity of the Waterwatch network.

The main ways in which focus group participants thought that networking could be enhanced was through State-level networking opportunities, the national conference, web-based information and a Waterwatch newsletter.

From the focus group discussions and interviews it is clear that the national Waterwatch conferences are very well received and everyone thought that it was very important that they continue. The following quotes highlight some of the reasons why people find them so valuable:

National conferences are really important as a place where the community can come along and meet people who are like-minded.

I was at the [Waterwatch Australia] conference...and I had a much greater sense of us being a network [after that]. But things have changed in [State/Territory name], the situation has evolved and there hasn't been as much State-level interaction... I don't think it's so much of a branding issue, that's part of it, but it's a communication issue - we don't know what's going on and others don't know what's going on... [with this] a lack of structure I'm a bit afraid that without that coordination that that will break down even further, that whole support network will break down without that, and getting that message across is dependent partly on politics within your own [regional NRM authority] and who's on the board, and you have to go and argue that and that needs something driving it.

The national conferences have always been great because you...can see the program grow right across Australia ... I think they're really good - if we ever get the opportunity to go to one of those that's great because that's your connection to other States...

I thought the conference was absolutely brilliant, and that's something that functioned really well.

The other thing that was valued about the national conferences was that there was always a training component to them so people felt that they learnt something – they had "guts" and:

They were more like training workshops and that's a hard thing to achieve to make a national level conference meaningful, where people go along to learn and can pick out a workshop to go to, to actually learn something. And they used to have a mini expo too with people and companies supplying equipment there too, so they were quite technical. So that keeping everyone up to date with what equipment should be used and that sort of stuff.

In Western Australia Waterwatch staff that are employed by the department of Environment lamented the fact that the department places a limit on the number of people from the organisation that are able to attend a single conference. This limits the ability of coordinators to benefit from the national conferences.

Network meetings – at both State and national levels – were also seen as valuable.

It does make a big difference in the State, you know, that you meet each other and you hear what everyone's doing and you really feel like you're part of a team and there's probably the opportunity for that to be the same nationally. I mean we're all working pretty similarly, on the same sort of objectives, but we don't know that – they're a long way away, so in the sense of feeling you're part of a team it's really different.

it was important for us to be able to report to someone who would then interact with the other States so that each of the other States would know what was happening.

Opportunities for interaction with other coordinators, at any scale, was seen as most valuable in terms of being able to **share ideas** about how to continually refine and improve Waterwatch activities, resources and methods. There was plenty of discussion about how the network might have helped, and can still help, regional Waterwatch coordinators through the regional NRM investment planning process. Because some regions are in more advanced States, there are probably some valuable lessons that could have been learnt for other regions.

for someone like myself who's trying to work with Waterwatch and go into a new area...we'd value input and advice from other people.

There was plenty of evidence from the focus groups to suggest that coordinators, particularly at the State level, and in particular cases when information about a particular issue was required (e.g. estuarine monitoring) communications have been occurring on a casual basis in the absence of a formal network.

It was perceived that a State coordinator was not really an essential prerequisite for having a State Waterwatch network:

At our State level, they actually call it a Waterwatch Coordinator Network, so they see themselves as a network even though there's no State coordinator as such, they're a network and they have a lot of informal communication with each other, and I guess they're working on having regular regional meetings so they maintain that...

An option for States/Territories with no State coordinator would be to have a member of the State network nominated to represent that State at national network meetings. A State/Territory representative could also act as a communication channel between regional coordinators and the national office, focus group participants thought.

The potential to include people from other programs doing similar work within these networks was also raised a number of times, for example:

positions and titles change, you're no longer Waterwatch coordinators but you can still maintain the Waterwatch network, and then there might be other people that are doing similar work to you...that might be included in the Waterwatch network.

Having good communications through the Waterwatch network would also open up opportunities for implementing the following ideas that were raised in the focus group discussions:

- Inter-regional exchange programs so that coordinators could learn from other coordinators, particularly those who shared common challenges, biophysical conditions, etc.
- Bioregion-specific networks – for example a 'Top End' network that could work together to refine monitoring programs for these challenging river systems, or work on ideas for maximising opportunities to engage with indigenous communities, etc.

3.7.4 Other communications issues

Many focus group participants thought that the 'national office' could do a better job of communicating what is happening at the national level:

we don't feel like we're really informed about what's happening...what the hell is national office doing anyhow',

It was felt that a national Waterwatch 'newsletter', which may simply consist of a regular email bulletin that might include:

... a State report that individual regions can contribute information to so that it goes around to all the coordinators across Australia and...so we get a regular feel for what's going on, but in that we could have some information on 'if you've got this body in your region they might be really good for some sponsorship' or 'hey guys, did you know that there's funding rounds coming up that might be worth applying for,

Another participant in the focus groups said:

I'm really missing the...newsletters we were getting, it really let the community groups know there were groups in Tasmania and the NT doing the same sorts of things that they're doing and they'd see the photos and the stories and that really united the groups on the ground, and they are a kind of national movement. I mean this whole national focus that was really, really powerful and I really miss that,

Many focus group participants felt that it was important that there be significantly more communications throughout the network and to key agencies like the regional authorities. They were less concerned about a 'newsletter' as such; they just wanted correspondence! For example:

And if you could do nothing else but to start sending some correspondence through to the CMAs making them aware of the national program, the national identity, the national protocols and all those sorts of things that would be absolutely fantastic...

One focus group participant thought it would be useful to have a professionally prepared PowerPoint presentation that outlined Waterwatch, its values and objectives and how it can be used at a regional level. Local and regional Waterwatch coordinators could use this to get these key messages across to potential partners and sponsors.

Many of the regional Waterwatch coordinators were very appreciative of, and valued, the roles the AG Rivercare Facilitators, coming along to their meetings to inform them of national policies, progress on regional plans, etc. A tone of the focus group sessions, one participant had the following to say about the AG NRM Rivercare Facilitator – who was also a participant at the session:

It's been great because you've sort of been selling [Waterwatch] from a national perspective to our regions, saying 'hey, national office really want to keep Waterwatch going, its really high on their agenda, they want to keep the Waterwatch identity, its really high on their agenda, but you guys should continue to fund it' and that's been really valuable...

While many focus group participants said they valued the support of the AG NRM Rivercare Facilitators they, and the Facilitators themselves, did not see these federally funded roles replacing in any way the roles of a State Waterwatch coordinator (see later discussion in section 3.9.2).

Quite a few focus group participants were critical of the seemingly one-way communications between regions and the national office in the past. Focus group participants said they always fed information up to the national office, such as their reporting data, but none of this was ever collated and presented back to give them a picture of Waterwatch at the national level. Similarly, the Waterwatch Australia Database has not facilitated the sharing of data across regions and States, let alone within a region, so the potential of being able to learn about water quality and river health issues in other areas has not been realised.

... it would be really useful to know, for promotional things, [that] there's all those groups across Australia, 'wow across Australia there's X amount of people', but everyone just works in their own little region or State...

Waterwatch events are one way in which Waterwatch enhances its identity as a national initiative. However there are some communication issues that were raised in relation to events during the focus group sessions. A key concern was

the perceived lack of feedback from events, as illustrated in the following comment from a focus group participant:

There's a bit of a problem though with snapshots...in that we never actually ever hear back about how it worked, they [the national office] don't say anything, there's never any information, promotion about how it went - you know, presenting results for [our State] and comparing it to other States...even though we're all doing it, it's a national activity, we never see the results and that makes it difficult to have ownership of it...

Another participant in that session followed that comment with:

That would make it easier to get feedback to people that you've invited to take part in something - this where you're bit ended up, and then they're more keen to do something again next time.

Another common concern was that there was often insufficient lead-time given for events. Regions need a year's notice to get the events published in their calendars, where necessary, and then at least three months notice for more detailed planning.

Focus group participants also felt that they had not heard as much about events lately. But it seems that there are questions about the relevance of some national events at the State level. People said that "although we used to do them, we now find that we need to tailor them to our region". In some cases, this means not holding them at the same time as the national events due to seasonal conditions. This raises an important issue in that there may be some events that are better suited to be run as State-wide events than national events. This might mean reviewing all Waterwatch events and deciding which are better suited as national events, and which should be run at a State level only. The national office could still support the communication of the results of State-wide events, through the Waterwatch Australia web-site, for example. The other important issue raised was that there should always be some sort of product as an outcome of a national or State event that summarises the event and the results and implications. For example, the production of a calendar from the 'race around the catchment' event was seen as very worthwhile.

It was suggested at one focus group that a State/Territory 'awards' scheme for Waterwatch be instigated and that this be integrated into the various State/Territory Landcare awards that are in place.

The WASC meetings in Canberra were mentioned by some focus group participants as a great way to keep informed with what is happening around Australia and to share ideas.

I found the meetings...in Canberra really good. We kind of plugged along for a long time up here on our own, but once I got to meet everyone and see how the different programs ran, it was very inspirational...I think that connection has been lost with the [State/Territory name].

The national Waterwatch calendars were perceived to be of value by most focus group participants. They were seen as a simple but effective communications and promotional item.

There were some constructive comments too about the general approach to printing Waterwatch products, such as:

From my point of view, if you were going to do brochures and things like that, it would be simply a statement about what the network is all about and then who to contact in the State or [region] rather than trying to present detailed information about how you do Waterwatch or form a group. You know, those sorts of things haven't been very useful to us, in fact we've adapted them. The template is OK, but don't go to the expense of printing them all colour...

Communicating the outcomes of monitoring programs – i.e. the results, trends etc. to a boarder audience would enhance community perceptions of the program and their understanding of river health issues.

One focus group participant suggested that each region should prepare a short video presentation of one of their methods/activities to facilitate the sharing of ideas outside other networking activities.

Many focus group participants nominated the 'case study' booklets the national office used to compile as being very valuable "for showing everyone in the program what can be done".

The Waterwatch Australia web-site was seen as a key communications resource, although some focus group participants commented that it had not been kept sufficiently up to date.

The national Waterwatch web-site, to me that's always been a key resource and I think we really need to use it...

Resolving the scale at which various communications are best achieved will have to be the subject of a communications strategy. One of the key things that a communications strategy will have to do is to resolve the most appropriate access points into the network for different audiences.

There were examples within the focus group discussions of local-scale coordinators confusing national and State roles and responsibilities. Defining clearer roles and responsibilities between State- and national-level support, particularly in relation to communications, would be useful for clearing up these apparent misconceptions. The shift to regional delivery and the recommendations emerging from this gap/needs analysis present a good opportunity to re-define roles and responsibilities in relation to support at national, State and regional levels (see Chapter 4).

3.7.5 Implications for national support – Communications

Communications is probably the most critical area for the future of Waterwatch because Waterwatch is such a broad, multi-faceted initiative that means different things to different people. There are so many opportunities for Waterwatch and

it seems often the only thing holding it back is its ability to communicate effectively – knowing what to communicate, when and to whom.

The real strength of Waterwatch is the collective wisdom of the network of coordinators, proponents and participants. If Waterwatch is to continue to evolve and adapt (and therefore become stronger and more relevant), communications between network members is critical.

While national-level support can only ever provide a part of the overall communications, it is vital to have national coordination and facilitation. At a national scale, communications can be facilitated through the Waterwatch web site, for example.

The other key implication for national support, particularly in the context of regional delivery, is the need to provide high-level support for regional Waterwatch coordinators for the inclusion of Waterwatch in regional NRM investment strategies, principally through liaison with the AG NRM Facilitator network and the Joint NRM Team.

3.7.6 Summary – Communications

- Effectively communicating the identity and purpose of Waterwatch is essential to maximise the opportunities for community water monitoring within regional NRM delivery.
- There is a need for key communication products such as ‘case studies’ to illustrate the purpose of Waterwatch, and a ‘Powerpoint presentation template, for example, to enable local coordinators and proponents to communicate the purpose and potential of Waterwatch, particularly to sponsors and regional NRM authorities.
- Ensuring the integrity of the network of ‘Waterwatch’ coordinators and participants is essential for the long-term sustainability of Waterwatch, and is dependent on promoting the network and facilitating communications between members of the network.
- A national communication network, facilitated by a national web-site and a Newsletter is required to facilitate communications among the network.
- National conferences are seen as invaluable by Waterwatch coordinators, participants and supporters for sharing ideas, enhancing knowledge, networking and building a sense of belonging to a national initiative.
- There is a need for a National Waterwatch Network Facilitator and national-level support to drive these key communication initiatives

3.8 Monitoring and Evaluating Waterwatch Delivery

Waterwatch has not, in the past, been very good at monitoring the impact that it has had. The only extensive monitoring that has been done is very coarse quantitative data on numbers of participants, monitoring sites and groups involved. This gives a good picture of the size and scope of the old Waterwatch Program, but there has not been sufficient emphasis on measuring outcomes, particularly in terms of attitudinal and behavioural change.

Under the old Waterwatch Program (i.e. NHT1) the benefits of Waterwatch in terms of achieving outcomes such as behavioural and attitudinal change, increased knowledge, understanding and awareness and greater participation in NRM processes were assumed to occur by participating in the program. Therefore, emphasis was placed on measuring participation rates and the number of groups and sites involved.

One of the biggest implications of the changes to NHT2 and regional delivery is that investors will be looking more analytically at the outcomes of NRM initiatives, so that the effectiveness of the investment can be assessed. At the regional level this will be particularly important – initiatives that are not achieving outcomes will come under pressure from competing initiatives that may be more effective in delivering outcomes.

It is therefore increasingly important that Waterwatch is able to assess the benefits of its activities and investments in terms of achieving its outcomes and the desired outcomes of regional NRM authorities. There appears to be a big strategic gap here in that regional boards will increasingly want to be able to assess 'bang for bucks' invested in Waterwatch against other regional programs, but current Waterwatch coordinators don't always acknowledge or recognise this. Others do recognise this need, and the complexity of it, and are looking for some guidance about how to monitor and evaluate the impact of Waterwatch, for example:

I think we've probably got one of the hardest jobs because one of our main things is to change behaviour and everybody's challenge is how you measure behavioural change and I mean its been lucky for us that we haven't had to demonstrate that for us to get our funding but its obviously something that people who give groups money would like measured, and I'd like to see someone come up with a way of doing it successfully.

While most focus group participants acknowledged the need to fit Waterwatch in to the regional delivery framework and objectives, there were a number that were probably more inclined to think that the reputation of Waterwatch would be sufficient to ensure its long-term inclusion in regional investment plans. For example:

You need to provide a link direct to the key outcomes the CMA is trying to achieve...[name of participant] is spot on that if you can take the board members down to see community group members, everyone feels good and the [regional NRM authority] will go back and say well that's good...but its still a hard objective [achieving

behavioural and attitudinal change] to deliver. And, things will be different in each [region]...

In the focus group sessions where more time was spent discussing monitoring and evaluation, there were some very interesting discussions that demonstrated that some people have been thinking about this issue for some time. The following selection of comments present some of these ideas, and highlight the fact that measuring the impact of Waterwatch is very complex.

Its hard to pinpoint the actual cause of the change too, I mean it could be WaterCare or other things that are raising their awareness other than just Waterwatch.

I think that's a question for our niche - how do you measure it - what have we done in 10 years, we can't say we've changed the behaviour of this many people, or we've improved the water quality this much, but we've educated people so I guess we can only count by numbers can't we, who we've...

We don't specifically set out in one education session to a community group or a school to change their behaviour because we know you can't do it in one - you build on your knowledge and at some point that may or may not result in behavioural change, but its one of the reasons that when we did our linking of education sessions to the [State curriculum framework] was that we didn't put outcomes in our linking because we knew that in one session you can't get an outcome - it's a package of things that come together

How much change is good enough, that's is the other thing. So you change the behaviour of 10 people in 200, is that enough to justify your program?

... often what we do is so - I was going to use the word internal - but its so focussed on a specific group of people - I guess its just how you feel some days, its great and everything going gangbusters inside the program, but what about the general community because suddenly with one WaterCare ad, suddenly the whole community knows about the dancing singing frog and WaterCare its in your hands, but no-one really knows about Waterwatch...

In one session, ideas for undertaking pre- and post-intervention studies of attitudes and knowledge were discussed. This, it was thought, would help overcome the difficulty of measuring impact when it is not always possible to gauge the level of knowledge of participants before they start Waterwatch.

The following comments illustrate the range of ideas focus group participants had about identifying indicators for monitoring and evaluating the delivery of Waterwatch:

The funding partners of Waterwatch are often quite long term and continue to support it, and that's a good indicator.

Depends on the way you're looking at it but perhaps instead of looking at all the positive things that come out of it, look at a reduction in the negatives that are happening out there in the community...

I was thinking our key is building capacity and it would be interesting if all the staff were to disappear, just to see how many of our groups would continue, or what resources we've put in place that would sustain their involvement, so I think that's a good way of assessing the impact that Waterwatch has had - I don't know how you do that...but I mean we know that a lot of our groups don't actually need our support anymore, they're self-sustaining groups that are doing it themselves...which I think is great

Measuring the impact of Waterwatch in people's career choices was another idea commonly raised when discussing ways to measure the impact of Waterwatch.

There is evidence that coordinators, proponents and regional authorities are looking for assistance to develop workable monitoring and evaluation frameworks and methods. Some are looking to for support from the national level in this regard.

I see [monitoring & evaluation] as something that the national office, or the State office...that's something for them to look at that, and if we're at that point now where we're re-hashing the program and looking at its future direction, why not start now and put in place some monitoring programs...

3.8.1 Implications for national support – Monitoring & Evaluation of Waterwatch

If Waterwatch is to effectively market itself as a capacity building initiative, it will need to be able to demonstrate that participants, and partner groups and institutions, have enhanced their capacity to respond to regional NRM challenges by participating in Waterwatch. This means that the national support team, in consultation with other officers within the Joint NRM Team's Capacity Building Section, will need to develop a monitoring and evaluation framework for Waterwatch that tracks key dimensions of 'capacity'. The mechanism for collecting data against this framework will have to be decided once the dimensions are established. However, this is likely that the national (web-based) register of groups and sites and people accredited to deliver Waterwatch products and services, would be the main data collection method.

There are also opportunities for all regions to benefit from the decade or more of experience of Waterwatch coordinators in engaging communities in NRM initiatives and building their capacity to participate in NRM processes. This experience could be valuable to regions in their quest to develop the capacity building components of their regional NRM plans and investment strategies. However, this experience needs to be documented so that it can be used, and a monitoring and evaluation framework provides a good means of documenting this experience.

Another issue for national support is the extent to which the Australian Government wants to be able to track the performance of Waterwatch within each of the NHT/NAP regions, so as to keep a 'watching brief' and/or to enable strategic interventions if warranted and/or requested. This may be able to be facilitated by developing a 'register' of Waterwatch practitioners/coordinators – whether or not they are 'badged' Waterwatch coordinators.

3.8.2 Summary – Monitoring & Evaluation of Waterwatch

- Under the old Waterwatch Program, monitoring was limited to measures of activity (or the size and scope of the program). Under NHT2/NAP and regional delivery, there is an increasing focus on assessing outcomes. This makes monitoring and evaluation more complex for initiatives like Waterwatch because measuring changes in 'community capacity' and behaviour is difficult.
- Increasingly, regional NRM authorities will need to be able to assess the impact of Waterwatch-type initiatives to assess the impact of such activities on NRM outcomes, including capacity building.
- There may be a need for national support in assisting regional Waterwatch initiatives to develop monitoring and evaluation frameworks so that they can demonstrate their impact to regional NRM authorities.
- There is a need to develop a new monitoring, evaluation and reporting framework that reflects the new NRM structure under NHT/NAP.

3.9 Coordination and Support

There was no clear distinction made in the focus group discussions about the most appropriate roles and responsibilities for State and national coordination and support. However, there was a clearer articulation of the types of support needed. In other words, focus group participants know what they need in terms of support and coordination, but are not so sure as to the most appropriate level for the provision of these roles and responsibilities. The reason for this apparent 'confusion' seems not to be the result of people having different opinions about who should provide support and coordination – it is more a case of people not really knowing in their own minds how these services are best delivered.

Probably the main reason for this perplexity is the ever-present 'problem' of diversity within Waterwatch across Australia and within States/Territories.

Another reason why people might be uncertain about where support and coordination is best provided is that the disruption to the 'traditional' hierarchy of the Waterwatch structure, under the extension of NHT. The middle (State/Territory) 'tier' of support and coordination has been lost, at least in some

States/Territories, mainly because federal funding is now not available to fund Waterwatch coordinators at the State level⁶.

The following comments from a focus group participant illustrate some of this uncertainty about support roles:

Previously when we got funding NHT1 there was an obligation as part of getting that funding, you had to follow the national and State strategic directions and had to set up a regional steering committee and those obligations aren't there any more and so each region does what's appropriate for them. And at the State level well because the regions are no longer getting State dollars, State support, there's no strategic plan as such - we still refer to the old one - and there's no State steering committee. But I guess if there's a focus on the regions it throws into question well do we need State support, do we need national support, and if we do what sort of support...

Because there were no clear messages about distinct roles and responsibilities for support and coordination at the State/Territory and national levels, this section of the report presents a discussion of the types of support that people felt they needed. These are then discussed at the 'State/Territory' and 'national' levels.

The types of areas in which focus group participants thought support and coordination were required include:

- Maintaining the identity and integrity of Waterwatch as a national initiative.
- Facilitating communications between members of the Waterwatch network, including between proponents, sponsors and partners of Waterwatch.
- Training, mentoring and induction.
- Coordination of events.
- Coordination and management of QA/QC systems including the development of methods and protocols, technical advice, provision of mystery samples, equipment calibration and testing, etc.
- Data management, including support in relation to the development and use of databases etc.
- Advice and support in relation to monitoring and evaluation of Waterwatch initiatives.
- The continual development and refinement of methods, activities and resources.
- The establishment and maintenance of strategic partnerships, particularly in relation to sponsorship and negotiations around regional NRM investment.

The degree to which it is appropriate to provide support and coordination at the State/Territory and/or national level for these areas is now discussed by

⁶ Under the extension of NHT and NAP, If state/territory-level Waterwatch support is provided, it has to be funded by the respective State/Territory government, and some have chosen not to fund Waterwatch in this way.

presenting some of the discussions that emerged after asking focus group participants what was required at the different levels.

3.9.1 State Support/Coordination

The State-level coordination and support has probably been the biggest 'losers' in the shift to regional delivery under NHT2. Now, more than ever before, the degree of State coordination and support is directly proportional to the willingness of each State/Territory to fund such support, because federal funding is no longer allocated to State Waterwatch support⁷.

State-level support/coordination is currently provided in the ACT, Victoria and Western Australia. In South Australia an EPA community monitoring scientific officer provides technical support. In Queensland the Department of Natural Resources, Mines and Energy contributes half of the resources for a community-monitoring technical support position under a NAP State Investment Project (federal resources fund the other half of this position, and the position has its focus across QLD NAP regions). In Tasmania, the Department of Primary Industries Water and Environment fund a 'Coordinator, Community Engagement' officer, who spends half their time providing support to Waterwatch, mainly coordinating training. In NSW the State-funded 'NSW NRM Water Facilitator' is providing coordination and support roles, at least presently, while the Waterwatch network in that State resolves a method of providing State-wide coordination and support. The NT is currently receiving federal support through interim funding to re-establish a Territory-wide Waterwatch network.

The lack of State support in many States since the introduction of NHT2 has had different impacts in different regions. In some regions it has 'forced' regional coordinators to become even more resourceful – they have been able, through partnerships, to develop new resources and even secure funding from other sponsors. In many cases, such as South Australia, regional coordinators are taking the lead by instigating inter-regional communications etc. And, there was some evidence of Waterwatch coordinators and other Waterwatch partners starting to think differently about how the roles that were carried out by the State/Territory support teams could be provided under the new arrangements. For example:

I noticed in the discussion about State roles...if there was a State office they could take on those roles, but even if you combined the Waterwatch groups or each program chucked in \$1000 or whatever it was, and you get a marketing person in, they do your marketing plan for the next 3 years and say right, these are the events, they work with you...it doesn't necessarily have to be something handled by the national or State office - you can take as much as you want in-house, assuming you've got the time and money - so there are options out there.

And:

⁷ There is currently some interim federal funding provided to provide support and coordination at state/territory levels and regional levels where there were identified gaps in funding security.

We're getting to the stage where our regions have got more money than we have so we're telling them that they need to be the ones developing tools. I've had regions say 'your not developing as many tools as you used to' and its like well 'you guys have got the capability, so we're giving you the framework, strategic advice on that, but really you're at the stage where you've got the money, so we'll connect you in with consultants, with the expertise to do it yourself and you've got the money to be able to pay for it

So, for some things, there are ways the gaps in State support can be filled by enhancing coordination and cooperation between regions. This is obviously dependent on having good communication mechanisms between regional Waterwatch programs, which again is not necessarily dependent on a State-level 'coordinator' although may be best served under that model. However, there were some areas where focus group participants were more certain that they needed support at the State level.

Probably the key area where there was significant interest in State support was in data confidence, QA/QC and the general area of technical support needed for designing monitoring programs.

It is a big issue. Before Waterwatch was housed by [State department] and so all those resources were theoretically available, the lab and all that...

In the area of the technical support required to design monitoring programs, the following excerpt from a discussion that followed the comment made above highlights the nature of the support required (person A is a Waterwatch coordinator, person B is a State Agency Water Scientist):

Person A: It's more advice than direction...

Person B: You've got potentially far more resources than I have...

Person A: But not the expertise...

Person B: But the expertise really, an hour here and an hour there, I can't see it being a huge demand on us, its just setting things in the right direction

In terms of other technical support, managing the implementation of QA/QC systems is seen as an area in which some dedicated State-level support is required. This might include managing mystery samples, calibrating equipment, etc. This kind of support may not necessarily be best funded and/or provided by State/Territory government – it could be provided through as sponsorship deal with private laboratories/consultants. However, there would be distinct advantages if State agencies did provide this support, because it would:

- Provide opportunities to integrate State/Territory 'official' data with community-collected data (i.e. for Waterwatch data to be seen as complementary to other forms of data).

- Enhance the understanding of Waterwatch data by State agencies.
- Increase the status of Waterwatch, therefore providing a 'reward' (i.e. recognition) for volunteers.
- Facilitate the integration of Waterwatch data and 'State' data within State-level databases.

In relation to the last dot point, there were many comments made about the possibility of Waterwatch data being up-loaded into State/Territory-wide information systems – in a similar way to Victoria, where Waterwatch data of a known quality is included on the State Data Warehouse.

Another key area of support that was perceived to be required at a State level was in facilitating communications between network members. For example:

The only way we're going to know what's happening at the local and regional level is if there's a good understanding at the State level and that the State is communicating with the national office

This role would not necessarily have to be performed by a State/Territory agency employee, but it would have some advantages particularly in relation to the next key area of perceived need: building partnerships. As discussed in previous sections of this chapter, building effective partnerships is dependent on all players having a good understanding of Waterwatch and what it can do. Having people, at various scales, who can act as advocates and have this understanding will help sustain Waterwatch into the future.

And we've already seen that like in some regions Waterwatch was prioritised really really high and then it went to the State assessment panel it was just taken off the priority list, so we really need someone in there at the State and national levels, for that advocacy...so I think you need that [support] at regional, State and national levels if you can get it.

The degree to which the States can influence the incorporation of Waterwatch into regional delivery has been severely restricted by some key gaps in the current structures. Only in Victoria does a State-level Waterwatch 'coordinator' have the opportunity to comment on regional investment plans, and the degree to which Waterwatch is included in those plans, because of the location of that State's 'Waterwatch coordinator' within the appropriate Section of the appropriate Department of the Victorian Government. This is significant because in the other States, even where there is some State-level coordination, there is not the capacity to foresee changes in the delivery of Waterwatch in the regions – it's a classic case of 'not knowing what you don't know'.

Training and induction were areas of support that were most commonly perceived as best being undertaken at the State-level. Again, there is no particular reason why this support has to be provided by State agencies, although there might be value added by doing so. There is a precedent for regional Waterwatch programs to deliver training and support to other regions. For many years, Goulburn-Broken Waterwatch in Victoria has run the National Waterwatch Database 'Help Desk' and have delivered various training sessions to other States through Australian Government funding. Some have found this

arrangement to work well, especially the sharing of ideas that occurs when people from other States come to deliver training. However it is important that the people involved in providing such training and support are relatively constant so that there is some consistency in the provision of this service.

3.9.2 National coordination/support

While the Australian Government is very supportive of Waterwatch and would like all regions to adopt it, there is currently no compulsion on NRM Regions to adopt Waterwatch. This means that, as discussed in section 3.6.3, the Australian Government, through the national Waterwatch support staff, and supporters of the initiative generally, have to do all they can to create a demand for Waterwatch.

Currently, national Waterwatch support is provided by two people within the Capacity Building section of the Joint NRM Team in Canberra. This team has a small operating budget, and limited capacity in terms of current staff levels. The current resource levels have not been considered as limiting factors in this needs/gap analysis.

The main themes emerging from the focus group discussions in relation to the kinds of support required at the national level were:

- Securing funding for regional programs, so as to ensure continuity. This will mainly involve ensuring that Waterwatch is included in regional investment planning processes.
- Establishing/maintaining the identity of Waterwatch and marketing Waterwatch in a way that ensures its integrity and continuity.
- Facilitating communications to maintain network integrity.
- Assisting in the establishment and enhancement of partnerships.
- Technical support and training.

Focus group participants raised many issues in relation to securing funding for regional Waterwatch, most of which have been already outlined in previous sections of this chapter. These points are summarised again here, and some more specific comments about how the process of securing Waterwatch within regional NRM investment planning might be supported by the national office.

One of the key issues to emerge from the previous discussions was that securing Waterwatch in each of the 57 NRM regions needs to be undertaken very much on a 'horses for courses' basis: within some States/Territories there will be a good deal of support for some involvement of Australian Government representatives in regional investment processes. It was widely felt that where the State/Territory government and the regions were conducive, it would be beneficial to have one-to-one contact with a representative of the national Waterwatch support team. Other regions and States/Territories are not supportive of such involvement. National Waterwatch support is currently not sufficiently resourced to undertake regional consultations across the board in any case. However, the Australian Government NRM Facilitator network provides an ideal medium through which messages about the inclusion of Waterwatch in

regional NRM delivery can be facilitated. The current arrangements in this regard appear to be working well, with all the AG NRM Rivercare Facilitators that participated in this needs/gap analysis being very aware of the value of Waterwatch and each working hard to secure its future.

Several focus group participants suggested that the National Waterwatch Office should utilise the process of the Australian Government approval of regional NRM investment plans as a vehicle for ensuring Waterwatch continues in the regions. This is possible through 'schedules'. There would need to be mechanisms in place at the national scale to review regional plans to ensure the inclusion of Waterwatch, and the AG NRM facilitators may be able to play a role in this process.

The Waterwatch technical manuals are widely perceived as a valuable resource. Apart from some 'sniggering' about delays in getting the manuals finished off, focus group participants thought that even though they were not always specific enough for their particular regions, they were definitely required. The technical manuals have contributed to many resources at the State/Territory and regional level, for example:

The scientific component of the education kit is basically straight from the information provided by the national office - info on methods, calibration, etc. that's very much 'there you go, thanks very much Commonwealth',

In terms of selecting and purchasing equipment, people thought that scientists should be involved in the selection of appropriate equipment to suit the planned monitoring program, and that this would be best done at a State or regional level. However, some thought there might be scope for the national office to negotiate cost savings for the whole Waterwatch network with equipment manufacturers/companies.

Another key issue in relation to technical support that was raised in the focus groups relates to the Waterwatch Australia Database. Table 5 summarises the proportion of Waterwatch coordinators using different data management tools for each State/Territory. Over half of the respondents said they were currently using the Waterwatch Australia Database (WADM).

As illustrated in the following collection of issues that were mentioned in relation to the database, it was commonly perceived that the WADM is lacking in key areas including: the range of parameters included (lack of contextual data, macro's etc.); the ability to merge databases; limitations in reporting and interpreting; problems of compatibility with some operating systems.

Database needs to be a bit more contextual

It doesn't have any of the macro's on it

We're extending our monitoring, so we're doing water quality and macro's and a whole lot of other things and we're using a standard form across the [region] and a lot of the things on that form aren't in the database.

It would be nice to have extra fields because then you can do some comparisons...

These issues are probably impacting on the level of use of the database, but probably of more concern is the apparent under-utilisation of Waterwatch data at the State level, which is partly a function of the limited capacity of the database to manage data from various regions. The following comments illustrate these limitations and their impact on the use of the database:

I only use it, other than sending off to the national thing, I only use it to print off the sites data ...I just use an excel spreadsheet

We don't have a State-wide database...we just have the regional sets, and then if we ever needed to we just take the information off each regional database...the only real need we've have to do that so far is to send the stats off to Canberra...people in the regions use it for their own purposes.

Most of the comments from focus group participants about why they continued to use WADM related to the lack of an alternative database, and the costs associated with developing an alternative. For example:

We have thought about a State wide database in the past but it would cost a lot of money that we just don't have, that's why if the national database was not to exist we'd have a real problem...we don't have anyone with the skills to develop one.

There was support for the re-development or refinement of WADM because it was generally agreed that it is more efficient (in terms of resource use) to develop a database that everyone can use, and secondly because not everyone will have the skills and resources to develop their own database and that there needs to be a 'fall-back' position for such regions.

The whole area of data management needs to be reviewed in the context of some of the outcomes of this gap/needs analysis. The implications of regional delivery are far-reaching in terms of data management: each NRM region will be reviewing their data management systems as they develop their monitoring and evaluation frameworks and work plans. This presents an excellent opportunity for regions to incorporate Waterwatch data into their data management tools. The extent to which there should be national consistency in data management will depend on the degree of consistency at the regional level. It may be more strategically important for Waterwatch to maximise its chances of being included in regional and State level data management systems than to expend resources on a database that is consistent at the national level. A national database may also limit opportunities to fine-tune data management needs for local contexts.

Table 5: Use of Waterwatch Australia Database (WADM) by State/Territory

State	WADM	SPREAD -SHEET	LOCAL Data- base	LOCAL Data- base GIS	STATE Data- base	STATE GIS	OTHER	Total
ACT	14%	86%	0%	0%	0%	0%	0%	100%
NSW	21%	7%	7%	0%	14%	21%	29%	100%
NT	67%	0%	33%	0%	0%	0%	0%	100%
QLD	57%	29%	0%	14%	0%	0%	0%	100%
SA	100%	0%	0%	0%	0%	0%	0%	100%
Tas	89%	0%	0%	0%	0%	0%	11%	100%
Vic	62%	0%	8%	0%	31%	0%	0%	100%
WA	83%	0%	0%	0%	0%	0%	17%	100%
Grand Total	56%	14%	5%	2%	11%	5%	11%	100%

Some focus group participants thought that national office could develop new innovations for Waterwatch delivery:

we talked about having our own State events under new initiatives, so maybe that's something the national body could do, is come up with innovations for linking or bringing on greater education/awareness because we do do the same things over and over again.

However, as previously discussed, the collective knowledge and experience of the Waterwatch network is probably a better source of innovation than a national office. It is more appropriate for a national office to facilitate the development of innovations through enhancing communications and providing opportunities for people to get together to identify areas of need, etc.

This raises again the critical issue of support and coordination in terms of 'communications'. As discussed in section 3.7, this is probably one of the most important issues for the national office. The types of communications that are required was discussed in some detail in section 3.7, so it will not be repeated here. The key areas in relation to communication at the national scale are:

- Facilitating communications across the Waterwatch Australia Network.
- Promoting and facilitating national events.
- Facilitating communications between the national Waterwatch Network and the AG NRM Facilitator Network.
- Establishing and enhancing partnerships at the national level.

3.9.3 Implications for national support – Coordination & Support

The traditional support model of Waterwatch as been drastically modified under the regional delivery model. In States/Territories where there is significant support for Waterwatch, and a willingness to continue to fund State-level coordination and support, there will be the capacity to continue along similar

lines as the traditional model. However, given the diversity of State-level support for Waterwatch, an alternative model is required.

Regional delivery has already had an impact in making regional Waterwatch coordinators and proponents think 'outside the square' about alternative models of doing business. This experience, and the experience gained through some of the initiatives that were successful under the NHT1 structure, has been valuable in pointing towards methods for providing support at different levels for Waterwatch that are more achievable under current funding arrangements. The options, as outlined in the next chapter, are derived from a focus on outcomes and are more flexible in terms of who and how they are delivered.

3.9.4 Summary – Coordination & Support

- State/Territory-level support is variable across Australia – some States/Territories have a high level of State support, others have very little, depending upon the degree to which the State/Territory is prepared to invest in 'Waterwatch-type' programs. This is the outcome of changes to federal funding of coordinators under NHT2/NAP and has implications for what can be reasonably expected from State-level support.
- There are some key areas in which support is universally perceived as necessary, such as: facilitating communication across the network of 'Waterwatch' coordinators to ensure network integrity and identity; training, mentoring and induction; development of overarching technical manuals, methods and protocols; guidance on data confidence (QA/QC) systems; coordination of events; support in negotiations about the inclusion of community monitoring as a community engagement and capacity building component of regional investment plans.
- Focus group participants had varying perceptions about the 'best' level (State or federal) at which various types of support should be provided.
- It would be appropriate for QA/QC and data management support to be provided at a State/Territory level because this would facilitate the integration of community-collected data (to known standards) with other NRM data, therefore facilitating wider data use.
- There is significant scope to 'outsource' some support roles, particularly in the areas of training, to the Waterwatch network, or beyond (private or public sector).
- Data management support (WADM database development/enhancement and data management tools) is required at a national level as a back-up for regions/States that do not have their own data management systems for community-based monitoring programs. However, the development of data management tools can be outsourced (to the Waterwatch network and/or the private and public sector).

- Support for the development of technical manuals and other resources (e.g. tool-kit, case-studies) etc. should be provided at a national level. However, all such products should be developed in consultation with regional Waterwatch programs to ensure they are flexible enough to be relevant at the local scale.
- Because of the variability in State-level support, there is a need for network support (communication) to be provided at a national level. The success of this approach will depend on making strategic investments in a national web-site, a 'national network facilitator' position and a 'registration system' to manage network membership.
- Under regional NRM delivery, it is appropriate that support for securing resources for regional Waterwatch within regional plans be provided at a national level. The AG NRM Facilitator network and national Waterwatch support staff would play key roles in this regard. Methods of providing support relating to securing resources within regional NRM plans would be variable depending upon the context and be demand-driven, not imposed.

3.10 Summary – Gaps and Needs for Waterwatch in 2004

Table 6 ranks the top ten 'themes' from the focus group discussions, based on an analysis of over 950 records (each record is one participant's contribution to the discussion and vary from one sentence to many sentences). This table provides a summary of the overall 'picture' of Waterwatch and the issues it is facing currently. Regional delivery is clearly (currently) a challenge for Waterwatch, and this has resulted in significant 'navel gazing' about the purpose of Waterwatch. In turn, attention has been drawn to how Waterwatch needs to market itself so that regional NRM authorities see a need for it, therefore increasing the chances that Waterwatch will be funded in the regions in the future. State/Territory- and national-level support were close in terms of the proportion of the discussion spent on these issues. This supports the earlier observation that people are perhaps struggling with what needs to be done at each level. They know what support and coordination they would like, but not necessarily who should do it, or at what level. This 'confusion' or uncertainty is partly due to one of the early impacts of regional delivery – people have been 'thrown in the deep end' and have already had to adapt and develop some new and innovative ways to securing the funding and resources required to deliver community-based water monitoring programs. This has opened their eyes to other possibilities for support. The last of the 'big' items is the branding issue, which is intimately related to the marketing and purpose of Waterwatch. In this case, the branding theme relates more to discussions about the integrity of the Waterwatch 'brand' and how this can be assured in the future.

Monitoring and Evaluation of Waterwatch delivery did not occupy as much of the discussions as it probably should have. This is probably a reflection of the stage that regional Waterwatch coordinators are at in terms of dealing with the shift to

regional delivery: they are very much dealing with the immediate issues of concern – getting Waterwatch into the regional investment plans. Monitoring and evaluation will, most likely, come to the fore in the near future as people associated with Waterwatch start thinking about how they can demonstrate effectiveness and impact and therefore justify why they should be included in future rounds of the regional NRM investment process.

The communications theme is really a sub-set of many other themes (particularly national and State support and marketing) so the figure quoted in Table 6 is a bit misleading in terms of importance.

That the theme 'Opportunities for community engagement' occupied only a small proportion of the focus group discussions suggests that the Waterwatch initiative is mature and has developed over the years a wide range of activities and methods to engage communities in water monitoring and river health issues. This is not to suggest there are not other opportunities – indeed many were suggested. The area of greatest potential is by working more in partnership with other programs, such as indigenous ranger groups.

Table 6: Ranking of Top Ten Themes within Focus Group Transcripts

Theme (Primary)	Proportion of Discussion (top 10 themes only)
Regional Delivery	21.6%
Purpose of Waterwatch	19.1%
Marketing	14.1%
State Support	12.2%
National Support	11.1%
Branding	10.3%
Monitoring & Evaluation of Waterwatch	4.3%
Communications	3.8%
Opportunities for engaging community	3.4%
TOTAL	100.0%

Regional delivery has the potential to see Waterwatch play a much bigger role in natural resource management in the future, particularly in regional capacity building. There are more opportunities to develop partnerships and therefore wider ownership of Waterwatch at the local and regional scale under the regional delivery model. And, the problem of short-term funding cycles under NHT1 contributing to a lack of security of tenure for Waterwatch coordinators has the potential to be resolved through regional delivery because of the longer funding cycles.

4 FUTURE OPTIONS FOR WATERWATCH DELIVERY

4.1 Introduction

Under NHT1 (Figure 1), Waterwatch operated quite independently of other programs from an administrative perspective. Integration of Waterwatch with other programs occurred to some degree at the State level, but mainly at the regional and local (on-ground) level, through the development of partnerships. Whilst there was significant integration in places and at times, the success of this integration was very dependent on the capacity and interests of coordinators and managers within partner agencies. Also under NHT1, the people associated with Waterwatch – the coordinators, proponents and local steering committees – shaped, to a large degree, the character and focus of local Waterwatch programs.

With the introduction of NHT2 and regional delivery (see Figure 2), significant changes have taken place in the Waterwatch structure. This has had particular and more immediate impacts at national and State levels (not in all States/Territories), but at the regional level there is much insecurity, particularly during the interim period while regional investment strategies are being prepared. The delivery of Waterwatch at the regional level is proceeding in most regions, but essentially under the same model as under NHT1 – in that there is a focus on employing 'Waterwatch coordinators'. The implementation of the regional delivery model is creating some uncertainty at the regional level about the level and security of funding so regional authorities are reluctant to commit to programs that 'require' them to employ people, especially where the benefits of the investment are not clearly identifiable or quantifiable.

While Waterwatch does have a 'feel-good' quality about it, it is much more than that: Waterwatch is a worthwhile community-based monitoring initiative that has significant potential to meet regional NRM authorities' community engagement and capacity building needs. The sustainability of Waterwatch-type initiatives under regional delivery is dependent upon remodelling the Waterwatch network and support mechanisms. This Gap/Needs Analysis has identified the key areas that need to be addressed under any 'new' Waterwatch model.

In the context of national initiatives in relation to water reform, the recent extended periods of drought and the general increase in community-awareness of the environmental, economic and social importance of water, the time is now 'right' for Waterwatch to be a key tool for engaging the community and building community capacity for NRM.

This Gap/Needs Analysis has highlighted that regional delivery is (currently) a challenge for Waterwatch, particularly in terms of identifying a purpose for Waterwatch in regional NRM delivery. Attention has been drawn to how Waterwatch needs to market itself so that regional NRM authorities see a need

for it, therefore increasing the chances that Waterwatch will be funded in the regions in the future.

People associated with Waterwatch are also reconsidering the need for, and appropriate structure to facilitate, State- and national-level support. Participants in this Gap/Needs Analysis know what support and coordination they would like, but not necessarily who should provide it, or at what level. This uncertainty is partly due to the timing of this Gap/Needs Analysis in relation to the timing of the development of regional NRM strategies. Many focus group participants had been ‘thrown in the deep end’ and have already had to adapt and develop some innovative ways to securing the funding and resources required to deliver community-based water monitoring programs. This has opened their eyes to other possibilities for support.

Another key theme to emerge from the consultation process of this Gap/Needs Analysis is the branding issue, which is intimately related to the marketing and purpose of Waterwatch. It is important that the quality and integrity of Waterwatch products and services are assured in the long-term, so measures must be introduced to safeguard Waterwatch from the potential fragmentation that regional delivery could cause.

Regional delivery has the potential to see Waterwatch play a much bigger role in natural resource management in the future, particularly in regional capacity building and community engagement. There are more opportunities to develop partnerships and therefore wider ownership of Waterwatch at the local and regional scale under the regional delivery model. Significantly, the problem of short-term funding cycles under NHT1 contributing to a lack of security of tenure for Waterwatch coordinators has the potential to be resolved through regional delivery because of the longer funding cycles.

Figure 1: Simplified Structure of Waterwatch under NHT1

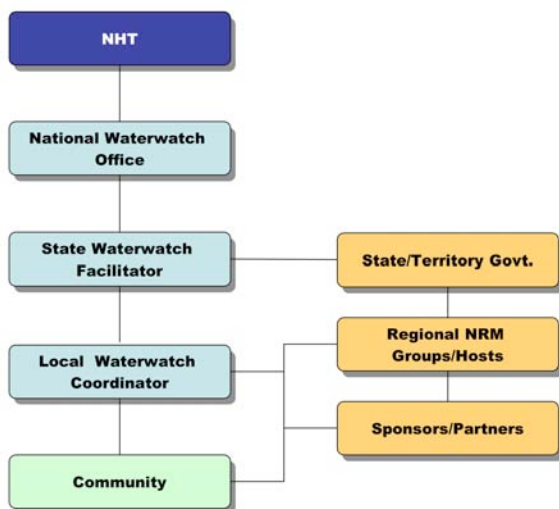
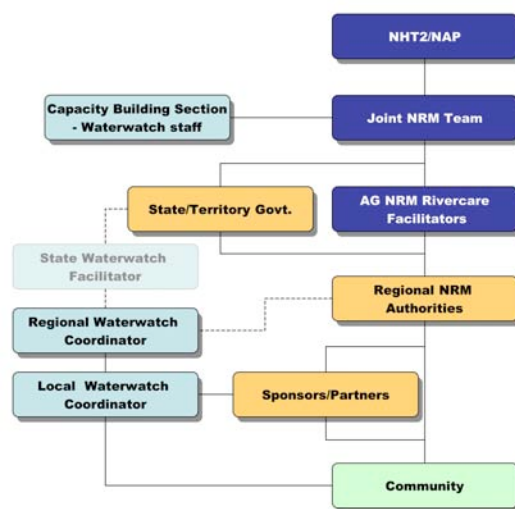


Figure 2: Simplified Current Structure of Waterwatch



4.2 Overview of a Suggested Model for Waterwatch at the National Level

Waterwatch is characterised by the inherent goodwill and non-competitiveness of its coordinators, participants and supporters. This spirit has been a key driver in the establishment, over the years, of a significant 'knowledge-bank' of ideas, methods, know-how and experience in engaging communities in river health and catchment management initiatives. The long-term success of Waterwatch is dependent on the continuing ability of people involved in Waterwatch to share ideas and knowledge and to constantly refine the way they work in response to new challenges.

It is timely to now put in place systems and protocols to safeguard the 'key ingredients' of Waterwatch whilst maximising the opportunities for Waterwatch under the regional delivery model.

Waterwatch needs to become more outcomes focussed and flexible to remain relevant at the regional level. This means that at the national scale, Waterwatch needs to encourage innovation and be willing to evolve organically into something that regions can shape to achieve their desired outcomes. There cannot be control from above, but there does need to be systems and protocols in place to assure the quality and integrity of Waterwatch products and services and the network itself. There are many opportunities to grow Waterwatch and expand its influence if the opportunities of regional delivery are embraced.

As stated in the introduction, it is very timely to now build the capacity of regional programs to embrace the potential of Waterwatch as a capacity building and community engagement tool. This will be done most effectively by giving regional NRM authorities the support and the tools to more fully understand the potential of Waterwatch and to enhance the capacity of regional coordinators by linking them up with the real power of Waterwatch – the collective knowledge of the network of coordinators.

This gap/needs analysis has identified that the core elements of Waterwatch are the 'products' and 'services' that have been developed over the past decade or more, the network of coordinators and their collective skills and experience and the identity of 'Waterwatch' the name and logo. The suggested model for Waterwatch builds on these core elements.

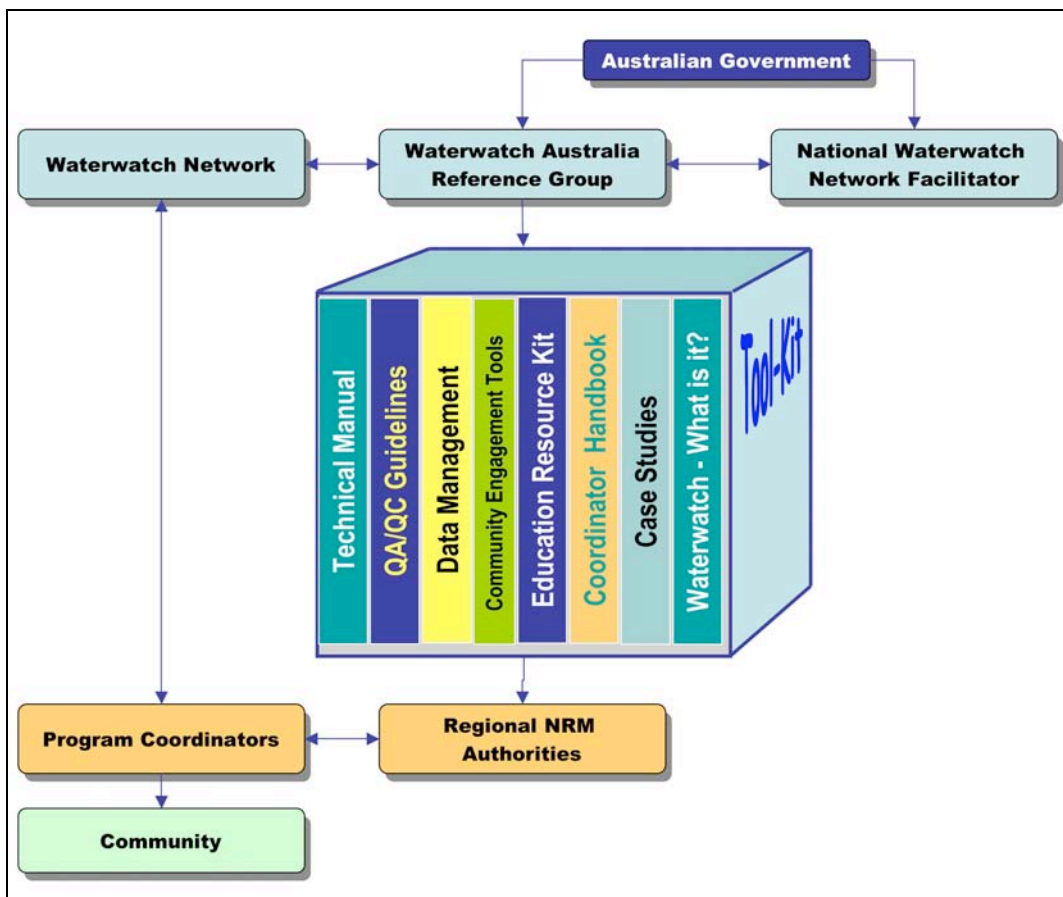
The key difference of the suggested model is that emphasis is placed on Waterwatch 'products' and 'services', rather than coordinators (see Figure 3). This is not to say that coordinators are not important: it is critical that skilled, dedicated people deliver these products and services and have security of tenure to do this. However, they don't necessarily need to be 'badged' as 'Waterwatch coordinators'.

By emphasising products and services, Waterwatch can more effectively market itself as a 'tool', which can be adopted by regional NRM authorities to help them deliver community engagement and capacity building components of their regional plans. By investing at the national level in developing Waterwatch as a 'tool-kit', regional authorities will find Waterwatch 'easier' to adopt because the hard work of designing these products and services will have been done for

them. This approach will also facilitate the broader adoption of Waterwatch by a wide range of environmental awareness and education programs, such as ICLEI’s Water Campaign, Clean Up Australia, etc. and also the adoption of Waterwatch monitoring tools and techniques in community-based scientific research programs.

Marketing of the Waterwatch ‘tool-kit’ to regional NRM authorities would emphasise that the Waterwatch products and services need to be delivered by coordinators/facilitators, but that these coordinators may or may not be called ‘Waterwatch coordinators’. The advantage of this approach is that it changes the emphasis away from a ‘need’ to employ Waterwatch coordinators.

Figure 3: A Waterwatch ‘Tool-kit’, which can be readily adopted in whole or in part, by regional NRM authorities, is the core of the ‘new’ Waterwatch model.



Another key emphasis of the marketing of the Waterwatch ‘tool-kit’ is that a national network of coordinators, a reference group and a National Network Facilitator support the ‘products and services’. By adopting the Waterwatch ‘tool-kit’ at the regional scale, NRM authorities are ‘purchasing’ the ‘intellectual property’ of the network.

Importantly, emphasising the ‘tool-kit’ simplifies the branding issues associated with Waterwatch. Under the proposed model, the products and services within the ‘tool-kit’ would carry the Waterwatch brand and logo. Coordinators delivering these products and services would not have to be labelled ‘Waterwatch’ coordinators, but could be if regions wished to. Waterwatch is so

entrenched in many communities now that coordinators are likely to become known within the community as Waterwatch coordinators, in any case.

Taking the emphasis off employing Waterwatch coordinators also increases the opportunities for coordinators of other programs to be trained in, and deliver, Waterwatch products and services. This significantly increases the effectiveness of Waterwatch as a community engagement and capacity building tool. However, to assure the quality of Waterwatch 'products' and 'services', people delivering Waterwatch 'products and services' would need to register with a national 'network register' and meet minimum competency standards.

The 'register' of approved 'Waterwatch coordinators' forms the basis of the national 'Waterwatch Network'. The Waterwatch Network as a whole would continuously contribute to developing and refining the Waterwatch-branded tool-kit (comprising products, systems and services) and assure the quality and integrity of the 'tool-kit'. The Waterwatch Network would also provide mentoring and training and play an important role in 'grass-roots' marketing of Waterwatch.

The Waterwatch Network would be supported at the national level by a "National Waterwatch Network Facilitator" who would work with the Network and the Australian Government NRM Facilitator Network to ensure Waterwatch is seen as relevant to, and equipped to respond to, regional NRM investment. This model opens up opportunities for Waterwatch to be incorporated in a range of NRM initiatives at the regional level, and thus expands the opportunities for community engagement in river and catchment health.

This model is designed to ensure that regions have autonomy in deciding how they can best utilise Waterwatch products and services, whilst having access to support (and evidence of the outcomes Waterwatch contributes to) to enable an informed decision to be made about how Waterwatch might be able to fulfil needs in relation to community engagement and capacity building.

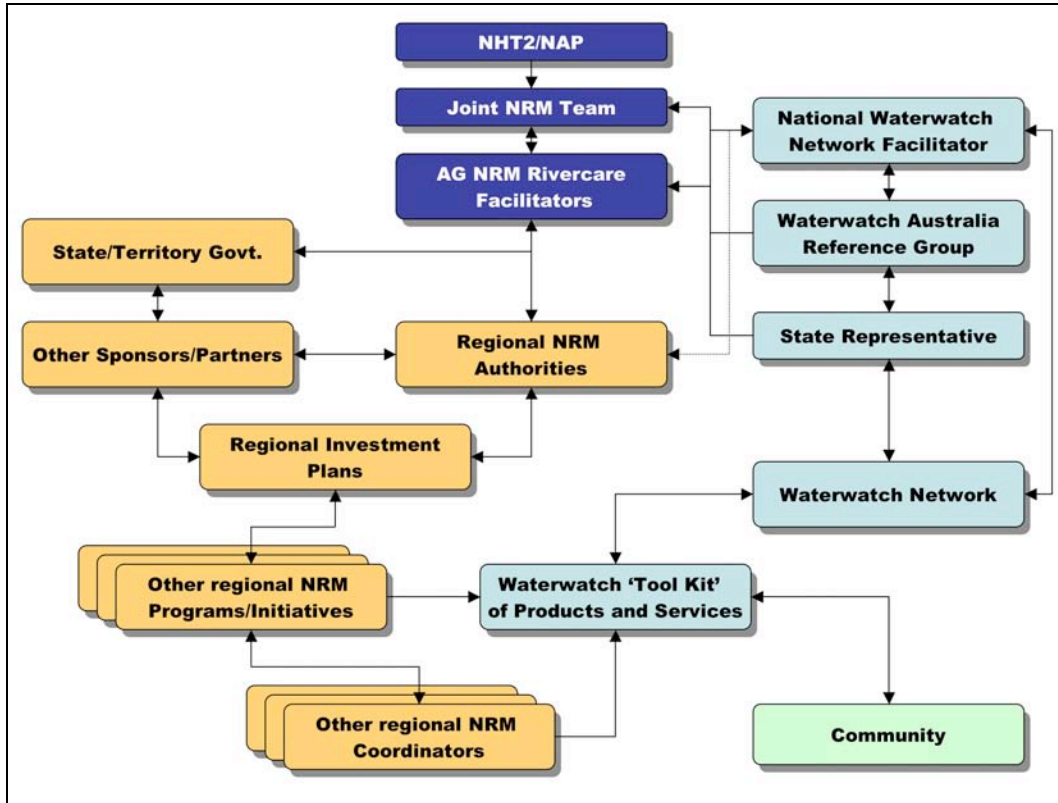
However, the proposed Waterwatch delivery model does not leave decisions about Waterwatch entirely reliant on the perceptions regional authorities have about Waterwatch. Mechanisms to ensure that Waterwatch has opportunities to engage with the AG NRM Facilitator network and the Joint NRM team are suggested, to enhance strategic partnerships at this key level. The National Waterwatch Network Facilitator position could be slightly separated⁸ from the Joint NRM Team and act as executive officer for the Waterwatch Reference Group. This would maintain close ties with the Australian Government and ensure the incumbent is accessible to the Waterwatch Network.

The activities of current Waterwatch coordinators would not change greatly under this model. Coordinators would continue to work with the staff of other regional NRM programs and with the community to deliver Waterwatch products and services. The relative emphasis or 'balance' between the different components of these products and services (e.g. monitoring, environmental education in schools, etc.) would be dependent upon agreed regional priorities and regional NRM plans.

⁸ The National Landcare Facilitator position is an appropriate model for the 'National Waterwatch Network Facilitator' position – it is a contracted 'package', and could be located anywhere in Australia.

The current location of the National Waterwatch support staff within the Joint NRM Team Capacity Building Section is highly appropriate for Waterwatch because Waterwatch is a key capacity building initiative.

Figure 4: Recommended Structure of Waterwatch



4.3 Specific Elements of the Proposed Structure

The core elements of the proposed structure of Waterwatch delivery are now discussed in more detail.

4.3.1 The Waterwatch 'Tool-kit' and MOU

The Waterwatch 'Tool-kit' would comprise a toolbox of Waterwatch-branded 'products' and 'services', like a 'pick-list', from which regional authorities could gain an understanding of how Waterwatch could be utilised to deliver on their objectives.

The options for adopting Waterwatch as a key component of the delivery of regional NRM strategies could be structured in terms of how Waterwatch can assist in relation to:

- monitoring progress in relation to management action targets;
- monitoring progress in relation to resource condition targets; and,
- community engagement and capacity building.

Importantly, this 'tool-kit' forms the basis of the Waterwatch brand. Under the proposed structure, it is the 'products' and 'services', as described in the 'tool-kit' that *are* Waterwatch. To be able to utilise the 'tool-kit', regional NRM authorities (and other institutions) would have to sign a Memorandum of Understanding, which outlines a set of minimum standards and expectations about key elements and principles, such as:

- Minimum competency standards for people delivering Waterwatch products and services;
- Agreement to register with and contribute to the 'National Waterwatch Network';
- Guidelines about the use of, and contribution towards, the 'intellectual property' invested in Waterwatch products and services;
- Use of the Waterwatch brand (branding and naming rules/guidelines);
- Expectations for data confidence standards;
- Guidelines for data management;
- OH&S minimum standards; etc.

Importantly, this 'tool-kit' would form the basis of the marketing plan for Waterwatch nationally.

4.3.2 Case Studies

To support the broader marketing strategy for Waterwatch, a set of case studies need to be prepared outlining how Waterwatch has in the past, and could in the future, assist in the achieving regional NRM outcomes. These case studies would be integrated with the 'tool-kit' (i.e. illustrate how the components of the tool-kit work), and these two products would be used jointly to market Waterwatch to regional NRM authorities and other interested agencies/institutions.

4.3.3 A National Waterwatch Network Facilitator

There was very clear support among participants in this Gap/Needs Analysis for national coordination and support, and this was commonly perceived to be best served by a 'national facilitator'-type role.

A National Waterwatch Network Facilitator would work primarily with the network of Waterwatch 'coordinators' and with the AG NRM Facilitator network, particularly the Rivercare facilitators. The role would also involve building and enhancing national and State-level partnerships and assisting regional 'coordinators' in their own partnership-building endeavours.

The key tasks of the National Waterwatch Facilitator would be:

- Oversee communications across network (newsletter, website, the maintenance of contacts lists etc.)
- Coordinate communications between State and regional Waterwatch coordinators and AG NRM Facilitator Network.

- Oversee the 'Register' of 'Waterwatch' coordinators and ensure minimum competency standards are adhered to.
- Act as executive officer for a Waterwatch Australia Reference Group.
- Ensure integrity of Waterwatch the brand/trade mark.
- Oversee the production of resources to minimise duplication at the local/regional level.
- Coordinate the development of the Waterwatch 'tool-kit' and 'case studies'.
- Oversee the marketing of the Waterwatch brand to regional NRM authorities by developing 'tool-kits' and other resources, including communication material, and visiting regions where requested to facilitate the inclusion of Waterwatch within regional investment processes.
- Provide assistance and support in seeking sponsorship⁹ for local initiatives.

The National Waterwatch Network Facilitator position could be structured similarly to the National Landcare Facilitator – i.e. contracted out on a skills basis to an individual or company, for a fixed period (then re-tendered).

4.3.4 National Waterwatch 'Reference Committee'

It is recommended that the Waterwatch Australia Steering Committee (WASC) be formally reinstated, either using its current name or probably more appropriately re-labelled as a reference committee (the network as a whole should 'steer' Waterwatch). Membership would comprise AG NRM Facilitators – Rivercare and a State Waterwatch representative (either the State/Territory 'Waterwatch' Coordinator or a nominated regional-level coordinator). The National Waterwatch Network Facilitator would perform executive officer roles with WARC chaired by a senior staff member within the Joint NRM Team.

Roles would be slightly different to WASC, in that more emphasis would be placed on the maintenance of Waterwatch identity and 'intellectual property', strategic planning (mainly identifying gaps and needs in light of policy shifts etc.).

Funding would be required to support the attendance of WARC members at meetings and to generally ensure the functioning of the committee. A component of the National Waterwatch Network Facilitator's contract would be nominated for executive support for the WARC.

One of the key initial tasks of the WARC would be to oversee the development of the Waterwatch 'tool-kit'.

4.3.5 Special Committees

In addition to the 'Reference Committee', special committees, comprising representatives of WARC, other members of the broader Waterwatch Network and technical experts, would be convened for special purposes, such as developing and up-dating resource material, promotional material, etc.

⁹ Opportunities for corporate sponsorship for Waterwatch at the national level would be restricted unless a separate incorporated entity was established.

A separate funding allocation should be considered for special committees, to allow sufficient funding for the development of these core materials and resources.

4.3.6 National Support from the Joint NRM Team, Capacity Building Section

Support staff within the Joint NRM Team, Capacity Building Section would provide administrative and logistic support for the Waterwatch Network and the National Waterwatch Network Facilitator, particularly to:

- Maintain the infrastructure for communication across the network and between community and NRM groups and the Waterwatch network (primarily through the Website, contacts list, etc.).
- Administer contracts for the delivery of goods and services such as the National Waterwatch Network Facilitator contract, contracts for the provision of training, information technology, production and printing of publications etc., as required.
- Brokering and coordinating communications between the NRM Facilitator Network, Australian Government and State agencies and the National Waterwatch Network Facilitator, etc.
- General support for the National Waterwatch Network Facilitator.

Under the proposed model, the national support team (including the National Waterwatch Network Facilitator) would not undertake large roles in any of the following:

- Management of QA/QC systems
- Data management (i.e. database)
- Technical Manuals (except for arranging the production and distribution of these)
- Training delivery.

Instead, the broader knowledge-bank that is the Waterwatch Australia Network would be drawn upon to develop guidelines, protocols, manuals of procedure etc. that are overarching (to maintain integrity and assure standards) but flexible enough to allow for regional adaptation.

See 4.3.8 below for the recommended model for provision of these 'products' and 'services'

4.3.7 State-level support

Support and coordination at the State/Territory level is required and justified. There are three key areas for State-level support and coordination

- Management of QA/QC systems
- Data management
- Communications between national and regional levels in the NRM and Waterwatch network hierarchies.

Services in these areas would not necessarily be provided by State government, but there are many reasons why this should be encouraged:

- Ensuring consistency in QA/QC, parameters, monitoring protocols etc. between Waterwatch data and data collected by others (e.g. State agencies, water authorities, statutory bodies etc.) across regions within the State.
- Integration of Waterwatch and other data (therefore enhancing the reputation and use of Waterwatch data)

Corporate or education-sector institutions that operate at the State level may be interested in providing such services if State/Territory governments are not.

In terms of communications at the State-level, a State/Territory-funded coordinator would be an advantage for ensuring integration with other State-level programs and initiatives. The AG NRM Facilitator Network 'Strategic Regional Positions' could also play key roles in supporting State-wide and inter-regional support, for example in the identification of training needs.

As a fall-back position, if no State-level support is provided Regional Waterwatch coordinators could nominate a representative to act as a State-level coordinator. Funding such a role would have to be negotiated between regions and/or State/Territory government.

4.3.8 Outsourcing

The production of manuals, protocols and other resources; the production of promotional material and resources; and, the delivery of training, would be outsourced, but offered to Waterwatch programs in all regions and States to express interest in. This would further assist in the funding of regional Waterwatch delivery by offering another income stream. It would also promote excellence in the development and documentation of Waterwatch activities, methods and protocols.

There may be legal reasons to also invite other organisations/companies to tender for such work.

4.4 Short-Term Actions List

Recommended list of short-term actions, in order of priority:

1. Re-establish WASC as a 'Waterwatch Australia Reference Committee' (WARC) (or use WASC or an alternative name).
2. Register Waterwatch (or Waterwatch Australia¹⁰) brand name and secure registration of the Waterwatch logo as a Trade Mark.
3. Instigate a tender process to establish the 'National Waterwatch Network Facilitator' position.

¹⁰ WARC should be involved in deciding which name to register – e.g. 'Waterwatch', 'Waterwatch Australia', 'Waterwatch Network'. The reviewers opinion is that 'Waterwatch' is the most appropriate.

4. Develop a web-based registration system to facilitate communications between, and monitoring of, the Waterwatch Network. Continue to develop the Waterwatch groups and sites (or 'activity') web-site ideas as presented at the June 2004 Waterwatch/Rivercare Forum.
5. Clarify the range of activities that Waterwatch encompasses and key 'purposes' to which they could be put in a regional context. Distinguish between 'products' and 'services'. This is a key planning stage in the development of the Waterwatch 'tool-kit'.
6. The 'National Waterwatch Network Facilitator' work with WARC and the Joint NRM Capacity Building Team to develop case studies illustrating how Waterwatch can contribute to regional NRM investment planning processes.
7. The 'National Waterwatch Network Facilitator' work with WARC to develop a comprehensive list of achievements of Waterwatch within various regions to highlight the broad scope of Waterwatch activities and the impact the program has. This information forms a key part of the 'case', or 'evidence', for Waterwatch that would support the next steps¹¹.
8. Develop a Waterwatch 'tool-kit' for regional delivery of Waterwatch products and services, and a MOU.
9. Produce a new Waterwatch Network Charter and promotional material. This promotional material should be structured on the core elements of the tool-kit (see 5).
10. Launch the 'Waterwatch tool-kit', explaining how Waterwatch products and services can be delivered either as specific Waterwatch 'programs' or through other programs, such as indigenous facilitators/Rangers, Landcare, etc.
11. Market the Waterwatch 'tool-kit' to AG NRM Facilitator network.
12. Market the Waterwatch 'tool-kit' to regional NRM boards, State government.
13. Ensure that the strength of Waterwatch as an education program not be lost by promoting school and community education as important community engagement and capacity building components of regional NRM investment plans.

Strategically, it is important to find a means of increasing State support for Waterwatch, particularly in those States/Territories where State-level support is currently limited. There is a perception among some people in the regions, and at a State level, that regional delivery has bypassed States/Territory government. Therefore, clear articulation about how important State-level support is for the success of regional Waterwatch initiatives is necessary. Creating a demand from regional NRM authorities and the broader community of Waterwatch participants for State/Territory support will also help. Enhancing communications throughout the Waterwatch network could facilitate this 'grass-roots' support.

¹¹ Through this review process hundreds of examples of innovative, exciting and transferable ideas and resources were cited or referred to. It is beyond the scope of this study to produce a summary of these initiatives, but doing so would be an extremely valuable marketing tool.

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APPENDIX 1: PARTICIPANTS IN THE REVIEW

F=Focus Group, I = Interview¹², S=Survey

1. Honi Adolphson (WA)	S, I	49. Paul Francis (SA)	F
2. Peter Alden (QLD)	S	50. David Gibb (WA)	F, S
3. Michelle Anderson (Vic)	S	51. Karen Giddings (NSW)	F, S
4. Rebecca Arnold (SA)	F	52. Janine Goodwin (ACT)	F
5. Sunnel Banji (NT)	F	53. Phil Gorey (SA)	S
6. Libby Benson (NT)	F	54. Chris Gow (NSW)	F
7. Ingrid Berthold (NSW)	F, S	55. Bronwyn Graham (Tas)	S
8. Imogen Birley (Tas)	F	56. Polly Hall (Vic)	S
9. Debbie Blake (WA)	I	57. Barry Halligan (WA)	I
10. Nigel Blake (NSW)	F, S	58. Cheryl Hamence (WA)	I
11. Amy Blaylock (SA)	F	59. Genevieve Hanrahan-Smith (WA)	F
12. Patricia Bock (QLD)	F, S	60. Andrew Harris (Vic)	S
13. Liz Bond (Tas)	F, S	61. Ken Harris (Tas)	F
14. Rosalie Breadon (NT)	F	62. Jim Hill (QLD)	F, I
15. Kathleen Broderick (WA)	S	63. Sharon Hillen (NT)	S
16. Katie Brown (SA)	S	64. Anna Hitchcock (QLD)	S
17. Katie Brown (SA)	F	65. Leonie Hodsdon (AG)	F
18. Michael Burke (WA)	S, I	66. Brad Hollis (Vic)	S
19. Jacinta Burke (Vic)	S	67. Steven Honeywood (NSW)	F, S
20. Celia Busted (NSW)	F, S	68. Sally Hunt (NSW)	F, S
21. Julia Butler-Ross (Tas)	F	69. Steve Janicke (WA)	I
22. Peter Byrnes (Vic)	S	70. Sara Johnson (Vic)	F
23. John Carter (ACT)	F	71. Fleur Johnson (Vic)	S
24. Mike Cassidy (Tas)	F, S	72. Brendan Kelly (WA)	I
25. Julia Chalmers (NT)	I	73. Melanie Kelly (Tas)	S
26. Susie Chapman (QLD)	F, I	74. Kirsten Kenyon (QLD)	F
27. Dean Chapman (NSW)	F, S	75. Pippa Kerby (SA)	F, S
28. Chris Chinn (QLD)	F	76. Jan Kesby (QLD)	F
29. Toni Costello (Vic)	S	77. Nadia Kingham (AG)	F
30. Di Cowburn (Tas)	F	78. Verity Klemm (WA)	I
31. Sheralee Cox (SA)	F	79. Ian Lancaster (NT)	F
32. Thelma Crook (WA)	F, I	80. Lee Lau (NSW)	F, S
33. Matthew Davidson (NSW)	F	81. Chau Le (NSW)	F
34. Tammy Dawson (Vic)	S	82. Geraldine Lee (NT)	F
35. Caroline Dearson (NSW)	F	83. Bianca Lewis (SA)	F
36. Nikki den Exter (Tas)	F	84. Vera Lubczenko (Vic)	F
37. Jane Dermer (NT)	S, I	85. Emily Marchant (SA)	F
38. Chris Doherty (QLD)	F	86. Rachelle McConville (ACT)	F
39. Peter Donnelly (ACT)	S	87. Linda-Marie McDowell (SA)	F
40. Naomi Dumbrell (AG)	F	88. Max Michael (WA)	S
41. Col Easton (NSW)	S	89. Jen Mitchell (WA)	F
42. Col Easton (NSW)	F	90. Colin Mondy (NSW)	F, S
43. Barry Edwards (NSW)	S	91. Nell Netterfold (Tas)	S
44. Lorraine Ellis (WA)	I	92. Beryl Newman (NSW)	F, S
45. Patricia Ellison (Tas)	F	93. Diana Nunn (Tas)	F
46. Kathy Eyles (ACT)	F	94. Edward Oldmeadow (QLD)	F, S
47. Jennie Fenton (NSW)	F	95. Lesley Orford (NT)	F
48. Samantha Fox (NT)	F, S, I	96. Patrick Pahlow (NSW)	S
		97. Kris Palmer (QLD)	F, S

¹² Interviews ranged from conversations during state workshops, telephone interviews and face-to-face semi-formal interviews. National Needs and Gap Analysis of Community Engagement in Waterwatch (Appendix 1) Page 96
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98. Jan Paul van Moort (NSW)	F	120. Kelly Smith (WA)	S
99. Lindy Pearson (SA)	F, S	121. Stuart Smith (Tas)	F
100. Nigel Philpot (ACT)	F	122. Jennie Sparke (Vic)	S
101. Bob pond (WA)	I	123. Inez Stemp (WA)	F
102. Gavin Prentice (QLD)	F	124. Victor Stevenson (QLD)	I
103. Chris Presland (NSW)	F	125. Mike Stewart (ACT)	F
104. Paul Puhar (Vic)	F	126. Annaleisha Sullivan (WA)	I
105. Martin Revell (WA)	I	127. Claire Taylor (WA)	I
106. Duane Richardson (Tas)	F, S	128. Sasha Taylor (WA)	S
107. Chris Rinehart (QLD)	F	129. Peter Thomas (Tas)	F
108. Bronwyn Robertson (NSW)	F	130. Dana Thomsen (QLD)	S
109. Greg Robinson (NSW)	S	131. Simon Townsend (NT)	F, S
110. Andy Russell (WA)	F	132. Stephen Waite (NSW)	F
111. Jane Ryan (Vic)	F, S	133. Damian Wall (ACT)	F
112. Bronwyn Ryan (WA)	F, S, I	134. Todd Walsh (Tas)	F
113. Elizabeth Schrammeyer (Tas)	F, S	135. Brad Wedlock (QLD)	S
114. Ben Scullin (Vic)	S	136. Steve Welch (ACT)	F
115. Debbie Searle (Tas)	F, S	137. Darren Wilson (Vic)	S
116. Liza Shenkle (NT)	F	138. Katrina Wilson (Tas)	F
117. Brenda Skene (Vic)	S		
118. Breanne Skennar (WA)	S, I		
119. Geoff Smart (Tas)	F, S		

APPENDIX 2: CRITICAL SUCCESS FACTORS FOR COMMUNITY-BASED WATER-MONITORING

Introduction

Historically, the objective of Waterwatch at State/Territory and regional scales has been “to empower community groups and individuals to be active in the protection and management of waterways” (Waterwatch Charter).

The objectives of Waterwatch at the national level have been adopted, with minor variation, at State/Territory and regional levels. The Goals of Waterwatch, nationally, are to:

- Establish and maintain community water monitoring programs.
- Heighten awareness, understanding and knowledge of water issues and their relationship to catchment health.
- Foster community involvement in planning, decision-making and action to address waterway and catchment health issues.
- Create and maintain effective partnerships between all sectors of the community.

The support provided historically by the Australian Government at a national level, and the sharing of knowledge and resources (particularly methods and protocols manuals etc.) across jurisdictions, has resulted in some commonalities in Waterwatch delivery. However, there is significant diversity evident at State/Territory and regional scales because the interpretation and execution of these goals varies slightly within the regions and because:

- The Waterwatch Australia Program was never prescriptive about how Waterwatch should be delivered, allowing communities and regional authorities to identify locally relevant programs, based on local biophysical and social contexts.
- There have been diverse hosting arrangements at regional and State/Territory scales.
- Key individuals (e.g. State, regional, and local coordinators, managers of hosting agencies/proponents) have particular perceptions of what Waterwatch is about, and have particular skills and preferences that shapes the way in which they design and deliver Waterwatch.
- There have been many events (such as changes in State governments, regional NRM arrangements, policy shifts, etc.) that have continually influenced, to varying degrees, the ‘shape’ of regional and State/Territory programs.

These 'drivers' of diversity in Waterwatch are ever-present, so Waterwatch programs continue to evolve: some sharing more in common, others becoming more different. There is significant diversity even within States/Territories.

The sources, and the implications, of diversity were discussed in more detail in the main report (Chapter 3). But one of the key implications of the diverse nature of Waterwatch for this review is that it makes it difficult to gain an impression of the 'success' of community-based water-monitoring programs at different scales and times. This makes it difficult, therefore, to identify gaps and needs at the national scale.

It was important, therefore, that this review develop an assessment framework that both highlights the diverse nature of Waterwatch, but also enables an assessment of the degree of change over time and between jurisdictions. The review of the Victorian Waterwatch Program (Landscape & Social Research) identified a series of 'critical success factors' for Waterwatch at the regional scale, after extensive focus groups with a range of people associated with Waterwatch.

The Victorian critical success factors' (or 'dimensions') were used as the basis of the assessment framework, and additional dimensions were added to reflect differences in some Waterwatch programs outside Victoria. The final assessment framework contained 58 dimensions, which are listed in Table 7:

Important Note: Because the changes towards regional NRM delivery were still occurring, to varying degrees, across Australia at the time of this Needs/Gap Analysis, survey participants are essentially responding on the basis of their experiences of the old Waterwatch Program under NHT1. For this reason, the analysis of survey results presented herein is primarily concerned with understanding the perceptions of importance of each 'success factor' and the degree to which current conditions differ from the 'ideal'. It is acknowledged that regions have 'moved on' from NHT1, but the purpose of this analysis is to understand which of the 'success factors' of the 'old Waterwatch Program' need to be 'retained' under regional delivery.

Table 7: Critical Success Factors or Dimensions for Waterwatch

Institutional Arrangements and Funding	
1.1	partner agencies, hosts & sponsors, that believe in and are dedicated to Waterwatch
1.2	sufficient resources to provide security of tenure for coordinators
1.3	hosts and sponsors that feel a sense of ownership of the program, without being too possessive (e.g. decision-making processes are inclusive of other stakeholders)
1.4	hosts and sponsors that see Waterwatch as fulfilling a strategic NRM monitoring role
1.5	hosts and sponsors that see Waterwatch as fulfilling community educational roles
1.6	line managers within host organisations that are aware of Waterwatch and are supportive of the program
1.7	funding that is sufficient to meet the expectations of the program and provide the capacity necessary to respond to interest in and demand for Waterwatch
1.8	coordinators and hosts who are proactive in their funding and sponsorship-seeking activities.
1.9	support from "higher levels" in the network in the development and provision of educational and promotional resources, training and in facilitating knowledge exchange.
1.10	many agencies/authorities/groups/ educational institutions working together as a partnership

Table 7: Critical Success Factors or Dimensions for Waterwatch **continued...**

Education	
2.1	achieved a balance between school and broader community education initiatives
2.2	coordinators who are skilled and experienced in developing and delivering school Waterwatch programs
2.3	supportive teachers and schools
2.4	high quality educational materials and resources that are flexible enough to facilitate locally relevant and topical content
2.5	support from State education department in the development of education resources and methods of tying Waterwatch into school curriculum
2.6	support, training and advice available to coordinators from a teacher on 'release to industry' program or similar.
2.7	sufficient resources/sponsorship to enable inter and intra-regional sharing of Waterwatch educational experience (e.g. exchanges, kids conferences, etc.)
2.8	coordinators who are skilled and experienced in developing and delivering community education programs
2.9	coordinators who are skilled in adult education techniques, participatory learning, etc. -i.e. are skilled in engaging the adult community in activities that inform, raise awareness and build capacity.
2.10	coordinators who are perceptive of the wide range of values, attitudes and beliefs among landholders and other adults in the community and use this skills to develop well targeted programs that maximise participation and the satisfaction of participants.
On-Ground Works	
3.1	opportunities for participants in Waterwatch to become directly involved in on-ground works to improve river/catchment health.
3.2	a high level of involvement of Waterwatch participants in on-ground works.
3.3	very close links between Waterwatch coordinators and Rivercare/waterway coordinators
	Data Quality
4.1	a network of monitoring sites that meet strategic needs of data users and fit catchment and regional NRM plans
4.2	a network of committed, skilled monitors
4.3	a sufficient number of monitors to provide a "critical mass" of data to State database
4.4	enough equipment for monitors to fulfil their needs in relation to their monitoring programs
4.5	supportive data users who understand the strengths and weaknesses of Waterwatch data, and have faith in its use as an adaptive management tool.
4.6	data users that are involved in the design of monitoring programs
4.7	data confidence plans in place with monitoring plans, prepared in consultation with a range of regional stakeholders
4.8	consistency in the data collected (in terms of parameters, units, etc.)
4.9	a data quality assurance/quality control system that is well recognised and supported
4.10	accessible database that facilitates data use and availability
4.11	community-collected data being used to contribute to regional/State monitoring and evaluation programs (biophysical)
4.12	community-collected data being used to contribute to baseline monitoring
4.13	community-collected data being used to contribute to educational outcomes
4.14	community-collected data being used to contribute to implementing regional Action Plans/strategies

Table 7: Critical Success Factors or Dimensions for Waterwatch **continued...**

Program Delivery	
5.1	enough regional/local coordinators to service current demand for school programs and community monitoring
5.2	capacity within the network of coordinators/host organisation to respond to the interest/demands of community monitors, schools, etc.
5.3	coordinators who are proactive in building and enhancing networks
5.4	monitoring programs that are sensitive to the level of commitment/availability of community volunteers
5.5	open, transparent and inclusive decision-making processes for setting the shape of regional programs
5.6	a steering committee comprising hosts, sponsors and key stakeholders
5.7	the ability and capacity to efficiently provide prompt feedback of interpreted results/data to monitors
5.8	opportunities for community monitors to meet to discuss results, communicate with users of their data, participate in training, etc.
5.9	data that is up-to-date and readily available to interested agencies, groups and individuals
5.10	coordinators who act as 'points of entry' for various messages/information products from all agencies/groups within the partnership
5.11	clearly articulated and understood roles and responsibilities of local and regional coordinators, managers within hosting agencies, and partner agencies
Staff	
6.1	dedicated, personable and multi-skilled coordinators
6.2	a high proportion of long-term employees
6.3	induction programs available for new staff
6.4	support and mentoring for less experienced coordinators
6.5	training opportunities are provided and well attended
6.6	opportunities for peer communication and development (e.g. conferences, seminars, team meetings, etc.).
6.7	coordinators who are experienced in engaging indigenous communities and are aware of the indigenous communities and organisations in their regions.
Monitoring & Evaluation of Waterwatch Delivery	
7.1	a set of indicators that can be reliably and efficiently measured to enable timely assessments of program performance at our level, which can also be used to report at local, State and National levels.
7.2	a reporting system that enables regional NRM managers to compare Waterwatch with other regional programs, particularly in terms of attitudinal and behavioural outcomes.
7.3	an appreciation of the need to assess outcomes over outputs.

This framework forms the basis of the survey of Waterwatch coordinators/hosts and proponents that was undertaken nationally for this gap/needs analysis. The aim of the survey was to understand Waterwatch coordinators/hosts/proponents' perceptions of the relative importance of each of the critical success factors; to assess the current 'condition' of each factor; and, to understand the 'direction' of any change in condition.

The remainder of this chapter discusses the results of the survey of coordinators and presents an analysis of the ranking of each of these dimensions in terms of;

- Perceived importance
- Current condition
- Trend (of the condition)
- Key dates that influenced the current condition

Some insight into the results is provided where possible using the qualitative data collected from the focus groups.

Institutional Arrangements and Funding

The components of a successful regional Waterwatch initiative in the area of 'institutional arrangements and funding' are set out in the left-hand column of Table 8 below. Although this table ranks these items in order of their perceived importance, there was very little difference in survey respondents perceptions that these were important issues: 97% agreed that the top-ranked item was 'Critical' or 'Important', while 94% agreed that the bottom-ranked item was 'Critical' or 'Important'. We can be quite confident, therefore, that all of these 10 dimensions are important in the delivery of Waterwatch at a regional scale.

The two key gaps that are exposed by the analysis within Table 8 is the disparity between the perceived importance of 'sufficient resources to provide security of tenure for coordinators', which ranks first in 'importance' and ninth in 'current condition'. In terms of the actual responses to the question about current condition on this item, 14% of respondents selected the 'yes, always had', 23% responded 'Yes, have now', 50% reported 'No, don't have now' and 11% selected the 'No, and never had' option. Moreover, the current 'trend' in relation to this issue of 'sufficient resources...' is not positive, with only 16% of respondents reporting that this condition is improving.

Table 8: Gap Analysis - Institutional Arrangements and Funding

'Dimension'	Ranking		
	Importance ¹³	Current Condition ¹⁴	Trend ¹⁵
Partner agencies, hosts & sponsors, that believe in and are dedicated to Waterwatch	3	2	7
Sufficient resources to provide security of tenure for coordinators	1	9	8
Hosts and sponsors that feel a sense of ownership of the program, without being too possessive (e.g. decision-making processes are inclusive of other stakeholders)	10	5	6
Hosts and sponsors that see Waterwatch as fulfilling a strategic NRM monitoring role	5	8	4
Hosts and sponsors that see Waterwatch as fulfilling community educational roles	6	1	3
Line managers within host organisations that are aware of Waterwatch and are supportive of the program	4	3	5
Funding that is sufficient to meet the expectations of the program and provide the capacity necessary to respond to interest in and demand for Waterwatch	2	10	10
Coordinators and hosts who are proactive in their funding and sponsorship-seeking activities.	9	7	1
Support from "higher levels" in the network in the development and provision of educational and promotional resources, training and in facilitating knowledge exchange.	7	4	9
Many agencies/authorities/ groups/ educational institutions working together as a partnership	8	6	2

¹³ Ranked on proportion of respondents replying 'Critical'.

¹⁴ Ranked on proportion of respondents replying 'Yes, always had'.

¹⁵ Ranked on proportion of respondents replying 'Improving' or 'static' (i.e. sorted on 'declining').

There was also a large discrepancy in the perceived importance of 'Funding that is sufficient to meet the expectations of the program and provide the capacity necessary to respond...' item and current conditions. In terms of the distribution of responses on current condition on this item, 13% of respondents selected the 'yes, always had', 27% responded 'Yes, have now', 47% reported 'No, don't have now' and 13% selected the 'No, and never had' option. Similarly, reported trends against this key dimension are quite negative, with only 23% of respondents reporting an improving 'trend' and 39% reporting that this situation is declining.

This apparent insecurity of funding seems to have had a positive influence on the dimension 'coordinators and host who are proactive in their funding and sponsorship activities', with 39% reporting an 'improving' trend on this dimension and 52% reporting that the trend is 'static'. Partnerships appear to be an area that is benefiting from the switch to regional delivery (presumably out of perceived adversity in relation to funding), with 53% reporting an improvement in partnerships.

Another key observation from Table 8 is the difference in current perceptions of the roles of Waterwatch at the regional scale. The dimension 'hosts and sponsors that see Waterwatch as fulfilling community education roles' ranks very well in terms of current conditions. In contrast, the dimension 'Hosts and sponsors that see Waterwatch as fulfilling a strategic NRM monitoring role' ranks eighth. The significance of this result is that many participants in the focus groups and interviews reported that many regional Waterwatch coordinators, and regional NRM boards, perceive that the 'best' option for securing funding for Waterwatch in the future is through the (NRM) monitoring and evaluation component of regional plans.

It is significant that the dimension 'support from higher levels in the hierarchy...' is second-lowest when ranked on 'improving' trend – in other words support is perceived as declining.

The shift to regional delivery has had a significant impact on the following dimensions:

- Sufficient resources to provide security of tenure for coordinators (41% of respondents nominating a key date of change selected 'Start NHT2')
- Hosts and sponsors that see Waterwatch as fulfilling strategic NRM monitoring role (47% of respondents nominating a key date of change selected 'Start NHT2')
- Support from higher levels in the hierarchy... (32% of respondents nominating a key date of change selected 'Start NHT2', 35% nominated 'end of NHT2')
- Partner agencies and hosts that believe in and are dedicated... (24% of respondents nominating a key date of change selected 'Start NHT2', 28% nominated 'end of NHT2')

Respondents commonly attributed changes on the dimension 'hosts and sponsors that feel a sense of ownership of the program...' to 'Host Change' (35% of mentions).

Education Programs

The components or 'dimensions' of successful regional Waterwatch delivery in the area of 'Education Programs' are set out in the left-hand column of Table 9. Each dimension is then given a ranking (columns 2, 3, & 4) in order of their perceived importance. There was less consistency in respondents perceptions about the 'importance' of some items: 99% agreed that the top-ranked item was 'Critical' or 'Important', while 73% agreed that the bottom-ranked item was 'Critical' or 'Important'. Just 15% of respondents thought that having 'Sufficient resources/sponsorship to enable inter and intra-regional sharing of Waterwatch educational experience...' was 'critical', 58% it was 'important' and 15% were not sure. The other dimension which was not perceived to be critical was the dimension 'Support, training and advice available to coordinators from a teacher on 'release to industry' program or similar...'. Just 17% of respondents thought this was 'critical', 37% 'important' and 28% were 'not sure'. Ten percent said this was 'not really important'.

We can be confident that the seven top-ranked dimensions in the 'Education programs' area are probably important in the delivery of Waterwatch at a regional scale.

Table 9: Gap Analysis - Education Programs

'Dimension'	Ranking		
	Importance	Current Condition	Trend
Achieved a balance between school and broader community education initiatives	7	7	6
Coordinators who are skilled and experienced in developing and delivering school Waterwatch programs	6	2	9
Supportive teachers and schools	2	1	3
High quality educational materials and resources that are flexible enough to facilitate locally relevant and topical content	5	6	10
Support from State education department in the development of education resources and methods of tying Waterwatch into school curriculum	8	8	2
Support, training and advice available to coordinators from a teacher on 'release to industry' program or similar.	9	10	1
Sufficient resources/sponsorship to enable inter and intra-regional sharing of Waterwatch educational experience (e.g. exchanges, kids conferences, etc.)	10	9	4
Coordinators who are skilled and experienced in developing and delivering community education programs	1	3	8
Coordinators who are skilled in adult education techniques, participatory learning, etc. -i.e. are skilled in engaging the adult community in activities that inform, raise awareness and build capacity.	4	4	5
Coordinators who are perceptive of the wide range of values, attitudes and beliefs among landholders and other adults in the community and use this skills to develop well targeted programs that maximise participation and the satisfaction of participants.	3	5	7

The consistency in the rankings across the three variables of 'importance', 'condition' and 'trend' is notable (see Table 9). The greatest inconsistency in the rankings is on the factor 'Coordinators who are skilled and experienced in developing and delivering school Waterwatch programs'. Perceived importance

of this factor is lower than might be expected, perhaps reflecting the shift towards an emphasis on water monitoring by some regional NRM authorities.

There was an important difference in perceived 'importance' of support from educators to Waterwatch programs under the two different methods itemised – either through collaboration with State education departments, or more directly through a teacher employed as part of, for example, the State support team. Survey respondents were inclined to believe that having the 'support, training and advice available from a teacher 'release to industry'-type program' was less important than having support from State education departments in the development of resources etc. There was a higher proportion of respondents that were 'not sure' about the importance of the 'teacher release to industry'-type approach to educational support (28% 'not sure' compared to 7% 'not sure' for the more general support of education department). There was quite some variance between States in the perception of importance of each of the two approaches to providing educational support, and this did not seem to be dependent upon the presence or absence of formal arrangements for educator input to the program. For example, 11% of respondents from WA, where a teacher from the Department of Education and Training is part of the State support team, said this kind of support was 'not really important', the same proportion as the Tasmanian respondents (where there is currently no teacher on the State support team). Nearly a quarter (22%) of Victorian respondents thought having a teacher within the State support team was 'not really important', despite such a position playing an important role in the history of the evolution of Waterwatch in that State (see Landscape & Social Research 2004).

These results suggest that there is a diversity of opinions about the need for formal arrangements for teacher support (at a State level) for Waterwatch. This probably reflects the diverse perspectives of coordinators on the relative importance of educational components of Waterwatch against other aspects of Waterwatch activities.

Although the rankings on 'trend' suggest an improvement in 'teacher-release to industry'-type support and 'education-department support', this is a result of the high proportion of respondents who reported that conditions on these dimensions were 'static' (77% and 66%, respectively).

On-ground works

The importance of on-ground works within regional Waterwatch initiatives is a difficult area to assess. There is quite some diversity between the States and Territories in the emphasis placed on directly involving Waterwatch participants in on-ground works. In some States/Territories, there are very direct links, with community groups involved in Waterwatch using their knowledge and understanding to plan and implement riparian and catchment rehabilitation works. In other jurisdictions, it is an implied link – people involved in Waterwatch often get involved in other networks and groups involved in on-ground works.

The components or 'dimensions' of a successful regional Waterwatch initiative in the area of 'on-ground works' are set out in the left-hand column of Table 10.

Each dimension is then given a ranking (columns 2, 3, & 4) in order of their perceived importance. It is interesting that ‘opportunities for participants to become involved...’ ranks first on ‘importance’ and ‘condition’, but third on ‘trend’. There is very little difference, however, in respondents perceptions of the trends of these dimensions – i.e. the differences are not significant.

Table 10: Gap Analysis - On-ground Works

‘Dimension’	Ranking		
	Importance	Current Condition	Trend
Opportunities for participants in Waterwatch to become directly involved in on-ground works to improve river/catchment health.	1	1	3
A high level of involvement of Waterwatch participants in on-ground works.	3	2	2
Very close links between Waterwatch coordinators and Rivercare/waterway coordinators	2	3	1

There is significant variation between States on the third dimension, reflecting the diverse ways in which Waterwatch programs work with other ‘riparian’ programs in their respective jurisdictions.

Quality Data

Issues of data confidence and quality are inextricably linked with the perceived role of Waterwatch. In most States and Territories there is a renewed interest in data use, because of the potential role of community-collected data in monitoring and evaluating regional NRM programs. This has translated into a renewed focus on the ‘quality’ of the data collected by Waterwatch participants.

In relation to ‘quality data’, regional Waterwatch initiatives would ‘ideally’ have in place each of the ‘dimensions’ listed in the left-hand column of Table 11. Each dimension is given a ranking (columns 2, 3, & 4) in order of their perceived importance, the perceived current ‘condition’ and whether this condition is improving (trend).

There are two apparent threats to regional Waterwatch delivery illustrated in Table 11. The first is in relation to the dimension ‘enough equipment for monitors to fulfil their needs...’ there is a large gap between perceived importance (i.e. ranked first on importance) and the trend (ranked 11th of 14 dimensions). Also, current condition on this dimension is not particularly positive, with only 22% of respondents answering ‘Yes, always had’, 33% responding ‘Yes, have now’, 30% responding ‘No, don’t have now’ and 16% responding ‘No, and never have’. The end of NHT1 and start of NHT2 are the most commonly mentioned events that have impacted on the condition of regions on this dimension. However, monitoring equipment was never funded under NHT1, so it is likely that perceptions of a decline in equipment may relate more to a general down-turn in the availability of resources to regional monitoring programs. Volunteer monitors participating in the focus group sessions said that it was important that they had sufficient equipment to enable them to do their monitoring at the agreed time – if they had to share equipment between a number of volunteers, delays were often experienced. The survey results in relation to the provision of equipment highlights the need for regional NRM

bodies to factor into their resource allocation decisions the need to provide and maintain monitoring equipment. Local sponsorship, from water authorities and/or local government, for example, is often a good way of providing monitoring equipment.

Table 11: Gap Analysis - Quality Data

'Dimension'	Ranking		
	Importance	Current Condition	Trend
a network of monitoring sites that meet strategic needs of data users and fit catchment and regional NRM plans	5	10	8
a network of committed, skilled monitors	3	3	14
a sufficient number of monitors to provide a 'critical mass' of data to State database	8	6	12
enough equipment for monitors to fulfil their needs in relation to their monitoring programs	1	7	11
supportive data users who understand the strengths and weaknesses of Waterwatch data, and have faith in its use as an adaptive management tool.	6	11	1
data users that are involved in the design of monitoring programs	12	8	7
data confidence plans in place with monitoring plans, prepared in consultation with a range of regional stakeholders	13	13	10
consistency in the data collected (in terms of parameters, units, etc.)	4	2	2
a data quality assurance/quality control system that is well recognised and supported	2	9	4
accessible database that facilitates data use and availability	7	5	3
community-collected data being used to contribute to regional/State monitoring and evaluation programs (biophysical)	14	14	6
community-collected data being used to contribute to baseline monitoring	10	4	5
community-collected data being used to contribute to educational outcomes	9	1	13
community-collected data being used to contribute to implementing regional Action Plans/strategies.	11	12	9

The second threat relates to the dimension 'a network of committed, skilled monitors'. This dimension ranks high on perceived importance and is currently performing relatively well in terms of 'condition'. However, this is the lowest ranked 'dimension' in terms of trend (when sorted on the proportion of respondents reporting a 'declining' trend, 16% in this case). However, 61% of respondents said this dimension was 'improving', which is the fourth-highest proportion among the dimensions when sorted on the proportion of respondents reporting an 'improving' trend. Having local Waterwatch coordinators to support monitors was one of the key issues raised in the focus groups. Without local coordinators community-based monitoring programs would not be sustainable because volunteers need to be supported in terms of training, data management and feedback and implementing QA/QC systems.

The apparent disparity between current 'condition' (ranked 1) and the reported 'trend' (ranked second last) on the dimension 'community-collected data being used to contribute to educational outcomes' is not as alarming as it seems from the ranking, although just 49% report that the trend on this dimension is 'improving' (equal third-lowest when ranked on proportion reporting 'improving' trend).

Of more significant interest, particularly in the context of the apparent perception that Waterwatch can and should play a greater role in regional NRM monitoring and evaluation (as discussed in chapter 3) is the low ranking of the dimension 'community-collected data being used to contribute to regional/State monitoring and evaluation programs (biophysical)'. Only 8% of respondents said 'Yes, always had', 27% responded 'Yes, have now', 37% responded 'No, don't have now' and 23% responded 'No, and never had'. There is significant variation across the States, with respondents in NSW, WA and Victoria being the only respondents to respond 'Yes, always had'.

Data use for educational outcomes rated very low in 'importance', but very high on current condition. The reported 'trend' on this dimension also ranked low – that is, it is predominantly seen as declining. This may be due to the survey question itself – respondents may not have believed that quality data is particularly important for achieving educational outcomes. This issue needs further analysis.

Program Delivery

'Program Delivery' relates to the way in which Waterwatch is managed, in an institutional sense, and delivered to schools, community groups, and regional partners and stakeholders.

Table 12 lists the critical success 'dimensions' for a regional Waterwatch initiative and ranks these dimensions on 'importance', 'current condition' and 'trend' of that condition, based on the survey of coordinators.

Table 12: Gap Analysis - Program Delivery

'Dimension'	Ranking		
	Importance	Current Condition	Trend
Enough regional/local coordinators to service current demand for school programs and community monitoring	2	11	11
Capacity within the network of coordinators/host organisation to respond to the interest/demands of community monitors, schools, etc.	5	10	10
Coordinators who are proactive in building and enhancing networks	3	2	4
Monitoring programs that are sensitive to the level of commitment/availability of community volunteers	1	1	3
Open, transparent and inclusive decision-making processes for setting the shape of regional programs	7	9	2
A steering committee comprising hosts, sponsors and key stakeholders	11	5	7
The ability and capacity to efficiently provide prompt feedback of interpreted results/data to monitors	9	6	9
Opportunities for community monitors to meet to discuss results, communicate with users of their data, participate in training, etc.	8	7	8
Data that is up-to-date and readily available to interested agencies, groups and individuals	6	4	1
Coordinators who act as 'points of entry' for various messages/information products from all agencies/groups within the partnership	10	3	6
Clearly articulated and understood roles and responsibilities of local and regional coordinators, managers within hosting agencies, and partner agencies	4	8	5

The high ranking on 'importance', 'condition' and 'trend' on the 'Monitoring programs that are sensitive to the level of commitment/availability of community volunteers' dimension is noteworthy, particularly in context of the perceived role of Waterwatch in contributing to Monitoring and Evaluation components of regional plans. The issue of not placing too much of a workload on, or expecting too much from, volunteer monitors was often raised in the focus group sessions as a key issue of concern relating to monitoring (see discussion in Sections 3.3 and 3.5. Two-thirds (66%) of respondents said it was 'critically' important that monitoring programs are sensitive to the availability of monitors and 31% said it was 'important'. In terms of current condition on this dimension, 54% of respondents selected the 'Yes, always had' response, 28% responded 'Yes, have now' and 14% responded 'No, don't have now'.

An apparent risk to regional Waterwatch delivery is the very low ranking, on condition and trend, of the dimension 'Enough local coordinators to service current demand for school programs and community monitoring' (lowest ranking on these two variables). Over 35% of respondents reported a 'declining' trend on this dimension. This is significant because survey respondents perceived this to be the most important issue in the delivery of Waterwatch regionally. The importance of coordinators in the delivery of Waterwatch is also highlighted in the Mid-Term NHT Review of Waterwatch (Buxton Connections, 1999) and the Evaluation of NHT Phase 1 Facilitator, Coordinator and Community Support Networks (Hassall & Associates, 2003).

The key dates of the end of NHT1 and the start of NHT2 are perceived by survey respondents to have impacted most on the dimension 'Enough regional/local coordinators...' with 20% and 18% of survey respondents, respectively, nominating these events as impacting on this dimension. There may be some confusion among the survey respondents in how to answer this question because water monitoring coordinators in some regions are now not necessarily called 'Waterwatch coordinators'. (See Chapter 2 for a more detailed explanation of the impact of the changes from NHT1 to NHT2 on staffing.)

Interestingly, the dimension showing the most positive trend of the 'program delivery' area is 'data that is up-to-date and readily available to interested agencies, groups and individuals'. About 58% of respondents said this was 'improving', which is surprising given the number of people in the focus groups raising issues about the Waterwatch Australia Database. This may indicate that regional Waterwatch initiatives are developing their own data management systems, perhaps in conjunction with their hosts/regional NRM groups. This is certainly happening in some Victorian regions (see Landscape & Social Research 2004).

It is interesting that the dimension 'The ability and capacity to efficiently provide prompt feedback of interpreted results/data to monitors' ranked relatively low (9th) in perceived importance to survey respondents. Only 31% of respondents thought this was 'critical', 66% said it was 'important'. Volunteer monitors participating in the focus groups said that a lack of feedback on their data and the data of other monitors in their catchment or region was one of the main reasons why they may get disheartened about their participation in Waterwatch.

They don't like spending their time volunteering to monitor if their data is not going to be used.

About 19% of respondents said that having 'A steering committee...' was 'Not really important' and 15% were 'not sure'. Just under a quarter (23%) thought a steering committee was 'critical'. There was no significant variation across the States/Territories in perceived importance of this dimension, suggesting that the value coordinators see in a steering committee is based on personal belief and/or experience.

Staff

Staff are a key element in the delivery of Waterwatch activities and the development of the 'products' and 'services' that underpin regional Waterwatch initiatives. Table 13 lists the critical success 'dimensions' for a regional Waterwatch initiative and ranks these dimensions on 'importance', 'current condition' and 'trend' of that condition, based on the survey of coordinators.

As expected, having 'Dedicated, personable and multi-skilled coordinators' ranked highest on 'importance', but probably of more interest, given the changes in funding arrangements and with the introduction of NHT2, is that this dimension also rated well on 'current condition'. It is also surprising then that this item also ranked highest when sorted on 'trend'. There is quite some variance between States on these items. In Victoria and Queensland, all respondents said that things were 'improving' in relation to this dimension, whereas respondents from Tasmania and the Northern Territory were significantly more likely to rate this dimension as 'static' or 'declining'.

A potential threat to the long-term viability of regional Waterwatch initiatives is the poor ranking of the 'Induction programs available for new staff' in terms of condition and trend. Only 18% of respondents answered 'Yes, always had' in their assessment of condition, 23% responded 'Yes, have now', 34% said 'No, don't have now' and 20% 'No, and never had'.

Whilst the dimension 'opportunities for peer communication and development...' appears to rate quite well on current condition, the results paint a more pessimistic picture. About 40% of respondents answered 'Yes, always had' in their assessment of condition, 28% responded 'Yes, have now', 28% said 'No, don't have now' and 2% 'No, and never had'. This dimension ranks second in importance, and the need for communication and interaction between Waterwatch staff was a common theme within the focus group discussions (see Chapter 3, Sections 3.7, 3.9 and 3.9.2.). While the condition 'trend' for this dimension appears to rate quite well, it is notable that 26% of respondents say this condition is 'declining', 39% report it as 'static' and 35% say it is 'improving'.

Table 13: Gap Analysis - Staff

'Dimension'	Ranking		
	Importance	Current Condition	Trend
Dedicated, personable and multi-skilled coordinators	1	1	1
A high proportion of long-term employees	3	5	4
Induction programs available for new staff	4	6	7
Support and mentoring for less experienced coordinators	6	4	6
Training opportunities are provided and well attended	5	3	5
Opportunities for peer communication and development (e.g. conferences, seminars, team meetings, etc.).	2	2	3
Coordinators who are experienced in engaging indigenous communities and are aware of the indigenous communities and organisations in their regions.	7	7	2

Monitoring & Evaluation (of Waterwatch Delivery)

The ability to evaluate the performance and impact of Waterwatch is critical to the long-term sustainability of regional initiatives, particularly under the new regional delivery model. The three key 'dimensions' within this 'Monitoring and Evaluation' theme are listed in the left-hand column of Table 14, and then ranked by perceived importance, condition and trend.

Table 14: Gap Analysis - Monitoring & Evaluation

'Dimension'	Ranking		
	Importance	Current Condition	Trend
A set of indicators that can be reliably and efficiently measured to enable timely assessments of program performance at our level, which can also be used to report at local, State and National levels.	1	1	1
A reporting system that enables regional NRM managers to compare Waterwatch with other regional programs, particularly in terms of attitudinal and behavioural outcomes.	2	3	3
An appreciation of the need to assess outcomes over outputs.	3	2	2

The key issues to emerge from this component of the survey is the relatively low emphasis the majority of respondents placed on monitoring and evaluation of Waterwatch. Only 31% of respondents said that having 'A set of indicators that can be...measured to enable timely assessments of program performance...' was 'critical'. About 61% said this was important, 7% said they were not sure and 2% said it was 'not really important'. Just 28% thought it was 'critical' that they have a 'reporting system that enables regional NRM managers to compare Waterwatch with other regional programs...' and only 44% said this was 'Important'; 23% said they were 'not sure'. This is a worrying result in light of the shift to regional delivery and the importance of Waterwatch demonstrating its value to regional NRM authorities.

However, on a more positive note, there is some indication that this situation may be improving, with 45% of respondents reporting an 'improving' trend on the first dimension ('a set of indicators...') and 37% reporting that the third dimension ('an appreciation of the need to assess outcomes over outputs') was improving (58% said it was 'static').

What do community participants in Waterwatch think?

A brief survey was distributed randomly to 'community' participants and teachers in four States to assess the extent to which the perceived value of Waterwatch to participants matched the perceptions of coordinators and proponents of Waterwatch. Sixty-eight surveys were returned, but 57 of these were able to be entered and analysed within the time frame of the study.

The key motivators for participation in Waterwatch (which are ranked from most to least important in Table 15) are very promising in terms of the perception by Waterwatch coordinators and proponents that Waterwatch is really a capacity-building program. The top two motivators are very works-oriented. That 'to collect credible scientific data to contribute to a bigger monitoring program' ranked so highly is a very positive outcome in terms of answering the question that many coordinators have about how much one can ask of communities in terms of performing data collection 'services'. It appears also that people are perhaps less interested just in their own patch, and are not necessarily involved for social reasons.

Table 15: Average 'importance' of motivating influences for participation in Waterwatch (Selected States and overall average, where 1='not at all important' and 5='critical').

Statement	NSW	SA	Tas	WA	All
I wanted to take action to protect the environment	4.2	3.9	3.3	4.5	4.1
To gain an understanding of issues affecting waterways	4.0	3.9	3.7	4.2	4.0
To help collect credible scientific data to contribute to a bigger monitoring program	4.1	3.6	4.0	4.2	4.0
I had specific concerns about the local catchment and wanted to learn more	3.9	3.3	3.7	4.0	3.7
I wanted to join with like-minded people doing an activity I enjoyed	3.4	3.1	3.0	3.0	3.2

N=57.

In terms of the impact of their participation in Waterwatch (see Table 16), respondents 'strongly agreed' with the statement that since being involved in Waterwatch they had 'an increased knowledge of sampling and analysis techniques' and 'a better understanding of the issues affecting waterways'. Again, this bodes well for Waterwatch as a capacity building initiative in terms of knowledge and understanding. However, respondents were less likely to agree that they 'had been able to contribute to, and/or have a say in natural resource management issues being discussed in my State/Territory and/or region'.

Table 16: Impact of participation in Waterwatch (Selected States and overall average, where 1='strongly disagree' and 5='strongly agree').

Statement:	NSW	SA	Tas	WA	All
"Since becoming involved in Waterwatch I have:					
an increased knowledge of sampling and analysis techniques	4.6	4.5	4.0	3.8	4.4
a better understanding of the issues affecting waterways	4.4	3.9	4.0	4.0	4.1
undertaken local on-ground remedial action to improve the health of waterways	3.7	2.8	2.0	3.3	3.2
been able to contribute to, and/or have a say in natural resource management issues being discussed in my State/Territory and/or region	2.8	2.4	4.3	3.3	2.8
used information gained from Waterwatch (eg the data collected) to apply for funding for on-ground works	2.9	2.0	1.7	3.0	2.5

N=57. Scale: 1="strongly disagree" to 5="strongly agree"

Survey respondents were generally very happy with the support provided by Waterwatch staff (see Table 17). However, that the statement 'Waterwatch coordinators...have...provided an opportunity to liaise with regional agencies' ranked last in this set of statements may be of concern to Waterwatch at the regional scale, in terms of meeting objectives relating to empowering communities to participate in regional NRM decision-making processes. Community water monitoring will continue to be funded through regional NRM investment planning processes as a community engagement and capacity building tool, so it is very important that this perceived lack of opportunity for volunteers to be engaged with regional NRM authorities needs to be addressed where it is lacking.

Table 17: Feedback on the support provided by Waterwatch (Selected States and overall average, where 1='strongly disagree' and 5='strongly agree').

Statement:	NSW	SA	Tas	WA	All
"the Waterwatch coordinators I have dealt with:					
are personable and helpful	4.8	4.5	4.5	4.8	4.7
are accessible (I can contact them when I need to)	4.7	4.5	4.5	4.8	4.6
are skilled and/or experienced	4.8	4.5	4.5	4.7	4.6
have encouraged me	4.6	4.3	4.3	4.3	4.4
provide ongoing support and training I might need	4.5	4.4	4.0	4.5	4.4
have provided prompt feedback of results	4.3	4.3	3.8	4.2	4.3
have informed me about catchment management and river care issues	4.2	4.0	4.0	4.2	4.1
provide an opportunity to liaise with regional agencies	3.7	3.9	3.8	4.2	3.8

N=57. Scale: 1="strongly disagree" to 5="strongly agree"

The final set of 'quantitative' questions within the survey related to various issues relating to participants' perceptions of data quality, data use and their sense of belonging to a broader initiative (see Table 18). Respondents perceptions about the quality of their data is fairly positive, as is their belief that their data is available for use. However, note that none of the averages in this last set of

statements are in the 'agree' and 'strongly agree': the average is only just 'better' than being undecided.

It is notable that people were more inclined to agree they belonged to a regional, than a State-wide and then national initiative.

Table 18: Experience of Participation in Waterwatch (Selected States and overall average, where 1='strongly disagree' and 5='strongly agree').

Statement:	NSW	SA	Tas	WA	All
The data collected is validated through quality control processes	3.7	3.7	3.3	4.2	3.8
The data we collect is available for use as input into local or State policies and/or action plans	4.0	3.3	4.0	4.2	3.8
We have ready access to the regional Waterwatch database to enter data and access the data already collected	4.3	2.7	2.7	4.2	3.7
I feel that I belong to a regional network	3.9	3.4	2.5	3.3	3.6
I feel that I belong to something State-wide	3.7	3.6	2.3	3.7	3.5
I feel that I belong to a national program	3.6	2.8	2.5	3.3	3.2
Through Waterwatch we have linked up with other groups (eg catchment groups, community groups)	3.2	2.9	3.0	3.2	3.1
There are opportunities to discuss the results, equipment and methods with other monitors	3.0	2.9	3.0	2.8	2.9
Our group places more emphasis on collecting data to satisfy our own questions than on collecting scientifically rigorous data for others to use	2.3	3.4	2.3	2.2	2.7
We worked with data users to design our monitoring program	2.3	1.9	2.3	2.6	2.2

N=57.

Of most concern in the context of the likely need to develop monitoring programs that respond to the needs of regional monitoring and evaluation programs is the very low level of agreement (i.e. disagreement) with the statement 'we worked with data users to design our monitoring program'. This will be an important gap to fill if Waterwatch is to contribute to regional M&E programs. The results highlighted previously in relation to the motives of Waterwatch participants suggests that there a willingness among at least some community members to undertake monitoring on a more strategic basis (i.e. to fulfil M&E objectives of regional NRM authorities).

Summary comments from 'community survey' respondents:

The majority (95%) of survey respondents were currently participating in Waterwatch and, of these, 97% intend to continue participate in the future, commonly for 'as long as possible'. Among the teachers who responded, participation now and in the future is dependent on the particular class they are taking or likely to take in the future. Some teachers who were currently not participating said they would be likely to participate in the future if the opportunity arose.

One participant said that they no longer participated because they considered the program to be too school-orientated.

Participants nominated several key issues that were crucial to their ongoing participation. Support from and access to Waterwatch coordinators emerged as important, and many felt that the continuity of personnel was very important. One respondent wrote of Coordinators:

Without their assistance, guidance and support, the program would be unable to function at any worthwhile level.

Funding is also considered critical, and is perceived as impacting on the continuity of Waterwatch personnel and projects, and the ability to support data collection, equipment, and training to ensure the reliability of data.

Waterwatch participants reported that they need feedback on the quality and use of data through regular newsletters/updates, and sought continued access to calibration solutions. Data quality is an important theme running through the comments of survey respondents. Data QA/QC training and the provision of technical manuals were perceived as critical to ensure data reliability and overcome what a participant considered the 'laborious and confusing' instructions for the same tests in different manuals.

A newsletter was also raised as important to share issues and raise awareness. Facilitating networks between Waterwatch groups, such as visiting other sites, was also important to participants.

Two thirds of participants who responded to the survey felt that there were unexpected benefits from participating in Waterwatch. These unexpected benefits arose from the networks that were established with other environmental groups and programs such as Landcare and 'Friends of' groups, government agencies, and within the community. One respondent commented that Waterwatch facilitates...

...team-work and [team] building across groups and ages and skill and expertise levels.

The hands-on and locally-relevant approach of Waterwatch was stated as another unexpected benefit. Waterwatch is seen as contributing to building confidence among school students, in particular.

The educational resources produced by Waterwatch were widely praised, as were community newsletters for raising awareness about water quality issues. The support and expertise of the coordinators in terms of their environmental knowledge and directing groups to other relevant programs and grants were also listed as 'unexpected outcomes'.

The enthusiasm of Waterwatch coordinators was reported as being a key motivation for ongoing participation. The notion of contributing data to a wider and long-term database is also a motivating factor for survey respondents.

Additional issues that were raised relate to the opportunities Waterwatch provided participants to improve their knowledge and understanding about water quality issues and engaging and raising awareness in the community in general, and school students and parents in particular.

That Waterwatch has relevance to the school curriculum was widely appreciated by the teacher-respondents. One wrote:

The snapshot/regional events have proven a great tool in involving local schools in broader environmental issues and incorporating the ideas into their class programs

One respondent noted a lack of community support for Waterwatch, and that schools in the same area have shown little interest.

Conclusion

The survey has highlighted the diversity that exists in the delivery of community-based water monitoring and community education about water issues at the regional delivery. There is significant variance in people's perceptions about the current state of 'Waterwatch'. However, there is very little difference in people's perceptions of the importance of a few key factors that 'drive' a successful Waterwatch-type program, and these are summarised below:

- Sufficient resources to fund 'coordinators' to deliver community-based water monitoring and education/capacity building initiatives.
- Security of funding to enable security of tenure for coordinators.
- Support among regional NRM authorities and partner agencies (i.e. a belief in the value of community-based water monitoring and water education as worthwhile community engagement and data collection initiatives).
- People with skills in community engagement and education to deliver water monitoring and education activities (i.e. skilled coordinators).
- Coordinators with skills in building and enhancing networks.
- A data quality control/assurance system that is well understood and supported by volunteer monitors and data users.
- A network of keen volunteer monitors that are well trained and supported.
- Monitoring programs that are sensitive to the level of commitment and availability of community volunteers.

That there is variance in survey respondents perceptions of the current condition and trend on the many 'success factors' listed in the survey is most probably a reflection of the current uncertainty surrounding the future of Waterwatch under the 'regional delivery' model. The survey was taken at a time when the majority of the 56 NHT regions were still developing their regional investment strategies. This uncertainty about funding is highlighted through the survey in that most of the gaps between 'importance' and current condition and trend relate to securing funding for Waterwatch-type activities.

Despite the efforts of the national Waterwatch office back in 2000 to communicate the then up-coming changes to federal NRM funding, it is evident from the survey and the focus groups that the shift to regional delivery has not happened in many regions, and that the potential advantages of the new funding model have not been realised. The focus groups highlighted that the difficulties

associated with making the shift to regional delivery are, on the whole, not a result of a lack of awareness of what regional delivery is or how it works, but the difficulties Waterwatch coordinators and their proponents have had in engaging with the process of developing regional NRM investment strategies.

Regional delivery has the potential to provide more security than ever because of the longer investment cycles (3 to 5 years). This has been the experience of Victorian regional Waterwatch initiatives, which have gone from strength to strength since being brought under the wings of CMAs. The challenge facing NRM regions in most other States/Territories at the moment is securing a place for community water monitoring and capacity-building initiatives based on Waterwatch methods, tools and activities and delivered by local coordinators, within regional investment planning processes.

Some variation in survey responses may also be due to the fact that, at least in some States/Territories, 'Waterwatch Coordinators' are no longer necessarily called 'Waterwatch Coordinators'. They may perform similar duties, but are funded from different sources. This trend is likely to increase as regional NRM delivery becomes more integrated.

The survey of coordinators and community volunteers has highlighted that the approaches to community engagement employed by Waterwatch over the past 10 or more years are very sound and the people involved remain committed to the ideals and approach of Waterwatch.

The key implications for national support for community engagement and capacity building in NRM that are highlighted by the survey are that:

- The importance of having people 'on the ground' at the local level to deliver 'Waterwatch' products and services is critical.
- The majority of survey respondents are assessing the current state of Waterwatch in the context of the 'old' Waterwatch Program, where the primary focus of the employment of coordinators at the local level and the provision of State- and national-level support.
- Community survey respondents do not currently feel strongly that they are a part of a national initiative.

APPENDIX 3: SUMMARY RESULTS, 'COORDINATOR SURVEY'

Set 1: Perceptions of IMPORTANCE

	Importance: Institutional Arrangements and Funding	Critical	Important	Not sure	Not really important	Not at all important	Not Applicable	n	Total
B1.1	partner agencies, hosts & sponsors, that believe in and are dedicated to Waterwatch	77%	20%	2%	2%			64	100%
B1.2	sufficient resources to provide security of tenure for coordinators	81%	16%	2%		2%		64	100%
B1.3	hosts and sponsors that feel a sense of ownership of the program, without being too possessive (e.g. decision-making processes are inclusive of other stakeholders)	37%	57%	5%	2%			63	100%
B1.4	hosts and sponsors that see Waterwatch as fulfilling a strategic NRM monitoring role	56%	27%	8%	8%	2%		64	100%
B1.5	hosts and sponsors that see Waterwatch as fulfilling community educational roles	55%	39%	5%	2%			64	100%
B1.6	Line managers within host organisations that are aware of Waterwatch and are supportive of the program	59%	35%	3%	2%		2%	63	100%
B1.7	funding that is sufficient to meet the expectations of the program and provide the capacity necessary to respond to interest in and demand for Waterwatch	78%	19%	2%		2%		64	100%
B1.8	coordinators and hosts who are proactive in their funding and sponsorship-seeking activities.	42%	44%	8%	3%		3%	63	100%
B1.9	support from "higher levels" in the network in the development and provision of educational and promotional resources, training and in facilitating knowledge exchange.	51%	40%	5%	5%			63	100%
B1.10	many agencies/authorities/ groups/ educational institutions working together as a partnership	48%	44%	3%	5%			63	100%

	Importance: Education	Critical	Important	Not sure	Not really important	Not at all important	Not Applicable	n	Total
B2.1	achieved a balance between school and broader community education initiatives	40%	47%	6%	6%			62	100%
B2.2	coordinators who are skilled and experienced in developing and delivering school waterwatch programs	45%	48%	3%	3%			62	100%
B2.3	supportive teachers and schools	58%	40%			2%		60	100%
B2.4	high quality educational materials and resources that are flexible enough to facilitate locally relevant and topical content	51%	44%	5%				61	100%
B2.5	support from State education department in the development of education resources and methods of tying Waterwatch into school curriculum	32%	55%	7%	5%		2%	60	100%
B2.6	support, training and advice available to coordinators from a teacher on 'release to industry' program or similar.	17%	37%	28%	10%	2%	7%	61	100%
B2.7	sufficient resources/sponsorship to enable inter and intra-regional sharing of Waterwatch educational experience (e.g. exchanges, kids conferences, etc.)	15%	58%	15%	8%		3%	60	100%
B2.8	coordinators who are skilled and experienced in developing and delivering community education programs	66%	33%	2%				62	100%
B2.9	coordinators who are skilled in adult education techniques, participatory learning, etc. -i.e. are skilled in engaging the adult community in activities that inform, raise awareness and build capacity.	53%	42%	2%	2%	2%		62	100%
B2.10	coordinators who are perceptive of the wide range of values, attitudes and beliefs among landholders and other adults in the community and use this skills to develop well targeted programs that maximise participation and the satisfaction of participants.	56%	40%		2%		2%	62	100%

	Importance: On-Ground Works	Critical	Important	Not sure	Not really important	Not at all important	Not Applicable	n	Total
B3.1	opportunities for participants in Waterwatch to become directly involved in on-ground works to improve river/catchment health.	45%	40%	8%	3%	2%	2%	62	100%
B3.2	a high level of involvement of Waterwatch participants in on-ground works.	26%	39%	16%	16%	2%		61	100%
B3.3	very close links between Waterwatch coordinators and Rivercare/waterway coordinators	39%	41%	16%		2%	2%	62	100%

	Importance: Data Quality	Critical	Important	Not sure	Not really important	Not at all important	Not Applicable	n	Total
B4.1	a network of monitoring sites that meet strategic needs of data users and fit catchment and regional NRM plans	41%	48%	5%	2%	5%		63	100%
B4.2	a network of committed, skilled monitors	52%	43%	3%	2%			63	100%
B4.3	a sufficient number of monitors to provide a "critical mass" of data to State database	33%	38%	14%	13%		2%	63	100%
B4.4	enough equipment for monitors to fulfil their needs in relation to their monitoring programs	65%	30%	3%			2%	63	100%
B4.5	supportive data users who understand the strengths and weaknesses of Waterwatch data, and have faith in its use as an adaptive management tool.	40%	51%	8%			2%	63	100%
B4.6	data users that are involved in the design of monitoring programs	23%	55%	16%	3%	2%	2%	62	100%
B4.7	data confidence plans in place with monitoring plans, prepared in consultation with a range of regional stakeholders	23%	61%	10%	2%	2%	3%	61	100%
B4.8	consistency in the data collected (in terms of parameters, units, etc.)	50%	42%	5%	2%		2%	63	100%
B4.9	a data quality assurance/quality control system that is well recognised and supported	55%	42%		2%		2%	63	100%
B4.10	accessible database that facilitates data use and availability	40%	53%	3%	2%		2%	63	100%
B4.11	community-collected data being used to contribute to regional/State monitoring and evaluation programs (biophysical)	16%	69%	13%			2%	62	100%
B4.12	community-collected data being used to contribute to baseline monitoring	24%	65%	10%		2%		63	100%
B4.13	community-collected data being used to contribute to educational outcomes	32%	56%	8%	2%	2%		63	100%
B4.14	community-collected data being used to contribute to implementing regional Action Plans/strategies.	24%	60%	13%	2%	2%		63	100%

	Importance: Program Delivery	Critical	Important	Not sure	Not really important	Not at all important	Not Applicable	n	Total
B5.1	enough regional/local coordinators to service current demand for school programs and community monitoring	65%	34%	2%				62	100%
B5.2	capacity within the network of coordinators/host organisation to respond to the interest/demands of community monitors, schools, etc.	50%	44%	5%	2%			62	100%
B5.3	coordinators who are proactive in building and enhancing networks	65%	34%	2%				62	100%
B5.4	monitoring programs that are sensitive to the level of commitment/availability of community volunteers	66%	31%	3%				61	100%
B5.5	open, transparent and inclusive decision-making processes for setting the shape of regional programs	37%	47%	13%	3%			62	100%
B5.6	a steering committee comprising hosts, sponsors and key stakeholders	23%	40%	15%	19%	2%	2%	62	100%
B5.7	the ability and capacity to efficiently provide prompt feedback of interpreted results/data to monitors	31%	66%	2%	2%			62	100%
B5.8	opportunities for community monitors to meet to discuss results, communicate with users of their data, participate in training, etc.	32%	56%	8%	3%			62	100%
B5.9	data that is up-to-date and readily available to interested agencies, groups and individuals	43%	49%	5%	2%	2%		61	100%
B5.10	coordinators who act as 'points of entry' for various messages/information products from all agencies/groups within the partnership	26%	50%	21%	2%	2%		62	100%
B5.11	clearly articulated and understood roles and responsibilities of local and regional coordinators, managers within hosting agencies, and partner agencies	61%	34%	5%				62	100%

	Importance: Staff	Critical	Important	Not sure	Not really important	Not at all important	Not Applicable	n	Total
B6.1	dedicated, personable and multi-skilled coordinators	72%	28%					61	100%
B6.2	a high proportion of long-term employees	46%	48%	3%	3%			61	100%
B6.3	induction programs available for new staff	39%	56%	3%			2%	61	100%
B6.4	support and mentoring for less experienced coordinators	38%	56%	3%	2%		2%	61	100%
B6.5	training opportunities are provided and well attended	39%	57%	2%			2%	61	100%
B6.6	opportunities for peer communication and development (e.g. conferences, seminars, team meetings, etc.).	46%	52%				2%	61	100%
B6.7	coordinators who are experienced in engaging indigenous communities and are aware of the indigenous communities and organisations in their regions.	21%	56%	13%	5%	2%	3%	61	100%

	Importance: Monitoring & Evaluation	Critical	Important	Not sure	Not really important	Not at all important	Not Applicable	n	Total
B7.2	a set of indicators that can be reliably and efficiently measured to enable timely assessments of program performance at our level, which can also be used to report at local, State and National levels.	31%	61%	7%	2%			61	100%
B7.1	a reporting system that enables regional NRM managers to compare Waterwatch with other regional programs, particularly in terms of attitudinal and behavioural outcomes.	28%	44%	23%	2%	2%	2%	61	100%
B7.3	an appreciation of the need to assess outcomes over outputs.	25%	55%	18%			2%	60	100%

Set 2: CURRENT CONDITION

	Current Condition: Institutional Arrangements and Funding	Yes, always had	Yes, have now	No, don't have now	No, and never had	Not applicable	n	Total
B1.5	hosts and sponsors that see Waterwatch as fulfilling community educational roles	56%	25%	20%			61	100%
B1.1	partner agencies, hosts & sponsors, that believe in and are dedicated to Waterwatch	53%	28%	17%		2%	64	100%
B1.6	line managers within host organisations that are aware of Waterwatch and are supportive of the program	42%	33%	20%	2%	3%	60	100%
B1.9	support from "higher levels" in the network in the development and provision of educational and promotional resources, training and in facilitating knowledge exchange.	41%	11%	46%		2%	61	100%
B1.3	hosts and sponsors that feel a sense of ownership of the program, without being too possessive (e.g. decision-making processes are inclusive of other stakeholders)	38%	25%	30%	2%	5%	63	100%
B1.10	many agencies/authorities/ groups/ educational institutions working together as a partnership	30%	30%	34%	5%	2%	61	100%
B1.8	coordinators and hosts who are proactive in their funding and sponsorship-seeking activities.	27%	46%	19%	7%	2%	59	100%
B1.4	hosts and sponsors that see Waterwatch as fulfilling a strategic NRM monitoring role	15%	40%	37%	6%	2%	62	100%
B1.2	sufficient resources to provide security of tenure for coordinators	14%	23%	50%	11%	2%	64	100%
B1.7	funding that is sufficient to meet the expectations of the program and provide the capacity necessary to respond to interest in and demand for Waterwatch	13%	27%	47%	13%		62	100%

	Current Condition: Education	Yes, always had	Yes, have now	No, don't have now	No, and never had	Not applicable	n	Total
B2.3	supportive teachers and schools	62%	22%	16%			58	100%
B2.2	coordinators who are skilled and experienced in developing and delivering school waterwatch programs	51%	36%	11%		2%	61	100%
B2.8	coordinators who are skilled and experienced in developing and delivering community education programs	48%	34%	15%		3%	61	100%
B2.9	coordinators who are skilled in adult education techniques, participatory learning, etc. -i.e. are skilled in engaging the adult community in activities that inform, raise awareness and build capacity.	43%	31%	13%	8%	5%	61	100%
B2.10	coordinators who are perceptive of the wide range of values, attitudes and beliefs among landholders and other adults in the community and use this skills to develop well targeted programs that maximise participation and the satisfaction of participants.	43%	38%	9%	3%	7%	58	100%
B2.4	high quality educational materials and resources that are flexible enough to facilitate locally relevant and topical content	33%	36%	22%	9%		58	100%
B2.1	achieved a balance between school and broader community education initiatives	31%	25%	33%	11%		61	100%
B2.5	support from State education department in the development of education resources and methods of tying Waterwatch into school curriculum	25%	18%	30%	25%	4%	57	100%
B2.7	sufficient resources/sponsorship to enable inter and intra-regional sharing of Waterwatch educational experience (e.g. exchanges, kids conferences, etc.)	23%	13%	33%	27%	4%	52	100%
B2.6	support, training and advice available to coordinators from a teacher on 'release to industry' program or similar.	13%	7%	28%	41%	11%	54	100%

	Current Condition: On-Ground Works	Yes, always had	Yes, have now	No, don't have now	No, and never had	Not applicable	n	Total
B3.1	opportunities for participants in Waterwatch to become directly involved in on-ground works to improve river/catchment health.	38%	33%	17%	7%	5%	60	100%
B3.2	a high level of involvement of Waterwatch participants in on-ground works.	29%	20%	34%	13%	5%	56	100%
B3.3	very close links between Waterwatch coordinators and Rivercare/waterway coordinators	25%	32%	30%	11%	4%	57	100%

	Current Condition: Data Quality	Yes, always had	Yes, have now	No, don't have now	No, and never had	Not applicable	n	Total
B4.13	community-collected data being used to contribute to educational outcomes	49%	28%	17%	4%	2%	53	100%
B4.8	consistency in the data collected (in terms of parameters, units, etc.)	47%	30%	11%	9%	4%	57	100%
B4.2	a network of committed, skilled monitors	31%	36%	25%	8%		59	100%
B4.12	community-collected data being used to contribute to baseline monitoring	24%	37%	24%	15%		54	100%
B4.10	accessible database that facilitates data use and availability	23%	36%	32%	7%	2%	56	100%
B4.3	a sufficient number of monitors to provide a "critical mass" of data to State database	22%	15%	38%	20%	5%	55	100%
B4.4	enough equipment for monitors to fulfil their needs in relation to their monitoring programs	19%	33%	30%	16%	2%	57	100%
B4.6	data users that are involved in the design of monitoring programs	19%	26%	37%	17%	2%	54	100%
B4.9	a data quality assurance/quality control system that is well recognised and supported	19%	44%	23%	12%	2%	57	100%
B4.1	a network of monitoring sites that meet strategic needs of data users and fit catchment and regional NRM plans	18%	25%	35%	18%	3%	60	100%
B4.5	supportive data users who understand the strengths and weaknesses of Waterwatch data, and have faith in its use as an adaptive management tool.	15%	44%	24%	18%		55	100%
B4.14	community-collected data being used to contribute to implementing regional Action Plans/strategies.	10%	33%	33%	21%	4%	52	100%
B4.7	data confidence plans in place with monitoring plans, prepared in consultation with a range of regional stakeholders	9%	28%	33%	26%	4%	54	100%
B4.11	community-collected data being used to contribute to regional/State monitoring and evaluation programs (biophysical)	8%	27%	37%	23%	6%	52	100%

	Current Condition: Program Delivery	Yes, always had	Yes, have now	No, don't have now	No, and never had	Not applicable	n	Total
B5.4	monitoring programs that are sensitive to the level of commitment/availability of community volunteers	54%	28%	14%	2%	2%	59	100%
B5.3	coordinators who are proactive in building and enhancing networks	42%	36%	20%	2%		53	100%
B5.10	coordinators who act as 'points of entry' for various messages/information products from all agencies/groups within the partnership	38%	40%	12%		10%	52	100%
B5.9	data that is up-to-date and readily available to interested agencies, groups and individuals	34%	30%	28%	6%	2%	53	100%
B5.6	a steering committee comprising hosts, sponsors and key stakeholders	33%	16%	27%	22%	2%	55	100%
B5.7	the ability and capacity to efficiently provide prompt feedback of interpreted results/data to monitors	33%	32%	26%	7%	2%	57	100%
B5.8	opportunities for community monitors to meet to discuss results, communicate with users of their data, participate in training, etc.	29%	27%	33%	11%		55	100%
B5.11	clearly articulated and understood roles and responsibilities of local and regional coordinators, managers within hosting agencies, and partner agencies	28%	28%	37%	7%		57	100%
B5.5	open, transparent and inclusive decision-making processes for setting the shape of regional programs	25%	32%	23%	13%	7%	56	100%
B5.2	capacity within the network of coordinators/host organisation to respond to the interest/demands of community monitors, schools, etc.	21%	34%	29%	14%	2%	58	100%
B5.1	enough regional/local coordinators to service current demand for school programs and community monitoring	8%	27%	47%	17%		59	100%
	Current Condition: Staff	Yes, always had	Yes, have now	No, don't have now	No, and never had	Not applicable	n	Total
B6.1	dedicated, personable and multi-skilled coordinators	49%	37%	10%	2%	2%	59	100%
B6.6	opportunities for peer communication and development (e.g. conferences, seminars, team meetings, etc.).	40%	28%	28%	2%	2%	57	100%
B6.5	training opportunities are provided and well attended	34%	36%	21%	7%	2%	56	100%
B6.4	support and mentoring for less experienced coordinators	30%	25%	29%	11%	5%	56	100%
B6.2	a high proportion of long-term employees	21%	19%	31%	29%		58	100%
B6.3	induction programs available for new staff	18%	23%	34%	20%	5%	56	100%
B6.7	coordinators who are experienced in engaging indigenous communities and are aware of the indigenous communities and organisations in their regions.	9%	25%	38%	23%	6%	53	100%

	Current Condition: Monitoring & Evaluation	Yes, always had	Yes, have now	No, don't have now	No, and never had	Not applicable	n	Total
B7.1	a set of indicators that can be reliably and efficiently measured to enable timely assessments of program performance at our level, which can also be used to report at local, State and National levels.	18%	20%	36%	24%	2%	55	100%
B7.2	a reporting system that enables regional NRM managers to compare Waterwatch with other regional programs, particularly in terms of attitudinal and behavioural outcomes.	6%	6%	36%	45%	8%	53	100%
B7.3	an appreciation of the need to assess outcomes over outputs.	18%	16%	40%	20%	6%	50	100%

Set 3: CURRENT TREND

	Trend: Institutional Arrangements and Funding	Improving	Static	Declining	n	Total
B1.4	hosts and sponsors that see Waterwatch as fulfilling a strategic NRM monitoring role	54%	33%	13%	54	100%
B1.10	many agencies/authorities/ groups/ educational institutions working together as a partnership	53%	36%	11%	55	100%
B1.1	partner agencies, hosts & sponsors, that believe in and are dedicated to Waterwatch	43%	30%	28%	61	100%
B1.8	coordinators and hosts who are proactive in their funding and sponsorship-seeking activities.	39%	52%	9%	54	100%
B1.6	line managers within host organisations that are aware of Waterwatch and are supportive of Waterwatch	38%	49%	13%	53	100%
B1.5	hosts and sponsors that see Waterwatch as fulfilling community educational roles	35%	55%	11%	55	100%
B1.3	hosts and sponsors that feel a sense of ownership of the program, without being too possessive (e.g. decision-making processes are inclusive of other stakeholders)	29%	56%	15%	55	100%
B1.7	funding that is sufficient to meet the expectations of the program and provide the capacity necessary to respond to interest in and demand for Waterwatch	23%	38%	39%	56	100%
B1.9	support from "higher levels" in the network in the development and provision of educational and promotional resources, training and in facilitating knowledge exchange.	20%	45%	35%	55	100%
B1.2	sufficient resources to provide security of tenure for coordinators	16%	49%	34%	61	100%

	Trend: Education	Improving	Static	Declining	n	Total
B2.1	achieved a balance between school and broader community education initiatives	56%	25%	18%	55	100%
B2.4	high quality educational materials and resources that are flexible enough to facilitate locally relevant and topical content	55%	24%	20%	49	100%
B2.10	coordinators who are perceptive of the wide range of values, attitudes and beliefs among landholders and other adults in the community and use this skills to develop well targeted programs that maximise participation and the satisfaction of participants.	49%	33%	18%	49	100%
B2.9	coordinators who are skilled in adult education techniques, participatory learning, etc. -i.e. are skilled in engaging the adult community in activities that inform, raise awareness and build capacity.	46%	38%	16%	50	100%
B2.8	coordinators who are skilled and experienced in developing and delivering community education programs	42%	38%	19%	52	100%
B2.2	coordinators who are skilled and experienced in developing and delivering school waterwatch programs	40%	42%	19%	53	100%
B2.3	supportive teachers and schools	37%	49%	14%	49	100%
B2.7	sufficient resources/sponsorship to enable inter and intra-regional sharing of Waterwatch educational experience (e.g. exchanges, kids conferences, etc.)	24%	61%	15%	46	100%
B2.5	support from State education department in the development of education resources and methods of tying Waterwatch into school curriculum	21%	66%	13%	47	100%
B2.6	support, training and advice available to coordinators from a teacher on 'release to industry' program or similar.	12%	77%	12%	43	100%

	Trend: On-Ground Works	Improving	Static	Declining	n	Total
B3.1	opportunities for participants in Waterwatch to become directly involved in on-ground works to improve river/catchment health.	56%	33%	10%	48	100%
B3.2	very close links between Waterwatch coordinators and Rivercare/waterway coordinators	54%	37%	9%	46	100%
B3.3	a high level of involvement of Waterwatch participants in on-ground works.	46%	46%	9%	46	100%

	Trend: Data Quality	Improving	Static	Declining	n	Total
B4.1	a network of monitoring sites that meet strategic needs of data users and fit catchment and regional NRM plans	70%	22%	8%	50	100%
B4.9	a data quality assurance/quality control system that is well recognised and supported	66%	28%	6%	47	100%
B4.12	community-collected data being used to contribute to baseline monitoring	62%	31%	7%	45	100%
B4.2	a network of committed, skilled monitors	61%	22%	16%	49	100%
B4.14	community-collected data being used to contribute to implementing regional Action Plans/strategies.	60%	30%	9%	43	100%
B4.3	a sufficient number of monitors to provide a "critical mass" of data to State database	59%	30%	11%	46	100%
B4.5	supportive data users who understand the strengths and weaknesses of Waterwatch data, and have faith in its use as an adaptive management tool.	59%	39%	2%	46	100%
B4.11	community-collected data being used to contribute to regional/State monitoring and evaluation programs (biophysical)	58%	36%	7%	45	100%
B4.7	data confidence plans in place with monitoring plans, prepared in consultation with a range of regional stakeholders	56%	36%	9%	45	100%
B4.8	consistency in the data collected (in terms of parameters, units, etc.)	56%	42%	2%	45	100%
B4.4	enough equipment for monitors to fulfil their needs in relation to their monitoring programs	49%	43%	9%	47	100%
B4.13	community-collected data being used to contribute to educational outcomes	49%	40%	11%	45	100%
B4.10	accessible database that facilitates data use and availability	46%	50%	4%	46	100%
B4.6	data users that are involved in the design of monitoring programs	39%	54%	7%	46	100%

	Trend: Program Delivery	Improving	Static	Declining	n	Total
B5.9	data that is up-to-date and readily available to interested agencies, groups and individuals	58%	36%	7%	49	100%
B5.3	coordinators who are proactive in building and enhancing networks	58%	28%	14%	50	100%
B5.8	opportunities for community monitors to meet to discuss results, communicate with users of their data, participate in training, etc.	53%	30%	17%	47	100%
B5.7	the ability and capacity to efficiently provide prompt feedback of interpreted results/data to monitors	47%	36%	17%	47	100%
B5.11	clearly articulated and understood roles and responsibilities of local and regional coordinators, managers within hosting agencies, and partner agencies	43%	43%	15%	47	100%
B5.5	open, transparent and inclusive decision-making processes for setting the shape of regional programs	40%	51%	9%	45	100%
B5.4	monitoring programs that are sensitive to the level of commitment/availability of community volunteers	38%	49%	13%	47	100%
B5.2	capacity within the network of coordinators/host organisation to respond to the interest/demands of community monitors, schools, etc.	35%	33%	33%	49	100%
B5.10	coordinators who act as 'points of entry' for various messages/information products from all agencies/groups within the partnership	32%	53%	15%	47	100%
B5.1	enough regional/local coordinators to service current demand for school programs and community monitoring	29%	37%	35%	49	100%
B5.6	a steering committee comprising hosts, sponsors and key stakeholders	21%	64%	15%	47	100%

	Trend: Staff	Improving	Static	Declining	n	Total
B6.1	dedicated, personable and multi-skilled coordinators	52%	33%	15%	48	100%
B6.7	coordinators who are experienced in engaging indigenous communities and are aware of the indigenous communities and organisations in their regions.	40%	51%	9%	43	100%
B6.6	opportunities for peer communication and development (e.g. conferences, seminars, team meetings, etc.).	35%	39%	26%	46	100%
B6.2	a high proportion of long-term employees	33%	46%	22%	46	100%
B6.5	training opportunities are provided and well attended	33%	38%	29%	45	100%
B6.4	support and mentoring for less experienced coordinators	29%	53%	18%	45	100%
B6.3	induction programs available for new staff	25%	59%	16%	44	100%

	Trend: Monitoring & Evaluation	Improving	Static	Declining	n	Total
B7.1	a set of indicators that can be reliably and efficiently measured to enable timely assessments of program performance at our level, which can also be used to report at local, State and National levels.	45%	49%	6%	47	100%
B7.3	an appreciation of the need to assess outcomes over outputs.	37%	58%	5%	43	100%
B7.2	a reporting system that enables regional NRM managers to compare Waterwatch with other regional programs, particularly in terms of attitudinal and behavioural outcomes.	33%	65%	2%	43	100%

Set 4: Key Dates

	Key Dates: Institutional Arrangements and Funding	End NHT1	Start NHT2	State Govt. Change	Host Change	Other	N/A	n	Total
B1.2	sufficient resources to provide security of tenure for coordinators	25	32	2	4	16	21	49	100%
B1.9	support from "higher levels" in the network in the development and provision of educational and promotional resources, training and in facilitating knowledge exchange.	20	18		2	16	43	56	100%
B1.1	partner agencies, hosts & sponsors, that believe in and are dedicated to Waterwatch	20	17	2	9	24	28	54	100%
B1.7	funding that is sufficient to meet the expectations of the program and provide the capacity necessary to respond to interest in and demand for Waterwatch	18	30	2	7	16	27	56	100%
B1.10	many agencies/authorities/ groups/ educational institutions working together as a partnership	13	19	2	6	11	49	58	100%
B1.4	hosts and sponsors that see Waterwatch as fulfilling a strategic NRM monitoring role	10	34		14	14	28	50	100%
B1.6	line managers within host organisations that are aware of Waterwatch and are supportive of Waterwatch	10	18		14	14	44	50	100%
B1.3	hosts and sponsors that feel a sense of ownership of the program, without being too possessive (e.g. decision-making processes are inclusive of other stakeholders)	10	15		19	13	44	48	100%
B1.8	coordinators and hosts who are proactive in their funding and sponsorship-seeking activities.	8	24	2	12	18	36	50	100%
B1.5	hosts and sponsors that see Waterwatch as fulfilling community educational roles	8	18		10	14	49	46	100%

Key Dates: Education		End NHT1	Start NHT2	State Govt. Change	Host Change	Other	N/A	n	Total
B2.8	coordinators who are skilled and experienced in developing and delivering community education programs	17	5		2	7	69	42	100%
B2.1	achieved a balance between school and broader community education initiatives	11	18		9	20	42	45	100%
B2.2	coordinators who are skilled and experienced in developing and delivering school waterwatch programs	11	7		2	15	65	46	100%
B2.10	coordinators who are perceptive of the wide range of values, attitudes and beliefs among landholders and other adults in the community and use this skills to develop well targeted programs that maximise participation and the satisfaction of participants.	11	5		2	7	75	43	100%
B2.9	coordinators who are skilled in adult education techniques, participatory learning, etc. -i.e. are skilled in engaging the adult community in activities that inform, raise awareness and build capacity.	9	5		7	5	74	44	100%
B2.3	supportive teachers and schools	7	5		2	20	66	41	100%
B2.4	high quality educational materials and resources that are flexible enough to facilitate locally relevant and topical content	5	12			22	61	41	100%
B2.5	support from State education department in the development of education resources and methods of tying Waterwatch into school curriculum	5	8		5	13	70	40	100%
B2.6	support, training and advice available to coordinators from a teacher on 'release to industry' program or similar.	5	5		3	8	80	40	100%
B2.7	sufficient resources/sponsorship to enable inter and intra-regional sharing of Waterwatch educational experience (e.g. exchanges, kids conferences, etc.)	3	20	3		5	70	40	100%

Key Dates: On-Ground Works		End NHT1	Start NHT2	State Govt. Change	Host Change	Other	N/A	n	Total
	a high level of involvement of Waterwatch participants in on-ground works.	8	23			5	65	40	100%
	very close links between Waterwatch coordinators and Rivercare/waterway coordinators	5	26			8	62	39	100%
B3.1	opportunities for participants in Waterwatch to become directly involved in on-ground works to improve river/catchment health.	5	17			12	66	41	100%

	Key Dates: Data Quality	End NHT1	Start NHT2	State Govt. Change	Host Change	Other	N/A	n	Total
B4.4	enough equipment for monitors to fulfil their needs in relation to their monitoring programs	15	18		10	8	49	39	100%
B4.9	a data quality assurance/quality control system that is well recognised and supported	15	13			21	51	39	100%
B4.1	a network of monitoring sites that meet strategic needs of data users and fit catchment and regional NRM plans	5	12	2		17	64	42	100%
B4.2	a network of committed, skilled monitors	10	15	2	2	10	61	41	100%
B4.11	community-collected data being used to contribute to regional/State monitoring and evaluation programs (biophysical)	8	10			13	70	40	100%
B4.12	community-collected data being used to contribute to baseline monitoring	8	10			10	72	39	100%
B4.5	supportive data users who understand the strengths and weaknesses of Waterwatch data, and have faith in its use as an adaptive management tool.	7	7	2		12	71	41	100%
B4.7	data confidence plans in place with monitoring plans, prepared in consultation with a range of regional stakeholders	5	16		3	11	66	38	100%
B4.14	community-collected data being used to contribute to implementing regional Action Plans/strategies.	5	15		3	8	69	39	100%
B4.10	accessible database that facilitates data use and availability	5	13	3	3	18	60	40	100%
B4.3	a sufficient number of monitors to provide a "critical mass" of data to State database	5	10		2	7	76	41	100%
B4.6	data users that are involved in the design of monitoring programs	5	8			8	79	39	100%
B4.8	consistency in the data collected (in terms of parameters, units, etc.)	5	8		3	10	74	39	100%
B4.13	community-collected data being used to contribute to educational outcomes	2	12			15	71	41	100%

	Key Dates: Program Delivery	End NHT1	Start NHT2	State Govt. Change	Host Change	Other	N/A	n	Total
B5.1	enough regional/local coordinators to service current demand for school programs and community monitoring	20	18	2	7	16	36	45	100%
B5.7	the ability and capacity to efficiently provide prompt feedback of interpreted results/data to monitors	13	10		3	13	63	40	100%
B5.2	capacity within the network of coordinators/host organisation to respond to the interest/demands of community monitors, schools, etc.	12	20	5	5	12	46	42	100%
B5.3	coordinators who are proactive in building and enhancing networks	12	15		7	15	51	41	100%
B5.5	open, transparent and inclusive decision-making processes for setting the shape of regional programs	10	15		3	10	63	40	100%
B5.4	monitoring programs that are sensitive to the level of commitment/availability of community volunteers	8	8			10	74	39	100%
B5.8	opportunities for community monitors to meet to discuss results, communicate with users of their data, participate in training, etc.	7	20		2	15	56	41	100%
B5.6	a steering committee comprising hosts, sponsors and key stakeholders	7	15		2	15	61	41	100%
B5.9	data that is up-to-date and readily available to interested agencies, groups and individuals	5	15		3	10	67	39	100%
B5.10	coordinators who act as 'points of entry' for various messages/information products from all agencies/groups within the partnership	3	15		3	8	73	40	100%
B5.11	clearly articulated and understood roles and responsibilities of local and regional coordinators, managers within hosting agencies, and partner agencies	2	22		5	10	61	41	100%

	Key Dates: Staff	End NHT1	Start NHT2	State Govt. Change	Host Change	Other	N/A	n	Total
B6.6	opportunities for peer communication and development (e.g. conferences, seminars, team meetings, etc.).	10	22		2	12	54	41	100%
B6.5	training opportunities are provided and well attended	10	21		5	17	48	40	100%
B6.2	a high proportion of long-term employees	8	15		3	10	65	40	100%
B6.1	dedicated, personable and multi-skilled coordinators	8	10		3	13	67	39	100%
B6.4	support and mentoring for less experienced coordinators	5	21		3	13	59	39	100%
B6.7	coordinators who are experienced in engaging indigenous communities and are aware of the indigenous communities and organisations in their regions.	5	8		3	13	73	40	100%
B6.3	induction programs available for new staff	3	23		3	3	69	39	100%

	Key Dates: Monitoring & Evaluation	End NHT1	Start NHT2	State Govt. Change	Host Change	Other	N/A	n	Total
B7.1	a set of indicators that can be reliably and efficiently measured to enable timely assessments of program performance at our level, which can also be used to report at local, State and National levels.	11	13			5	71	37	100%
B7.2	a reporting system that enables regional NRM managers to compare Waterwatch with other regional programs, particularly in terms of attitudinal and behavioural outcomes.		3		3	5	87	37	100%
B7.3	an appreciation of the need to assess outcomes over outputs.	3	11		3	6	78	34	100%

APPENDIX 4: 'COORDINATOR' SURVEY

Gap analysis of community engagement in Waterwatch & Rivercare activities Survey

As you may be aware, a 'Gap Analysis of community involvement in Waterwatch & Rivercare' has recently been instigated.

This survey is one part of a multi-pronged consultation process developed for this review. The other key activities include focus groups in each State/Territory, interviews with a range of key stakeholders, teachers and community members, and a separate survey of community participants.

We have attempted to cover a broad range of issues in this survey and in doing so we have had to design the survey predominantly as a 'closed question' survey. This is not meant in any way to limit your responses. We welcome all your ideas and comments, so if you find there is insufficient space or opportunity to get a message across, please feel free to send a separate response (as well as this one please) and/or give me a call.

Could you please respond to this survey, by making your selections within this spreadsheet, saving it, then email it back to me. Given the tight time-lines on this review, I'm asking you, very kindly, if you could **PLEASE respond by June 23, 2004. This survey will take about 30 minutes.**

The success of this review is very much reliant on YOUR knowledge and experience. Please have your say now. You will have other opportunities to contribute to the review over the next few weeks by getting involved in focus groups to be held in each state/territory.

Thank-you very much for your assistance. If you have any queries at any time, please don't hesitate to call me on 03 5466 2320, or 0409 602221, anytime.

Yours Sincerely,

Don Thomson

Director, Landscape & Social Research P/L

Please Save this file in the following format: "YourSurname_region_state/territory.xls"

When you have completed the survey, email it back to me: landscape_social@mac.com

Click on the 'NEXT' button to start the survey

Gap analysis of community engagement in Waterwatch & Rivercare activities

Explanation of terms used in this survey

Because States/Territories and regions vary in their institutional arrangements and the degree to which they operate under the 'Waterwatch' model, we need to clarify a few key terms used in this survey.

Waterwatch

Any community-based water-quality monitoring program . This includes programs such as Ribbons of Blue, Streamwatch and others. We do recognise that these programs differ in some ways, but a key focus of this review is how to facilitate a national community water quality monitoring network under the National NRM framework, and engage the community in broader Rivercare activities. We are therefore interested in the 'big picture' issues, as well as the way in which 'Waterwatch' is run around Australia.

State

When we say *State*, we also mean Territory. Sometimes there just isn't room to write both!

Region

National Action Plan for Salinity and Water Quality (NAP), Natural Heritage Trust (NHT) region or other regions of catchment management authorities etc., as applies in each State/Territory.

More below...please scroll down.

Water-quality monitoring program

This is intended to be inclusive of all physical, chemical and biological parameters that might be monitored from rivers, wetlands, estuaries, ground water and riparian lands (i.e. includes things like habitat assessments sometimes undertaken by Waterwatch)

QA/QC

Quality assurance and quality control

Program

For this survey we will use the term 'Program' to mean the broader network, activities, tools, resources etc. of Waterwatch. Waterwatch under the current federal arrangements is no longer a 'program' in and of itself - but it is a key national initiative.

ME&R

Monitoring, evaluation and reporting. In NAP and NHT contexts, at least currently, ME&R predominantly refers to biophysical parameters, but from a 'Waterwatch' initiative perspective we are interested in monitoring the performance of community-based environmental monitoring programs in influencing attitudinal and behavioural change.

Please be understanding

Parts of this survey may not apply to you, and you may be wondering why we would ask such ridiculous questions! Please understand that 'Waterwatch' is a very diverse program that operates in different ways in different regions. We are attempting to put together a National picture and to understand what it is that drives a successful community-based water quality monitoring program and community engagement in Rivercare. If you don't understand any question, or don't think it's appropriate, please use the space provided to explain why and/or give us a call on **03 54662320**. Thank you for your

A Background Information

This information will help us gain a better appreciation of the things that influence your perceptions of the relative importance of the key issues identified, and to document the characteristics of 'Waterwatch' programs in YOUR region/State or Territory.

1.1 Your Name (optional, but handy to us if we want to phone you to discuss anything)

1.2 Your State/Territory

1.2 Your Region (name) *leave blank if State/Territory coordinator*

1.3 Does Waterwatch operate in YOUR region?

1.4 Your Position (summary description)

1.5 What is your **main** role/ your **main** duties?

1.6 At what scale do you operate?

1.7 Your host organisation (or proponent)

1.7 Is your position part of...

1.7 Who is the main funder of your position?

1.7 What proportion of your position does this group fund?

1.7 What other organisation funds your position?

1.7 What proportion of your position does this group fund?

1.8 How many other organisations contribute funds to your position 1

1.9 What is your employment Status ON WATERWATCH?

1.1 Where do you work from?

1.1 How long have you been in this position? please enter number only below:

1.1 Was your previous position within a Waterwatch (or similar) program?

1.1 What data storage/management system do you use for community water-quality monitoring data?

1.1 Other comments on any of your professional or personal experiences that may influence your perceptions of Waterwatch

Gap analysis of community engagement in Waterwatch & Rivercare activities

Instructions for Part B of the survey

There are seven 'sheets' in part B of the survey containing from 3 to 13 issues that we have identified from previous reviews of Waterwatch programs as being keys to ensuring successful community engagement and program efficacy.

Please read each statement (including the lead-in sentence at the top of the column) and then use the 'option boxes' to respond in each of the following 4 columns, for each of the issues. Once completed, you will be able to see (and print) a 'snapshot' of the current situation in your region. This 'overview' is the last sheet of the survey.

	Importance Do you think this is important in delivering programs such as Waterwatch?	Current Status Status of your State/territory/region now	Key dates Key times when changes took place (if applicable)	Trend
In MY State/territory/region we have...				
B3.1 opportunities for participants in Waterwatch to become directly involved in on-ground works to improve river/catchment health.	<input type="text"/>	<input type="text"/>	Other (please explain below)	<input type="text"/>
B3.2 a high level of involvement of Waterwatch participants in on-ground works.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Further explanation of terms and/or the question is provided where you see this red triangle

REMEMBER: you are responding according to your experiences in YOUR REGION. If you work in more than one region, please answer in relation to the region you MOSTLY work in

What the current status of your region is in relation to this issue

Any key dates when conditions changed. If you select 'other', a box will appear below the options box. Please specify the 'other' date/event in this box

Whether you think the trend for this condition is improving, declining or staying about the same (static)

B1 Institutional Arrangements and Funding

In MY State/Territory/region we have...		Importance Do you think this is important in delivering programs such as Waterwatch?	Current Status Status of your State/Territory/region now	Key dates Key times when changes took place (if applicable)	Trend Trend
B1.1	partner agencies, hosts & sponsors, that believe in and are dedicated to Waterwatch	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B1.2	sufficient resources to provide security of tenure for coordinators	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B1.3	hosts and sponsors that feel a sense of ownership of the program, without being too possessive (e.g. decision-making processes are inclusive of other stakeholders)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B1.4	hosts and sponsors that see Waterwatch as fulfilling a strategic NRM monitoring role	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B1.5	hosts and sponsors that see Waterwatch as fulfilling community educational roles	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B1.6	line managers within host organisations that are aware of Waterwatch and are supportive of the program	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B1.7	funding that is sufficient to meet the expectations of the program and provide the capacity necessary to respond to interest in and demand for Waterwatch	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B1.8	coordinators and hosts who are proactive in their funding and sponsorship-seeking activities.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B1.9	support from "higher levels" in the network in the development and provision of educational and promotional resources, training and in facilitating knowledge exchange.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B1.10	many agencies/authorities/groups/ educational institutions working together as a partnership	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Your Comments (please quote the item no. if your comment refers to a specific item)		<input type="text"/>			

B2 Education

	In MY State/Territory/region we have...	Importance Do you think this is important in delivering programs such as Waterwatch?	Current Status Status of your State/Territory/region now	Key dates Key times when changes took place (if applicable)	Trend
B2.1	achieved a balance between school and broader community education initiatives	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B2.2	coordinators who are skilled and experienced in developing and delivering school waterwatch programs	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B2.3	supportive teachers and schools	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B2.4	high quality educational materials and resources that are flexible enough to facilitate locally relevant and topical content	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B2.5	support from state education department in the development of education resources and methods of tying Waterwatch into school curriculum	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B2.6	support, training and advice available to coordinators from a teacher on 'release to industry' program or similar.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B2.7	sufficient resources/sponsorship to enable inter and intra-regional sharing of Waterwatch educational experience (e.g. exchanges, kids conferences, etc.)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B2.8	coordinators who are skilled and experienced in developing and delivering community education programs	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B2.9	coordinators who are skilled in adult education techniques, participatory learning, etc. -i.e. are skilled in engaging the adult community in activities that inform, raise awareness and build capacity.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B2.10	coordinators who are perceptive of the wide range of values, attitudes and beliefs among landholders and other adults in the community and use this skills to develop well targeted programs that maximise participation and the satisfaction of participants.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Your Comments (please quote the item no. if your comment refers to a specific item)		<input type="text"/>			

B3 On-Ground Works

	Importance Do you think this is important in delivering programs such as Waterwatch?	Current Status Status of your State/Territory/region now	Key dates Key times when changes took place (if applicable)	Trend Trend
In MY State/Territory/region we have...				
B3.1 opportunities for participants in Waterwatch to become directly involved in on-ground works to improve river/catchment health.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B3.2 a high level of involvement of Waterwatch participants in on-ground works.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B3.3 very close links between Waterwatch coordinators and Rivercare/waterway coordinators	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Your Comments (please quote the item no. if your comment refers to a specific item)

B4 Quality Data

	In MY State/Territory/region we have...	Importance Do you think this is important in delivering programs such as Waterwatch?	Current Status Status of your State/Territory/region now	Key dates Key times when changes took place (if applicable)	Trend Trend
B4.1	a network of monitoring sites that meet strategic needs of data users and fit catchment and regional NRM plans (e.g. RCSs)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B4.2	a network of committed, skilled monitors	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B4.3	a sufficient number of monitors to provide a "critical mass" of data to State database	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B4.4	enough equipment for monitors to fulfill their needs in relation to their monitoring programs	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B4.5	supportive data users who understand the strengths and weaknesses of Waterwatch data, and have faith in its use as an adaptive management tool.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B4.6	data users that are involved in the design of monitoring programs	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B4.7	data confidence plans in place with monitoring plans, prepared in consultation with a range of regional stakeholders	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B4.8	consistency in the data collected (in terms of parameters, units, etc.)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B4.9	a data quality assurance/quality control system that is well recognised and supported	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B4.10	accessible database that facilitates data use and availability	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B4.11	community-collected data being used to contribute to regional/State monitoring and evaluation programs (biophysical)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B4.12	community-collected data being used to contribute to baseline monitoring	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B4.13	community-collected data being used to contribute to educational outcomes	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B4.14	community-collected data being used to contribute to implementing regional Action Plans/strategies.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Your Comments (please quote the item no. if your comment refers to a specific item)

B5 Program Delivery

	Importance Do you think this is important in delivering programs such as Waterwatch?	Current Status Status of your State/Territory/region now	Key dates Key times when changes took place (if applicable)	Trend Trend
In MY State/Territory/region we have...				
B5.1	enough regional/local coordinators to service current demand for school programs and community monitoring			
B5.2	capacity within the network of coordinators/host organisation to respond to the interest/demands of community monitors, schools, etc.			
B5.3	coordinators who are proactive in building and enhancing networks			
B5.4	monitoring programs that are sensitive to the level of commitment/availability of community volunteers			
B5.5	open, transparent and inclusive decision-making processes for setting the shape of regional programs			
B5.6	a steering committee comprising hosts, sponsors and key stakeholders			
B5.7	the ability and capacity to efficiently provide prompt feedback of interpreted results/data to monitors			
B5.8	opportunities for community monitors to meet to discuss results, communicate with users of their data, participate in training, etc.			
B5.9	data that is up-to-date and readily available to interested agencies, groups and individuals			
B5.10	coordinators who act as 'points of entry' for various messages/information products from all agencies/groups within the partnership			
B5.11	clearly articulated and understood roles and responsibilities of local and regional coordinators, managers within hosting agencies, and partner agencies			

Your Comments (please quote the item no. if your comment refers to a specific item)

B6 Staffing

	Importance Do you think this is important in delivering programs such as Waterwatch?	Current Status Status of your State/Territory/region now	Key dates Key times when changes took place (if applicable)	Trend Trend
In MY State/Territory/region we have...				
B6.1 dedicated, personable and multi-skilled coordinators	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B6.2 a high proportion of long-term employees	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B6.3 induction programs available for new staff	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B6.4 support and mentoring for less experienced coordinators	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B6.5 training opportunities are provided and well attended	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B6.6 opportunities for peer communication and development (e.g. conferences, seminars, team meetings, etc.).	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B6.7 coordinators who are experienced in engaging indigenous communities and are aware of the indigenous communities and organisations in their regions.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Your Comments (please quote the item no. if your comment refers to a specific item)	<input type="text"/>			

B7 Monitoring & Evaluation

This is the last set of questions!

	Importance Do you think this is important in delivering programs such as Waterwatch?	Current Status Status of your State/Territory/region now	Key dates Key times when changes took place (if applicable)	Trend Trend
In MY State/Territory/region we have...				
B7.1 a set of indicators that can be reliably and efficiently measured to enable timely assessments of program performance at our level, which can also be used to report at local, State and National levels.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B7.2 a reporting system that enables regional NRM managers to compare Waterwatch with other regional programs, particularly in terms of attitudinal and behavioural outcomes.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B7.3 an appreciation of the need to assess outcomes over outputs.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Your Comments (please quote the item no. if your comment refers to a specific item)