

Striking that Happy Medium

Community Attitudes to Natural Resource Management in Crows Nest Shire, Qld



Prepared by Nigel Kimball

Prepared for the Crows Nest Shire Council Natural Resource Management Program and The University of Queensland to fulfil Industrial Placement (NRSM 3003) course requirements



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Cover Photo

Landholder Bruce Lawrie surveys a permanent waterhole in Bald Hills Creek. The Lawrie's property is on the outskirts of Crows Nest, and Bruce is seeking a Voluntary Conservation Covenant to protect the conservation values of the area for many years to come.

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1. Introduction

What is this report all about? This chapter discusses:

- 1. The objectives of the report.*
- 2. The structure of the report.*
- 3. Background information on Crows Nest Shire - its population, people, economy and natural resources.*
- 4. The benefits of conducting a Community Attitude Survey.*

1.1 Report Objectives

This report endeavours to assist the achievement of positive natural resource management outcomes in Crows Nest Shire by:

- presenting the results of a Community Attitude Survey conducted to gather the Shire's community attitudes, views and perceptions towards natural resource management,
- highlighting the views held by the community towards natural resource management in the Shire and some of the forces that shape these views, and
- promoting an understanding of the role of Council and community in achieving positive natural resource management outcomes.

It is envisaged that this report will be utilised by all facets of the Crows Nests Shire, including Council staff, local Landcare and Catchment Management groups and other interested community members.

1.2 Executive Summary

The Executive Summary of this report is located in a separate document. It contains a brief summary of the main document and delivers the key findings of the Community Attitude Survey and the recommendations drawn from the findings. Providing the Executive Summary in a separate document enables easy access to the key findings and recommendations. If desired, more detailed information can then be accessed from this main document.

The publication details of the Executive Summary are below:

Kimball, N.P., 2002, *Striking that Happy Medium: Community Attitudes Natural Resource Management in Crows Nest Shire, Qld: Executive Summary*, Crows Nest Shire Council.

1.3 Report Structure

This report contains six chapters:

Chapter 1	Introduction
Chapter 2	Project Methodologies
Chapter 3	Understanding Human Values
Chapter 4	Natural Resource Management
Chapter 5	Analysis of Findings
Chapter 6	Partnership Recommendations

Chapter 1 (this Chapter) introduces the reader to the report by outlining report objectives and structure and by providing some background information about Crows Nest Shire.

Chapter 2 details the project methodologies utilised in designing and carrying out the Community Attitude Survey.

Chapter 3 examines social aspects and forces, such as the role of the individual, in order to understand the human factor in natural resource management.

Chapter 4 discusses actions and processes, such as the role of Council, in achieving positive natural resource management outcomes in Crows Nest Shire.

Chapter 5 presents the findings of the Community Attitude Survey and discusses the key elements of the results.

Chapter 6 draws on the analysis of findings and presents a series of recommendations to be fed into the Crows Nest Shire NRM Program.

1.4 Background Information

Crows Nest Shire stands astride the Great Dividing Range taking in parts of both the South East Queensland and the Brigalow Belt South bioregions and parts of two major watersheds, the headwaters of the Queensland Murray Darling Basin and the Brisbane River. These biogeographic factors set the Shire apart from many other local governments, and contribute to the diverse range of natural resources found in the Shire.

A unique mixture of topography, geology, soils and climate has led to a wide variety of vegetation types throughout the Shire. Crows Nest Shire is fortunate to retain large relatively intact areas of remnant vegetation that supports and maintains the regions biodiversity (Campbell and Galbraith, 2000). These unique qualities and the lifestyle they promote are appealing to many residents, however issues such as development pressure highlight the importance of managing the Shire's natural assets in a long-term sustainable manner. For successful sustainable management to occur, social and economic considerations must be taken into account along with ecological issues.

The Shire is surrounded by five other local governments - Nanango Shire to the north, Esk Shire to the east, Rosalie Shire to the west and Toowoomba City and Gatton Shire to the south.

Toowoomba is the closest regional centre for residents of the Shire, with many of the residents in the southern end of the Shire regularly commuting to Toowoomba to fulfill their employment and service needs (Figure 1.1).

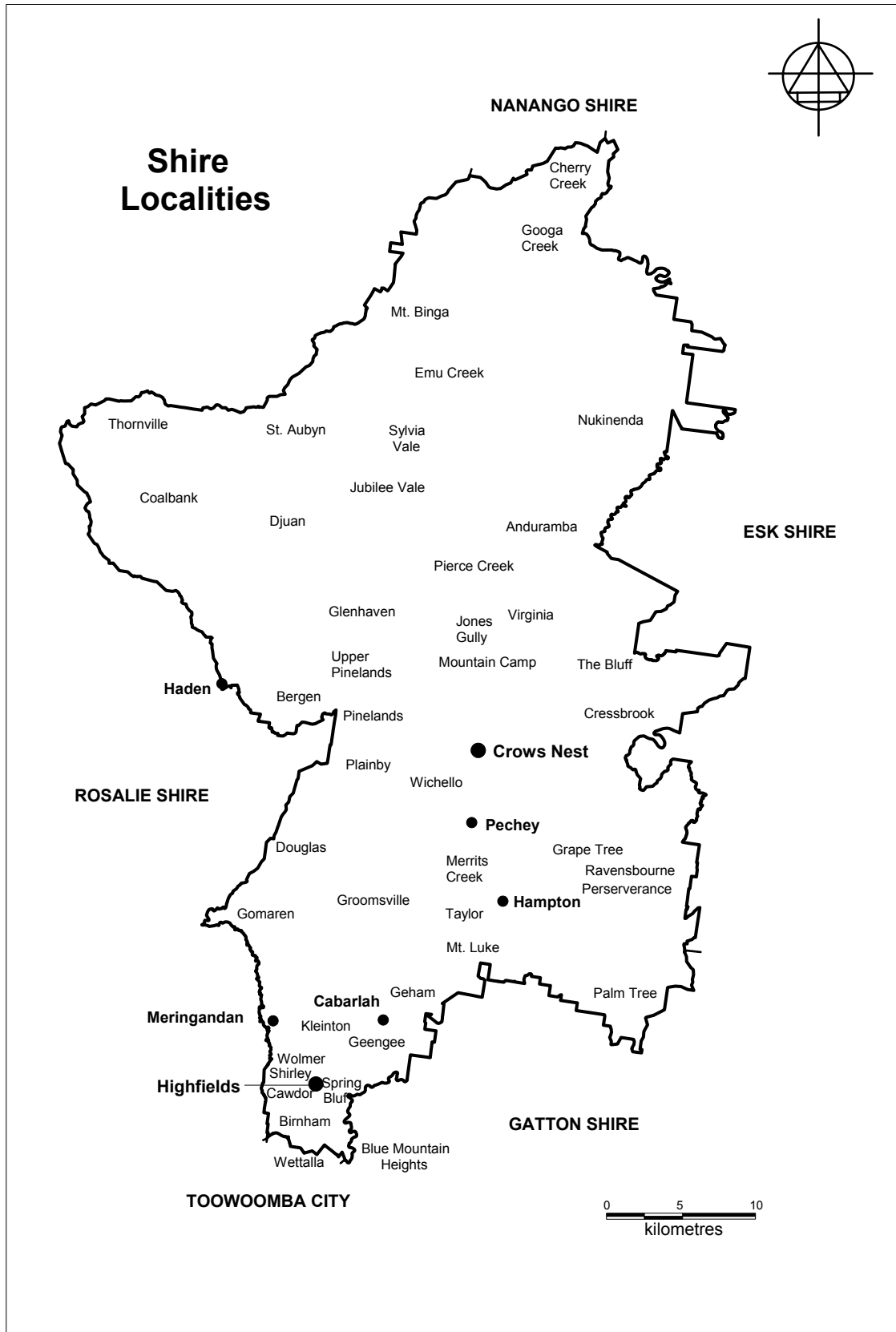


Figure 1.1: - Map showing the localities of Crows Nest Shire.

1.4.1 Population

At June 2001 the population of Crows Nest Shire was estimated at 10,674 and by 2010 it is expected to reach 15,062 (Crows Nest Shire Council, 2001). The Shire is the fastest growing in the region and consists of 11 km² of urban areas (mainly Highfields and Crows Nest) and the remainder is rural (Crows Nest Shire Council, 2001).

A report by the University of Southern Queensland's Land Use Study Centre (2001) states Crows Nest Shire experienced a very rapid population growth between 1992 and 1998 and that this is mostly explained by the growth in the Highfields area. The report also states that since the mid-1990s there has been a significant downwards trend in population growth and if this trend continues, growth will occur at a much more modest rate in the future. Planning for the future needs to take into account the slow-down in population growth and its implications on the demographics of the Shire.

1.4.2 Employment and Economy

For a rural Shire, Crows Nest has a relatively large population and number of residents employed in non-farm activities (Figure 1.2).

Composition of Employment

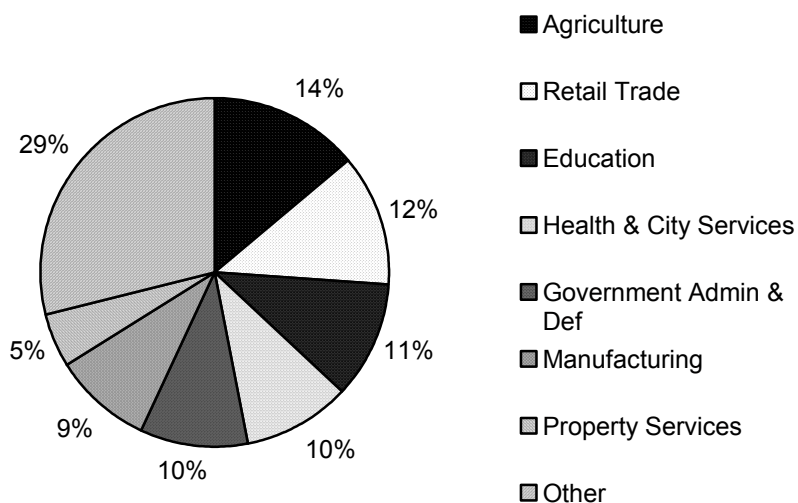


Figure 1.2: - Composition of employment (Source 1996 Census data Australian Bureau of Statistics)

In 1996, only 14% of the population were employed by the Agricultural, Forestry and Fishing industry. By contrast, 20% of the population was employed in the industry in 1991. Employment in the agriculture sector during 1991-1996 declined by 8% over the period, and is the only industry to record a net loss. It is interesting to note that in 1996 those residents employed in government related industries including Education totalled 1156, more than twice the 542 that employed in Agriculture, Forestry and Fishing.

Most of the population in the Highfields area has economic ties with Toowoomba through employment or spending, and although the growing rates base associated with residential expansion in the southern part of the Shire has contributed to the Shire's overall community servicing capacity, the remainder of the Shire is still related principally to the agricultural sector. Crows Nest Shire Council recognise the importance of the agricultural sector in the Shires' economy, stating that 'Crows Nest Shire enjoys a strong historical connection to primary production' in the Crows Nest Shire Council Planning Scheme Draft Statement of Proposals (2001 p. 4).

Despite elements of change in the agricultural sector from the traditional industries to alternate industries, fundamentals of rural decline are visible. Issues such as dairy-deregulation, loss of services, declining natural assets and volatile markets are impacting on the viability of many farms. Revenue generated from the development associated with urban expansion has offset some of the 'costs' felt by the community, however there is a need to strike a balance between achieving viable production enterprises and accommodating increased development pressure.

1.4.3 Natural Resources

The following passage from the *Natural Resource Management Strategy for Crows Nest Shire Queensland* (Boyes, 2001) gives an indication of the current state of the natural resources of Crows Nest Shire:

At present, our natural resources and the economic activity they support are showing signs of stress. Many of our farming families are suffering personal and financial pain as a result of falling commodity prices and rising costs. At the same time our precious natural resources are in decline. For example, noxious weeds are invading our landscape, and many of our native species and ecosystems are threatened with extinction.
(Boyes, 2001p.4)

Increasing stress on the natural resources of the Shire has prompted the Crows Nest Shire Council to initiate its Natural Resource Management (NRM) Program. Section 4.3.3 will look at the NRM Program in more depth.

Biodiversity levels in the Shire are high, reflecting the broad range of natural resources found in the Shire, ranging from lush wet sclerophyll areas on the escarpment of the Great Dividing Range around Ravensbourne to the species rich grassy woodland systems in the north of the Shire. An indication of the biodiversity of the region can be seen when examining the number of Regional Ecosystems Crows Nest has, compared to neighbouring Gatton Shire. Crows Nest Shire has 65 different Regional Ecosystems, whereas Gatton Shire has 22 Regional Ecosystems.

1.4.4 A Community Attitude Survey

Conducting a Community Attitude Survey has many benefits. The Shire community has a chance to voice their opinions, and by doing so promote a better understanding of their attitudes, views and perceptions. Other benefits of the survey process include:

- engaging and empowering the community by giving them some control over decisions that will affect them, and
- encouraging transparency and trust and promoting co-operation and partnerships between and among the community and Crows Nest Shire Council.

Ultimately, the survey process and the information yielded provide a platform to better understand the role of the community in managing the natural resources of Crows Nest Shire.

1.5 References

Boyes, B., 2001, *Draft Natural Resource Management Strategy for Crows Nest Shire, Queensland*. Crows Nest Shire Council.

Campbell, K., & Galbraith, R., 2000, *Remnant Vegetation Corridor Management Strategy*, Crows Nest Shire Council.

Crows Nest Shire Council, 2001, *Crows Nest Shire: Integrated Planning Scheme Draft Statement of Proposals*, Crows Nest Shire Council.

University of Southern Queensland, 2001, '*Planning for Sustainable Economic Development in the Eastern Darling Downs*', Consultancy report for the Eastern Downs Regional Organisation of Councils (EDROC), WWW Document, <http://www.usq.edu.au/lusc/EdrocPrint.htm>, Accessed 29th November 2001.

2. Project Methodologies

What are the project methodologies involved in conducting the Community Attitude Survey? This Chapter discusses:

- 1. The project foundation, core statement and aims.*
- 2. The survey approach, including conducting a literature review, identifying and targeting stakeholders, and survey production.*
- 3. Conducting the survey.*
- 4. Collating information.*
- 5. Ideas to improve the survey processes.*

2.1 Introduction

A vital component in the execution of the NRM Program is the public participation process, as communities possess a diverse range of skills, values and knowledge that can greatly enhance the quality of decisions made. The Community Attitude Survey is a component of the Natural Heritage Trust (NHT) funded project ‘Holistic Natural Resource Management of Crows Nest Shire’, and is to provide benchmark data on the Shire’s views, attitudes and perceptions regarding natural resource management.

The information collected will be integrated and fused into the NRM Program through the uptake of a series of recommendations drawn from the conclusions of the Community Attitude Survey findings. These recommendations will form the basis of new policies.

2.1.1 Core Statement

The chief aim of the Community Attitude Survey can be summarised in a Core Statement:

The Community Attitude Survey is to provide the Crows Nest Shire Natural Resource Management Program with benchmark data for the incorporation into its Natural Heritage Trust (NHT) funded project “Holistic Natural Resource Management of Crows Nest Shire”.

2.1.2 Survey Foundation

The 'Holistic Natural Resource Management of Crows Nest Shire' project provides the community of the Crows Nest Shire with an innovative means to implement sustainable natural resource management. The project is designed to carry across all land tenures and incorporate all facets of the Shire's views, attitudes and perceptions towards natural resource management. There are several key elements to the project:

- developing a natural resource management strategy for the Shire, involving community consultation,
- identifying and further developing established links with local Landcare and Catchment Management groups and the Commonwealth Scientific, Industry and Research Organisation (CSIRO) to maximise and prevent duplication of outcomes and activities,
- undertaking a community attitude survey to grasp the Shire's community views, attitudes and perceptions and to increase their engagement and awareness in the overall Crows Nest Shire NRM Program,
- developing a Code of Environmental Practice for Council activities,
- developing a transport corridor conservation strategy,
- introducing incentive mechanisms to promote and reward the community for implementing sustainable natural resource management practices,
- introducing a small grants program and on-ground works and implementing Voluntary Conservation Agreements coupled with the on-ground works, and
- introducing an Environmental Rates Levy to sustain funding beyond the life of the NHT funding for on ground works and incentive mechanisms.

The holistic NRM project is a crucial component of the overall Crows Nest Shire NRM Program. Undertaking a community attitude survey will help to identify the community's opinions, and data collected will directly influence planning and policy decisions as an integral part of the decision-making process.

2.1.3 Aims

The Community Attitude Survey project has four core aims:

1. To conduct a review of material relating to the views, attitudes, and perceptions of landholders and land managers in regard to natural resource management, concentrating on South East Queensland landholders.
2. To undertake a survey of the landholders and land managers in the Crows Nest Shire to establish their views, attitudes and perceptions on natural resource management.
3. To draw conclusions as to why these views, attitudes and perceptions are held.
4. To make recommendations that account for the human factor in natural resource management for incorporation into the overall Crows Nest Shire NRM Program.

2.2 Survey Approach

2.2.1 Contextual Understanding-Why Carry Out a Literature Review?

To fully understand the concepts and ideas behind the Crows Nest Shire NRM Program, the many aspects it involves and to appreciate the desired outcomes of the program it was necessary to read a wide range of literature, particularly literature relating to South-East Queensland. It was vital to read up on the grass roots of the NRM Program and to review other documents relating to a wide range of topics including conducting surveys, psychology, social and community dynamics, biodiversity conservation and biodiversity and natural resource management strategies from local government level through to national level. Other documents such as magazine and newspaper articles, local government policies and conference proceedings were reviewed in order to build up an adequate and usable knowledge base to draw upon when conducting the Community Attitude Survey.

Table 2.1 lists a few of the literature items reviewed in detail in order to comprehend a contextual understanding of the Crows Nest NRM Program.

Table 2.1: - A list of the more prominent literature consulted in developing a contextual understanding of the NRM Program

Literature Type	Publications
Strategies	<ul style="list-style-type: none"> • <i>Strategic Guide to Natural Resource Management in South East Queensland December 2000</i> (South East Queensland Regional Strategy Group, 2000). • <i>Gatton Shire Biodiversity Strategy</i> (Boyes, 2000). • <i>Natural Resource Management Strategy for Crows Nest Shire, Queensland</i> (Boyes 2001). • <i>Review of the National Strategy for the Conservation of Australia's Biological Diversity</i> (ANZECC 2001). • <i>Remnant Vegetation Corridor Management Strategy</i> (Campbell & Galbraith 2000). • <i>Sustainable Management of the Helidon Hills- Draft Management Plan</i> (Boyes, Mortimer & Pope, 1998).
Conference Proceedings	<ul style="list-style-type: none"> • <i>Rainforest Recovery for the New Millennium</i>. Proceedings of the World Wide Fund for Nature 1998 South East Queensland Rainforest Recovery Conference (Boyes editor), 1999). • <i>Biodiversity Conservation: "From Vision to Reality"</i>. Proceedings of the South-East Queensland Biodiversity Recovery Conference (Boyes editor) 2001).
Papers & Periodicals	<ul style="list-style-type: none"> • <i>Motivating People: Using Management Agreements to Conserve Remnant Vegetation</i> (Binning and Young, 1997). • <i>Beyond Roads, Rates and Rubbish: Opportunities for Local Government to Conserve Native Vegetation</i> (Binning, Young and Cripps, 1999). • <i>Opportunity Denied: Review of the Legislative Ability of Local Governments to Conserve Native Vegetation</i> (Cripps, Binning and Young, 1999).

Useful information in other local government resources, such as brochures and fact sheets and other publications, was reviewed. The majority of local government information was sourced from a select group of Councils in Queensland and some interstate local governments for example Ipswich City Council, Johnstone Shire Council, Toowoomba City Council and Brisbane City Council.

2.2.2 Identifying Stakeholders

For the purpose of this project the community was divided into two sectors:

- public sector landholder/managers, and
- private sector landholder/managers.

Public Sector Landholder/managers

Representatives of various State and local government agencies and public organisations were approached and invited to participate in the Community Attitude Survey. The original targeted public audience consisted of representatives from:

- Crows Nest Shire Council,
- Queensland Forest Service,
- Department of Primary Industries,
- Department of Natural Resources and Mines,
- Queensland Parks and Wildlife Service,
- Environmental Protection Agency,
- CSIRO,
- Crows Nest Rural Fire Brigade,
- Nanango Shire Council,
- Toowoomba City Council,
- The Shire of Esk,
- Rosalie Shire Council,
- Gatton Shire Council, and
- AgForce.

Private Sector Landholder/managers

Seven private sector landholder/manager stakeholder groups were identified:

1. Lifestyle Residents.
2. Urban Residents.
3. Graziers.
4. Horticulturists.
5. Other Primary Industries.
6. Tourism Operators.

7. Land Developers.

2.2.3 Targeting Stakeholders and Survey Design

For a wide cross section of the Crows Nest Shire community to be involved in the survey process it was necessary to design a survey that could be utilised by all stakeholders. Four different survey modes - Mail out, Online, Interview and Forum - were decided upon to maximise the survey process exposure to the community and attempt to gather the most amount of information in the shortest possible time.

Mail out Program

The targeted participants for the Mail out Program are divided into five categories based on the level of importance placed on remnant vegetation corridors on their properties and the Regional Ecosystem (RE) Status Vegetation present. The Mail out categories being:

- Critical Corridor,
- Important Corridor,
- Potential Corridor,
- ‘Endangered’, ‘Of Concern’ and ‘No Concern at Present’ RE Status Vegetation, and
- ‘Clear’ RE Status Vegetation.

A stratified sampling approach (based on the five vegetation categories) was used with ten properties targeted from each category - giving a total of 50 mailing participants. Participants were selected by pinpointing locations on two maps - the Department of Natural Resources and Mines Regional Ecosystem Status map for the Crows Nest Shire region and the Remnant Vegetation Corridors of Crows Nest Shire map developed in Campbell and Galbraith’s (2000) *Remnant Vegetation Corridor Management Strategy*. Properties within the same category were selected based on achieving a uniform distribution of the ten properties in each category throughout the Shire.

A more random process could have been used to select properties, such as assigning a number to each property falling in the five categories and using a table of random numbers to select properties, however this process was considered time consuming and not warranted because of the qualitative stance of the Community Attitude Survey.

Appendix A is a map showing the location of each of the targeted resident in their respective corridor category. Appendix B shows the location of the targeted residents in their respective RE Status Vegetation.

Online Program

Residents targeted with the Online Program are those who own a computer and are connected to the Internet. Gathering information using web-based techniques is a very time and cost effective way to distribute surveys to a potential audience. Once the survey questions, design and layout were completed the survey package was converted to a PDF file and posted on the *Crows Nest Shire NRM Website*.

Interview Program

Interviewees were targeted based on existing contacts available through Council and community networks. Identification of potential interviewees occurred through these networks until a broad stakeholder representative group began to establish that could then be invited to participate in an interview.

Forum Program

The types of organisations targeted by this mode of survey were Landcare groups and conservation groups. The organisations invited to partake in the Forum Program were:

- Ravensbourne and District Landcare Group,
- Emu Creek Catchment Landcare Group,
- Crows Nest Creek Catchment Landcare Group,
- Gomaren/ Doctors Creek Landcare Group,
- Highfields/ Cooby Landcare Group, and
- Friends of the Park.

Council already possessed contacts with the Landcare and Catchment Management groups active in the Shire. Organising a Forum involved contacting a representative and asking them to come along to their next meeting to give a presentation and discuss any issues the group may have with natural resource management in the Shire.

Appendix C provides a breakdown of the targeted Community Attitude Survey participants including the survey modes and the community sector to which they belong, the organisations and community members targeted, their prospective numbers and the relevant survey codes assigned to each participant or group of participants.

2.2.4 Survey Package Production

The survey package consists of four sections each designed and included to fulfil specific roles. Each survey package contained:

- cover letter,
- cover sheet,
- questionnaire booklet, and
- information supplement.

Cover Letter

The cover letter introduced the participant to the survey process, outlining the importance of the process, giving details about returning the questionnaires and provided contact details if further information was required. Refer to Appendix D for a copy of a generic Cover Letter.

Cover Sheet

The Cover Sheet provided the participant with some relevant information they may find useful in completing the questionnaire, including definitions of words and concepts, and a brief description of Council's proposed NRM processes. The inclusion of the descriptions and definitions was based on addressing two issues. Firstly the issue of non-response and the resulting bias in survey findings. Bias among survey findings may sometimes be attributed to the participant's lack of understanding of what a question is asking of them. Secondly by providing the explanations and definitions participants are uniformly informed and are generally more aware of the terms and concepts Council is examining. A copy of the Cover Sheet is located on the inside cover of the Questionnaire Booklet in Appendix E.

Information Supplement

A small insert was included in the survey package to draw attention to the release of the NRM website. Appendix F contains a copy of the CNnet Supplement included in the survey package.

Questionnaire Booklet

The questionnaire booklet contained three sections:

1. Section A

Section A was designed to assess the participants attitudes by presenting them with fifteen statements related to natural resources, natural resource management and the mechanisms that Council is proposing to introduce. Participants are asked to respond to these statements by ticking boxes labelled: Strongly Agree, Agree, Unsure, Disagree and Strongly Disagree. The statements are grouped into two categories - statements designed to gather opinions towards natural resources in general and statements designed to gather opinions regarding actions and approaches to managing natural resources. An example of two statements gathering opinions on natural resources is the statement 'Links exist between the quality of riparian vegetation and water quality and quantity' and 'The extent and impact of weeds and pest animals in the Shire are apparent to me'. An example of the statements gathering opinions on actions natural resource management approaches is the statement 'Public monies should be invested into nature conservation activities on private lands' and 'Incentive mechanisms to promote conservation on private lands provide a win/win situation for the environment and the landholder'.

2. Section B

Section B has nine questions and is designed to gather baseline data concerning areas such as information access, weed and pest animal details and property sizes. Participants are given a range of answers and are asked to tick a box with their most preferred option. The first six questions are included to gather demographic data to give an indication of the respondent and the role they play in the management of their property. The remaining questions are included to gather data for incorporation into the second NHT project under the Crows Nest Shire NRM Program, 'Facilitating Access and Use of Natural Resource Information in Crows Nest Shire'.

3. Section C

Section C is more a traditional approach with questions and answers. The section designed to:

- hear first hand the participants' view of natural resource management,
- gather their feelings towards what they believe are the priority natural resource management issues for the Shire,
- determine the participants opinions towards conservation mechanisms, such as rate relief, small grants and conservation agreements proposed by Council, and
- gather some preliminary data concerning the values placed by the community on the Shire's water and waterways.

4. Details Box

The contact details box was provided on the survey to allow the participants to give their attitudes and opinions some context in terms of providing a name and place associated with the information collected. It was not compulsory to provide details if participants wished to remain anonymous. A second motive behind the inclusion of a details box is the collection of contact information of the survey respondents to be stored on a database for future reference and use in further natural resource management studies. The use of the details in a follow up public participation process is the most likely scenario.

Survey Codes

To keep track the distribution and the returning surveys it was necessary to assign a survey code to every different survey mode and identified stakeholder group. This process not only allowed the survey mode that was responsible for the distribution of the survey to be identified but also allowed for anonymous survey responses to be tracked to a stakeholder level. Appendix A includes the assigned survey codes.

2.3 Conducting the Survey

2.3.1 Mail out Program

Fifty survey packages were mailed out to targeted residents. Four weeks were set aside for the questionnaire to be returned, with a 'spare' week to account for any latecomers. The Mail out Program was the first mode to commence, closely followed by the posting of the Questionnaire in the Online Program.

A reminder letter to the Mail out residents was sent during the third week to try and improve the return rate of the questionnaires.

2.3.2 Interview Program

Each interview involved a set of processes, outlined below, and was recorded with a tape recorder. The steps involved in the Interview Program included:

Stage One

1. Introduced myself - stating my role with Council.
2. Briefly discussed why and how each interviewee was targeted and asked to participate in the Program.
3. Clarified the role of the interviewee in their respective organisation(s) or found out a little bit about their background to get a 'feel' for direction the interview may take.
4. Introduced the Community Attitude Survey and briefly discuss the objectives and aims of the project using the Community Attitude Survey brochure to guide and assist the interviewee.
5. Placed the survey in context with the overall NRM Program.
6. Discussed the role of the Community Attitude Survey in Council's decision making process, i.e. detailing the level of information required by Council and what that information was going to be used for.
7. Identified and clarified any issues that were raised during the interview process before moving on to the next stage.

Stage Two

1. Discussed any problems or issues that the interviewee had with Council's current stance towards natural resource management in the Shire.
2. Discussed any issues or matters that the interviewee felt that Council might need to consider in the near future.
3. Discussed positive views the interviewee held about Council's current stance and future direction in regards to natural resource management.
4. Asked the interviewee to sum up their feelings by giving a 'visionary insight' into the role of Council and community in addressing natural resource management in the future.

5. Thanked them very much for their participation in the program.

All interviewees were given a copy of the *Draft Natural Resource Management Strategy for Crows Nest Shire, Queensland* (Boyes, 2001) along with two brochures giving a basic overview of the Community Attitude Survey (Appendix G) and the Crows Nest Shire NRM Program (Appendix H). Most of the Interviewees did not reside in Crows Nest Shire, particularly those representatives of government organisations, however those who did also received a questionnaire to complete and return to Council.

2.3.3 Forum Program

The Forum Program was similar to the Interview Program, with a few exceptions. The Forums were not recorded with a tape recorder, but brief notes were taken. The coverage and scope of the Forums was aimed at a community or group level and were more condensed and shortened. The average forum went for twenty minutes.

2.4 Collating Information

2.4.1 Databases

A database was used to track and record results obtained from questionnaires. Details such as respondent's names and contact details, question responses and other demographic data were recorded. Each questionnaire was assigned a database identification number, and a corresponding number was recorded on the questionnaires. This method enabled responses to be tracked to the source (i.e. the original questionnaire) and in conjunction with the survey code was possible to track the responses to the stakeholder group and even further if the respondents did not remain anonymous.

2.4.2 Spreadsheets

Once the database was established there was a need to record data to individual questions in a manner that allowed easy comparison between results. Detailed statistical analysis of the results was not favoured because of a qualitative nature of the Community Attitude Survey. Data was recorded based on comparing results on a proportional basis and the most efficient method of comparison between data is the use of percentages.

2.4.3 Drawing Results, Conclusions and Recommendations

Drawing results occurred on two levels. The first stemmed around identifying the issues and matters felt by residents towards natural resource management in general. The second level of results involves the examination of the questions relating specifically to the actions and process the Council is proposing to adopt, e.g. Voluntary Conservation Agreement Policy. Once the results of the Community Attitude Survey were clarified, drawing conclusions was based on each issue identified and a similar approach was taken to draw recommendations. This approach was simple and straightforward to use, and straight to the point.

2.5 If I had to do this Again

If I had the chance to conduct this project again or a similar one in the future there would be a few changes or aspects that would be concentrated upon including:

1. The objectives of the project would be laid down more clearly. This would be achievable with more background research and time to enable myself to come to grips with the process behind running such a public participation program.
2. The inclusion of a self addressed stamped envelope with the survey packages to promote respondents returning questionnaires.
3. Providing an extra incentive such as some kind of prize, where survey respondents can enter into a draw as a reward for completing a questionnaire.
4. The project time frame would be made a little more flexible. There is a need to account for time to allow the survey process to adjust to any changes in momentum and allow the process to remain fluid.
5. A method of recording the number of surveys from the Internet would be utilised, i.e. hit counter.
6. A short information gathering survey would be conducted to gather community's views towards the most appropriate public participation process to develop, i.e. a survey about the best survey approach, perhaps delivered through the rates notices.

2.6 References

- Australian & New Zealand Environment & Conservation Council, 2001, *Review of the National Strategy for the Conservation of Australia's Biological Diversity*, Environment Australia, Canberra.
- Binning, C & Young, M, 1999, *Beyond Roads, Rates and Rubbish: Opportunities for local government to conserve native vegetation*. National R&D Program on Rehabilitation, Management and Conservation of Remnant Vegetation, Research Report, 1/99, Environment Australia, Canberra.
- Binning, C & Young, M, 1997, *Motivating People: Using Management Agreements to Conserve Remnant Vegetation*. National Research and Development Program on Rehabilitation, Management and Conservation of Remnant Vegetation, Research Report 1.
- Boyes, B., 2001, *Draft Natural Resource Management Strategy for Crows Nest Shire, Queensland*. Crows Nest Shire Council.
- Boyes, B.R. (ed), 2001, *Biodiversity Conservation "From Vision to Reality"*, Proceedings of the 2000 South-East Queensland Biodiversity Recovery Conference, Lockyer Watershed Management Association (LWMA) Inc- Lockyer Landcare Group, Forest Hill.
- Boyes, B. (ed), 1999, *Rainforest Recovery for the New Millennium*. Proceedings of the World Wide Fund for Nature 1998 South-East Queensland Rainforest Recovery Conference, WWF, Sydney.

Boyes, B., Pope, S., & Mortimer, M., 1998, *Sustainable Management of the Helidon Hills-Draft Management Plan*, Western Subregional Organisation of Councils (WESROC).

Campbell, K., & Galbraith, R., 2000, *Remnant Vegetation Corridor Management Strategy*, Crows Nest Shire Council.

Cripps, E., Binning, C. & Young, M., 1999, *Opportunity Denied: Review of the legislative ability of local government to conserve native vegetation*. National R&D Program on Rehabilitation, Management and Conservation of Remnant Vegetation, Research Report, 2/99, Environment Australia, Canberra.

South East Queensland Regional Strategy Group, 2000, *Strategic Guide to Natural Resource Management in South East Queensland*, Department of Natural Resources, Brisbane.

3. Understanding Human Values

What are the many different human values that can affect natural resource management outcomes in Crows Nest Shire? This Chapter discusses:

1. *Exogenous development vs. endogenous development.*
2. *Characteristics of individuals that need to be taken into consideration in achieving positive natural resource management outcomes.*
3. *Community characteristics that need to be taken into consideration in achieving positive natural resource management outcomes.*
4. *Social forces evident in Crows Nest Shire.*

3.1 Introduction

In recent times there has been a move to strengthen and integrate social sciences with technical sciences to provide sufficient foundation for the building of sustainable rural communities. This integration of sciences in rural communities like Crows Nest Shire enables a more innovative and effective approach to addressing the challenges of the ‘bush’.

3.1.1 Exogenous Development vs. Endogenous Development

Addressing these challenges in Crows Nest Shire has been externally fueled by developmental approaches, such as attracting external capital, technology, industry and people in order to promote change within the community. Most traditional and still dominant models used to address community and rural development base themselves on this ‘exogenous’ development approach (Burkett, 2000). Exogenous development has immediate gains, for example, when a new industry moves into the area, sudden rises in employment and associated infrastructure may occur. However this reliance on sourcing external developmental approaches is not without its costs. A few costs associated with exogenous development include:

- sourcing external inputs is expensive to initiate and maintain and often promotes dependency on continual external input,
- encourages the ‘one solution for all’, denying the diversity that exists between and among rural communities, and
- negation of local knowledge relies on external, specialist and expert interpretation of local issues, which is often different to internal community interpretation.

(Burkett, 2000).

Burkett (2000) appropriately sums up the notion of exogenous development and its application to Crows Nest Shire:

Such approaches see the role of agriculture in rural economic development as decreasing, and therefore suggest that there is an increasing need to

invest in alternatives to agriculture in rural sectors. The result is that local authorities offer incentives for industries and business to re-locate; encourage the development of tourism in regional areas; and lobby national governments for increase funding for large infrastructure project' (Burkett, 2000, p.3)

The alternate to 'exogenous' development is 'endogenous' development. Endogenous development involves fostering approaches that promote change within the community by asking "what level of natural and social capital is available in rural areas... and then to ask: can anything be done differently that results in a more productive use of these available resources without causing damage to that natural or social capital?" (Pretty, 1998, p.225 cited in Burkett, (2000), p.3).

This approach promotes localised participatory actions and builds a level of self-reliance for the community. Emphasis is placed on existing social organisations and linkages between various disciplinary aspects found in a community system, such as the links existing between the natural resources and agricultural sector or social infrastructure and the cultural environment (Burkett, 2000).

There is the potential for movement forward towards a more sustainable Crows Nest Shire - socially, economically, and ecologically - by exploring the linkages that exist between and throughout each discipline. Some of the disciplinary aspects and linkages of Crows Nest Shire include:

- social and political infrastructure - the linkages held between Crows Nest Shire Council and the community, and
- farming community - linkages connected with the natural resources of the region.

This encouragement of a multi-disciplinary and multidimensional approach provides a level of integration between sciences needed to achieve long-term sustainability. This involves identifying disciplinary aspects occurring in the Crows Nest Shire community and exploring *real world, endogenous solutions* through an integrated and holistic manner.

3.2 Individuals

Individuals are very important aspects of a community. Collectively individuals form communities and their personal characteristics influence the dynamics of the community. In turn, the community dynamics influence the personal characteristics of individuals. Individuals affect communities by their behaviour, which is a reflection of their:

- values,
- visions,
- needs,
- ethics,
- attitudes, and
- perceptions.

3.2.1 Values

A value is an enduring belief that underpins decisions people make leading to an outcome that is personally and socially preferable. Simply, values are the things that matter most to an individual -

things that the individual will make sacrifices in order to obtain. Understanding values is important to addressing natural resource management in Crows Nest Shire. People value different things for different reasons, for example, a farmer can value his or her farm in terms of a successful business or a sustainable enterprise or both. A resident of Highfields can value the scenic beauty of the surrounding bushland where they live.

Frost (2001) signifies the power of individual attitude and value in biodiversity management by suggesting they provide a framework from which scientific information is constructed. Frost (2001p. 5) states, "...if people do not value the complexity and role of biodiversity in their lives then it is unlikely that actions of protection or restoration will occur." To ensure successful natural resource management outcomes are achievable in Crows Nest Shire there is a need to highlight the linkages that exists between individuals' values and their awareness of natural resource management. To highlight the linkages the community needs to be aware of the natural resources and management practices existing in the Shire. An understanding of the Crows Nest Shire NRM Program is an example of a process that can highlight these linkages.

3.2.2 Visions

Visions can involve many different aspects and are often captured in the form of a person's life direction and goals. 'I'd like to leave my farm to my sons in a better condition than when I received it from my father'. Statements are the most likely means of expressing a vision. Companies and organisations can have a mission statement, professional photographers can have an artist statement and so communities can have a vision too. Crows Nest Shire Council (2001p. 1) has a vision statement:

Lifestyle ... Something for everyone in a clean, friendly, relaxed environment, with a wide variety of services.

Opportunity ... The opportunity to grow and prosper, encouraging sustainable development compatible with our natural beauty and resources.

The use of expressions in the statement such as 'grow and prosper' and 'encouraging sustainable development' articulate the desire for agricultural systems to remain a part of the landscape of Crows Nest Shire, thus there is a determination that people and agriculture will remain involved (Frost 2001). How do we ensure that the visions of the community are the same visions of the Council? Firstly the community and Council need to understand their respective visions and become aware of those visions in the community that are different. Secondly a framework for operation is needed to bring together and ensure the visions are moving in the same direction and at the same speed.

3.3.3 Needs

A need can be interpreted as an urgent want that is considered necessary in one's life. The most widely known model used to illustrate the different needs people have in various circumstances or perhaps stages of their life is Maslow's hierarchy of needs (Maslow, 1969). According to Maslow, lower level needs, such as physiological needs (hunger, thirst, sleep) have to be largely satisfied before an attempt on achieving higher level needs, such as social needs (friendship, love) are made.

In real life situations human needs are not neatly organised into separate blocks to form a simple staircase. At any one time a person may experience several needs of varying degrees of strength. The peak strength of each need must pass before the next competing need becomes dominant

(Chamala & Mortiss, 1990)

Chamala & Mortiss (1990) question the simplicity of the hierarchy and also note that Maslow has not incorporated spiritual needs in the hierarchy.

3.2.4 Ethics

An ethic is a set of principles that express the willingness of individuals to co-operate in promoting or protecting the things that are valued by the community. The principles influence behaviour and interaction among other community members with differing values. An example of differing principles can be seen in relation to a land ethic. A stewardship ethic (we have been given responsibility to look after the land) and partnership ethic (returning something of value in exchange for use of the land) are two examples of principles that communities can value.

3.2.5 Attitudes

Attitude is the inclination of evaluative statements or judgments, either favourable or unfavourable, concerning objects, people or events. They reflect how a person feels about something. Attitudes are not the same as values but the two are interrelated and this can be seen when looking at the three components of an attitude:

- **cognition** - relates to the opinion or belief segment of an attitude,
- **affect** - relates to the emotional or feeling segment of an attitude, and
- **behaviour** - an intention for a person to behave in a certain way to something or someone (Robbins et.al, 1998).

The belief that 'fencing off riparian zones is wrong' is a value statement. Such an opinion is a cognition component of an attitude. It sets the stage for the more critical element of an attitude - its affective component. Affect is often the emotional or feeling segment of an attitude and is reflected in the statement 'I don't like Robert because he has fenced off his creek'. Finally the behavioural component of an attitude refers to the intention to behave in a certain way, so continuing with the example, 'I will avoid Robert because of my feelings towards him'.

The above example is a very simple demonstration of an attitude, there are many other factors to take into account particularly the complex relationships that exists between attitude and behaviour, sources of attitudes and their consistencies.

3.2.6 Perceptions

Why is perception important in studying the human element in natural resource management? Simply because people's behaviour is based on their perception of what reality is, not reality itself. Perceptions of an agriculture landscape by a person who is used to or favourable towards more natural landscapes (i.e. lifestyle resident) can be looked upon differently from a farmer who lives in that landscape. One may view the landscape as degraded and the other as productive with a few problems. How do we explain that the individuals see the same landscape, yet perceive it to be different?

A number of factors shape and sometimes distort perception. These factors can reside in the perceiver, the landscape or object being perceived, or in the context of the situation in which the perception is made. Using the agricultural landscape example, the farmer possesses attitudes, motives, interests, past experiences and expectations that may influence his or her perception of the landscape. In regards to past experiences, the farmer's frame of mind operates based on the level

of productivity of the landscape from past yields received from their crop. If the farmer has experienced good crop returns in the past, the land is perceived as productive. However from a lifestyle resident perspective the land is perceived as degraded because of his or her interest in more natural landscapes. They are not looking at the landscape as a whole, rather from a perspective based on the absence of natural vegetation cover. If the landscape was surrounded by natural vegetation cover, the characteristics of the landscape would emphasis those feelings held by the lifestyle resident. Thus the landscape is viewed, not in isolation, but in relation to its surroundings. Finally the context in which the landscape sits influences the farmer's and lifestyle resident's perceptions. Situational factors such as light, temperature and time can effect how the landscape is perceived. If the landscape has been subjected to a long period of drought and vegetation cover has been reduced, then those areas may seem more degraded to the lifestyle resident then in wetter times when a vegetation cover is present.

3.3 Community Aspects

3.3.1 What is a Community?

An appreciation of the concept of community is important in understanding the social processes that may occur within Crows Nest Shire. Communities are not generic, with each possessing different components, structures and people.

Just like there are many types of communities, there are many definitions of community as well:

- communities can be 'a collection of interdependent people who share a common residential locality and some feeling of belonging with other members' (Edgar, Earle and Fopp, 1993p.119),
- communities can be a 'set of interdependent and interacting members with a common identity and a common fate and with a set of ethics that govern relationships among members' (Klessig, n.d.), and
- communities can be 'any social category or aggregate which has a shared sense of membership' (Waters & Crook, 1993, p.95).

Crows Nest Shire can be considered as a community. It 'has a shared sense of membership' and is 'a collection of interdependent people who share a common residential locality'. Other communities exist in Crows Nest Shire, for example, communities based on localities e.g. Ravensbourne residents, and communities based on religious beliefs e.g. Lutheran Church community. Crows Nest Shire is not an isolated community, rather a collection of communities who reside in the same governing region.

3.3.2 Community Components

The many definitions of community demonstrate the varied perceptions of what a community entails. Therefore it is reasonable to suggest there are also many varied perceptions of what components are necessary for a community to survive. Essentially a community comprises of:

- people,
- processes, and
- change.

People or individuals are covered in depth in Section 3.2 and processes are outlined below in Section 3.3.3.

The shifting dynamics of a community reflect its ability to cope with and overcome change. If the community remains stagnant and does not evolve then its ability to survive is severely hampered. Fewer opportunities are available to the community and eventually a threshold will be reached where it can no longer survive. A good example of a community adapting to change is the increasing role of Crows Nest Shire Council in managing the natural resources of the Shire. Increasingly pressure has been applied on local governments through legislation and community movement. Crows Nest Shire Council has responded to this pressure by implementing its NRM Program, thus reacting and changing to meet its surroundings.

3.3.3 Community Processes

Section 3.3.1 discussed the differences among endogenous development and exogenous development with the traditional approach to development in Crows Nest Shire being the latter. The section also emphasised the need to identify and explore the various disciplinary aspects of Crows Nest Shire. Rather than focusing on one disciplinary aspect of the community such as social infrastructure, endogenous development seeks approaches to development that are integrated. For this to occur a holistic viewpoint is needed. Figure 3.1 is a simple diagram of the community of Crows Nest Shire illustrating the many linkages that exist between individuals, communities and their environment.

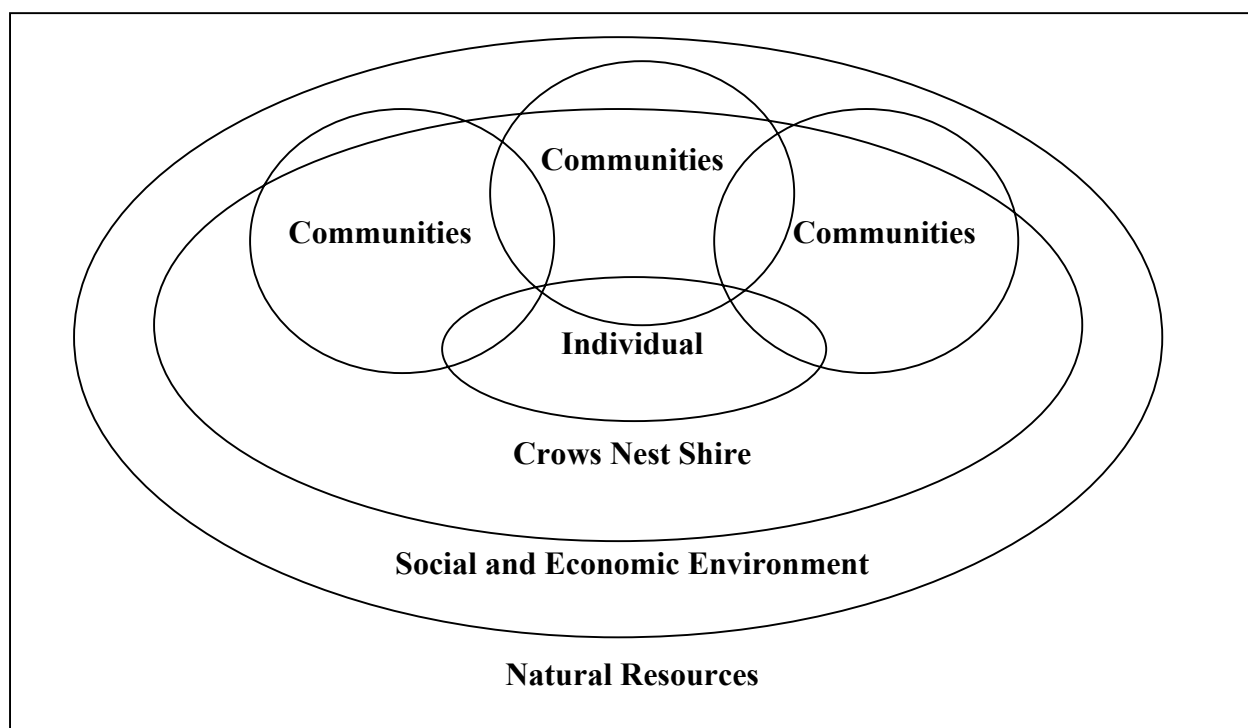


Figure3.1: - Diagrammatic representation of Crows Nest Shire community

Linkages occur between various sectors of the community. For example an individual can be a member of different community, possess ties, share friends, values etc, with other individuals within the Shire community. These individuals may have ties outside the Shire, for example a Highfields resident employed in Toowoomba, or a farmer who owns a cattle-fattening property in neighboring Esk Shire. However, these individuals share at least one thing in common - they live in the Crows Nest Shire. These linkages operate under and contribute to the social and economic framework of the Shire. In turn the natural resources of the Shire underlie all the linkages and processes that occur in the Shire.

These multi disciplinary and cross-disciplinary linkages are process occurring in the Crows Nest Shire are complex - as illustrated in Figure 3.2, and typically in the past solutions to breakdowns in linkages have been addressed with ‘quick fix’ solutions often implemented without knowledge of their full effects on other elements of the community.

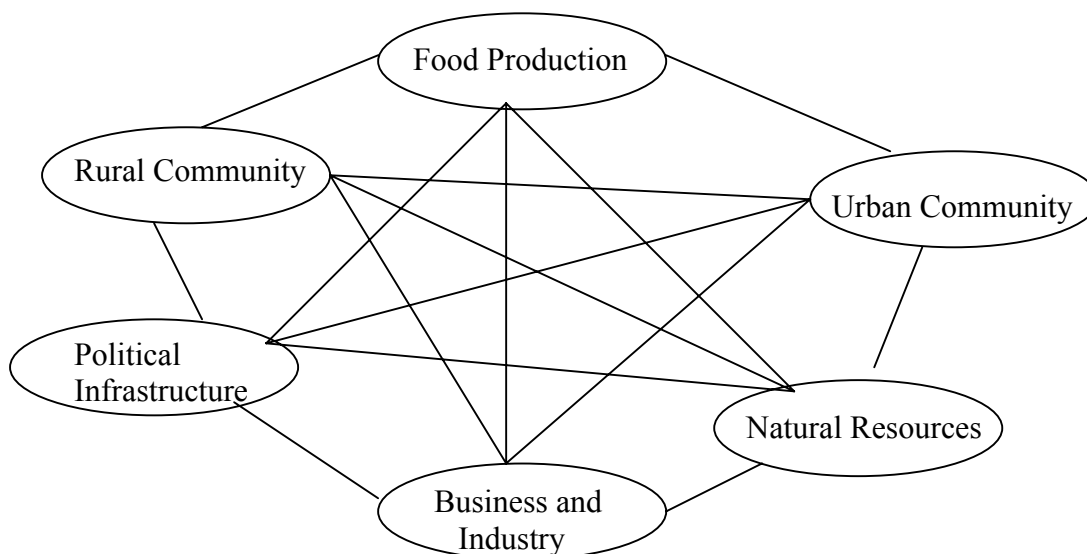


Figure 3.2: - An example of complex multidisciplinary and cross-disciplinary linkages that occur in Crows Nest Shire. (Adapted from Burkett, 2000)

Ultimately, the health of the processes and linkages in Crows Nest Shire community affect individuals and the direction of the Shire as a whole.

3.4 Social Forces

3.4.1 Introduction

When conducting the Community Attitude Survey, the following social forces were evident in the Crows Nest Shire community. The account is far from complete but it does include some of the essential economic, social, cultural and political aspects of the community system of the Shire. The forces revolve around the individual and community aspects that were discussed in Sections 4.2 and 4.3 and their brief examination will assist an understanding of the Shire’s community attitudes, perceptions and views towards natural resource management.

3.4.2 Sustainability and Sustainable Development

The concept of sustainable development has become deeply entrenched in the management of natural resources. Many definitions and applications of sustainable regimes, practices and principles are available in the literature. Most definitions of sustainable development recognise the role of ecological, social and economic functions involved in managing natural resources and the need for balanced development that enables our ‘grandchildren’s grandchildren’ to experience the same opportunities available to us. Examples of definitions for economic, social and ecological sustainability are below and on the next page:

- Wildman (1993) defines economic sustainability as development that provides a sufficient return on investment without compromising the capital investment, and by providing means for the essentials of human needs to be met by improving the quality of life,

- Smiales (1995) defines social sustainability as the ability of a society to function to the material, cultural, social and spiritual satisfaction of its members through a limitless time span without the net depletion of the physical or resource base debasement of the dynamics of the natural world, and
- Wildman (1993) defines ecological sustainable development or environmental sustainability as development that requires compatibility with nature, its biological diversity, ecological processes and natural resources.

There is need to further explore the role of differing perceptions of sustainable development and the effect they have on managing the natural resources of Crows Nest Shire. Below are three landholder responses obtained through the Community Attitude Survey indicating the differing perceptions of sustainable development and natural resource management that exist in the Shire:

Economic frame of mind:

‘Maximising economic benefit while maintaining sustainable environment’
(*Crows Nest Shire landholder*)

Ecological frame of mind:

‘The management of soil, water, vegetation and other natural assets e.g. landscape aesthetics to ensure that the inherent values (e.g. ecosystem function) are maintained and hopefully enhanced’
(*Crows Nest Shire landholder*)

Social frame of mind:

‘To hand over the land able to support families for the following generation’
(*Crows Nest Shire landholder*)

Each landholder is managing their land in accordance with their perception of sustainability and natural resource management. Sustainability is in the eye of the beholder and if long-term sustainability is achievable in Crows Nest Shire the process must take into account the many differing concepts of sustainable development and the resulting interpretations and perceptions.

3.4.3 Ten Versions of the Same Scene

‘...any landscape is composed not only of what lies before our eyes but what lies within our heads’
(Meinig, 1979p. 34)

Interpretation of a landscape is dependent on the cultural and historical contexts of which an individual operates in. Meinig (1979) identified 10 ways a landscape maybe interpreted and other studies have also explored ways of ‘seeing’ the landscape with most inferring humans treat landscapes as social constructions (Frost, 2001). The way people ‘see’ the landscape of Crows Nest Shire is very important in understanding their attitudes, values and opinions towards natural resource management. The way people ‘see’ themselves in the landscape is also very important, with their social construction built reflecting their culture, values, norms and traditions.

2.4.4 Ten Hats for the Same Head

An individual may hold inconsistent attitudes within their heads. For example, a person who runs a beef cattle property and works part time as an extension officer for Department of Primary Industries may find it difficult to know which ‘hat’ to wear at the local Landcare meeting. Does they come from the farmers’ point of view or the extension officers’ point of view or a mixture of both? Often it is a mixture of views that comes across and it can be difficult to distinguish how the person feels towards an issue.

3.4.5 Personality

The role of personality is often overlooked in the development of successful nature conservation outcomes. A farmer can possess the will to change their land management practices to more sustainable operations, the know-how and the materials to do so but not the necessary psychological resources to bring the change about. The farmer can feel uncomfortable about changing their practices because with they are uncertain of the outcomes - they have less control over them. If change is to occur the farmer must be able to step outside this comfort zone.

Self-efficacy can be used to describe the movement of the farmer outside their comfort zone to promote change. Shrapnel et al. (1997,p.2) define self-efficacy as the capacity of an individual to adapt to changes and is determined by the combination of an individual’s knowledge and confidence in their ability to act on that knowledge.

O’Brien (1995) considers self-efficacy to have an important influence on conservation behaviour and postulates that successful experiences improve self-confidence and thereby promote self-efficacy. Increase in self-motivation and self-reliance due to successful experiences also promote self-efficacy.

3.4.6 Naturalness

Naturalness is an expression of the perception of Western technological societies that the world consists of binary opposites, that humanity has dominion over nature (Taylor, 1990). Taylor (1990) postulates the concept is anthropocentric and technocratic and is so embedded in the English language that there seems to be no convenient alternative to the continued use of the adjective ‘natural’ for landscapes that support ecosystems that have native vegetation cover. This has resulted in formal definitions of ‘nature’ and ‘natural’ appearing to exclude all human beings and their works. The failure to recognise naturalness as a culturally constructed concept rather than a universal one, has produced inconsistencies and ambiguity among the definitions and this point can be demonstrated by the confusion associated with the use of the terms ‘natural landscape’ and ‘natural vegetation’.

Crows Nest Shire is fortunate to contain a significant amount of native vegetation (Galbraith and Campbell 2001). There are many different perceptions of the values placed on the native vegetation of Crows Nest Shire. For example an area of remnant vegetation can be valued for its role in ecosystem function, as a habitat for an endangered species or scrub serving only as shelter - ‘cattle camps’. Each landholder may perceive the vegetation as ‘natural’ but their perception of ‘natural’ differs and so their perception of an unnatural landscape differs too. Depending on the cultural context in which the landholder operates in, their interpretation of ‘natural’ influences the level and types of natural resource management activities undertaken on their properties.

3.4.7 Peer Relationships

The fear of negative feedback from peers is a disincentive that can affect the conservation practices of landholders in the Shire. A landholder may not wish to hang the Land for Wildlife sign on his or her front gate because they are aware of the feelings of their neighbours' attitudes towards such a program. The landholder wishes not to be subjected to any negative behaviour as a result of the neighbours' attitudes and so does not hang the sign up.

Relationships with peers influence the management practices of landholders and the above example is of a negative nature. However peer pressure and social conformity can work in a positive nature. If the neighbour of the above landholder held a different attitude and was more open to the Land for Wildlife program the decision to hang up the sign could prompt the neighbour to enter into the program.

3.4.8 Equity vs. Equality

How are resources, such as money and time involved in managing roadside weed infestations by Council distributed throughout the Shire? Should they be distributed based on an equal basis or according to the extent of the infestations in parts of the Shire or where most of the people live and can see how bad the infestations are? A decision has to be made by Council regarding the distribution of resources, i.e. the most efficient resource usage over the whole Shire and the welfare of an individual or community group. People can view the distribution of these resources differently and not everybody will feel that the distribution is 'fair'.

3.4.9 Out of Sight out of Mind

The community can overlook issues that are not in the limelight. Aquatic biodiversity is a conservation issue that is easily overlooked because people lack awareness of the issue. Vice versa obvious, sensory problems such as roadside rubbish at tips and weed encroachment into farming land are in sight and are foremost in the minds of the community.

3.4.10 A Sense of Belonging

Very strong social ties can exist among members of the same community. These ties and bonds give cohesion to communities and are a reflection of the similar values held by members. A sense of belonging is felt by members, a desire to be part of a social structure. This sense of belonging a person can feel combined with the human nature to seek out people with similar views and values can be a very powerful conservation tool. Empowerment of communities can bring about reform of peoples attitudes and values expressed towards natural resources.

In Crows Nest Shire the NRM Program is empowering the community through an integrated regime of statutory, voluntary and on-ground mechanisms. The implementation of many of these programs such as the Small Grants rounds are delivered to the community through a framework aimed across all sectors of the Shire. A farmer in the north of the Shire has the same opportunity as a lifestyle resident in the southern part of the Shire to access funding under the Small Grant rounds. The framework through which the Program is delivered is focusing on similarities amongst landholders and promoting partnerships between communities, including Council, in fostering change towards natural resource management. The 'sense of belonging' to the Crows Nest Shire and the breaking down of barriers by establishing a range of partnership based conservation mechanisms accessible to all landholders is the crux of the NRM Program.

3.4.11 Rising Personal Mobility

The increasing role of electronic communications and improved travel technology has increased the mobility of individuals across the landscape. The use of mobile telephones, faxes and modems have improved both long and short distance communications. Improvement in travel technology enables faster, more efficient movement of people and large travelling distances are now becoming norm. These changes have implications for Crows Nest Shire. A good example of the effects of increased mobility due to better travel technology is evident when examining the distances travelled by people to their place of employment.

A study by Smailes (1995) found that distance shrinkage of up to 35% had occurred between 1968 and 1993 in travel times from rural households throughout South Australia to Adelaide. Smailes (1995) suggests that combination of better road surfaces, width and alignment, and much more powerful and comfortable cars can be attributed to this change. In Crows Nest Shire the pursuit of off farm income has become more readily available due to the effects of distance shrinkage caused by improvement in travel technology. The effects of distance shrinkage also affect lifestyle residents such as those who live in the Ravensbourne district. Their willingness to travel further to their place of employment, Toowoomba for example, enables them to still earn an income and make a living, while maintaining their desire to live in a more natural landscape.

3.4.12 Trans Boundary Issues

Political boundaries, personal boundaries, conductivity boundaries and physical boundaries can affect either directly or indirectly the decisions made concerning management of the natural resources in Crows Nest Shire.

Political Boundaries

Social, environmental and economic issues don't abide by political boundaries, yet in broader context legislation concerning some of the issues does. Implications arise or are more obvious at a State level rather than a local government authority level but with the introduction of the *Integrated Planning Act 1997* and the resulting more power for locals governments the hindrance of achieving nature conservation outcomes due to political boundaries may become more prevalent. Regional natural resource management bodies have an increased role in overseeing and providing a framework for the delivering regional uniform outcomes through local governments.

Personal Boundaries

Discussed in Section 4.4.5, personality can play a role in influencing the management of natural resources. The self-efficacy needed by a farmer to change their farming practices and become more sustainable is a boundary that needs to be crossed.

Conductivity Boundaries

Conductivity boundaries relate to the boundaries formed between different communities based on what the community values most. A cattle farmer in the northern parts of the Shire may hold a closer affinity with a another cattle farmer 50 kilometers away in the southern part of the Shire yet does not hold a likeness towards an avocado farmer only 2 kilometres away. The differences in lifestyle and values held by the farmers have isolated them despite them living so close to one another. By promoting an understanding of different views, attitudes and perceptions these conductivity boundaries can be overcome. Two-way flow of information through existing linkages and the establishment of new linkages can facilitate the breakdown of these boundaries.

Physical Boundaries

Crows Nest Shire possesses the same legislative measures across physical boundaries. Catchment boundaries are an example. How does the legislative measures take into account the differing physical boundaries of the Shire?

3.4.13 The Effects of Population Dynamics on Political Structure

Population dynamics can affect the political structure of local government authorities. Figure 3.3 shows the two political divisions of Crows Nest Shire and the proportion of population residing in each division. Clearly a larger proportion of the residents live in the small southern tip of the Shire. The concentration of people in the southern tip who are predominately urban residents may have different demands in terms of resource allocation and Shire direction than the rural orientated population. These differences in demand can affect the level and types of decisions made by Council and can be difficult if demands are conflicting. Residents in the southern part of the Shire are increasingly holding an affinity with Toowoomba rather than with the rural sector of the Shire and the two different demands are making resource allocation difficult for Council.

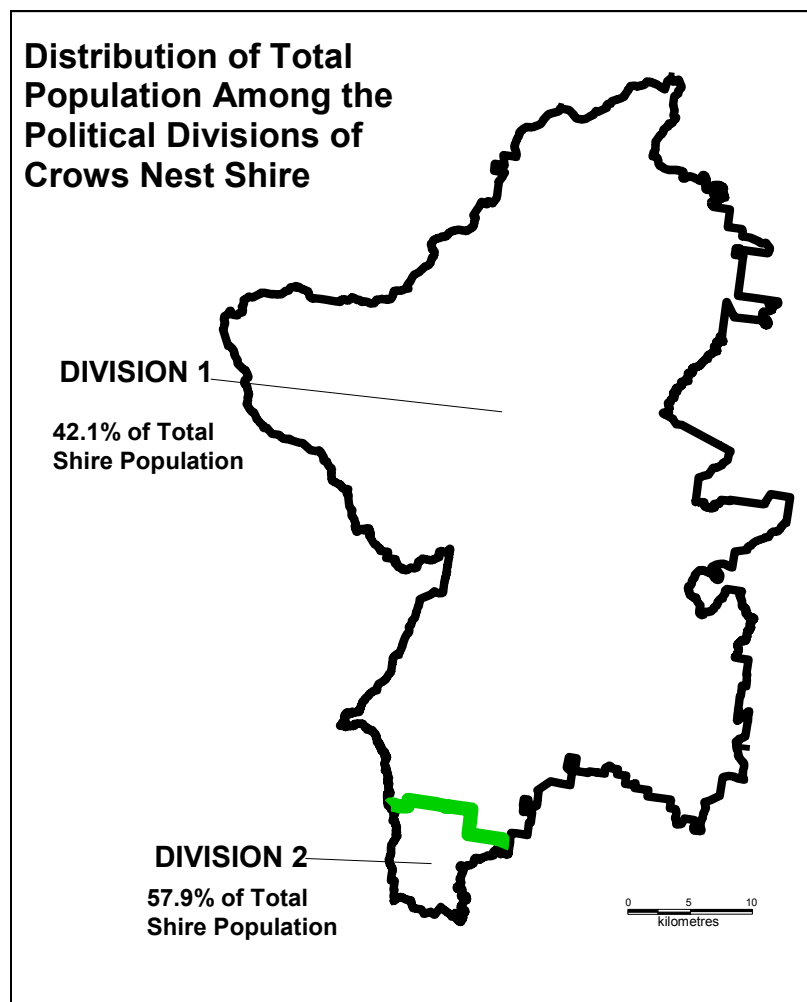


Figure 3.3: - Map showing the distribution of the population among the political divisions of Crows Nest Shire.

3.4.14 Rural and Urban Conductivity

Increasingly, division between the urban population and rural population in Crows Nest Shire is becoming more apparent. There is a need to ensure linkages are kept in place between the urban and rural populations to promote a better understanding of the urban-rural relationship. Burkett (2000) comments on the need for linkages to be kept in place between rural and urban populations.

'A concerning aspect of rural development in Australia is the increasing tensions between 'bush ' and 'city' - a divide which led to one government minister to comment recently that Australia is now comprised of two separate societies, one urban, the other rural. Media portrayals of the situation in rural Australia often fuel this divide, with environmental degradation increasingly 'blamed' on rural areas, and the depiction of rural social problems as draining government funds. What is often missed in analysis about problems of rural communities, is the interconnections between rural and urban development... people in urban communities actually need to engage in a great deal of learning about their consumption habits and unsustainable resource use is integrally linked to pressures on rural environments and communities'
(Burkett, 2000).

To improve the relationship between urban and rural sectors of Crows Nest Shire the urban community needs to be more aware of the rural issues, such as dairy deregulation, sustainable farming practices and the roles the urban community plays in achieving sustainable development. This awareness may be as simple as publishing a regular newspaper column in the Toowoomba newspaper, The Chronicle, along with a column in the regions two local newspapers. An action like this will ensure the affinity felt by most of the urban residents of the Shire with Toowoomba is capitalised upon in developing a closer affinity with the rest of the Shire.

'Integrated approaches to sustainable rural development thus need to not only integrate processes at the local level, but to integrate analysis and practice across urban and rural contexts'
(Burkett, 2000).

For sustainable rural development to become a reality in Crows Nest Shire, the integration of processes cannot occur in isolation of the urban community. There must be process put in place that bridges the divide between rural and urban communities to increase their conductivity and promote a long term sustainable Crows Nest Shire.

3.4.15 Other Social Forces

Other social forces that are evident in Crows Nest Shire and are either directly or indirectly influencing the management of the natural resources of Crows Nest Shire include:

1. *Women are becoming more prominent in primary production.* The change in gender roles of the traditional head of the farm from male to female is not without its implications.
2. *The younger generation is becoming less and less inclined to stay on the land and are opting to pursue different careers.* Better education institutions and systems combined with improvement in travel and information technology has given youth a broader range of options.
3. *Rationalism and centralisation of services, e.g. banks.* Operations are becoming more efficient and larger, however the number of institutions fewer.

4. *The forces of supply and demand of goods and services, and their effects on the volatility of markets.* Competition amongst suppliers of produce and competition amongst consumers are dictating the prices of goods and services.
5. *Restructuring of the agricultural sector in response to the volatility of the market.* Niche enterprises such as avocado farming and floriculture are replacing the more traditional agricultural pursuits such as dairying.
6. *Information seeking is not generic, it is specific to a person's needs and wants.* Not all forms of information are utilised by landholders to the same degree and not all landholders are seeking the same natural resource management information.

3.5 Conclusion

For Crows Nest Shire to build a foundation for long-term sustainability the encouragement of real world, endogenous solutions to community issues is needed. Rather than attracting new industries to the area the community needs to focus on improving existing industries and promote self-reliance through localised participatory actions. The role of the individual and their personal characteristics, such as values and attitudes need to be taken into consideration when promoting long-term sustainability and achieving successful positive natural resource management outcomes. Individuals affect the community and the community affects the individuals, thus it is important to also take into account the idea of community and the components and processes of the community.

By examining the social forces operating in the Shire a frame of mind can be developed that begins to unravel the values held by humans and how they affect the achievement of successful natural resource management outcomes in the Shire.

3.6 References

- Burkett, I., 2000, Integrated systems and rural community development: possibilities for partnership. in, Warburton, K., Pillai-McGarry, U. and Ramage, D.L. (Eds.). *Integrated Biosystems for Sustainable Development*. Rural Industries Research and Development Research Corporation, in press.
- Crows Nest Shire Council, 2001, *Crows Nest Shire: Integrated Planning Scheme Draft Statement of Proposals*, Crows Nest Shire Council.
- Edgar, D., Earle, L. & Fopp, R., 1993 *Introduction to Australian Society*, 2nd edn, Prentice Hall, Sydney.
- Frost, F., 2001, Our natural heritage: its creation through vision, values and verity, In *Understanding Perspectives and linking scales: from the group to the person-catchment to the farm*. Proceedings of the North East Downs Landcare Group inc. Our Land Our Future Workshop. North East Downs Landcare Group Inc., Oakey.
- Campbell, K., & Galbraith, R., 2000, *Remnant Vegetation Corridor Management Strategy*, Crows Nest Shire Council.
- Klessig, L.L., 1996, "Sugar, Subdivisions and Sustainability", in 'Asia-Pacific Times: Fall 1996' unpublished study report.
- Maslow, A., 1954, *Motivation and Personality*, Harper and Row, New York.

- Meinig, D.W., 1979, The beholding eye: ten versions of the same scene, In *The interpretation of ordinary landscapes: geographical essays*. Meinig, D.W. (ed), Oxford University Press, New York.
- Robbins, S., Millet, B., Cacioppe, R & Waters-Marsh, T., 1998, *Organisational Behaviour*, Prentice Hall, Sydney.
- Shrapnel, M, Davie, J., & Frank, B., 1997, The importance of personality in ecological sustainable rural management. Paper presented to the Conference, *Conservation in Production Environments*, Lake Tampo, New Zealand. 1-5 December 1997.
- Smailes, P.J., 1995, "The enigma of social sustainability in rural Australia", *Australia Geographer*, vol. 26. No.2. pp140-150.
- Taylor. S.G., 1990, Naturalness: the concept and its application to Australian ecosystems, *Proc. Ecol. Soc. Aust.* vol: 16, pp. 411-418.
- Wildman, P., 1993, *Environmentally Sustainable Development: an Overview*, Prosperity Press, Brisbane.

4. Natural Resource Management

How can successful natural resource management outcomes achievable in Crows Nest Shire? This Chapter discusses:

- 1. The role of private landholders in natural resource management.*
- 2. The role of Council in natural resource management.*
- 3. An overview of the legislative and regulatory measures and initiatives that affect natural resource management in Crows Nest Shire.*

4.1 Introduction

Crows Nest Shire Council, like many rural Shires, lacks the rate revenue and resources to effectively manage the natural resources of the Shire single-handedly. Urban local governments, due to their larger rate bases, are better positioned. However they too cannot successfully achieve positive natural resource management outcomes without the involvement of the community.

4.2 The Role of Private Landholders

Around seventy percent of Australia's land mass is under the control of private landholders, and only 7.84% of public land is in national parks or similar reserves. Therefore it is easy to see that natural resource management is largely in the hands of private landholders. Given this, the single greatest way to protect the natural resource values of Australia is to positively influence what happens on private land. Whilst there are Government programs to assist private landowners, the very large areas involved and many actions to be taken means that Australia's Government's are unlikely to be able to directly fund all of this work. The Local Government Association of Queensland (2001a) states the problem of catchment management has been identified as requiring at least \$60 billion in capital investment over 10 years, plus ongoing maintenance of about \$500 million per annum. This estimate comes on top of the billions spent over the past decade out of the National Landcare and the Natural Heritage Trust (NHT) programs.

It is easy to see that if successful natural resource management outcomes are achievable partnerships between Government and private landholders need to be forged.

4.2.1 Conservation in Crows Nest Shire

Crows Nest Shire is predominately rural orientated with significant natural resource values in its agricultural landscapes. To effectively conserve these values, conservation strategies must account for the rights and needs of the private landholder and the best approach to this is the 'win-win approach' (Boyes, 2000). The 'win-win approach':

- results in *both* a win for natural resource management *and* a win for the rights and needs of private landholders,

- is not a fancy name for compromise, rather it uses lateral thinking to come up with an outcome that will fully satisfy the interests of *both* sides,
- gives landholders a genuine and valid involvement of the decision-making process from day one and maximum ownership of the process outcomes,
- allows land to remain in private ownership and assists owners with education and material, and financial assistance enabling them to act as on-site natural resource managers,
- encourages landholders to voluntarily manage areas, and
- results in cooperative and supportive landholders who will willingly protect their natural resource for many years to come.

(Boyes, 2000)

This approach protects the landholder's rights their values and beliefs, yet encourages natural resource management through grass roots management. The *WESROC Sustainable Management of the Helidon Hills Project* (Boyes, Pope & Mortimer, 1998) established an unprecedented level of landholder and community support and is testimony to the benefits of a 'win-win approach'. To conserve the natural assets of Crows Nest Shire for many years to come and promote long-term sustainability the community needs to draw a sense of ownership of the decision-making process and develop a responsibility over the process. This can only be achieved with a genuine and valid involvement of the community in the decision-making process and the delivery of mechanisms that secures landholder and community involvement and ownership of natural resource management outcomes.

4.2.2 The Decision-Making Process

To achieve a win-win outcome for natural resource management and the landholders in Crows Nest Shire, landholders and community groups need to be given a genuine a valid involvement in the decision making process. Typically decisions have been made by consultants or bureaucrats preparing policies and strategies in isolation of an office (Boyes 2000). If landholders are involved in the process it is in a consultative manner rather than a participatory one.

Consultation refers to the informing of a landholder or community of the decision-making outcomes, usually at the end. It can be considered as the sharing of information but not necessarily the sharing of power. This type of decision-making process results in a 'win-lose' or 'lose-lose' situation. Participation *involves* the landholder or community in the process and thereby promotes ownership over the outcomes, in recognition of the fact that it is landholders and the community who have the long-term responsibility for natural resource management (Boyes, 2000).

4.2.3 Securing Landholder and Community Involvement and Ownership

Mechanisms for securing landholder and community involvement and ownership of natural resource management outcomes can involve a myriad of statutory and voluntary based processes. The range of mechanisms recognises the differing level of resources and time available from landholders to invest in environmental works. Examples of mechanisms for securing landholder and community involvement and ownership of natural resource management outcomes include:

- provision of material and financial assistance through community based organisations i.e. NHT funding grants available to landholders from the Emu Creek Catchment Landcare Group,
- utilisation of local people as a resource for knowledge, assistance and support, and

- use of management agreements that seek to achieve and retain strong landholder and community support built upon a stewardship ethic (Binning and Young, 1997) i.e. Voluntary Conservation Agreements.

For further details and discussions on mechanisms and incentives for securing landholder and community involvement and ownership of natural resource management outcomes refer to the following publications:

- *Motivating People: Using Management Agreements to Conserve Remnant Vegetation* (Binning and Young 1997),
- *Beyond Roads, Rates and Rubbish: Opportunities for local government to conserve native vegetation* (Binning, Young & Cripps, 1999),
- *Conservation Hindered: The impact of local government rates and State land taxes on the conservation of native vegetation* (Binning & Young, 1999)
- *Sustainable Management of Helidon Hills Draft Management Plan* (Boyes, Pope and Mortimer, 1998), and
- *Gatton Shire Biodiversity Strategy* (Boyes, 2000)

Successful integration of these mechanisms under a co-ordinated and adaptive framework can further cement landholder and community involvement and ownership. Boyes (2000 p.35) discusses the need for a co-ordinated framework in terms of biodiversity conservation:

‘Without coordination there is a danger that some key threats to biodiversity will not be properly addressed or will not be addressed at all, or that limited resources will not be focused on the highest - priority issues’
Boyes (2000p.35)

A co-ordinated framework is also needed to:

- reduce the duplication of natural resource management activities, and
- deliver mechanisms in the most efficient manner.

For example, Crows Nest Shire Council is in the best position to implement land use planning mechanisms and groups like Emu Creek Catchment Landcare Group is in a position to best implement NHT funding assistance for soil conservation works.

Since Crows Nest Shire sits in parts of two Bioregions and two major catchments, implementation of a framework at a major catchment base level is difficult. Rather, the framework would be more stable and achievable implemented at a local catchment level i.e. in conjunction with the Shire’s five Landcare groups and Catchment Management groups.

4.3 The Role of Council

4.3.1 Why local governments?

Binning, Young and Cripps (1999) in undertaking an inherent evaluation of the role of local government in managing native vegetation concluded that local governments are a key player in natural resource management because:

- as the level of government that is closest to the community, they are able to translate the policies of Commonwealth and State governments into on-ground projects for the conservation of native vegetation, and

- as managers of public land and land use planners, local governments are responsible for regulating a wide range of activities that may impact on native vegetation.

(Binning, Young and Cripps, 1999)

The Local Government Association of Queensland (2001a) suggests local governments are in the drivers seat when it comes to engaging and empowering the degree of change needed to tackle the challenge of natural resource management. Local governments:

- are local: they are well established, some would say steeped in, in the local and regional context: they have the ‘total picture’ of the local area in mind not just a single issue,
- are government: they have formal authority directly and through delegations to regulate activities, and they have fundraising and fund allocation powers,
- have information: they collect, store and disseminate information relevant to if not specifically targeted at natural resource issues,
- form alliances to achieve efficiencies: they routinely form regional networks and co-ordinate with each other and other spheres of government,
- can act relatively quickly, they are not large State bureaucracies, and
- are accountable: they have to answer to funding and legislation informing the policy directions and priorities for their operations.

(Local Government Association of Queensland, 2001a, p.37)

However local governments face sizable challenges in taking on the responsibilities of natural resource management. Constraints on their effective leadership in managing natural resources at a local level is evident in their:

- ongoing process of devolution and extension of their operating responsibilities,
- lack of resources proportional to this extension, and
- lack of any integrated policy framework for planning and resource management.

(Local Government Association of Queensland, 2001a, p. 37)

In summary local governments are well placed to provide legitimate and structured support for successful natural resource management. The context in which they operate is local and integral, and although their power is nowhere near comprehensive enough for the challenge, has the potential to encompass natural resource management. Local government administration and operations are increasingly of a natural resource management stance and as a consequence they are engaged in setting up the administrative and planning frameworks for effective natural resource management.

4.3.2 Framework for NRM Co-ordination and Delivery

As discussed in Section 4.2.5 a framework is needed to achieve successful natural resource management outcomes. Landholders and the community cannot tackle the issue of natural resource management alone and many local government lack the resources to take on the increasing natural resource management responsibilities being placed on them. A framework needs to involve a mixture of statutory and non-statutory mechanisms to achieve successful natural resource management outcomes. The benefits of statutory mechanism such as planning schemes are:

- providing policy direction in the context of seeking to achieve ecological sustainability,
- providing measures for implementing policy when development occurs, and

- incorporating periodic review.

The benefits of actions through non-statutory co-operative planning process are:

- addressing many contemporary issues immediately,
- resulting in a more positive, supportive attitude,
- fostering longer term educative change,
- rewarding people who do the ‘right thing’ through incentives, and
- providing a catalyst for community driven action.

(Local Government Association of Queensland, 2001b)

Crows Nest Shire Council has already put in place a framework for the delivery of natural resource management outcomes - the Crows Nest Shire Natural Resource Management Program. The program has received wide recognition for its integrated approach and is a mixture of voluntary and statutory mechanisms addressing natural resource management.

For effective frameworks to be developed there are a variety of issue that need to be addressed:

1. Natural resource management processes and policies need to be consistent with regional, State, Commonwealth, and International polices and agreements,
2. Gaps in statutory and voluntary initiatives need to be minimised,
3. Gaps between regional natural resource management organisations need to be minimised to promote integration and ensure conservation aspects are not over looked,
4. Linkages between regional organisations need to be clarified and rectified to prevent duplication,
5. Region and boundary definitions need to be taken into account in developing and working with frameworks, and
6. An emphasis needs to be placed on delivering practical outcomes to ensure communities do not suffer from ‘process fatigue’. Communities may feel the effort placed on establishing and maintaining a framework is very time consuming and they would rather concentrate their efforts on achieving on ground outcomes.

4.3.3 The Crows Nest Shire Natural Resource Management Program

The NRM Program is an innovative mix of planning, policy, on ground works and incentives to help the community and Council manage the natural resources in a long-term sustainable manner. An extract from the Natural Heritage Trust (NHT) Application Form summarising the program follows:

‘The community of Crows Nest Shire will be provided with the means to implement sustainable natural resource management across all land tenures. The key elements for delivering this program are: developing community capacity for implementing sustainable natural resource management, ongoing community consultation, identifying and rewarding champions within the community, development of a natural resource management strategy for Crows Nest Shire, introduction of an incentive scheme, a devolved grant program... and introduction of a Shire wide environmental contribution for long term funding of natural resource management.’

(Crows Nest Shire Council, 2000, p.1)

The program involves a mixture of avenues for promoting long term sustainable natural resource management as indicated in the above extract and Section 2.14 when laying down the Community Attitude Survey foundation. The integrated approach of the program has received wide recognition in the natural resource management field and the community, and is testimony to the Councils' commitment to take an active role in managing the natural resources of the Shire. The framework provided by the program enables partnerships to be fostered between community and Council and invokes a 'grass roots' and 'bottom up' sentiment.

4.4 Policy Context

The first point in Section 4.3.2 acknowledges the consistency between establishing an effective framework and broader policies and initiatives. Natural resource management orientated policies developed by Crows Nest Shire Council need to be consistent with a range of State, Commonwealth, bilateral statutory and voluntary initiatives. The applicable initiatives are listed below:

State Initiatives:

- *Environmental Protection Act 1994 and Environmental Protection Policies,*
- *Water Resources Act 2000,*
- *Vegetation Management Act 1999,*
- *Prime Agricultural Land - State Planning Policy 1994,*
- *Nature Conservation Act, 1992 and Nature Conservation Regulations 1994,*
- *Integrated Planning Act 1997.*
- SEQ Forest Agreement,
- Regional Water Quality Management Strategy - SEQ,
- Natural Resource Management Strategy for South East Queensland, and
- Regional Nature Conservation Strategy for South-East Queensland.

Commonwealth Initiatives:

- *Environmental Protection and Biodiversity Conservation Act 1999,*
- National Local Government Biodiversity Strategy,
- National Framework for the Management and Monitoring of Australia Native Vegetation, and
- National Research and Development Program on Rehabilitation, Management and Conservation of Remnant Vegetation.

Joint State/ Commonwealth initiatives:

- National Action Plan for Salinity and Water Quality, and
- Murray Darling Basin Commission (MDBC).

4.5 References

- Boyes, B., Pope, S., & Mortimer, M., 1998, *Sustainable Management of the Helidon Hills-Draft Management Plan*, Western Subregional Organisation of Councils (WESROC).
- Boyes, B, 2000, *Gatton Shire Biodiversity Strategy*, Lockyer Watershed Management Association (LWMA) Inc.- Lockyer Landcare Group, Forest Hill.
- Crows Nest Shire Council, 2000, *Natural Heritage Trust 200-2001 New Application Form, 'Holistic Natural Resource Management of Crows Nest Shire'*, p.2.
- Cripps, E., Binning, C. & Young, M., 1999, *Opportunity Denied: Review of the legislative ability of local government to conserve native vegetation*. National R&D Program on Rehabilitation, Management and Conservation of Remnant Vegetation, Research Report, 2/99, Environment Australia, Canberra.
- Binning, C, Young, M, & Cripps, E., 1999, *Beyond Roads, Rates and Rubbish: Opportunities for local government to conserve native vegetation*. National R&D Program on Rehabilitation, Management and Conservation of Remnant Vegetation, Research Report, 1/99, Environment Australia, Canberra.
- Binning, C & Young, M, 1997, *Motivating People: Using Management Agreements to Conserve Remnant Vegetation*. National Research and Development Program on Rehabilitation, Management and Conservation of Remnant Vegetation, Research Report 1.
- Local Government Association of Queensland, 2001a, *Council Leader*, Vol.27: 1, Local Government Association of Queensland.
- Local Government Association of Queensland, 2001b, *Local Government's Role in Integrated Catchment Planning and Management - Good Practice Guidelines*, Local Government Association of Queensland.

5. Analysis of Survey Findings

What are the results of the Community Attitude Survey and what are the implications for natural resource management in Crows Nest Shire? This Chapter discusses:

- 1. The raw data obtained from the Community Attitude Survey.*
- 2. The key elements of the findings.*

5.1 Raw Data

5.1.1 Questionnaire Response Rate

A response rate of 31.82% was achieved by the Community Attitude Survey. Table 5.1.1 shows the numbers of questionnaires distributed and returned in each survey mode and their corresponding response rates. Clearly the Interview Program was the most successful survey mode, however each mode was received well by the community. A miscellaneous category is included in the table to account for those questionnaires distributed through request, and the Highfields Cultural Centre and Crows Nest Shire Council Administration Centre foyers.

Table 5.1.1 Questionnaire response rates from each survey mode.

Survey Mode	Number of Questionnaires Distributed	Number of Questionnaires Returned	Response Rate (%)
Mail out	50	16	32.00%
Interview	17	10	58.82%
Forum	85	19	22.35%
Online	3	3	*
Miscellaneous	21	8	38.10%
Overall	176	56	31.82%

* The number of questionnaires downloaded is not known; therefore an accurate response rate cannot be calculated.

5.1.2 Section A - Responses to Attitudinal Statements

General Response to Attitudinal Statements

Responses to the attitudinal statements were overall positive. Of the 18 statements and 56 participants, only 10.51% responses to the statements were ‘Disagree’ and 1.38% ‘ Strongly Disagree’. By contrast 40.27% were ‘Agree’ and 25.59% were ‘Strongly Agree’ indicating the positive result. Figure 5.1.1 indicates the aggregate responses by participants to the attitudinal statements.

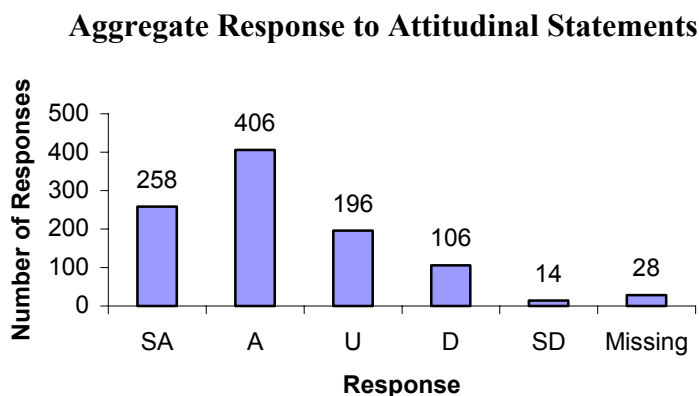


Figure 5.1.1: - Graph representing the aggregate responses to the attitudinal statements

Response Matrices

Overwhelmingly, participants responded positively to the statement ‘The Shire possesses a rich ecological diversity that needs to be managed carefully’ (Table 5.1.2). 96.36% of respondents indicated their awareness of the rich ecological diversity and the need to manage it carefully.

Table 5.1.2 Response to: *The Shire possesses a rich ecological diversity that needs to be managed carefully*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	27	48.2%	49.09%	49.09%
	Agree	26	46.4%	47.27%	96.36%
	Unsure	2	3.57%	3.64%	100.00%
	Disagree				
	Strongly Agree				
Total Valid		55		100.00%	
Invalid	Missing	1	1.79%		
Total		56	100.00%		

Let us look at participant views towards the linkages that exist between riparian vegetation and water quality and quantity (Table 5.1.3). The majority of participants (80%) acknowledged the existence of links between riparian vegetation and water quality and quantity. 18.18 % are unsure of the existence of any links and 1.82% ‘Disagree’ with the statement.

Table 5.1.3 **Response to:** *Links exist between the quality of riparian vegetation and water quality and quantity.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	23	41.1%	41.82%	41.82%
	Agree	21	37.5%	38.18%	80.00%
	Unsure	10	17.86%	18.18%	98.18%
	Disagree	1	1.79%	1.82%	100.00%
	Strongly Disagree				
Total Valid		55		100.00%	
Invalid	Missing	1	1.79%		
Total		56	100.00%		

The majority of the responses to the statement ‘Public monies should be invested into nature conservation activities on private lands’ were favourable, with 54.72% of respondents either agreeing or strongly agreeing with the statement (Table 5.1.4). However a large proportion (almost one third of the responses) were ‘Unsure’ indicating indecision towards the use of public monies to fund conservation activities on private lands. 13.21 % disagreed with the statement.

Table 5.1.4 **Response to:** *Public monies should be invested into nature conservation activities on private lands.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	16	28.57%	30.19%	30.19%
	Agree	13	23.21%	24.53%	54.72%
	Unsure	17	30.36%	32.08%	86.79%
	Disagree	7	12.50%	13.21%	100.00%
	Strongly Disagree				
Total Valid		53		100.00%	
Invalid	Missing	3	5.36%		
Total		56	100.00%		

The survey participants are well aware of the extent and impact of weeds and pest animals in the Shire (Table 5.1.5). 94.64 % of participants either agreed or strongly agreed with the statement ‘The extent and impact of weeds and pest animals in the Shire are apparent to me’. It is interesting to note that no participants disagreed or strongly disagreed with the statement.

Table 5.1.5 Response to: *The extent and impact of weeds and pest animals in the Shire are apparent to me.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	26	46.43%		46.43%
	Agree	27	48.21%		94.64%
	Unsure	3	5.36%		100.00%
	Disagree				
	Strongly Disagree				
Total Valid					
Invalid	Missing				
Total		56	100.00%		

Just under half (49.09%) of the participants ‘Strongly Agree’ with incentive mechanisms providing a win/win situation for the environment and landholder (Table 5.1.6). This result combined with the result for ‘Agree’ accumulates an 83.64% favourable response towards the statement.

Table 5.1.6 Response to: *Incentive mechanisms to promote conservation on private lands provide a win/ win situation for the environment and the landholder.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	27	48.21%	49.09%	49.09%
	Agree	19	33.93%	34.55%	83.64%
	Unsure	8	14.29%	14.55%	98.18%
	Disagree				
	Strongly Disagree	1	1.79%	1.82%	100.00%
Total Valid		55		100.00%	
Invalid	Missing	1	1.79%		
Total		56	100.00%		

The four statements included in Section A - Question Six of the questionnaire booklet were designed to gather the participant views towards the use of conservation incentives by Council. Table 5.1.7 represents the response towards a perpetual conservation mechanism, such as a Voluntary Conservation Covenant. 33.33% of participants either ‘Strongly Agree’ or ‘Agree’ with the statement, 33.34% either ‘Disagree’ or ‘Strongly Disagree’ and 33.33% are ‘Unsure’. This indicates a fairly even division among residents in their opinions towards the use of covenants to protect conservation areas on their land.

Table 5.1.7 *Response to: I am interested in utilizing any conservation incentives proposed by the Council that: will enable conservation areas on my land to be protected under a covenant situation perpetually.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	8	14.29%	14.81%	14.81%
	Agree	10	17.86%	18.52%	33.33%
	Unsure	18	32.14%	33.33%	66.67%
	Disagree	14	25.00%	25.93%	92.59%
	Strongly Disagree	4	7.14%	7.41%	100.00%
Total Valid		54		100.00%	
Invalid	Missing	2	3.57%		
Total		56	100.00%		

Table 5.1.8 represents the views held towards a more flexible conservation mechanism such as a Voluntary Conservation Agreement or the Land for Wildlife program. Just over half of the respondents (50.91%) of participants either ‘Agree’ or ‘Strongly Agree’ with the statement. Only 3.64% of participants ‘Disagree’ or ‘Strongly Disagree’ and 20% are ‘Unsure’.

Table 5.1.8 *Response to: I am interested in utilizing any conservation incentives proposed by the Council that: protects and enhances conservation areas on my land but still allows for flexibility in terms of land use.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	14	25.00%	25.45%	25.45%
	Agree	28	50.00%	50.91%	76.36%
	Unsure	11	19.64%	20.00%	96.36%
	Disagree	1	1.79%	1.82%	98.18%
	Strongly Disagree	1	1.79%	1.82%	100.00%
Total Valid		55		100.00%	
Invalid	Missing	1	1.79%	1.82%	
Total		56	100.00%		

Table 5.1.9 indicates the response to any conservation incentives proposed by Council that involves community reward and recognition. Opinion is divided like that in Table 5.1.7, with 31.48% of participants either disagreeing or strongly disagreeing with the statement. 29.63% are unsure and 38.89 % of participants agreed or strongly agreed with the statement.

Table 5.1.9 *Response to: I am interested in utilizing any conservation incentives proposed by the Council that: Rewards me with community recognition for conserving and enhancing nature conservation areas on my land.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	5	8.93%	9.26%	9.26%
	Agree	16	28.57%	29.63%	38.89%
	Unsure	16	28.57%	29.63%	68.52%
	Disagree	15	26.79%	27.78%	96.30%
	Strongly Disagree	2	3.57%	3.70%	100.00%
Total Valid		54	100.00%		
Invalid	Missing	2	3.57%	3.70%	
Total		56	100.00%		

The final statement in Question 6 (Table 5.1.10) indicates the response to any mechanism that involves technical assistance and financial assistance, such as the Small Grants Scheme under the Crows Nest Shire NRM Program. Just over three quarters (75.93%) of the responses either agreed or strongly agreed with the statement, 14.81% were unsure and 9.26% disagreed. No response for ‘Strongly Disagree’ was recorded.

Table 5.1.10 *Response to: I am interested in utilizing any conservation incentives proposed by the Council that: Supports me with technical assistance, on ground works and financial assistance.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	15	26.79%	27.78%	27.78%
	Agree	26	46.43%	48.15%	75.93%
	Unsure	8	14.29%	14.81%	90.74%
	Disagree	5	8.93%	9.26%	100.00%
	Strongly Disagree				
Total Valid		54	100.00%		
Invalid	Missing	2	3.57%		
Total		56	100.00%		

Let us look at participant attitudes to the use of Voluntary Conservation Agreements/Covenants in their current conservation practices (Table 5.1.11). 66.04% of respondents indicated the preference to maintain conservation areas on their properties *without* the use of a Voluntary Conservation Agreement/ Covenant. 18.87 % were unsure and 15.1% either disagreed or strongly disagreed with the statement. This result combined with the response to the statement, ‘I would consider entering into a Voluntary Conservation Agreement / Covenant’ (Table 5.1.12) indicates a segment of the community wishing to utilise a Voluntary Conservation Agreement/ Covenant in their conservation management practices. 32.73 % of participants either agreed or strongly agreed to the statement, 38.18% unsure and 29.09% either disagreeing or strongly disagreeing. This results in a fairly even divide among opinions towards the uptake of Voluntary Conservation Agreements/ Covenants.

Table 5.1.11 Response to: *At present I prefer to maintain conservation area on my land without the use of a Voluntary conservation Covenant/ Agreement.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	8	14.29%	15.09%	15.09%
	Agree	27	48.21%	50.94%	66.04%
	Unsure	10	17.86%	18.87%	84.91%
	Disagree	7	12.50%	13.21%	98.11%
	Strongly Disagree	1	1.79%	1.89%	100.00%
Total Valid		53		100.00%	
Invalid	Missing	3	5.36%		
Total		56	100.00%		

Table 5.1.12 Response to: *I would consider entering into a Voluntary Conservation Covenant/ Agreement.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	5	8.93%	9.09%	9.09%
	Agree	13	23.21%	23.64%	32.73%
	Unsure	21	37.50%	38.18%	70.91%
	Disagree	13	23.21%	23.64%	94.55%
	Strongly Disagree	3	5.36%	5.45%	100.00%
Total Valid		55		100.00%	
Invalid	Missing	1	1.79%		
Total		56	100.00%		

To collect some feedback on the recent introduction of an environmental rates levy by Council, a statement regarding the benefits of the levy was included in the survey (Table 5.1.13). Just over half of the responses (54.55%) indicated they either agreed or strongly agreed to the statement. A significant proportion of participants (30.91%) were unsure of the benefits of the levy and 14.55% either disagreed or strongly disagreed with the statement.

Table 5.1.13 Response to: *The benefits of an Environmental Rate Contribution are apparent to me.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	9	16.07%	16.36%	16.36%
	Agree	21	37.50%	38.18%	54.55%
	Unsure	17	30.36%	30.91%	85.45%
	Disagree	7	12.50%	12.73%	98.18%
	Strongly Disagree	1	1.79%	1.82%	100.00%
Total Valid		55		100.00%	
Invalid	Missing	1	1.79%		
Total		56	100.00%		

Two thirds (66.67%) of participants either agreed or strongly agreed with the statement ‘Lack of adequate resources, such as technical assistance, time and money hinder my efforts to effectively

manage existing weed and pest animal impacts’ (Table 5.1.14). A very small proportion (compared to the typical ‘Unsure’ response to the statements), of 7.41% indicated an unsure response, and just over a quarter 25.93% of participants disagreed with the statement. No ‘Strongly Disagree’ results were recorded.

Table 5.1.14 Response to: *Lack of adequate resources, such as technical assistance, time and money hinder my efforts to effectively manage existing weed and pest animal impacts.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	15	26.79%	27.78%	27.78%
	Agree	21	37.50%	38.89%	66.67%
	Unsure	4	7.14%	7.41%	74.07%
	Disagree	14	25.00%	25.93%	100.00%
	Strongly Disagree			100.00%	
Total Valid		54			
Invalid	Missing	2	3.57%		
Total		56	100.00%		

A significant proportion (46.43%) of the participants indicated an ‘Unsure’ response to the statement ‘In the Shire there is a lack of recognition/ awareness of alternative farming or other economical practices (Table 5.1.15). 33.93% either agreed or strongly agreed with the statement and only 12.5% disagreeing. Again it is interesting to note that ‘Strongly Disagree’ did not record a result.

Table 5.1.15 Response to: *In the Shire there is a lack of recognition/ awareness of alternative farming or other economical practices.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	4	7.14%	7.14%	7.14%
	Agree	19	33.93%	33.93%	41.07%
	Unsure	26	46.43%	46.43%	87.50%
	Disagree	7	12.50%	12.50%	100.00%
	Strongly Disagree			100.00%	
Total Valid		56			
Invalid	Missing				
Total		56	100.00%		

Almost two-thirds (64.15%) of the participants responded with an interest in learning more about the Land for Wildlife Program and the benefits in protecting and managing wildlife habitat on their properties (Table 5.1.16). 24.53% either disagreed or strongly disagreed with the statement and 11.32 % unsure. This result indicates there is strong interest in the program.

Table 5.1.16 Response to: *I am interested in learning more about the Land for Wildlife Program and the benefits to protecting and managing wildlife habitat on my land.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	12	21.43%	22.64%	22.64%
	Agree	22	39.29%	41.51%	64.15%
	Unsure	6	10.71%	11.32%	75.47%
	Disagree	12	21.43%	22.64%	98.11%
	Strongly Disagree	1	1.79%	1.89%	100.00%
Total Valid		53		100.00%	
Invalid	Missing	3	5.36%		
Total		56	100.00%		

The response yielded to the natural resource information orientated statements (Table 5.1.17 and Table 5.1.18) indicates that participants feel the general community needs more information to make more informed and attentive decisions in regard to natural resource management issues. 85.19% of participants feel the general community needs more information, 12.5% are unsure and 1.85% either disagree or strongly disagree. 83.33% either agree or strongly agree that the knowledge gained from the information will enable them to make better decisions, 14.81 % are unsure and again 1.85% disagree.

Table 5.1.17 Response to: *The knowledge gained form accessing accurate information will enable me to make more informed and attentive decisions in regard to natural resource management issues.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	11	19.64%	20.37%	20.37%
	Agree	34	60.71%	62.96%	83.33%
	Unsure	8	14.29%	14.81%	98.15%
	Disagree	1	1.79%	1.85%	100.00%
	Strongly Disagree			100.00%	
Total Valid		54			
Invalid	Missing	2	3.57%		
Total		56	100.00%		

Table 5.1.18 Response to: *The general community needs more access to information in regard to natural resource management issues.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	12	21.43%	22.22%	22.22%
	Agree	34	60.71%	62.96%	85.19%
	Unsure	7	12.50%	12.96%	98.15%
	Disagree	1	1.79%	1.85%	100.00%
	Strongly Disagree			100.00%	
Total Valid		54			
Invalid	Missing	2	3.57%		
Total		56	100.00%		

Finally the last attitudinal statement ‘Natural resource management is a concept I understand and I can see the benefits of managing natural resources in a sustainable manner’ (Table 5.1.19) is to assess the participants’ feelings towards the concept. Overwhelmingly 90.91% responded by agreeing or strongly agreeing to the statement. 7.27 % of participants responded with ‘Unsure’ and 1.82% with ‘Disagree’. No ‘Strongly Disagree’ responses were recorded.

Table 5.1.19 Response to: *Natural resource management is a concept that I understand and I can see the benefits of managing natural resources in a sustainable manner.*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	21	37.50%	38.18%	38.18%
	Agree	29	51.79%	52.73%	90.91%
	Unsure	4	7.14%	7.27%	98.18%
	Disagree	1	1.79%	1.82%	100.00%
	Strongly Disagree			100.00%	
Total Valid		55			
Invalid	Missing	1	1.79%		
Total		56	100.00%		

5.1.3 Section B - Baseline Data

Figure 5.1.2 represents the age categories of the respondents. Clearly the majority of respondents (60%) fall into the 40-60 years age category. A combined total of 83.64% of respondents were aged over 40 indicating an aging population.

Age Categories of Participants

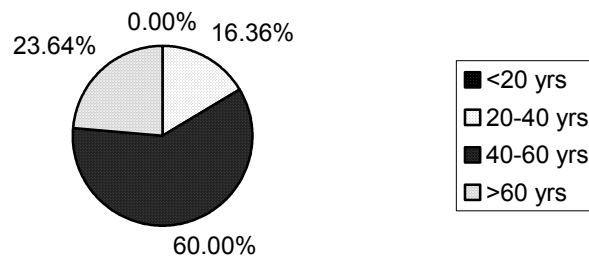


Figure 5.1.2: - Age Categories of Respondents

A mixture of property sizes was obtained from the survey - as illustrated in Figure 5.1.3. Property sizes ranging from 20 hectares - 100 hectares were most prevalent (30.36%) closely followed by properties ranging from 100 hectares - 500 hectares (28.57%).

Property Sizes of Participants

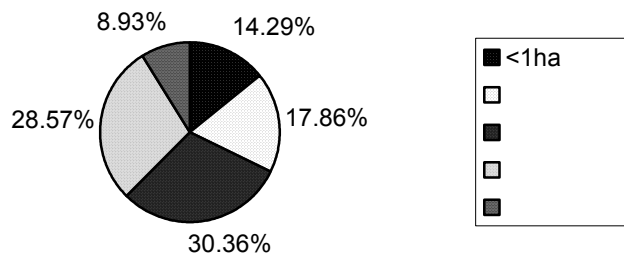


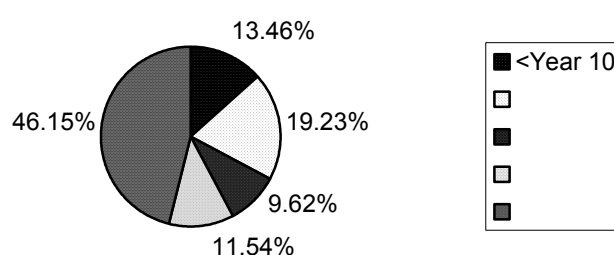
Figure 5.1.3: - Property Sizes of Questionnaire Respondents

Just over half (57.14%) of participants received income from their property and of those participants 59.38% indicated that this income was their major source of revenue (Table 5.1.20). Therefore of the total number of participants in the survey only 33.92 % can be considered as full time farmers.

Table 5.1.20: - Income Statistics

Income			Total Income		
	Frequency	Percentage		Frequency	Percentage
Yes	32	57.14%		19	59.38%
No	24	42.86%		13	40.63%
Total	56	100.00%		32	100.00%

The highest level of education for a significant proportion of the participants is a Degree (46.15%), followed by Year 10 with 19.23%, below Year 10 with 13.46%, Diploma with 11.54% and Year 12 with 9.62% (**Figure 5.1.4**). Surprisingly 57.69% of participants hold tertiary qualifications.



7.14% did not indicate their highest level of education.

Figure 5.1.4: - Respondents Highest level of Education

When examining the results of the primary land use of participants' properties (**Figure 5.1.5**) Grazing (30.4%) and Rural Residential (25%) stand out, closely followed by the Mixture category (16.1%), which primarily consisted of grazing with another land use, such as pig or deer farming.

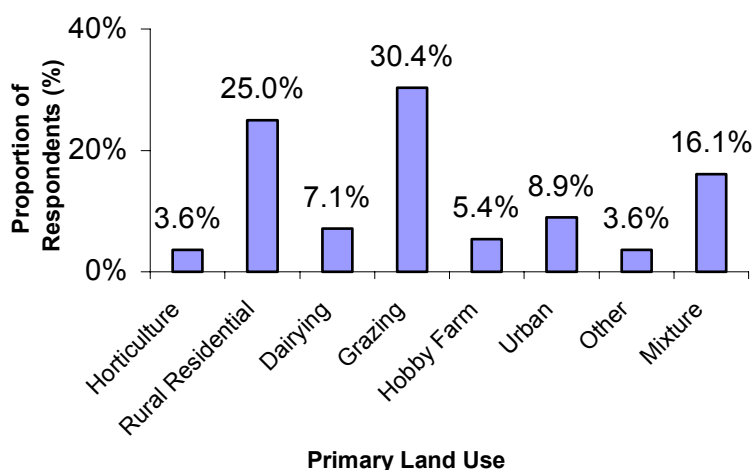


Figure 5.1.5: - Primary Land Use of Respondent's Properties

Figure 5.1.6 and Figure 5.1.7 show the percentage of respondents who observed various environmental and declared weeds on their property and any evidence of pest animals in the past year. Lantana (*Lantana camara*) (73.2%) followed by Tree Pear (*Opuntia aurantiaca*) (51.8%)

and Privet (*Lingustrum ludicum*) (41.1%), are the three most prominent weeds observed on the participant's properties.

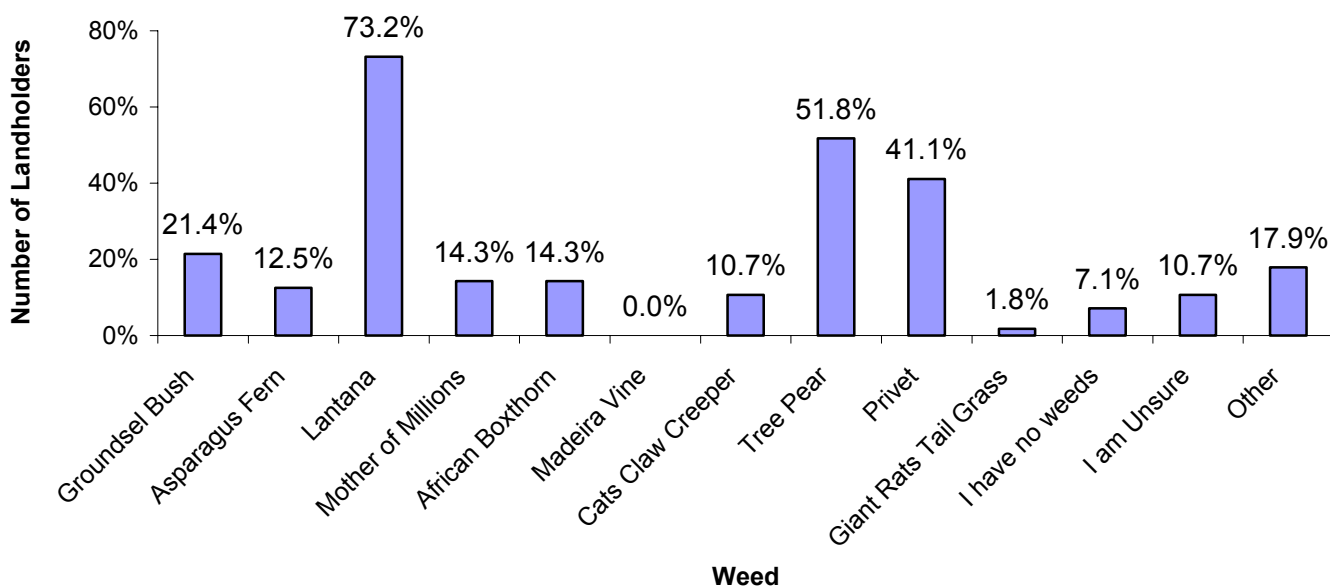
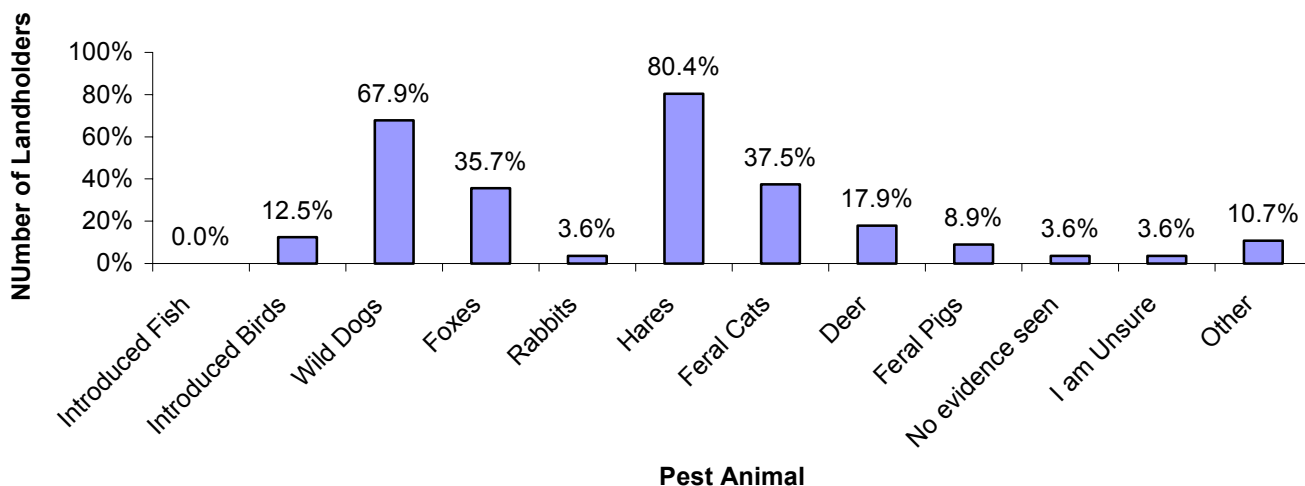


Figure 5.1.6: - Presence of Environmental and Declared Weeds on Respondent's Properties

Hares (80.4%) followed by Wild Dogs (67.9%) are the two pest animals with their presence noted most widely in the Shire. Feral Cats (37.5%) and Foxes (35.7%) are the next two most noted pest animals.



Note: Dingoes are included in the Wild Dog category

Figure 5.1.7: - Presence of Pest Animals on Respondents Properties

The most preferred method of accessing natural resource management information by respondents is through fliers and brochures. However accessing information through articles in local newspapers, including The Chronicle, closely followed. The remaining methods shared similar levels of preference, notably case studies (30.4 %) and field day displays (25%). Other preferred methods of accessing information were by telephone. Figure 5.1.8 shows the response for the preferred method of accessing natural resource management information from Council.

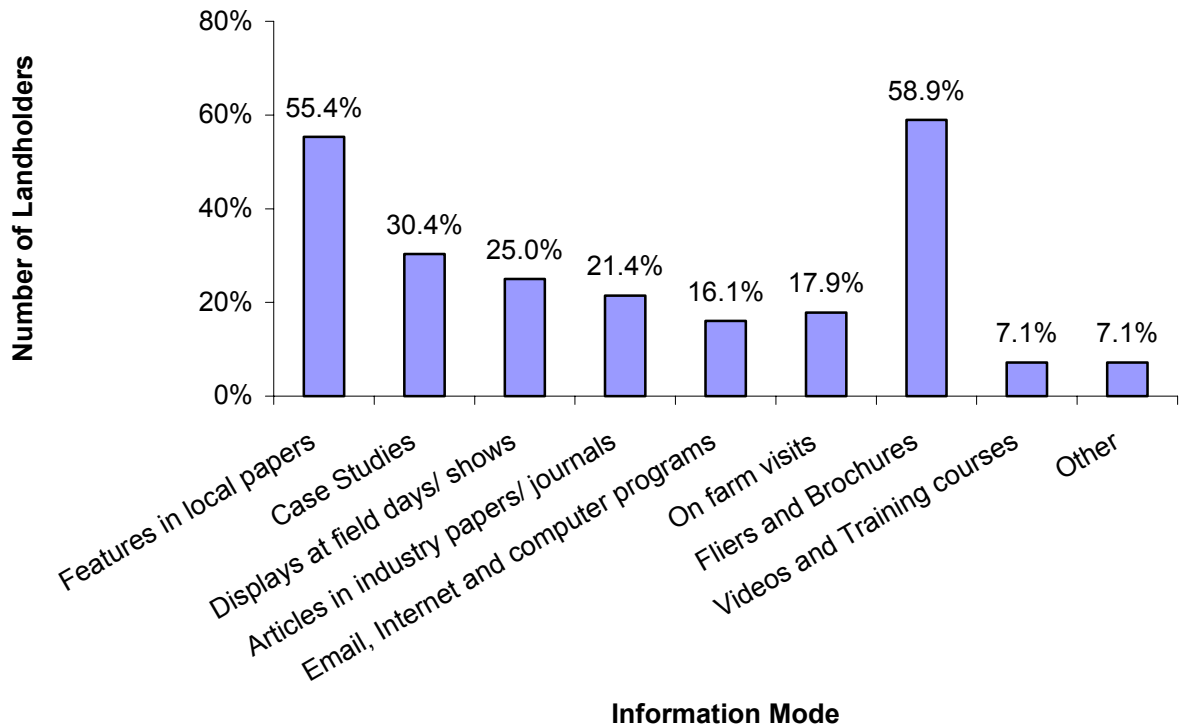


Figure 5.1.8: - Respondents Preferred Method of Accessing NRM Information from Council

5.1.4 Section C

Community Perceptions of Natural Resource Management

The first question of Section C in the questionnaire booklet asked for participants to define natural resource management. A selection of the responses to the statement: *In your own words define natural resource management* are below:

- ‘Managing resources, soil, water, timber for long term sustainability’
- ‘Management of natural land assets that recognise economic, ecological, aesthetic and social values’
- ‘Managing natural resources to sustainably balance a diversity of needs- ecological, economic, social’
- ‘The care and maintenance of our natural environment’
- ‘Care of land and water’
- ‘A sustainable balance between nature and land use and also repairing damaged environment’
- ‘Using natural resources to fit in with farm management’
- ‘The management of land and waterways for the health and wealth of people and wildlife’
- ‘Care and preservation of exiting natural resources- trying to make a balance between this and development’

‘Sustainable use and caring for existing ecosystems and where appropriate, the re-establishment or regeneration of other selected ecosystems, to enhance the full diversity of the natural environment in the Shire’

‘The management of our natural resources in a way that not only sustains our natural resources but enable property owners to have an economically sustainable future’

‘Thoughtful sustainable and moderate influence on land, water, flora and fauna resources for the social and economic benefit of self and community’

A number of trends can be noted when reading over the definitions:

- a custodianship sentiment - landholders see themselves as a carers of the land,
- the idea of sustainable management and development is deeply embedded in the participants perceptions of natural resource management, and
- natural resource management entails achieving a balance between farming practices, economic viability, social stability and maintaining and enhancing the natural assets of the Shire.

Biggest Natural Resource Management Issue for the Shire

A variety of responses from the participants were recorded to the second question in Section C of the survey. *What do you feel are the biggest NRM issues in the Shire, and if you were in a position to do so how would you address them?* By far the most common response revolved around the eradication and control of weeds in general and on Council roads and road reserves. A few responses and excerpts of responses are listed below:

‘Biggest NRM issues are related to the inability of landholders to understand the impacts of their decision making on NRM’

‘Weeds, feral animals (& domestic animals) - poor farming practices’

‘Pest weeds (lantana, unpalatable invasive grasses), pest animals, water quality, soil erosion, salinity, biodiversity’

‘Viability of small rural enterprises’

‘Weed eradication primarily on road reserves’

‘Preserving remnant vegetation in the southern end of the Shire and establishing wildlife corridors’

‘Lantana, over clearing’

‘Carefully planned development of the Shire’

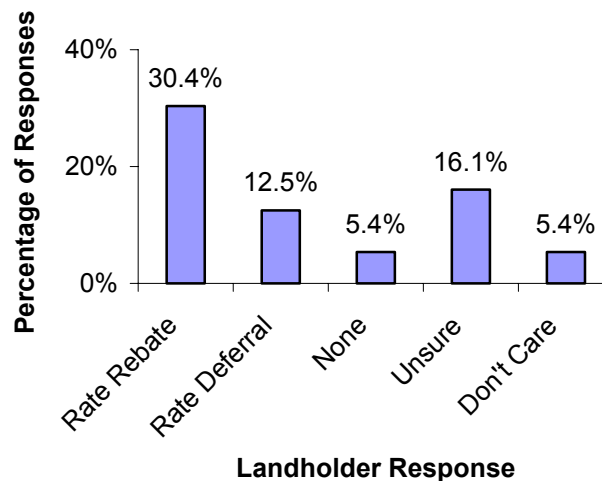
‘Changing more peoples attitudes towards sustainability. Get them to work together so as to increase on ground outcomes’

‘Soil Degradation’

‘Agricultural practices - education and awareness of importance of ecological values to economic and cultural well being of the community’

Rate Deferral vs. Rate Rebate

One of the highest priorities of this survey, in terms of gathering information, is the decision regarding the preferred method of rate relief for landholders who enter into a conservation agreement or the Land for Wildlife Program. The results obtained to this question are displayed in Figure 5.1.9 with rate rebate (30.4%) being the preferred choice over rate deferral (12.5%). 16.1% of participants were unsure, and 5.4% were not in favour of any form of rate relief or didn't care which mechanism is introduced.



Note: 30.36% of respondents did not answer the question

Figure 5.1.9: - Landholder Response to Proposed Types of Rate Relief Mechanisms

Water and Waterway Values

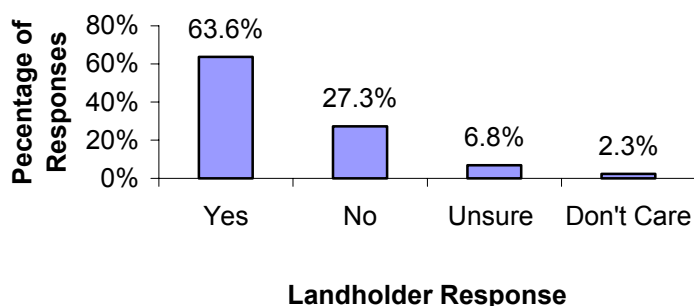
Participants expressed a variety of values towards the Shire's water and waterways. Primarily the water located in the Shire is seen as drinking water for human consumption and recreation, such as fishing and boating. However a large number of participants see water and waterways as an aquatic ecosystem as well. A selection of responses are listed below:

- 'Water supply drinking and irrigation'
- 'The dams used for water supplies, recreation especially fishing facilities'
- 'We draw our household water from the creek and value the quality of water - we are also concerned for water based wildlife and plants'
- 'Clear and healthy for human consumption'
- 'Healthy aquatic ecosystem'
- 'Aesthetic values'
- 'All these things are important'

Small Grants Interest

There is considerable interest among the participants towards the uptake of funds and resources variable through Council under its Small Grants Scheme. 63.6% indicated they were interested in applying for grant. 27.3% of participants indicated they were not interested in applying for a grant, 6.8% were unsure and 2.3 % didn't care (Figure 5.1.10). It is interesting to note in the first round

of the scheme only four applications were received, indicating that the interest did not translate into action.

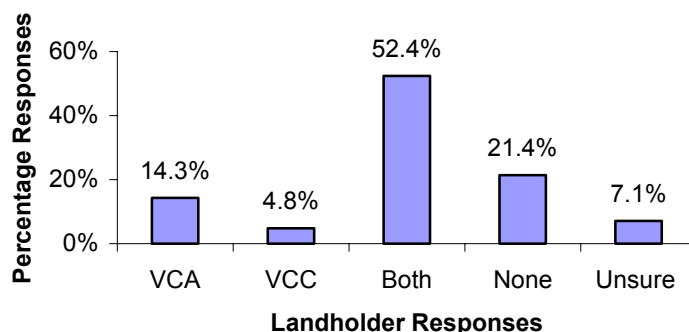


21.43 % of respondents did not answer the question

Figure 5.1.10: - Respondents interest in the Small Grants Scheme

Preferred type of Conservation Agreement

In response to the preferred type of Voluntary Conservation Agreement introduced by Council 52.4% of participants felt the introduction of both types of agreements would be the better avenue to pursue (Figure 5.1.11). A combined total of 71.5% of participants indicated a Voluntary Conservation Agreement, Voluntary Conservation Covenanting or both was desirable. 21.4% of respondents believed neither agreement should be introduced and 7.1% were unsure.



25% of respondents did not answer this question.

Figure 5.1.11: - Respondents Choice of Voluntary Conservation Agreements

Rate Relief Discount

Only 32.1% of participants responded to this question and of those half (50%) agreed with the suggested rates - VCC protecting critical habitat 60%, VCA 40% and Land for Wildlife %10 discount for the net general rates covered by the agreement. Other suggestions include:

- ‘VCC 50%, VCA 25%, LfW 10%’
- ‘VCC 50%, VCA 25%, LfW 25%’
- ‘VCC 100%, VCA 50%, LfW 10%’
- ‘VCC 60-80%, VCA 50%, LfW 10-20%’

‘A VCC probably requires full compensation, VCA 100%, A Land for Wildlife needs to be assessed for overall effect, e.g. on cropping land may only be 10-20% of rates’

The survey did not return any conclusive trends in the community's view towards the discount suggesting there is considerable indecision about an appropriate rate relief in the community. Many of the respondents felt this decision was up to Council to determine.

5.2 Some Summary Statistics

Some summary statistics are listed below:

- 176 questionnaires were distributed with 56 returned with a total questionnaire response rate of 31.82%,
- the most responsive survey mode was the Interview Program with 58.82% questionnaire response rate,
- 3 questionnaires were downloaded and returned from the Internet,
- 26.78% of questionnaire respondents indicated they have an email address,
- 73.21% of respondents filled in the Details Box,
- 11 government and public organisation representatives were interviewed,
- 13 private stakeholder representatives were interviewed,
- 6 Forums were conducted, and
- 57.69% of respondents possessed Diploma or Degree qualifications.

5.3 Discussion of Findings

5.3.1 Introduction

The Community Attitude Survey yielded valuable information. Firstly the Community Attitude Survey enabled an understanding of how the community feels towards the natural assets of the Shire and their management, and secondly the survey was able to collect information to be fed into the NRM Program.

5.3.2 Key Findings

Some key findings have emerged as a result of this study:

1. Differences exist between the values held by the rural, urban and lifestyle orientated sectors of the Shire.
2. Landholders see themselves as carers of the land - a custodianship sentiment. They feel a strong connection to the land and resources they manage.
3. Weed management and weed eradication is the issue of most concern and seen as a threat to conservation and productivity for the majority of landholders. In particular the management of weeds on Council owned and controlled lands.
4. Rate rebate is the most preferred type of rate relief by respondents.
5. More information is needed to determine an appropriate rate relief level.

6. A choice between Voluntary Conservation Agreement, Voluntary Conservation Covenant or Land for Wildlife is the majority participant opinion for the use of a management agreement to promote conservation on private land.

5.3.3 Previous Studies

Before a discussion of the key findings of the study it is important to place the findings in context with previous studies regarding landholder attitudes, values, and perceptions, towards natural resource management.

Smallwood (1994) conducted a community survey to highlight the environmental concerns of both the urban and rural community to enable Council to provide practical information and advice to community members on how they can address the environmental issues they are most concerned about. The survey found water quality, quantity and allocation as the major issue of concern for the Shire. By contrast the results of the Community Attitude Survey indicate weed management and eradication as the issue of most concern. Reasons for this difference can be attributed to the amount of time between the two studies. Weeds have spread and invaded the landscape more profusely over the past seven years affecting primary production and the integrity of remnant vegetation areas and thus have evolved into a greater issue of concern. The context in which the studies were carried out also has reflected the result. In 1994 prolonged drought across the Darling Downs region most likely influenced residents concerns towards water quality, quantity and allocation. Along with water, Smallwood (1994) identified vegetation retention and management as a highly regarded issue.

A remnant vegetation corridor management strategy prepared by Campbell and Galbraith (2000) involved a survey of landholders within proposed corridors developed in the strategy. The survey asked landholders for opinions in the following subject areas:

- importance of existing areas of natural vegetation for conservation,
- landholders willingness to retain and maintain areas of natural vegetation on their properties for rate rebates,
- considerations of rate rebate levels,
- willingness to replant or re-vegetate areas of their properties to contribute to local vegetation corridors, and
- contribution of ideas that could help Council in conserving and managing areas of natural vegetation within the Shire.

(Campbell and Galbraith 2000, p29)

Campbell and Galbraith (2000) found the responses by landholders in the proposed vegetation corridors were generally positive, with the majority of feedback in favour of the development and implementation of a vegetation corridor network. A strong willingness among the landholders to retain and maintain areas of natural vegetation on their properties for rate relief was found. This result prompted Council to investigate the use of management agreements such as Voluntary Conservation Covenants and Land for Wildlife to retain and maintain areas of natural vegetation on landholder properties. The main priority of the Community Attitude Survey is to further investigate the opinions of landholders on the use of management agreements and the most preferred rate relief mechanism.

Elements of the Crows Nest Shire Natural Resource Management Program are built on the findings of Campbell and Galbraith's (2000) study, particularly the introduction of voluntary initiatives to promote conservation on landholder properties.

5.3.4 Different Values and Landholder Custodianship

Like all communities, the Crows Nest Shire community holds a complex mix of different values towards the natural resources of the Shire, which reflect the vast array of people who form the community. Chapter 3 includes a discussion about the role of personal characteristics and their influence on individual's values towards natural resource management in Crows Nest Shire. Individual's values, visions, needs, ethics, attitudes and perceptions all add up to affect the overall Crows Nest Shire community's attitudes, values and perceptions of natural resource management. Through the Community Attitude Survey four broad communities of residents have been identified based on how they collectively value the natural resources of the Shire:

- lifestyle residents,
- urban residents,
- primary producers engaged in traditional farming practices in the Shire, i.e. beef, dairy cattle production, and
- primary producers engaged in newer farming practices such as floriculture and horticulture.

Lifestyle residents manage their properties in accordance with the lifestyle associated with a rural setting. That is, they enjoy open spaces, the peace and serenity offered in living in a rural setting. They are generally lovers of nature and so management of their properties reflects these values. Lifestyle resident's perceptions of the landscape and the way they 'see' the landscape is discussed in Section 3.2.6 and Section 3.4.3. Often lifestyle residents earn income or supplement their income from other activities not related to their property. Increasing personal mobility, especially the effects of distance shrinkage due to better travel technology (Section 3.4.11) combined with the natural beauty of the Shire are attracting lifestyle residents to the Shire. Primary producers, however, need to make a living from their property and so their management regimes are underpinned by the need to earn an income and support the family.

In particular producers engaged in the more traditional agricultural pursuits such as beef cattle, value their management of resources as a lifestyle and a business. Often producers involved in the newer rural enterprises do not come from a rural background and don't have the same 'feeling' for the land. They tend to see management of their resources as a business rather as a lifestyle. This is evident when examining the different ideas of sustainability and sustainable development (Section 3.4.2). Primary producers involved in traditional farming pursuits in the Shire and who often come from a long farming background hold ideas of sustainability and sustainable development underpinned by a legacy ethic. These farmers see their farm and natural resources as their livelihood and way of life, not only for themselves but for their family as well, including their children and children's children. Primary producers involved in newer farming practices in the Shire often hold ideas of sustainable development and sustainability underpinned by an economic frame of mind rather than a social frame of mind.

Urban residents also hold a strong affinity to the landscape and resources of the Shire, however it is based largely on aesthetics rather than taking active role in management. This lack of involvement in management of the natural resources of the Shire is increasingly leading to division between the urban and rural populations of the Shire (Section 3.4.14). Increased conductivity between these two communities needs to be addressed if successful natural resource management and sustainable rural development outcomes are to be achieved.

Collectively a strong ethic of custodianship is evident among the rural landholders and lifestyle residents of the Shire. They feel a need to care for the land and although for different reasons see themselves as carers of the land. A study by Millar et.al (2001) identified the need for acknowledgement of rural landholder's sense of stewardship in Queensland Parks and Wildlife Service extension approaches. Millar et.al (2000) report respondents felt that the majority of landholders 'do the right thing', as it is essential to their livelihood and that landholder everyday practices reflect their concern for the environment and nature. Success of programs like Land for Wildlife and Landcare in the Shire are largely due to the acknowledgement of landholder custodianship and support for practical on ground outcomes, group education and empowerment in the Shire.

This sense of custodianship felt by landholders is a reflection of the values they hold towards the land and the resources they manage and is a culturally constructed concept. Achieving natural resource management outcomes in Crows Nest Shire needs to take into account the sentiment held by landholders towards the land.

5.3.5 Rate Rebate vs. Rate Deferral

A key objective of the survey was to identify the communities preferred type of rate relief for those landholders who entered into management agreements. The survey found that Rate Rebate was the preferred choice over rate deferral. A rate rebate is where the discounted portion of the rates is not deferred and if the landholder breaks the agreement then they are not required to pay back the discount, however they will not be eligible to receive the rate rebate in future. A rate deferral involves a discounted portion of the rates being deferred. If the landholder conducts activities contrary to the agreement, or is judged to cease enhancing or conserving the area of land subject to the agreement, then the deferred amount of rates will be payable.

Most respondents felt the rate deferral mechanism left the possibility of landholders having to pay off large rates bills if the management agreement was broken due to unforeseen circumstances.

'I think deferral would scare people off as families can suffer sickness etc, that might cause them not to be able to continue with the conservation practices'

'With rate deferral, if through unforeseen circumstances/ misfortune you are unable to proceed with your agreement, you may be hit with a crippling backdated accumulated debt. What is the reward for the initial years of conservation?'

5.3.6 Rate Relief Level

As discussed in Section 5.3.3, Campbell and Galbraith (2000) asked landholder considerations for a rate relief level. A component of the Community Attitude Survey also asked for landholder considerations for a rate relief level, thus a comparison can be made. Campbell and Galbraith (2000) recorded a wide variety of response from landholders, ranging from a level of 10% off rates to 100% off rates and other types relief such as reductions on water excess charges. These inconclusive results correspond with the results obtained in the Community Attitude Survey and together they suggest:

- there is considerable indecision about an appropriate rate relief level in the community, possibly due to their lack of awareness of management agreements, and
- the process by which the information collected is not the most suitable method.

The level of rate relief is a difficult issue and warrants more investigation before a final level is proposed. The further investigation may only involve a detailed review of other local government

approaches to implementing rate relief discounts and applying relevant approaches to the proposed Rate Relief Policy and drawing on the data collected by the surveys to fill in the gaps.

5.3.7 Preferred Management Agreement

Attitudes held by the respondents towards the uptake of a Voluntary Conservation Agreement or Covenant in their current land management practices are similar to the findings of a study by Kabii (2001). Kabii (2001) examined the perceptions and attitudes of landholders to conservation covenants in Western Australia and Victoria and compared the results. Kabii (2001) found in Western Australia 90% of respondents feel that maintaining conservation activities on their land did not need the use of a permanent covenant, with 2% of respondents disagreeing and 8% unsure. In Victoria 77.6 % of respondents felt a covenant was not necessary in maintaining conservation areas on their land. When examining these results it is apparent a relatively high proportion of respondents felt that a covenant was not needed. Compared to the results obtained from the Community Attitude Survey a smaller proportion (66.04%) of respondents felt that an agreement (not necessarily a covenant) wasn't warranted.

In deciding the most preferred management agreement, the majority of landholders opted for the introduction both agreements to compliment the Land for Wildlife program already operating in the Shire. Therefore essentially, landholders have four choices regarding management agreements to assist conservation practices on their land- a choice between a Voluntary Conservation Covenant, a Voluntary Conservation Agreement, Land for Wildlife or neither of the agreements. To achieve positive natural resource management outcomes in Crows Nest Shire a wide range of non-statutory mechanisms promoting conservation will accommodate for differing landholder needs and land uses. In the end the choice given to landholders will allow them to make the best decisions for themselves thereby promoting empowerment and engagement in actively conserving the natural resources of the Shire.

From a Council perspective the introduction of both the Voluntary Conservation and Voluntary Conservation Covenant agreements enables a secure investment of public monies for positive natural resource management activities on private land. This investment of public monies through rate rebates and grants available to landholders under the Small Grants Scheme has a large role in the range of policy initiatives of the Crows Nest Shire NRM Program. The financial incentives not only encourage private landholders to adopt positive natural resource management activities, but when delivered through management agreements provide a level of security ensuring public monies are utilised in the most efficient manner. Management agreements can secure investment of public monies in positive natural resource activities on private land because:

- they use the market to identify landholders who are willing to voluntarily manage land for conservation,
- they can offset the costs associated with making a transition to new land use provisions or local laws and hence increase their acceptance in the community, and
- they can act as a catalyst to private investment in conservation activities as they meet some of the direct upfront costs of managing land for conservation, such as the construction of fences.

(Binning, Young and Cripps, 1999)

5.4 References

- Binning, C, Young, M, & Cripps, E., 1999, *Beyond Roads, Rates and Rubbish: Opportunities for local government to conserve native vegetation*. National R&D Program on Rehabilitation, Management and Conservation of Remnant Vegetation, Research Report, 1/99, Environment Australia, Canberra.
- Campbell, K., & Galbraith, R., 2000, *Remnant Vegetation Corridor Management Strategy*, Crows Nest Shire Council.
- Smallwood, D, 1994, Community environmental concerns of the Crows Nest Shire, Queensland. In *An Environmental Handbook for Crows Nest Shire, Queensland*, Crows Nest Shire Council and University of Queensland, Crows Nest.
- Kabii, T., 2001, Landholders' perceptions and attitudes to conservation covenants in WA and Victoria: a comparative overview, Paper presented at the National Forum: Taking Care of the Bush: Nature Conservation on Private Land, National Trust of Australia (Western Australia), Perth, 21-23 March, <http://www.ntwa.com.au/forum/presentTKabii.shtml> (accessed 9th August 2001).
- Millar, J, Chew, C, Tarrant, P & Walsh, D, 2000, *Listening to landholders: Community Nature Conservation Market Research 2000*, Queensland Parks and Wildlife Service, Brisbane.

6. Partnership Recommendations

What are the partnership recommendations to Crows Nest Shire Council and the Shire community? This chapter delivers:

1. *Summary of recommendations.*
2. *Recommendation tables.*

6.1 Summary of Recommendations

6.1.1 Voluntary Conservation Policy

The adoption of a Voluntary Conservation Policy that is consistent with regional and broader policy initiatives is essential. It is also important that the Policy is consistent with existing Crows Nest Shire Council policies, particularly the *Crows Nest Shire Corporate Plan* and *Draft Statement of Proposals* for the new planning scheme. The Voluntary Conservation Policy needs to specify the:

- context in which the policy is operating in, i.e. the regional and broader policies and initiatives that linkages exist with,
- scope and intent of the policy in terms of achieving positive natural resource management outcomes,
- relevant management agreements utilised under the policy and the equivalencies of other agreements that are found or could be found in the Shire,
- processes involved in establishing management agreements by landholders and perhaps an example to demonstrate,
- processes involved if an agreement is broken,
- process in which Council records properties in the Shire with agreements placed on them, and
- linkages to the Rate Relief Policy.

6.1.2 Rate Relief Policy

The Rate Relief Policy needs to specify:

- the scope and intent of the policy in terms of achieving positive natural resource management outcomes,
- conditions associated with qualifying for rate relief- linkages to Voluntary Conservation Policy, and
- the level of discount for each management agreement and equivalents.

6.1.3 Education And Awareness

For the continued building of partnerships between Council and community, education and awareness of natural resources management mechanisms is important. By making this report available to the community of Crows Nest Shire through the two Council libraries and on the Council website, community members and organisations will have access to its findings.

6.1.4 Other Actions

Attitudes, perceptions and values can change over time and it is recommended that a regular survey of the community's views towards natural resource management be conducted to account for and track change over time.

Endogenous development will bring long-term benefits in achieving sustainability in the Shire. It is recommended that Council adopt a stance that makes the most of existing resources in the Shire. Rather than attracting external capital and industry, Council should promote existing industries.

The idea of sustainable development is deeply embedded in the values of landholders in the Shire. Landholders' perceptions of sustainable development vary greatly and it is important to consider how this perception influences management regimes in achieving positive natural resource management outcomes in the Shire.

6.2 Recommendation Tables

A - Voluntary Conservation Policy				
Actions	Descriptions	Responsibility	Priority	Target Date
A1	Adopt a Voluntary Conservation Policy that consists of; <ul style="list-style-type: none"> •Voluntary Conservation Agreement, •Voluntary Conservation Covenant, and •Land for Wildlife agreements. 	Crows Nest Shire Council	High	March 2002
A2	Explore other management agreements such as Nature Refuge Agreements available in the Shire and consider these for receiving a rate discount.	Crows Nest Shire Council	High	March 2002

B - Rate Relief Policy				
Actions	Descriptions	Responsibility	Priority	Target Date
B1	Adopt the Rate Rebate rather than the Rate Deferral mechanism as a basis of providing discounted rates to landholders entering into any of the agreements under the Voluntary Conservation Policy.	Crows Nest Shire Council.	High	March 2002
B2	Determine an appropriate level of rate relief discounts for each of the conservation agreements under the Voluntary Conservation Policy based on available funds, input from this survey and other local government levels of discount.	Crows Nest Shire Council, Landcare and Catchment Management organisations.	High	March 2002

C – Education and Awareness				
Actions	Descriptions	Responsibility	Priority	Target Date
C1	Make available copies of this document in the Crows Nest and Highfields libraries and on the Crows Nest Shire Natural Resource Management website.	Crows Nest Shire Council	High	February 2002
C2	Send copies this document to Landcare groups and conservation groups in the Shire.	Crows Nest Shire Council	High	February 2002

D – Other Actions				
Actions	Descriptions	Responsibility	Priority	Target Date
D1	Explore the implementation of an ongoing process that measures the community's views, attitudes and perceptions of natural resource management in the Shire.	Crows Nest Shire Council	High	Ongoing
D2	Adopt more endogenous approaches towards development in the Shire.	Crows Nest Shire Council	Medium	Ongoing
D3	Investigate the idea of sustainable development, what it means for landholders and how this affects their land management regimes.	Crows Nest Shire Council, Landcare and Catchment Management organisations.	Medium	December 2002

Appendix A: - Location of Targeted Residents in Remnant Vegetation Corridor Categories

Appendix B: - Location of Residents in RE Status Vegetation

Appendix C: - Breakdown of Participants

Survey Mode	Community Sector	Targeted Stakeholder Groups	Number of Participants	Survey Code
Interview	Public	Crows Nest Shire Council	1	AA
		Queensland Forest Service	1	AB
		Department Primary Industries	1	AC
		Department of Natural Resources & Mines	1	AD
		Queensland Parks & Wildlife Service	1	AE
		Environment Protection Agency	1	AF
		Adjoining Local Governments	5	AG
		Rural Fire Brigade	1	AH
		CSIRO	1	AI
		AgForce	1	AJ
		Interview	Private	Lifestyle Residents
Graziers	3			BB
Horticulturists	3			BC
Other Primary Industries	3			BD
Tourism Operators	3			BE
Urban Residents	3			BF
Land Developers	3			BG
Mail out	Private			Residents who live in a:
		Critical Corridor	10	CA
		Important Corridor	10	CB
		Potential Corridor	10	CC
		‘Endangered’, ‘Of Concern’ and ‘No concern at Present’ RE Status Vegetation	10	CD
		‘Clear’ RE Status Vegetation	10	CE
Online	Public/Private	Residents with Access to the World Wide Web	35*	DA
Forum	Private	Ravensbourne & District Landcare Group	10	EA
		Emu Creek Landcare Group	10	EB
		Crows Nest Creek Landcare Group	10	EC
		Gomaren Doctors Creek Landcare Group	10	ED
		Highfields/Cooby Landcare Group	10	EE
		Friends of the Park	10	EF
				Total Excluding Online Participants
		Give or take Fluctuations at Forums	20	
		Total Including Online Participants	200	
		* =Estimated Number of Online Participants		

Appendix D: - Cover Letter



Crows Nest
S H I R E

Crows Nest
Shire Council

Emu Creek Road,
Crows Nest, Qld. 4355

PH: (07) 4698 1155
FX: (07) 4698 1717

Please address all
communications to the
Chief Executive Officer

P.O. Box 35,
Crows Nest, Qld. 4355

www.CNnet.com.au

*Lifestyle
&
Opportunity*



17th September

Joe Citizen,
45 Rainforest Road,
CROWS NEST, Q
4355

Dear Joe,

Re: Community Attitude Survey

As a part of the Crows Nest Shire Natural Resource Management (NRM) Program, Crows Nest Shire Council is conducting a Community Attitude Survey to assess the Shire community's views, attitudes and perceptions towards natural resource management in the Shire. The information gathered will be used in developing new policies and to provide direction for the Crows Nest Shire NRM Program.

The community of Crows Nest Shire possesses a diverse range of skills, values and knowledge that can greatly enhance the quality of decisions made.

Your assistance in this process is greatly appreciated and attached is a survey we ask you to complete and return. Surveys can be returned by mail, by fax, in person to the Council Administration Centre, or in a collection box at Highfields Cultural Centre.

If you have any questions about the survey program please contact Nigel Kimball at the Council Administration Centre and alternatively Nigel can be reached by e-mail at the address; Nigel@crowsnestshire.qld.gov.au

Yours faithfully,

David A. McEvoy,
CHIEF EXECUTIVE OFFICER.

Appendix E: - Questionnaire Booklet



Crows Nest Shire
Natural Resource Management Program

Community Attitude Survey

The Crows Nest Shire Natural Resource Management Program is supported by the Bushcare program of the Commonwealth Government Natural Heritage Trust.



Natural Heritage Trust
Helping Communities Helping Australia



Crows Nest Shire NRM Program

Community Attitude Survey

The following information is provided to assist you in answering the questions asked in the survey.

SA	A	U	D	SD
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

SA = Strongly Agree

A = Agree

U = Unsure

D = Disagree

SD = Strongly Disagree

Incentives: Incentives encourage and assist landholders to conserve the natural resources on their land. An example of an incentive is rate relief (see below).

Environmental Rates Contribution: As you will be aware the Crows Nest Shire Council has just introduced an Environmental Rates Contribution. For the first year the proceeds of this contribution will be invested in funding the Small Grants Scheme and rate relief incentives.

Land for Wildlife: Land for Wildlife (LfW) is a free, voluntary and non-legally binding scheme that aims to encourage and assist private landholders to provide and actively manage wildlife habitat on their land. The LfW program recognises the role private landholders play in biodiversity conservation, and provides information to assist landholders.

Voluntary Conservation Covenant/Agreement: A Voluntary Conservation Covenant (VCC) or Voluntary Conservation Agreement (VCA) is a formal agreement between a landholder and another body, typically a Council, in which the landholder agrees to set aside all or part of their land for conservation. Landholders knowingly and voluntarily enter into the VCC or VCA - it is not forced upon them. The VCC involves the agreement being registered on title, providing protection forever even if the property changes ownership. Alternatively a VCA is an agreement that is not registered on title, and can be either for a fixed period (e.g. 1-5 years) or 'for ownership' where the agreement lasts until the landholder who entered into the VCA sells their land.

Rate Relief: Council is considering offering discounted rates to landholders who enter into a VCC or VCA or register for LfW. A Rate Deferral involves a discounted portion of the rates being deferred. If the landholder conducts activities contrary to the agreement, or is judged to cease enhancing or conserving the area of land subject to the agreement, then the deferred amount of rates will be payable. A Rate Rebate is where the discounted portion of the rates is not deferred. If the landholder breaks the agreement then they are not required to pay back the rate rebate, however they will not be eligible to receive the rate rebate in future.

Small Grants Scheme: Landholders can apply to Council for grants funds and Council work crew labour to assist them with on-ground works that conserve and enhance the natural resource values of their property. Actions that may be assisted include tree planting, pasture rehabilitation, contour bank repairs and the fencing of native vegetation.

Riparian Vegetation: Riparian vegetation refers to the vegetation that adjoins, directly influences, or is influenced by a body of water or watercourse. It includes vegetation that grows immediately alongside small creeks and rivers, including the riverbank and riverbed. Riparian vegetation also includes vegetation that may grow in gullies and dips that sometimes run with surface water, around lakes and dams, and in wetlands and flood plains that may be inundated in times of flood.

11. In the Shire there is a lack of recognition/ awareness of alternative farming or other economic practices.
12. I am interested in learning more about the Land for Wildlife Program and the benefits to protecting and managing wildlife habitat on my land.
13. The knowledge gained from accessing accurate information will enable me to make more informed and attentive decisions in regard to natural resource management on my land.
14. The general community needs more access to information in regard to natural resource management issues.
15. Natural resource management is a concept that I understand and I can see the benefits of managing natural resources in a sustainable manner.

SA	A	U	D	SD
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SA	A	U	D	SD
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SA	A	U	D	SD
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SA	A	U	D	SD
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SA	A	U	D	SD
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section B

Note: Please tick the appropriate boxes.

1. What age category do you fit in? (This question is optional)

<20
 20-40
 40-60
 >60
2. How much land do you hold/manage?

<1ha
 1-20ha
 20-100ha
 100-500ha
 >500ha
3. Do you or anybody else derive any income from your property?

Yes
 No
4. Is this revenue your (or somebody else's) major source of income?

Yes
 No
5. What is your highest level of education? (This question is optional)

<Year 10
 Year 12
 Degree
 Year 10
 Diploma

6. What is the primary land use on your property?

- Residential
- | | | |
|--|----------------------------------|-------------------------------|
| <input type="radio"/> Horticulture/Small Crops/ Orchards | <input type="radio"/> Dairying | <input type="radio"/> Grazing |
| <input type="radio"/> Urban | <input type="radio"/> Hobby Farm | <input type="radio"/> Rural |
| <input type="radio"/> Other
(Please specify)_____ | | |

7. Can any of the following declared and environmental weeds be found on your property? Please tick all relevant boxes.

- | | | |
|--|--|---------------------------------------|
| <input type="radio"/> Lantana | <input type="radio"/> Asparagus Fern | <input type="radio"/> Groundsel bush |
| <input type="radio"/> Mother of millions
grass | <input type="radio"/> Privet | <input type="radio"/> Giant rats tail |
| <input type="radio"/> Cats claw creeper | <input type="radio"/> Tree Pair | <input type="radio"/> I am unsure |
| <input type="radio"/> Madeira vine | <input type="radio"/> African boxthorn | <input type="radio"/> I have no weeds |
| <input type="radio"/> Other
(Please specify)_____ | | |

8. In the past year have you sighted or found any signs of the following pest animals on your property? Please tick all relevant boxes.

- evidence
- | | | |
|--|----------------------------------|--------------------------------------|
| <input type="radio"/> Introduced fish species | <input type="radio"/> Foxes | <input type="radio"/> Deer |
| <input type="radio"/> Introduced bird species | <input type="radio"/> Rabbits | <input type="radio"/> Feral Pigs |
| <input type="radio"/> Wild Dogs (including Dingoes) | <input type="radio"/> Hares | <input type="radio"/> I have seen no |
| <input type="radio"/> Other
(Please specify)_____ | <input type="radio"/> Feral Cats | <input type="radio"/> I am unsure |

9. What is your preferred method of accessing NRM information from Council?

- Features in local papers
- Case Studies (documented examples of local landholders demonstrating best practice)
- Displays at local shows and field days
- Articles in industry journals/papers
- Email, Internet and computer programs (CD ROMs)
- On farm visits by Council officers
- Information fliers and brochures
- Videos and training courses
- Other (Please specify)_____

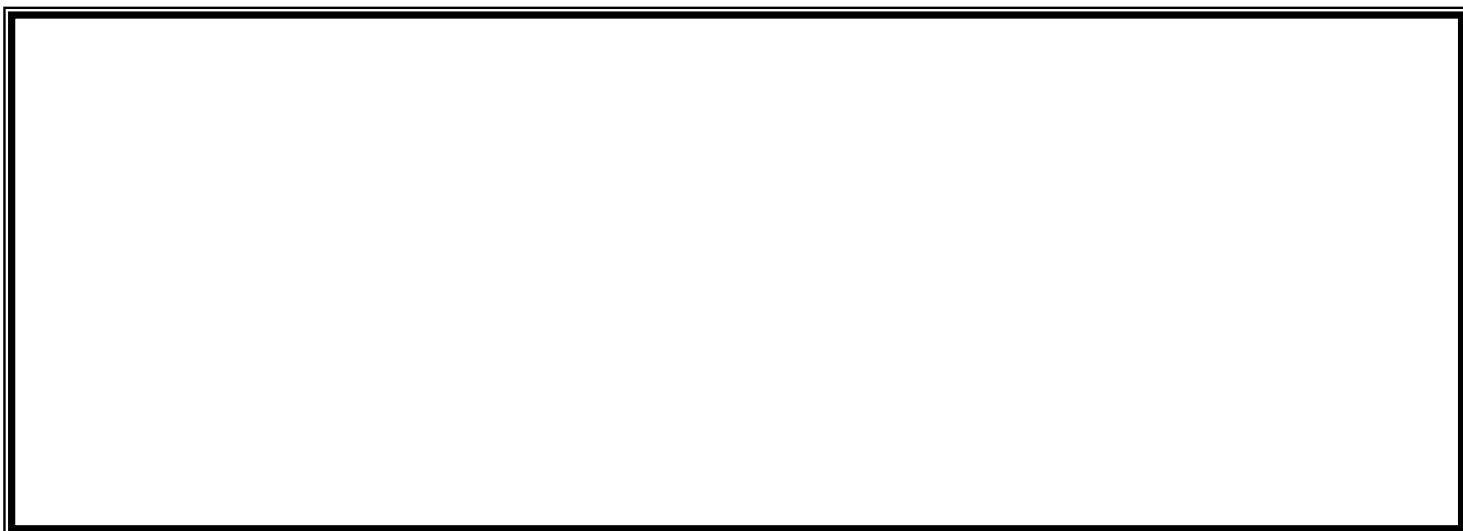
4. Water and waterways can have a wide variety of values placed upon them. For example the local lake or dam and its tributaries can be valued as a thriving aquatic ecosystem, an area where recreation activities such as swimming, boating and fishing can take place or a supply for drinking and irrigation waters. What do you value in the Shire's waterways?

5. Are you interested in applying for a grant to assist any conservation activities that take place on your property? If so what would you use the grant for?

6. Are you in favor of the VCC or VCA, or would you like both types to be introduced?

7. Can you give us any suggestions on an appropriate rate relief discount for each type? For example, a VCC protecting critical habitat could attract a 60% discount of the net general rate applicable to the area covered by the agreement, a VCA could attract a 40% discount, and LfW could attract a 10% discount.

8. Do you have any further comments?



Once again I would like to take this opportunity to thank you for your contribution to the ongoing development of the Crows Nest Shire NRM Program.

Office Use Only
DA

Appendix F: - CNnet Information Supplement



More information can be found concerning the Crows Nest Shire NRM Program online at the Councils CNnet site; <http://www.cnnnet.com.au/> Just click on the *Environment* link then the *Natural Resource Management Website* link. Publications such as the newly released *Natural Resource Management Strategy for Crows Nest Shire* can be downloaded, a glossary of terms is available, and a copy of this survey is also available for downloading on the *Your Say* page. Help get the community involved in maintaining and enhancing the valuable natural resources that our Shire has to offer by spreading the

Appendix G: - Survey Promotional Material



Crows Nest Shire Natural Resource Management Program

Community Attitude Survey Project

“ People who hold different sets of values may choose different actions when faced with the same evidence. Therefore, societal perceptions, attitudes, and values must be considered along with the knowledge of environmental systems”.

K.G. Kim in *Environmental Decision-Making-the Roles of Scientists, Engineers and the Public*, 1998.

What is the Project all about?

The Community Attitude Survey is designed to gather the community’s valuable skills, values and knowledge in regard to natural resource management through the assessment of attitudes, views and perceptions.

- The information collected will be fed into the Crows Nest Shire Natural Resource Management (NRM) Program to assist the development of new policies and programs such as Voluntary Conservation Agreements.
- Participation of the public in decision-making processes is a vital and necessary step with benefits not only to Council but the community as well, including:
- Promoting a better understanding of the objectives and benefits of the Crows Nest Shire NRM Program.
- Engaging and empowering the Crows Nest Shire community by giving them some control over decisions that will affect them.
- Identifying and addressing the natural resource management concerns of all the different stakeholders in the Crows Nest Shire community.
- Encouraging transparency and trust and promoting co-operation and partnerships with Crows Nest Shire Council and amongst members of the community.

The Survey Process

The survey process has four components:

Interview Program

Twenty-three community members and eleven representatives of various public organisations and government agencies will be interviewed on a one-to-one basis. The objective of the Interview Program is to address various landholder and manager attitudes by receiving a detailed viewpoint from the various stakeholder sectors that can be found in the Shire.

Forum Program

This Program is similar in many respects to the Interview Program but instead of addressing an individual viewpoint the forums are designed to address the issues and concerns felt by local conservation and Landcare groups in regard to natural resource management. Six local organisations have been selected and invited to participate in the Forum Program.

General Mail out Program

Fifty landholders and land managers throughout the Shire have been selected to complete a questionnaire supplied in a survey package. The packages have been mailed out with the participants asked to return the completed surveys to the Council Administration Centre.

Online Program

Council has made the survey available online for downloading, enabling the whole community of Crows Nest Shire and any one else interested or affected by the NRM Program to have the opportunity to provide some input. The survey is available on Council's CNnet site, <http://www.cnet.com.au/> - Just click on the *Environment* link then the *Natural Resource Management Website* link.

The Survey Package

The survey package has five parts:

Cover Letter

This is just a letter introducing the participant to the survey process, outlining the importance of the process, giving details about the returning of the questionnaires and providing contact details if further information is required.

Cover Sheet

The Cover Sheet provides the participant with some relevant information that they may find useful in completing the survey. Included are definitions of words and concepts and a brief description of Council's proposed NRM processes.

Section A

Section A is designed to assess the participants attitudes by presenting them with fifteen statements related to natural resources, natural resource management and the programs that Council is proposing to introduce. Participants are asked to respond to these statements by ticking boxes labeled: Strongly Agree, Agree, Unsure, Disagree and Strongly Disagree.

Section B

Section B has nine questions and is designed to gather baseline data concerning areas such as information access, weed and pest animal details and property sizes. Participants are given a range of answers and are asked to tick a box with their most preferred option.

Section C

Section C is more a traditional questionnaire approach with questions and answers. There are eight questions for completion ranging from defining natural resource management to indicating preference for two different proposed conservation incentive mechanisms.

Project Outputs

- A major output of this project is the formulation of a series of recommendations to Council for consideration and incorporation into the NRM Program. These recommendations will be drawn from the conclusions of the survey.
- Another major output of this survey process is the development and fostering of partnerships between the community and Council. Council is committed to its community and committed to natural resource management. The best way to ensure the natural resources are used in a sustainable manner is to tackle the issue as partners.

I Need More Information

If you have any questions about the survey program please contact Nigel Kimball at the Council Administration Centre on 46981155 or by email Nigel@crownsnestshire.qld.gov.au

Please Have Your Say!

The Crows Nest Shire Natural Resource Management Program is supported by the Bushcare program of the Commonwealth Government Natural Heritage Trust.



Natural Heritage Trust
Helping Communities Helping Australia

Appendix H: - Crows Nest Shire NRM Brochure*

***Source:** - Boyes, B., 2001, *Crows Nest Shire Natural Resource Management Program Information Flier*, Crows Nest Shire Council.



Natural Resource Management in Crows Nest Shire

Crows Nest Shire Council has secured funding from the Commonwealth Government Natural Heritage Trust to carry out a new Natural Resource Management (NRM) Program. An innovative mix of planning, policy, on-ground works and incentives coupled with Voluntary Conservation Agreements (VCAs) and Natural Resource Management Agreements (NRMAs) will help the community and Council to manage the Shire's land, air, water and vegetation in a long-term sustainable manner for the benefit of the whole community.

Rewards for landholders

The Natural Heritage Trust funding will enable the introduction of a range of NRM incentives. Landholders will be able to apply for grant funds and Council work crew labour to assist with on-ground actions such as weed control, tree planting, pasture rehabilitation, contour bank repairs and the fencing of native vegetation areas. Rate relief will be provided to landholders who enter into Voluntary Conservation Agreements (VCAs) to protect areas of native vegetation. These and other incentives will reward past good management practices and build community capacity to achieve effective and sustainable natural resource management, assisted by an initial focus on identifying and rewarding "champions" for natural resource management within the community.

Implementing NRM - A partnership with the community

March to August 2001	Development of an NRM Strategy for Crows Nest Shire. The NRM Strategy is establishing broad planning and policy directions with detailed action planning to come later. This approach will maximise the opportunities for landholder and community involvement in the decision-making process.
August 2001 onwards	Detailed NRM Action Planning in partnership with landholders and the community, followed by implementation through an innovative mix of planning, policy, on-ground works and incentives.