

**Western Subregional Organisation of Councils
(WESROC)**

Sustainable Management of the Helidon Hills

Draft Management Plan December 1999

**Bruce Boyes, Susan Pope and Michelle Mortimer
As amended by Sharon Boyle & Associates under direction of the
Interim Management Group**

*The Sustainable Management of the Helidon Hills Project is funded by the
Commonwealth Government Natural Heritage Trust (NHT), Gatton Shire Council,
and the Western Subregional Organisation of Councils (WESROC)*

Foreword for the December Draft

This management plan is intended to be a living document and this edition brings the achievements up to date for December, 1999 and reflects the intentions and wishes of the Interim Management Group. The action plan now reflects the changes discussed at meetings in Helidon between 28 August and 23 November, 1999.

The layout, intent and spirit of the December, 1998 Sustainable Management Plan for the Helidon Hills are untouched. This draft reflects developments such as the

- Queensland Land Trust proposal – which closed for comment 30 October
- The Queensland Government Plan for the South East Queensland Regional Forest Agreement – which was announced on 16 September
- The on-going negotiations with DME in respect of the proposed Key Resource Area for Mt Cross – in particular the meetings on 16 October and 11 December, 1999.
- The beginning of the plan review for Gatton Shire Council
- And most importantly, the formation of the Interim Management Group.

These developments and many more will shape the progress of this ambitious project. The implementation will ultimately rest with the landholders and the interested agencies of the Helidon Hills. Already their achievements have been far greater than are suggested by this updated report, we trust you will keep talking and the outcomes for the Helidon Hills will be far more secure and sustainable than could be otherwise.

This report has been prepared by Sharon Boyle and Associates and we have enjoyed our time with the people of the Helidon Hills. Sharon, Wendy and Marisa all wish the project the very best success.

Sharon Boyle
20 December, 1999.

WESROC Sustainable Management of the Helidon Hills Project

**Helidon Hills Draft Management Plan
December 1998**

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As amended by Sharon Boyle and Associates under direction of the Interim Management Group.

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Executive Summary

From its inception, this project has sought to be different. The motivation for this difference has been a desire that the community of the Helidon Hills will not only have significant input into the study, but will in fact develop ownership of the process so that it carries on long after the project team has completed its work.

This approach recognises that it is the community of the Helidon Hills, and in particular Helidon Hills landholders, who have the primary responsibility for land management in the area. It has been realised that the only way the project can succeed is if the study recommendations truly reflect the diverse aspirations of landholders and communities of interest within the Helidon Hills.

This project is chiefly about the *process*. The outcomes are a long way off and will be achieved through a framework and ongoing process for achieving sustainable management that is sensitive to the diverse interests of the area. It is this framework and ongoing process that is reflected in this Management Plan.

The *issues* relevant to the sustainable management of the Helidon Hills have been identified as being:

- Landholders' Rights
- Nature Conservation
- Cultural Heritage
- Timber Harvesting
- Farming Enterprises
- Tourism and Recreation
- Sandstone, Extractive, and Explosives Industries
- Fire Management
- Water
- Property Management
- Infrastructure (Roads, Access, Rail, Powerline Easement)
- Planning Schemes

For each of the issues, *objectives* for sustainable management and *actions* leading to sustainability have been developed.

Landholders' Rights.

When this project was originally conceived, "Landholders' rights" was not identified as an issue that would need to be addressed. However, the issue of landholders' rights must become part of the planning for not only the Helidon Hills, but also most of the rest of rural and regional Australia. In many management planning exercises, much attention is focused on whether or not landholders have rights to manage their land as they see fit, for example, the right to clear land whenever they desire. Regardless of whether the rights have any basis in law, the economic, environmental and social conflicts are very real. One of the roles of government is to help resolve such conflicts in socially advantageous ways.

DRAFT FOR CONSULTATION

Rather than engage in unproductive battles with landholders, governments have a responsibility to resolve the conflicts between environmental protection and the economic and social needs of landholders in ways that benefit *both* the environment *and* the needs of the landholder. With creative and lateral thinking, win-win solutions can be found for even the most complex of issues, evidenced by the conservation measures and the new ecologically and economically sustainable enterprises proposed for the Helidon Hills.

The key to successfully developing proposals that benefit landholders has been to involve landholders in the decision making process from day one, and to develop landholder ownership of project outcomes. The future success of the project will depend on being able to progress landholder ownership to the point where landholders are given the greatest possible responsibility for the implementation of project actions. This will be achieved through the establishment of a Landholders' Group and a rapid transision of project management from WESROC to the Landholders' Group.

Nature Conservation.

The Helidon Hills is recognised as an area of very high nature conservation significance. It is one of the largest areas of mostly continuous bushland left in South-East Queensland, with a diverse and distinctive flora. A large number of rare and threatened flora and fauna species are present, including endemic species. Limited nature conservation survey and study work has been carried out in the Helidon Hills. Further surveys and studies are necessary if informed management decisions are to be made. Weeds and feral animals have been identified as problem issues, and control programs are needed.

Conservation issues in the Helidon Hills State Forests, which comprise approximately one-third of the area, and also an area of leasehold land are being addressed by the South-East Queensland Regional Forest Agreement process. The remaining two-thirds of the area is private freehold land. The private landholders overwhelmingly value the natural values of the Helidon Hills, but have alerted to social and economic impediments to conservation. Purchasing private land in the Helidon Hills for gazettal as Conservation Park or National Park would be prohibitively expensive and likely to result in a backlash from many landholders who would be reluctant to sell. A much more workable and cost effective way of achieving conservation on private land is to:

- Assist them to establish new ecologically and economically sustainable economic pursuits on their properties, or assist them to carry out existing pursuits sustainably.
- Enter into voluntary management agreements with them, whereby financial and/or material assistance is provided in return for conservation.

The Natural Heritage Trust (NHT) funding for the second year of the Sustainable Management of the Helidon Hills Project includes assistance to private landholders who set aside areas for nature conservation. Ongoing assistance will be needed beyond the end of the NHT funding, but the Local Governments covering the Helidon Hills area do not have the financial resources to provide this funding. A solution is to establish a Helidon Hills Landscape Trust.

Cultural Heritage.

The study has indicated the high level of cultural heritage remaining within the Helidon Hills area. This heritage represents the broad range of activities that have occurred in the region, indicative perhaps of the particular geomorphology, vegetation and fauna that forms the study area. These

environmental factors have a bearing on the particular land use management that has been used in the hills since the first humans occupied that landscape, and provides evidence of how particular groups interacted with the resources offered by this environment with varying results till the present. This cultural heritage assessment has identified a range of remaining material indicators of this land use.

It should be emphasised that this research is a first stage study leading towards a strategy for predicting where more intensive cultural heritage assessment will be required. The study has, however, identified a substantial number of the sites, items, places and landscapes of particular cultural heritage significance in the area, and provides a source of data for the assessment of the significance of identified sites. On this basis, appropriate management of the sites and places identified can be implemented by negotiation between government bodies, traditional owners, landholders and other stakeholders.

Timber Harvesting.

As a large area of Eucalypt forest, the Helidon Hills has been used as a source of hardwood building timber, and also as a source of timber for hardboard manufacture. There is some harvesting of timber from the infertile sandstones in the southern part of the Helidon Hills, and a major timber harvesting interest in the northern part of the Helidon Hills, where better soils and a higher rainfall support large areas of blackbutt (*Eucalyptus pilularis*), a valuable mill timber.

Timber harvesting on State Forest land and leasehold land in the Helidon Hills is being addressed through the Regional Forest Agreement (RFA) process. As a result of the RFA, there is the potential for SF 564 and SF 616 to be converted to some sort of secure conservation status, such as National Park or Conservation Park. The final outcomes of the RFA thus have the potential to significantly disrupt the lives and livelihoods of mill owners, mill workers, timber cutters, and the people who transport the timber.

However, most of the timber harvested in the Helidon Hills now comes from private land. Against the lifestyle and livelihood needs of those involved in the timber industry is the need to conserve the very high natural values of the Helidon Hills. Some of the timber harvesting currently carried out in the Helidon Hills is being done with regard for both ecological sustainability and also sustainability of supply. There is also some timber harvesting that is not being carried out sustainably.

A working group should be established to investigate and facilitate ecologically and economically sustainable timber harvesting in the Helidon Hills. The working group should investigate the potential for farm forestry throughout the Lockyer to assist in providing a secure long-term supply of timber for the local timber industry.

Farming Enterprises.

Because of the shallow, infertile soils overlying the sandstones that make up most of the Helidon Hills, farming activities in the area are typically very limited. The primary exceptions are very light cattle grazing on the sandstones, more intensive cattle grazing on the creek flats and upland volcanic soil outliers, and fruit growing on the creek flats.

The Helidon Hills contains areas of good quality agricultural land (GQAL) identified in the South East Queensland Regional Framework for Growth Management (RFGM). In accordance with the

RFGM, these GQAL areas should be protected for the purposes of agriculture. An evaluation of grazing practices is required to establish sustainable grazing practices. Sustainable grazing practices should be implemented through a voluntary Code of Practice where, in return for complying with the Code, landholders receive financial assistance. Fruit growing enterprises can be economically viable and provide local employment opportunities. They should be assisted through buffering from other incompatible land uses, the provision of reliable water supplies, assistance to reduce chemical use, and assistance to address the flying fox problem.

There has been strong support for the establishment of new ecologically and economically sustainable farming enterprises that capitalise on the native flora of the Helidon Hills, in particular the impressive native wildflowers and native foliage. A project to investigate the potential for the development of new farming enterprises based on the native wildflowers and foliage of the Helidon Hills should be initiated.

Tourism and Recreation.

There is currently very little formal tourism development in the Helidon Hills, the exception being a privately owned campground at Murphy's Creek on the western edge of the area. The Helidon Hills is used for some informal recreational activity including bushwalking, camping, horse-riding, rock climbing, orienteering, birdwatching and wildflower walks. However, participation tends to be restricted to those attached to clubs and others "in the know". The Helidon Hills is in an area with significant potential for further tourism development. It is close to the major urban areas of south-east Queensland, and offers unique experiences in terms of environment, landscape and heritage.

Tourism was identified through the community consultation process as having major potential for the area. There was considerable interest in exploring the opportunities that tourism might offer for economic development. However, there was an overwhelming view that tourism development be small-scale and low impact in terms of the natural and social environments, and that large-scale recreation should be avoided completely.

Through the course of the public consultation, several landholders have indicated a strong interest in developing their properties for environmental tourism. These people identified that, for tourism in the area to be successful, local and regional planning and advice and assistance are needed. They also expressed concern about the unknown economic viability of their proposals, and whether Councils would be supportive. To address these issues, linkages between these landholders and local tourism bodies, the Queensland Tourist and Travel Corporation (QTTC), and tourism researchers have and are being established.

Sandstone, Extractive, and Explosives Industries.

Helidon Sandstone has been quarried for use as a building and monumental stone for over 100 years. It is Queensland's premier building stone, having been used in many historic public buildings in South East Queensland. It is a resource of regional, if not national significance, with a total production of 12,232 tonnes in 1996/97, and an estimated value of \$5,700,000. It is estimated that up to 100 people are directly employed in the industry and many more indirectly.

As part of this project the Department of Mines and Energy (DME) has investigated the sandstone resources in the Helidon Hills, and has identified a Key Resource Area (KRA) which includes the

resource itself and a suitable buffer area. The South East Queensland Regional Framework for Growth Management (RFGM) also identifies the majority of land within the Helidon KRA as Critical or Broad Nature Conservation Area, which directly conflicts with the sandstone mining operations. Other competing values found within the KRA include cultural heritage, scenic amenity, and the desire by some of the landholders in the area to engage in alternative economic pursuits, in particular environmental tourism. In order for the sandstone mining to continue in an economically and ecologically sustainable manner, these conflicting values need to be resolved, and it is recommended further investigation of these issues be undertaken before formal designation of the KRA is made.

Extractive industries in the project area have emerged as an issue for concern. Management and rehabilitation of the gravel pits needs to be improved as a matter of urgency, and needs to account for the nature conservation and cultural heritage values of the area. DME has identified a potential KRA for a hard rock resource at Mount Cross, which conflicts with nature conservation, cultural heritage, and scenic amenity values. At least one landholder wants to quarry the resource on his property, but other landholders in the locality are opposed to any extraction in this area. Further investigation is required.

The Government Explosives Magazine has been used for explosives storage for many decades, and has been the impetus for the establishment of several explosives factories in the close vicinity in recent years. A 2 km safety buffer around the central storage area is recommended by DME, and this has been included in the Helidon KRA. Any future expansion of the Magazine or explosives industries will necessitate review of the safety buffer, and need to account for nature conservation, cultural heritage and similar issues.

Fire Management.

Fire has emerged as an issue of great concern to landholders and the community. Because of the importance of the issue, a sub-project specifically examining fire management has been carried out. In consultation with landholders, Rural Fire Brigades, and other stakeholders a Helidon Hills Fire Management Plan has been prepared. The Fire Management Plan specifies strategies that integrate the conservation of natural values with the requirements and objectives of land-uses.

Water.

Landholders and residents of Helidon Hills require an adequate supply of good quality water. Some, like the fruit growers, need water to carry on their farming enterprises. Groundwater provides the majority of the supply, however augmentation by dams and rainwater tanks is required. The movement of groundwater within the sandstone aquifer and the relationship between the sandstone aquifer and the alluvial aquifers is not well understood. There are many natural springs in the Hills area and these are important from both an ecological and recreational aspect. How these springs would be affected by groundwater usage is unknown.

Preliminary discussions with the School of Natural Resource Sciences, Queensland University of Technology, indicate that there would be relationships between the sandstone aquifer and the alluvial aquifer and the natural springs, and the likelihood of being able to carry out further research into these relationships is good. A recommended action is to further investigate such research.

Property Management.

The Helidon Hills presents a challenge for regional planning because of the need to combine individual property management strategies with a collaborative approach within an area of substantial diversity. Recently the Department of Primary Industries has launched its property management program called 'Futureprofit'. This is attempting to integrate approaches to property management with a clear orientation to sustainability and profitability. Futureprofit will be facilitated in the area to translate the sustainable management objectives and actions for the overall area into sustainable management outcomes on individual properties.

Infrastructure (Powerline Easement, Rail, Roads and Access, Gas Pipelines).

The outcome of the public consultation process has been that landholders and residents of the Helidon Hills area are not satisfied with the standard of road maintenance presently carried out in the area. The Local Governments have a role here. However, as some of the roads are used as haul routes for the extractive and timber industries, there is the view that these industries should have an involvement in maintenance. An integrated and cooperative approach between Councils, road users, and landholders is necessary to achieve the desired outcome of appropriately maintained high standard roads.

The Springdale to Murphys Creek 275 kv powerline easement through the project area has already been acquired over private land, and although no acquisition was required in the State Forest land, a corridor has been determined. The route of the corridor has significant nature conservation and cultural heritage values. Where possible, the corridor should be relocated so any negative impact on these values is minimised. Further assessment of these values should be made prior to construction of the powerline. Construction of the powerline through private property also needs to take account of these values, and the impact on the landholders' rights.

Sustainable management strategies for the gas pipelines, new rail corridor, and other future infrastructure have been identified.

Planning Schemes.

The three Local Governments within the project area, Gatton Shire, Crows Nest Shire and Esk Shire, have planning schemes which zone the majority of land as Rural or Rural A zone. This restricts development options on the land to those permitted in the planning schemes, and in the case of Gatton Shire, restricts further subdivision. Generally, the view of landholders is that restriction on further subdivision in the Hills area should be maintained. Some landholders are even of the opinion the whole area should be conserved, and no development at all should be allowed. There is, however, the view that if landholders are willing to set aside areas of private land for conservation or heritage purposes, there should be some compensation for the loss of this land for use by the landholder. As well as financial compensation, landholders could be compensated by being allowed the limited and controlled subdivision of other parts of their properties, and this should be investigated.

Low impact bed and breakfast accommodation and rural and environmental tourism accommodation has emerged as a favourable future development option for the Helidon Hills area. The planning schemes currently cater for such development to a limited extent, and it is recommended the schemes be reviewed to enable facilitation of this type of development.

1. Introduction

“Rural landholders are being negatively affected by the accumulated impact of government decisions. The WESROC Sustainable Management of the Helidon Hills Project should not seek to place yet more pressure on landholders.”
Helidon Hills landholder.

1.1 A different approach

From its inception, this project has sought to be different. The motivation for this difference has been a desire that the community of the Helidon Hills will not only have significant input into the project, but that they will in fact develop ownership of the process so that it carries on long after the project team has completed its work.

It was realised that the only way that this could be achieved was if the people of the community were able to have a genuine voice. The project can only succeed if its actions truly reflect the diverse aspirations of individuals and communities of interest within the Helidon Hills.

The task of allowing as many people as wanted to, the chance to voice their concerns as well as their visions for the future has been challenging. The Helidon Hills represents a microcosm of almost all the issues currently facing forward planners in local councils all over Australia. These relate to the management of change across a broad front including industry development, conservation, natural resource management, community access to resources, cultural heritage, infrastructure development and tourism potential. The impact of any of these changes in the Helidon Hills area has the potential to significantly disrupt the rich heritage that is woven into the fabric of community and family life in the area, not to mention the threat to livelihood.

This project is chiefly about the process. The outcomes are a long way off and will be achieved through decisions made by the community of the Helidon Hills. The process has attempted to do four things. First, it has provided forums for community members to share, consolidate and articulate their concerns, aspirations and visions for the future. Second, it has provided assistance and information to the community in order that it is more fully able to assess its own diversity of needs and interests. Third, it has made the community more aware of issues confronting the area. Fourth, it has seeded a number of ideas that may represent opportunities for the future.

At the end of the day, the process comes down to people. How do the workers in the timber industry see their long-term future? What are the conservationists' concerns and their

visions for the future? What are the aspirations of the sandstone miners? What heritage is precious to the people whose hearts and homes cleave to the Hills?

There is no one answer. However, there is, as a result of this project, a better understanding of how the community can move forward in a more coordinated and committed framework.

1.2 Why was this project needed?

The area known as the Helidon Hills is a large contiguous geological and ecological unit of land located stretching across the north of the Lockyer Valley, approximately 100 kilometres west of Brisbane. Covering 33,500 ha (335 km²), the area spans the north of Gatton Shire and extends into the neighbouring Esk and Crows Nest Shires¹. The area is approximately two-thirds private freehold and one-third State Forest, and also has a small area of leasehold land.

The predominant underlying geology is sandstone, which is exposed over much of the area. It has formed a steep and rugged upland landscape of dissected hills, gorges, clifflines, and waterfalls. A transect from the south to the north of the Helidon Hills sees a progressive increase in altitude from the fertile lowland alluvial creek flats of Lockyer Creek and its tributaries, though the upland sandstones, to the top of the adjoining Great Dividing Range. The volcanic soils of the Great Dividing Range extend over the sandstones in the northern part of the Helidon Hills.

The Helidon Hills is mostly continuous native bushland. It is one of only a few large bushland areas left in South-East Queensland, and has high conservation significance with a large number of rare and threatened flora and fauna species. The area also has high cultural heritage significance.

Competing against these significant natural and cultural values are a range of impacting land uses. The dominant economic pursuits in the area are Helidon sandstone mining, timber harvesting, explosives manufacture, and farming. There are also infrastructure-related impacts, including a high-voltage powerline easement, an existing gas pipeline and another soon to be constructed, the proposed realignment of the main western railway line, and the extraction of gravel for use on roads.

“[There is a] Need to resolve the question of what is a sustainable activity in the Helidon Hills. there is little potential for grazing due to soil. Timber may also grow at fairly low rates. These low production rates may generate insufficient income and therefore not be sustainable. [There is a] Need to identify and encourage commercial practices that are both economically and ecologically viable.”
Helidon Hills landholder.

“Up to the time before the ‘Sustainable Management of the Helidon Hills Project’ the study, exploration and management of this area had been rather piecemeal and lacked clear priorities among its multiple uses.”
Community group.

Helidon sandstone is of such quality that the area is nationally recognised as an important source of building stone, which is used domestically and also exported in value-added form. The Helidon Hills is also increasingly recognised as a centre of national significance for the explosives industry.

The Helidon Hills is recognised by all levels of government as one of the core areas of regional landscape in South East Queensland. At the State level, parts of the area have been given high priority for conservation and resource protection or investigation. At the regional level, the Regional Framework for Growth Management for South East Queensland (RFGM) has been endorsed by the three levels of government, and contains a number of recommendations pertaining to the Helidon Hills. The direction of this strategy has been reinforced through further planning studies which have recognised the economic and environmental value of the Helidon Hills area, including the Gatton Shire Council Planning Scheme.

Recognising the very high significance of the Helidon Hills and the many threats to the area, Gatton Shire Council worked with its regional Local Government organisation, WESROC (Western Subregional Organisation of Councils) to develop a sustainable management project. Late in 1997, funding to carry out the two-year project was secured from the Commonwealth Government Natural Heritage Trust (NHT). Gatton Shire Council and WESROC have also contributed financially and in-kind to the project.

1.3 What has been the project method?

1.3.1 Project approach

With land use and land management decisions in the area being the responsibility of a myriad of private landholders and government agencies, the sustainable management of the Helidon Hills presents numerous complexities.

The preferred management approach has been to develop a cooperative and coordinated strategy involving all affected stakeholders including landholders, industries, Local, State and Commonwealth Governments, and other interest groups.

This management approach represents a different challenge for governments. The implementation of strategies identified in the

“I do not know who the broader community is. It seems to be a catch all phrase to cover urban dwellers or in this case maybe dwellers on the alluvial flats. Either way their point of view is irrelevant in that they are not directly involved as are landholders in the area under discussion.”
Helidon Hills landholder.

project are largely going to be the responsibility of the community, especially landholders and community groups. It was recognised that achieving these outcomes requires a different approach to traditional land-use planning.

The challenge has been to develop a methodology that found common ground between the wider community’s desire for environmental and cultural heritage preservation on the one hand and the aspirations of the local community, particularly landholders, on the other. The approach adopted includes:

- Involving landholders and the community from day one.
- Researching and developing innovative win-win solutions to complex and competing issues.

1.3.2 Project objectives

This project has focused on the Helidon Hills community. Its initial objectives were defined broadly in order to maximise the opportunity for the community to define its own outcomes.

The purpose of the project has been to provide a process for the community to focus its collective energies on sustainable management of the Helidon Hills area. This approach recognised that there were special interest groups including landholders, industries, and farmers, and major issues including nature conservation and cultural heritage.

The project has also sought to address the needs of decision-makers, particularly the Gatton Shire Council. It is intended that the recommendations will provide a framework and ongoing process for achieving sustainable management that is sensitive to the diverse interests of the area.

1.3.3 Project structure

The Sustainable Management of the Helidon Hills Project is being carried out in six stages over two years.

Stage 1 was carried out from January 1998 to April 1998 and involved:

- Collating existing information about the Helidon Hills.
- Seeking input from landholders, industries, community groups and government representatives about what issues needed to be addressed by the project.
- Identifying information gaps and commencing programs to fill those gaps.
- Starting a communication, awareness, and involvement program.

Stage 2 was carried out from April 1998 to July 1998, and involved:

- Researching possible solutions to the complex and competing issues identified in Stage 1.
- Working directly with landholders, industries, community groups, and government representatives to cooperatively develop possible solutions.

Stage 3 was carried out from August 1998 to September 1998, and involved developing the proposed solutions into a Draft Management Plan and Action Plan.

This Draft Management Plan and Action Plan is the product of the completion of both Stage 3 and the first year of the project.

Stage 4 of the project was carried out from December 1998 to February 1999 and involves:

- Review of the Draft Management Plan by landholders, industries, community groups, and government agencies.
- Continued discussions with individual landholders, industries, community groups, and government representatives.
- Accessing, assessing and incorporating the outcomes of the South-East Queensland Regional Forest Agreement (RFA) process as they become available.
- Finalisation of the Management Plan, and finalisation of the implementation of the plan.

Stage 5 was carried out from March 1999 to August 1999, and involves the commencement of Management Plan implementation.

Stage 6 was carried out from September 1999 to October 1999, and involves a review of the progress of action plan implementation and the fine-tuning of the plans as necessary.

1.3.4 Community involvement

The involvement of landholders and the community has been facilitated through public meetings, newsletters, and direct face-to-face meetings with individuals.

Two rounds of public meetings were held in both Helidon and Gatton in early April 1998 and early June 1998.

The first round of these meetings was called to get an idea of the issues of importance to Helidon Hills landholders, industry

“[Priority issues include] Concerns over restrictions on land clearing, clearing regrowth, trails/roads, stocking rates, and timber harvesting.”
Helidon public meeting 1/4/98.

groups and the broader community. Approximately 50 people attended the Helidon meeting on 1 April 1998, and there were approximately 20 people at the Gatton meeting on 2 April 1998.

The meetings adopted a workshop format with tables of up to eight people deciding on the major issues of the Helidon Hills and then attempting to find solutions to these issues.

At the second round of meetings, the topics that had come out of the first public meetings were discussed in more detail with a view to developing a set of possible solutions. Approximately 15 people attended the Gatton meeting on 2 June 1998, and there were approximately 20 people at the Helidon meeting on 4 June 1998.

Four newsletters were sent to landholders and other interested parties to keep them informed on the progress of the project. People were invited to send in their view on any relevant issues via “Have Your Say” feedback forms that were included in Newsletters 1, 2, and 3.

“I wish to confirm my significant interest in your important project.”
Helidon Hills landholder.

As well as the feedback from public meetings and “Have Your Say” forms, a direct consultative approach was facilitated by Project Coordinator Bruce Boyes. During the course of the project Bruce spoke directly to as many of the landholders as possible, as well as a number of community groups and industry representatives. The actions included in this draft of the Management Plan reflect the discussions with the interim Management Group after it was formed on the 16th September 1999. The process which generated this document is summarised in Figure 1.

During the course of the project, written submissions and letters have also been received from landholders and community groups.

1.3.5 Report structure

The priority issues generated through the community consultation form the chapter headings for this Draft Management Plan:

- Landholder’s Rights (Chapter 3).
- Nature Conservation (Chapter 4).
- Cultural Heritage (Chapter 5).
- Timber Harvesting (Chapter 6).
- Farming Enterprises (Chapter 7).
- Tourism and Recreation (Chapter 8).
- Sandstone, Extractive and Explosives Industries (Chapter

9).

- Fire Management (Chapter 10).
- Water (Chapter 11).
- Property Management (Chapter 12).
- Infrastructure (Roads, Rail, Gas, Powerline Easement) (Chapter 13).
- Planning Schemes (Chapter 14).

The objectives and actions in each chapter have been developed with the intention of reflecting the issues and solutions that have arisen through the public expression.

Particular quotes have been reproduced in the margin of the text, in order to highlight where landholders, industry, and community groups are “coming from”. These highlighted quotes lend an overview to the diverse range of people who make up the Helidon Hills community and the issues that are important to them.

1.3.6 Study area and supporting maps

The area covered by this Management Plan is shown in Figure 2, Appendix 1. This appendix also includes:

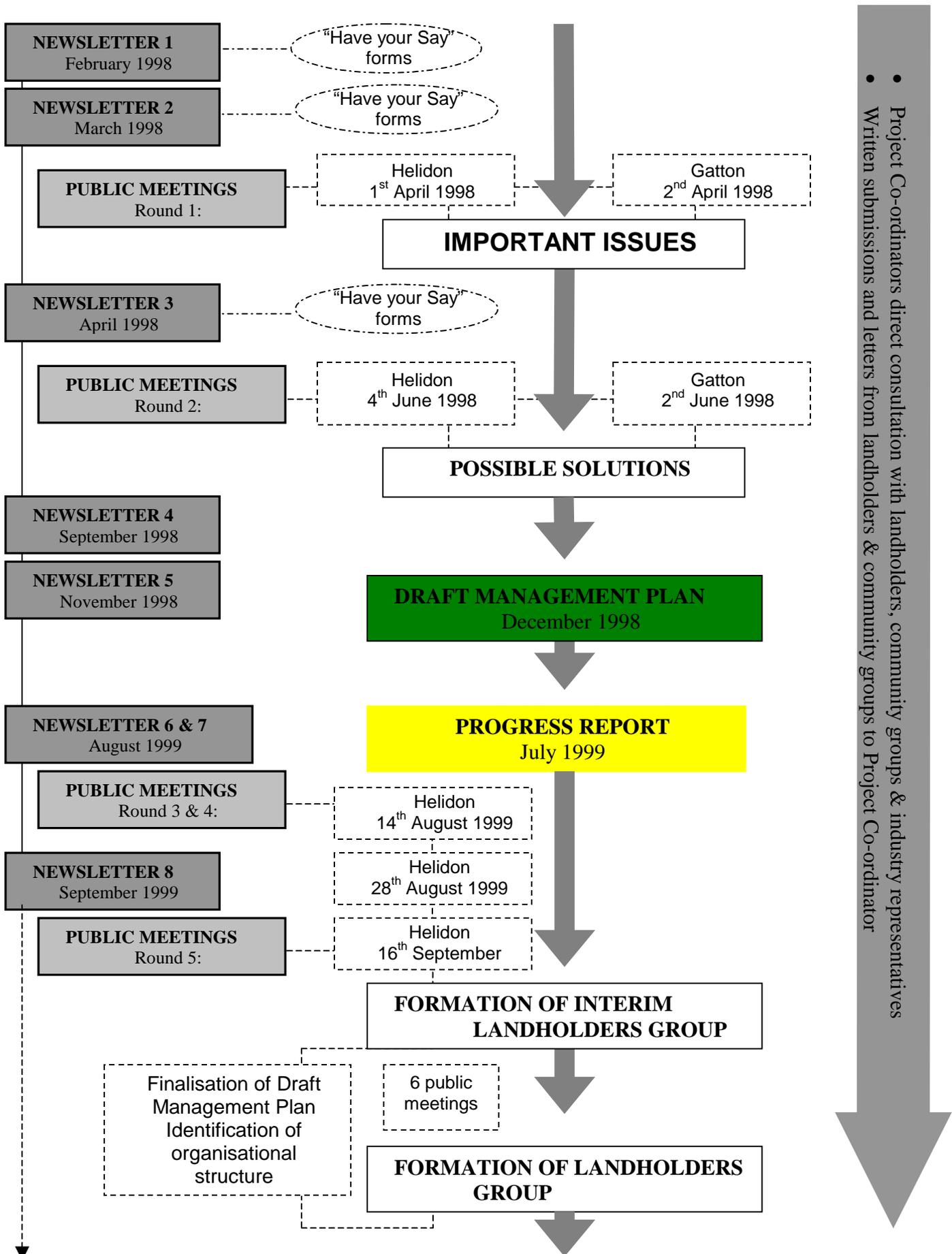
- a regional location map
- economic resources
- infrastructure
- details of planning documents from relevant shires

Maps detailing the above information are all appended at Appendix 1.

References and notes

¹ One allotment of 7.5 ha in the Project area is located in Laidley Shire, however this has been disregarded for the purposes of the project.

Figure 1: Sustainable Management of the Helidon Hills



2. Creating a sustainable future for the Helidon Hills

2.1 Achieving sustainability

How can we create a sustainable future from the complex and competing issues facing the Helidon Hills?

Dr. Peter Ellyard, a keynote speaker at the 1997 Queensland Landcare Conference, alerts us to the inadequacy of our current approaches to creating sustainability¹:

“I am concerned that the Helidon Hills Project is yet another government stand-over exercise.”
Helidon Hills landholder.

To me a sustainable society is one where everything works forever. Now, we’re a fair way from that, but that’s not a bad option to have. Let’s imagine how we can make things so they’ll work for longer and longer and ultimately forever. To do that, you see, most people work in the manager’s way, they try to stop unsustainability, they try to do something which makes it less unsustainable. See the difference? That’s what I call the problem centred manager’s view. Designing towards sustainability is different. It’s like thinking about health care. Health care is actually a euphemism for what I call the illth industry. It’s not about health, it’s about the treatment of illness, with doctors and hospitals and pharmacies and nurses, is it not? And that’s what I call the problem centred approach to health, which takes 96.4% of our, quote, “health budget” which is about illth. The journey towards health is about nutrition, stress management, exercise, good relationships and a pollution free environment. It’s got nothing to do with doctors and that gets a piddling small amount, and if you happen to be a health bureaucrat in Australia- and they’re all managers- and you have two proposals on your desk, one for a set of CAT scanners in the hospitals and one for a nutrition programs in the schools, which will get funded in Australia?

The Commonwealth Government Industry Commission agrees that our approach has been to manage unsustainability rather than create sustainability²:

The central problem is that Australian governments have yet to put in place a comprehensive, integrated and far-sighted way of promoting the ecologically sustainable management

of natural resources in agriculture. On top of this, there are flaws in the design and execution of what has been done.

The first response has been to *regulate the resource owners or managers*. Unfortunately, much of this regulation has been ad hoc and too frequently the only response. The number of rules is large and growing, while the design of many are flawed – they prescribe the means to be used rather than the objectives to be achieved. Generally the design of the rules has had only limited input from those that have to work with them.

The Sustainable Management of the Helidon Hills Project could have taken the typical “problem-centred managers view”, and just sought to develop rules and regulations for the management of competing land uses in an attempt to make these land-uses “less unsustainable”. The Project has, however, been very different. WESROC, the Western Subregional Organisation of Councils, has developed a project that is innovative and far-sighted, building on the existing leading programs of member Councils.

“Assistance should be given to landholders to diversify into land uses that allow for an income to be made out of keeping rather than clearing natural areas.”
Helidon Hills landholder.

For example, Ipswich City Council has won wide acclaim for its successful and innovative heritage conservation provisions. Rather than just develop regulations for heritage protection, Ipswich City Council took into account the issues that the owners of heritage places would have to address if they were to protect them. The result is conservation provisions that meet *both* the aspirations of heritage owners in regard to the use and value of their property *and* the aspirations of the wider community in regard to heritage conservation.

Similarly, Gatton Shire Council has received high praise for its Planning Scheme, which identifies the objectives to be achieved rather than the means. This allows landholders considerable flexibility in achieving the end goal, rather than forcing them to follow prescriptive regulations that do not allow the landholders to achieve their own aspirations.

2.2 The Helidon Hills project

The National Research and Development Program on Rehabilitation, Management and Conservation of Remnant Vegetation agrees that simple regulations will not be effective³:

The degradation of ecosystems processes in the agricultural zone is the result of a particular suite of ecological,

economic, social and institutional circumstances. These must be understood before effective policies and programs to combat degradation can be established.

The Helidon Hills has a fragile and highly significant ecology. If this is not properly understood then incorrect decisions will be made with potentially devastating consequences. A large number of the area's native plants and animals are already on their way to extinction.

Two-thirds of the Helidon Hills is in private ownership, with the economic and social circumstances of the many private landholders directly affecting their land management decisions. As well as landholders, the livelihoods of others in the broader community are also derived from economic activities in the Helidon Hills. If these social and economic circumstances are not properly understood, then people could have their lives wrecked by the loss of their livelihood or the tearing apart of their social networks. And their economic hardship could also force them to destroy natural areas that they had in fact been wanting to save.

“[Suggested solutions include] Consultation with landholders, involvement in finding solutions to their problems.”
Gatton public meeting 2/4/98.

The issues facing the Helidon Hills fall into the areas of responsibility and interest of a myriad of government bodies and non-government organisations. These complex institutional circumstances must be understood if effective and cooperative decision-making is to be achieved.

In order to properly understand the suite of ecological, economic, social and institutional circumstances of the Helidon Hills, the WESROC Sustainable Management of the Helidon Hills Project has:

- Adopted a non-prescriptive approach to management planning, which has allowed the full range of issues to be identified and provided the latitude for the creation of innovative solutions.
- Sought to give landholders and the community genuine involvement from day one.
- Moved towards giving landholders and the community ownership of project outcomes.
- Created innovative and cooperative win-win solutions to the complex and competing issues, rather than playing one side of an issue off against the other in a win-lose battle.
- Identified information gaps and needs gaps, and is working with government bodies and non-government organisations to fill these gaps.

The results of this approach are very different. Unlike typical

management plans, it is not full of regulations and pre-conceived decisions that do not reflect an understanding of the ecological, economic, social and institutional circumstances that is necessary for the creation of genuine sustainability. Rather, this management plan provides a framework and ongoing process for achieving sustainable management that is sensitive to the diverse circumstances of the area.

Because the approach taken by this project is so different, it has not been easy. The project is traveling largely in uncharted waters, and significant obstacles have been in the way:

- Some landholders have become so disillusioned with typical management planning approaches that they wrote this project off before it had even started.
- The extensive time needed to carry out some project tasks, such as properly working with landholders and the community and researching solutions to some of the issues, was significantly underestimated when the project was put together.
- Some government bodies responsible for Helidon Hills issues have not properly understood that this project has been taking a different approach.

However, these obstacles are being successfully negotiated and their resolution provides useful lessons for others taking this approach to sustainable management.

References and notes

- ¹ Landcare Queensland (1997). *Annual Conference Proceedings*. Keynote speakers: An address by Dr Peter Ellyard, p. 132.
- ² Industry Commission (1997). *A Full Repairing Lease: Inquiry into Ecologically Sustainable Land Management*. Draft Report. Executive Summary, p. xxi.
- ³ Binning, C and 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. Preface, p. iii.

3. Landholders' Rights

“Landholder rights should outweigh community rights.”
Helidon Hills landholder.

3.1 Background

When this project was originally conceived, “Landholders’ rights” was not identified as a separate issue that would need to be addressed. However, serious rural economic decline, frustration over loss of services, and anger against decision making that has no regard for the economic and social circumstances of landholders means that the issue of landholders’ rights must become part of the planning for not only the Helidon Hills, but also most of the rest of rural and regional Australia.

3.2 Summary of community consultation

Strong views were expressed in relation to:

- The need for security and safety for landholders and their possessions and property.
- The rights of landholders to manage and control their own properties.

3.3 Discussion and future directions

3.3.1 Security and safety

“Drug growers defending their crops are threatening people with guns.”
Helidon Hills landholder.

There is a need to improve security and safety for landholders and their possessions and property. A “Neighbourhood Watch” program may be an appropriate way of reducing theft and vandalism and access to the area by drug growers. To mitigate the problems of trespass, access could be controlled by defining and designating both access routes to recreation areas and also private no-go areas.

3.3.2 The rights of landholders

The Commonwealth Industry Commission finds¹:

“I have set aside large parts of my property but I still need to make an income out of other parts of my property. I am receiving no income from large areas that I am protecting but I still have to pay an expensive rates bill.”

Helidon Hills landholder.

Many environmental problems are due to conflicts between individuals about what they see as their rights. Some landholders feel they have the right to clear their land as and when they see fit. Those who live downstream feel they have a right to potable water. If enough landholders clear their land, they lower the quality of water in the lower catchment.

The fact that the legal basis of some of these rights may be debatable does not change the underlying issue. Regardless of whether the rights have any basis in law, the economic, environmental and social conflicts are very real. One of the roles of government is to help resolve such conflicts in socially advantageous ways.

In typical management planning exercises, government bodies will get involved in a heated philosophical debate with landholders about whether or not the landholders have various rights. This win-lose approach is, to say the least, counter productive. If the conservation of a private property results in a landholder losing their livelihood, then for the landholder there is a very real conflict between conservation on the one hand and economic stability on the other, regardless of whether the landholder has any legal “right” to make an income from their property.

Rather than engage in unproductive battles with landholders, governments have a responsibility to resolve the conflicts between environmental protection and the economic and social needs of landholders in ways that benefit *both* the environment *and* the needs of the landholder. With creative and lateral thinking, win-win solutions can be found for even the most complex of issues. Such innovation has been the foundation of this project, evidenced by the conservation measures proposed in the Nature Conservation section, and the new ecologically and economically sustainable enterprises proposed in the Farming Enterprises and Tourism and Recreation sections.

The key to successfully developing proposals that benefit landholders has been to involve landholders in the decision making process from day one, and to develop landholder ownership of project outcomes. The future success of the project will depend on being able to progress landholder ownership to the point where landholders are given the greatest possible responsibility for the implementation of project actions.

“[Actions/solutions include] Overall management plan...

Ownership by landholders.”

Helidon public meeting 4/6/98.

A Landholders’ Group should be established to oversee the

“A cooperative association could be formed to oversee and assist with the sustainable development of the Helidon Hills.”
Helidon Hills landholder.

implementation of management actions, and a rapid transition of project management from WESROC to the Landholders’ Group should be made. The makeup of the Landholders’ Group will need to be reflective of the full range of Helidon Hills land-use objectives and viewpoints, and will need to involve relevant institutional landholders and other relevant stakeholders. Possible structures for the Landholders’ Group include an Incorporated Association or a Cooperative Association. Working groups, which could function as subcommittees of the Landholders’ Group, should be established to deal with specific land-use issues (working groups could include nature conservation; cultural heritage; timber harvesting; fruit growing; grazing; native plant enterprises; tourism and recreation; sandstone, extractive and explosives industries; fire management, water, property management).

The proper establishment of a Landholders’ Group would be expected to take several months. In the meantime an Interim Landholders’ Group should be established, which would:

- Work with the Sustainable Management of the Helidon Hills Project Coordinator, government agencies, and community groups to develop the Draft Management Plan into the final Management Plan.
- Investigate suitable structures for a Landholders’ Group (options include an Incorporated Association or a Cooperative Association).
- Investigate and develop policies and procedures for a Landholders’ Group that ensure the group is reflective of the full range of Helidon Hills land-use objectives and viewpoints and involves relevant institutional landholders and other relevant stakeholders.
- Investigate the establishment of working groups, which could function as subcommittees of the Landholders’ Group, to deal with specific land-use issues (working groups could include nature conservation; cultural heritage; timber harvesting; fruit growing; grazing; native plant enterprises; tourism and recreation; sandstone, extractive and explosives industries; fire management, water, property management).

3.4 Objectives

- Facilitate security and safety for landholders and their possessions and property.
- Implement innovative sustainable management policies that result in benefits for both the environment and private

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- landholders.
- Facilitate landholder ownership of project actions.

3.5 Actions

- 3A Investigate the establishment of a “Neighbourhood Watch” program in the Helidon Hills.
- 3B Provide controlled and designated access to tourism and recreation areas to mitigate the problem of trespass on private land.
- 3D Establish a Landholders’ Group to oversee the implementation of management actions. The Landholders’ Group will need to be reflective of the full range of Helidon Hills land-use objectives and viewpoints, and will need to involve relevant institutional landholders and other relevant stakeholders.
- 3E Establish working groups, which could function as subcommittees of the Landholders’ Group, to deal with specific land-use issues (working groups could include nature conservation; cultural heritage; timber harvesting; fruit growing; grazing; native plant enterprises; tourism and recreation; sandstone, extractive and explosives industries; fire management, water, property management).
- 3F Facilitate a rapid transition of project management from WESROC to the Landholders’ Group.
Establish an Interim Landholder’s Group, which will:
- Work with the Sustainable Management of the Helidon Hills Project Coordinator, government agencies, and community groups to develop the Draft Management Plan into the final Management Plan.
 - Investigate suitable structures for a Landholders’ Group (options include an Incorporated Association or a Cooperative Association).
 - Investigate and develop policies and procedures for a Landholders’ Group that ensure the group is reflective of the full range of Helidon Hills land-use objectives and viewpoints and involves relevant institutional landholders and other relevant stakeholders.
 - Investigate the establishment of working groups, which could function as subcommittees of the Landholders’ Group, to deal with specific land-use issues.

3.6 Achievements

- 3C Investigate suitable structures for a Landholders' Group (options include an Incorporated Association or a Cooperative Association).
- 3G Establish an Interim Landholder's Group, which will:
- Work with the Sustainable Management of the Helidon Hills Project Coordinator, government agencies, and community groups to develop the Draft Management Plan into the final Management Plan.
 - Investigate suitable structures for a Landholders' Group (options include an Incorporated Association or a Cooperative Association).
 - Investigate and develop policies and procedures for a Landholders' Group that ensure the group is reflective of the full range of Helidon Hills land-use objectives and viewpoints and involves relevant institutional landholders and other relevant stakeholders. Investigate the establishment of working groups, which could function as subcommittees of the Landholders' Group, to deal with specific land-use issues.

References and notes

¹ Industry Commission (1997). *A Full Repairing Lease: Inquiry into Ecologically Sustainable Land Management*. Draft Report. Chapter 8, p. 63.

4. Nature Conservation

4.1 Background

The Helidon Hills is recognised as an area of very high nature conservation significance:

- The Helidon Hills is one of the largest areas of mostly continuous bushland left in South-East Queensland.
- Variations in topography and geology within the Helidon Hills have contributed to the presence of a great diversity of Eucalypt forest communities.
- The Helidon Hills has a distinctive flora and a high diversity, with over 300 vascular plant species present.
- A large number of rare and threatened flora and fauna species are present in the Helidon Hills.
- The Helidon Hills through to Crows Nest area has a high level of endemism, that is, a large number of species that are found only in this area.
- A large number of flora species normally found in coastal sandstone and Wallum vegetation communities and a large number of flora species normally found in sandstone vegetation communities further inland are present in the Helidon Hills.

“The shallow, infertile soils derived from coarse-grained sandstone of the Helidon Hills support a distinctive flora.”

Community group.

4.1.1 Surveys and assessments

The natural values of the Helidon Hills area have attracted interest for over 100 years. In 1887 the well known botanist F. M. Bailey led a walk to two Helidon Hills waterfalls. A fascinating account of the journey by one of the participants describes the lush vegetation below one of the falls¹:

Following the narrow track by the creek, the gully widened into an oval basin, over the distant edge of which the water fell in a clear, narrow stream, breaking into drops on the rocky pool below. The ledge over which the water falls is 50-60 ft. high, but the cliffs hemming in the creek are at least 100 ft. higher. The rocks are soft, friable, sandy shale, splitting into layers, and showing numerous impressions of fossil leaves. The rock is cut away below by the spray, and it is possible to walk under the fall, protected [by] the overhanging ridge. An abundance of moisture has carpeted the face of the cliff with beautiful and delicate ferns and mosses...Among the mosses was the rare and lately-named

“[What I value about the Helidon Hills is] From where I sit, the view, the solitude and the serenity - the flora and fauna.”

Helidon Hills

Distichophyllum baileyianum. Surrounding the pool were clumps of the graceful palm *Ptychosperma cunninghamii*...

“[What I value about the Helidon Hills is the] Peace and tranquillity. The bush in its natural state.”

Helidon Hills landholder.

Early this century, Edward Athol Rutland Lord (“EARL” Lord) of Murphy’s Creek extensively studied the district around his family’s “Airleas” property²:

From 1920 to 1961 “Airleas” became a well known address in the world of Naturalists as Earl Lord’s name spread...Naturalists who stayed at “Airleas” came from as far afield as Germany and Japan. All of his innumerable scrap books etc. and field notes on the Flora and Fauna of Murphy’s Creek I lodged with the Royal Australian Ornithologists Union in their Archives at Latrobe University, Melbourne.

In contemporary times, flora, fauna and vegetation community surveys have been carried out in the Helidon Hills by the Department of Environment and Heritage Naturesearch 2001 program, the Queensland Herbarium, the Department of Environment and Heritage Southeastern Region Conservation Resource Unit, the Queensland National Parks and Wildlife Service (QNPWS), and more recently by the Department of Environment and Heritage Forest Assessment Unit.

Local naturalists, landholders, residents and community groups have also extensively observed the flora and fauna of the area. The Toowoomba Bird Club, the Toowoomba Field Naturalists Club, the Society for Growing Australian Plants (SGAP) Toowoomba Branch, The University of Southern Queensland, and the University of Queensland Gatton College have compiled flora and fauna lists or carried out other study work.

The majority of surveys to date have been carried out on State Forest land.

“The Vegetation Projects Sub-Committee (VPSC) recognise that the Helidon Hills has exceptional environmental and social values.”
Community group.

Further flora and fauna surveys and conservation assessments are being carried out under the Comprehensive Regional Assessment (CRA) component of the South-East Queensland Regional Forest Agreement (RFA).

4.1.2 Vegetation attributes

Paul Grimshaw of the Queensland Department of Environment and Heritage describes the general attributes of the Helidon Hills vegetation³:

Although the Helidon Sandstone unit is predominantly of a quartzose nature there are other variable components to it

“The forests of the hills contain several attractive tree species with localised distributions, such as needlebark *Eucalyptus planchoniana* and budgeroo *Lysicarpus angustifolius*.”
Community group.

such as siltstones, shales and conglomerates. Coupled with the nature of the topography (aspect, relief), the variability of the geology within the unit has a marked influence on changes to species assemblages, structure, and species diversity which is relatively high throughout.

In some northern parts where the elevation is considerably higher than southern parts the adjoining basalt unit has had some influence over the sandstone. Here weathering, where there was previously basalt overlying the sandstone, has formed lateritic surfaces. Species such as *Eucalyptus pilularis*, *Eucalyptus taurina*, *Eucalyptus dura*, *Corymbia trachyphloia*, and *Eucalyptus baileyana* appear to show some preference for these richly ferrous substrates.

In the lower but moderately elevated parts the dominant species often reflect the finer more weathered sediments of the sandstone. Species such as *Eucalyptus crebra*, *Eucalyptus fibrosa* subsp. *fibrosa*, *Corymbia citriodora*, *Corymbia henryi*, and *Angophora leiocarpa* usually dominate the open forests and woodlands here.

Parts of the Helidon Hills are deeply incised by creeks and valleys (Alice, Redbank, Sandy, Buaraba, and Sheep Creeks). Species assemblages on the valley floors vary considerably from those on the steep valley escarpments and slopes. On the finer sediments of the valley floors and outwashes the dominant species include *Eucalyptus tereticornis*, *Lophostemon suaveolens*, *Corymbia intermedia*, *Eucalyptus crebra*, *Casuarina cunninghamiana*, *Angophora subvelutina*, and *Callistemon viminalis*. The steep escarpments and jump-ups along the incised valleys and outlying slopes are mostly dominated by *Eucalyptus acmenoides*, *Corymbia citriodora*, *Corymbia trachyphloia*, *Eucalyptus major*, *Angophora woodsiana*, *Lysicarpus angustifolius*, and *Eucalyptus baileyana*.

In other rocky areas on the plateau crest more restricted species assemblages are dominated by *Eucalyptus planchoniana*, *Corymbia gummifera*, *Eucalyptus acmenoides*, *Angophora woodsiana*, and *Eucalyptus pilularis*.

There are a couple of deep, sheltered, moist valleys where there are palm trees (*Archontophoenix cunninghamiana*) and associated rainforest species. However this community is minor and somewhat restricted in development by regular fire events.

These species assemblages are not necessarily always consistent. In some areas of the Helidon Hills there are intergrades of some species mixes particularly in ecotonal zones where soils or landform patterns interface.

Generally speaking much of the understorey of vegetation throughout the Helidon Hills is predominantly shrubby and relatively species rich, but this can vary with structural types, fire patterns and regimes. Structural changes of the vegetation varies with soil depth, moisture, texture, nutrients, etc. and the structure range includes: very tall open forest, very tall woodland, tall woodland, and tall open woodland.

“The forests of the Helidon Hills are known to provide habitat for a number of threatened animals, as defined by the Nature Conservation Act 1992 and subsequent amendments.”
Community group.

4.1.3 Significant Flora and Fauna

A large number of endangered (E), vulnerable (V), and rare (R) flora and fauna species are found in the Helidon Hills (endangered, vulnerable or rare status according to *Queensland Nature Conservation Act 1992*). This includes the highly significant and seriously endangered Red Goshawk *Erythrotriorchis radiatus*. The Red Goshawk is Australia’s rarest bird of prey, with less than 400 pairs remaining. In addition to existing listings, several flora species are also pending (P) listing as either endangered, vulnerable or rare.

Several of the significant plant species are found only in the Helidon Hills and nearby areas. *Paspalidium grandispiculatum*, which is a tall grass, is only found in the Helidon Hills. *Grevillea quadricauda* is found only in the Helidon Hills and at nearby Flagstone Creek. *Phebalium obtusifolium* and *Eucalyptus taurina* are found only in the Helidon Hills and at Crows Nest. *Caustis blakei* subsp. *macrantha* is found only in the Helidon Hills and at Perseverance Dam. A newly identified species, *Bertya* sp. (Helidon Hills G. Leiper AQ 457013), is only found in the Helidon Hills. One species originally found in the Helidon Hills has already become extinct. This is the Paradise Parrot, which was originally recorded from Paradise Creek in the White Mountain State Forest (SF564).

Lists of significant Helidon Hills flora and fauna are reproduced at the end of this chapter.

4.1.4 Conservation planning

Calls for the Helidon Hills or parts of the area to be conserved have come from community groups including Society for Growing Australian Plants (SGAP) Toowoomba and the Toowoomba and Region Environment Council (TREC), and

“TREC sees the major issues as being...Purchase of key properties to amalgamate presently fragmented State Forest.”
Community group.

“[What I value about the Helidon Hills is] The almost pristine bush in a lot of areas, the ability to spend time in a quiet natural habitat surrounded with many unique plants and natural processes with much scenic beauty, a place to be away from the pressures of daily living.”
Toowoomba resident.

also from Department of Environment and Heritage staff.

The Department of Environment and Heritage has also received approaches from private landholders wanting to sell their land to the Department for conservation purposes. One approach was investigated in 1992, and another in 1996. Both properties were considered to have conservation value. However, primarily because of other funding priorities, neither was acquired by the Department. More recently, the Department of Environment and Heritage was offered an opportunity to purchase land owned by the Gatton Sawmill in the Ravensbourne area. The land was found to have high conservation value, and the Department facilitated the purchase of the property.

The nature conservation values of the Helidon Hills area are now widely recognised. The South-East Queensland Regional Framework for Growth Management (RFGM) has recommended that a new National Park be established in the Helidon Hills, and that an enlarged National Park be investigated at Ravensbourne on the northern edge of the Helidon Hills⁴. The Gatton Shire Planning Scheme recognises the need to protect the natural values of the area. Gatton Shire Council has also seen the need to reconcile nature conservation values with other important interests in the area, such as sandstone mining, timber harvesting, and farming. This has led Council to work with WESROC (Western Subregional Organisation of Councils) to secure funding for the Sustainable Management of the Helidon Hills Project.

4.1.5 Regional Forest Agreement

In addition to the WESROC Sustainable Management of the Helidon Hills Project, another major initiative is also addressing conservation and sustainable management issues in the Helidon Hills. This is the South-East Queensland Regional Forest Agreement (SEQ RFA).

The SEQ RFA Comprehensive Regional Assessment (CRA) is assessing the environmental, heritage, social and economic values of forests throughout the South-East Queensland Bioregion, and will lead to:

- The establishment of a Comprehensive, Adequate, and Representative (CAR) reserve system.
- Agreements on Ecologically Sustainable Forest Management (ESFM).
- The signing of a Regional Forest Agreement (RFA).

The Comprehensive, Adequate, and Representative (CAR)

reserve system is a reserve system to conserve all native forest types as well as the plants and animals that depend on them:

- *Comprehensive* - the reserve system aims to include the full range of forest ecosystems recognised in a region.
- *Adequate* - the reserve system aims to maintain the ecological viability and integrity of populations, species and communities.
- *Representative* - those sample areas of the forest that are selected for inclusion in reserves should aim to reflect the variation that occurs within forest ecosystems.

The RFA will be an agreement between the Queensland and Commonwealth Governments on how the native forests of South-East Queensland can best be used and managed for future generations. The RFA will aim to:

- protect environmental values in a world class reserve system,
- give forest industries the certainty that they need to create jobs and opportunities, and
- ensure that the whole forest estate is managed sustainably for future generations.

The regional Forest Management Plan was released for discussion on 16th September 1999. The indications from this initial stage are that the State Forest areas within Helidon Hills will be transferred to a type of conservation zone yet to be defined.

4.2 Summary of community consultation

The feedback from community consultation shows that landholders and the community overwhelmingly value the natural attributes of the Helidon Hills, and want steps taken to protect those attributes.

Other issues and viewpoints that emerged from the community consultation include:

- Weed and feral animal control and education is needed.
- Information on flora, fauna and vegetation communities needs to be given to landholders and the community.
- Further nature conservation survey work is required.
- It is not going to be possible to accommodate all commercial operations.
- Landholders and members of the community have an extensive knowledge of the nature conservation values of

“Landholders are conservationists.”
Gatton public meeting 2/6/98.

the area, but this knowledge is currently undervalued and needs to be better utilised.

- Private landholders are keen to conserve the natural attributes of their properties but there are economic impediments to them doing so. These economic impediments can be overcome through financial assistance and new economic opportunities such as ecotourism or the commercial use of local native flora.
- Private landholders are keen to enter into conservation agreements, with several landholders wanting to be demonstration sites for conservation agreements.
- Conservation agreements for private land should be voluntary and involve financial assistance and compensation for the landholder.
- The nature conservation values of the area need to be promoted.
- Fire management needs to take into account the fire requirements of the natural vegetation.
- The fire hazard can be reduced by using cattle to control the amount of undergrowth.
- Some past planning exercises involving the Helidon Hills have not produced any noticeable results.
- Some recreational activities, such as motorbike riding, are causing significant damage.
- The wild harvesting of native flora can be carried out sustainably, but much of the current harvesting is not carried out sustainably.
- Conservation needs to include the conservation of genetic diversity as well as species diversity.
- Because the area features a range of tenures, a coordinated and integrated approach to management is required.
- Erosion due to inappropriate activities has been, and continues to be, an issue. Examples include: excessive clearing, overgrazing, road-making practices, recreational use of off-road vehicles, and provision of utilities.

“Several people I know have good information on the Helidon Hills flora.”

Helidon Hills

4.3 Discussion and future directions

4.3.1 Nature conservation knowledge

A detailed vegetation mapping has been carried out by EPA and this will supplement the flora and fauna data held by landholders, community groups, and individuals.

Neglect, to date, has had serious consequences for the natural

“Landholders who set aside areas for conservation should be given assistance to do so, for example, assistance to control weeds.”
Helidon Hills landholder.

environment. For example, a lack of knowledge and awareness about the habitat extent of the threatened species *Paspalidium grandispiculatum* and *Grevillea quadricauda* has seen gravel extraction carried out within their habitat, with the probable destruction of numerous plants.

Another problem is the accuracy of some of the fauna records, which has jeopardised community confidence in the flora and fauna information for the area. At one of the public meetings, a landholder expressed the concern that some of the birds on the Endangered, Vulnerable and Rare Fauna Species list were lowland waterbirds having no relationship to the Helidon Hills, while some of the other birds on the list would have been once-off sightings with the Helidon Hills not their genuine habitat. However, some naturalists have expressed the view that the Helidon Hills and the adjacent lowland areas must be considered as a whole, and that the once-off sightings of certain birds may be because they use the Helidon Hills as a resting or feeding stop on migration or travel routes meaning the Helidon Hills is still a vital part of their habitat.

Obviously, detailed surveys and studies are needed to resolve these issues and gain a level of nature conservation knowledge that will be adequate enough for informed decisions to be made.

Landholders and the community have an extensive knowledge and awareness of, and interest in, the nature conservation values of the Helidon Hills, and it is essential that they are involved in future surveys and studies.

“Weeds are a cross boundary problem - State Forest/nature conservation, outside Helidon Hills area - so need integrated/ coordinated weed control.”
Helidon public meeting 4/6/98.

4.3.2 Weeds and feral animals

Weeds have been identified as a serious problem, with feral animals identified as a problem, but to a lesser extent. Lantana has been identified as the major problem weed. Feral pigs and wild deer have been identified as problem animals, with mixed views about whether the wild horses are a problem.

With both weeds and feral animals, the only way to successfully deal with them is to institute a well planned, coordinated control program right across the whole of the Helidon Hills - Ravensbourne area. It is largely pointless for weeds to be controlled on one property if the property is rapidly re-infested from an adjacent property. The programs would need to involve:

- The identification of problem weeds/feral animals.
- Prioritisation and the setting of achievable targets (ideally complete eradication, or if impossible then reduction to

specified levels).

- Large-scale coordinated control involving material and financial assistance to landholders. The assistance could include free herbicide and free labour (such as Work for the Dole).

4.3.3 Nature conservation on State Forest and leasehold land

Nature conservation on State Forest land and leasehold land in the Helidon Hills is being addressed through the Regional Forest Agreement (RFA) process. Approximately one-third, or 11,302 ha, of the overall Helidon Hills area of 33,430 ha is State Forest. There is also a very small percentage, 2.8% or 957 ha, of leasehold land. The State Forest area is made up of SF 564 White Mountain and SF 616 Lockyer.

The current RFA Interim Management Arrangements (IMA) have suspended mill timber harvesting activities in both SF 564 and SF 616, and also in the 957 ha of leasehold land. The IMA are providing interim protection to areas that may be required for inclusion in the CAR (Comprehensive, Adequate and Representative) reserve system. The inclusion of SF 564 and SF 616 in the IMA shows that they have high conservation significance at a South-East Queensland bioregional level, and indicates the potential for them to be converted to some sort of secure conservation status, such as National Park or Conservation Park. The establishment of a National Park in the Helidon Hills would be consistent with recommendations already made in the South-East Queensland Regional Framework for Growth Management (RFGM). Temporary alternative sources of timber have been made available to mills that have had their supply affected by the IMA.

4.3.4 Nature conservation on private land

Approximately two-thirds, or 21,171 ha, of the overall Helidon Hills area of 33430 ha is private freehold land. The traditional way of achieving nature conservation on private land has been to acquire the land through purchase, and then gazette it as a National Park or Conservation Park. However, this approach presents several problems:

- Acquisition is very expensive. The cost of acquiring the more than 21171 ha of private freehold land in the Helidon Hills would be at least \$30 million.
- Long-term management becomes an added burden to already inadequately resourced government agencies. Existing conservation reserves in the Lockyer Valley, although only small in area compared to the overall area of

“We are three landholders who are keen to protect nature conservation values on our properties and we are strongly interested in entering into conservation agreements.”
Helidon Hills landholders.

“We should be given assistance to keep our bush.”
Helidon Hills landholder.

high conservation value land in the Lockyer, are already undermanaged. For example, the Dwyer’s Scrub Conservation Park, where the endangered vineforest vegetation community has become infested with the exotic weed madeira vine (*Anredera cordifolia*).

- When freehold land is purchased and gazetted as National Park or Conservation Park, Local Government rates can no longer be levied on the property, but services such as roads still need to be provided. The Local Government that covers most of the Helidon Hills area, Gatton Shire Council, has a relatively large area of significant remnant bushland. If even a small proportion of this bushland was acquired for reserve purposes there would be a significant loss of rates for Council but still a requirement to maintain access roads and other services to these areas. This would put an unfair burden on the remaining ratepayers in the Shire, who would face either rate rises or a reduction in services.

Aside from these problems, many landholders would not want to sell their properties anyway. The views expressed at the public meetings, in comments on the “Have Your Say” forms, in personal communication with landholders, and in written submissions and letters show that Helidon Hills landholders overwhelmingly have a strong desire to retain ownership of their land. Three main reasons for this have been found:

- The properties of many of the longer term landholders have been in the same family for several generations, meaning that the property has become an important part of the family heritage and thus an important part of the heritage of the whole area.
- Many of the newer landholders have purchased their property with the specific intention of securing and protecting land with nature conservation values. There are a large number of these landholders in the area, primarily as a result of timber companies selling off their once extensive land holdings.
- Many landholders need to derive their livelihood from economic pursuits on their properties. This applies to both the longer term and newer landholders.

“All suggestions had merit! I loved the rate rebates suggestion.”
Helidon Hills landholder.

Any plans for private land acquisition in the area would be likely to result in a community backlash, an added burden to already stretched government agencies, an unfair burden on ratepayers, and the loss of people who are already willingly conserving the natural values of their properties.

A much more workable and cost effective way of achieving conservation on private land is to keep the existing private

landholders, and:

- Assist them to establish new ecologically and economically sustainable economic pursuits on their properties, or assist them to carry out existing pursuits sustainably.
- Enter into management agreements with them, whereby financial and/or material assistance is provided in return for conservation.

This is the “win-win” approach, with benefits for *both* conservation *and* the landholder and the community.

4.3.5 Sustainable economic pursuits

As well as strong interest in the sustainable management of existing economic pursuits - chiefly grazing, timber harvesting, fruit growing, and sandstone mining - the project consultation revealed a very strong landholder interest in the development of new ecologically and economically sustainable economic pursuits:

- Ecotourism and nature-based tourism, capitalising on the very high scenic values of the Helidon Hills and the close proximity to large population centres.
- Cultivation of Helidon Hills native flora, capitalising in particular on the spectacular range of native wildflower and foliage plants.

The establishment of new ecologically and economically sustainable economic pursuits and the sustainable management of existing pursuits are further discussed in the following chapters of this report:

- Timber Harvesting.
- Tourism and Recreation.
- Farming Enterprises.
- Sandstone, Extractive, and Explosives Industries.

4.3.6 Incentive-based conservation

Incentive-based programs that benefit both conservation and the needs of landholders and the community have been underway in other states for some time, and in the past few years programs have also commenced in Queensland, including several in South-East Queensland. Brisbane City Council assists landholders to manage natural vegetation through its Voluntary Conservation Agreement (VCA) scheme. In return for landholders entering into the agreement, the landholders receive direct financial assistance of up to \$1,500 per year. In Logan City, landholders who have their land rezoned to the Residential Conservation Zone receive benefits including a

rates concession of up to 50%. Cooloolo Shire Council offers rate rebates of up to \$1,000 per year for land that is protected through a Conservation Agreement with Council.

In South Australia, rate relief and compensation are given to landholders in return for entering into “Heritage Agreements”. The compensation is for the economic opportunities that the landholder foregoes by permanently setting aside an area for conservation.

Australia’s longest running cooperative conservation programs have been run by the Victorian “Trust for Nature”, which was established in 1972. Programs run by the Victorian Trust for Nature include “Land for Wildlife”, a very successful program initiated in 1981 to establish non-binding voluntary agreements with landholders to provide wildlife habitat on their properties, and the “Land Protection Incentive Scheme”, which provides financial support to individual landholders to undertake work on land and soil degradation. The Trust for Nature receives government funding and also substantial funding from donations and bequests.

4.3.7 Vegetation Management Trusts

“[Suggested solutions include] Incentives to landholders.”
Helidon public meeting 1/4/98.

It is possible for Councils like Brisbane, Logan, and Cooloolo to provide rate rebates and financial assistance because they have large numbers of ratepayers compared with relatively small areas of remnant vegetation. However, for the Councils in the Helidon Hills project area, the situation is the reverse. It would be very difficult for Councils like Gatton or Esk to provide rate rebates to some landholders without placing an undue strain on other ratepayers. One way around this would be to seek State and Commonwealth government funding to establish a Vegetation Management Trust. A large once-off funding allocation would be required to establish the Trust.

Vegetation Management Trusts are one element of a new “toolkit” of economic incentives being promoted by the Commonwealth Government through the “Bushcare” component of the Natural Heritage Trust (NHT). This follows the completion of the first stages of an Environment Australia/Land and Water Resources Research and Development Corporation (EA/LWRRDC) research and development program looking at the rehabilitation, management, and conservation of remnant native vegetation.

The first paper from the program examines how different types of economic incentives can best be utilised to promote sound management of native vegetation. Titled *Motivating People:*

Using Management Agreements to Conserve Remnant Vegetation, the paper recommends the adoption of the following policy opportunities⁵:

“[Problems include]
No financial
incentives - rate
discount.”
*Helidon public
meeting 4/6/98.*

1. That a **National Land for Wildlife Program** be developed which establishes a network of landholders and funds extension and facilitation services for vegetation management.
2. State based regulatory frameworks that put in place mechanisms for the development and implementation of **regional vegetation management plans** have the potential to be the most equitable and effective approach to meeting broad vegetation management objectives.
3. Regional vegetation management plans can play the role of a **Code of Practice** for vegetation management that defines duty of care.
4. A series of **Protected Area Networks** could be established which include all public and private land managed for conservation.
5. Management agreements could be pursued to secure vegetation objectives when renewing, amending, or upgrading leases over **leasehold land**.
6. A **Fencing Assistance Scheme** could be established under Bushcare for areas of conservation value.
7. Commonwealth and State governments could encourage local governments to provide **rate rebates** for land covered by a management agreement that provides for vegetation conservation.
8. A range of **Vegetation Management Trusts** could be established to provide funding for ongoing management needs of areas covered by a management agreement in perpetuity.
9. **Revolving Funds** could be established in each state. The revolving fund would be used for the purchase of land, placement of a unique site agreement on it and its subsequent resale to a committed landholder.
10. Financial assistance could be guided by a **nationally agreed process to achieve consistency in principles for vegetation management** in order to reduce inconsistencies between states and improve program effectiveness.
11. To maximise the accessibility of vegetation programs, the delivery of incentives could be devolved to Local Government and other appropriate regional and non-government organisations.
12. To effectively deliver incentives, Commonwealth and State governments could establish strategic alliances that seek the cooperation of key businesses, companies and other large landholders in conserving remnant vegetation.
13. The legislation that enables covenants to be established in

each State could be reviewed and broadened to enable a wide range of organisations to promote and use management agreements.

Copies of *Motivating People: Using Management Agreements to Conserve Remnant Vegetation* can be obtained from the Environment Australia Biodiversity Group, phone 02 6250 0200.

The Natural Heritage Trust (NHT) funding for the second year of the Sustainable Management of the Helidon Hills Project includes the following assistance for landholders who set aside areas for conservation:

- \$7,000 to assist with constructing firelines.
- \$8,000 to assist with habitat restoration (weed control, replanting etc.)
- \$30,000 to assist with constructing fences to facilitate grazing control in nature conservation significance areas.

These amounts are the total amount of assistance that will be available for the whole of the Helidon Hills project area, and will be broken down into smaller components of assistance for individual landholders. The funding amounts won't go very far when they are spread right across the Helidon Hills, and will only result in small sustainable management gains. If the significant natural assets of the Helidon Hills are to be properly conserved, then ongoing assistance to landholders will be needed beyond the end of the current Natural Heritage Trust funding. The Local Governments covering the Helidon Hills area do not have the financial resources to provide this ongoing assistance. An answer to the problem of funding financial assistance to private landholders in the Helidon Hills lies in policy opportunity No. 8 above - to establish a **Vegetation Management Trust** for the Helidon Hills.

4.3.8 The Helidon Hills Landscape Trust proposal

A proposal to investigate the establishment of a Vegetation Management Trust for the Helidon Hills, which has been titled the "Helidon Hills Landscape Trust" proposal, has been submitted to the South-East Queensland Regional Landscape Strategy. The proposal has also been submitted to the Natural Heritage Trust "Bushcare" component and the South-East Queensland Regional Forest Agreement (SEQ RFA) to seek expressions of interest in funding the establishment of the trust.

The Regional Landscape Strategy (RLS) Advisory Committee has examined the proposal and viewed the concept of a Vegetation Management Trust favourably. However, just prior

“[Suggested solutions include] Financial allocation for reforestation.”
Helidon public meeting 1/4/98.

to the Advisory Committee considering the Helidon Hills Landscape Trust proposal, the Minister for Environment, Heritage, and Natural Resources; the Hon. Rod Welford MLA; addressed the Committee and during his address recommended that the Regional Landscape Strategy (RLS) investigate the establishment of a Landscape Trust for the whole of Queensland.

The Minister's comments are extremely positive, demonstrating a strong Queensland Government interest in incentive-based conservation. A trust for the whole of Queensland would also see many other areas benefit in addition to the Helidon Hills. However, if it was not properly instituted, a Queensland Landscape Trust could simply act to perpetuate the existing funding inequity problems.

At a regional level, the Helidon Hills is comparable in size and significance to the D'Aguilar Range area north of Brisbane, where Brisbane Forest Park is located. The Helidon Hills has been underfunded by State and Federal Governments, whereas the D'Aguilar Range area has had significant funds spent on it. This is because Brisbane Forest Park is well known and the subject of great interest and concern for many urban dwellers in the greater Brisbane area, whereas most people in South-East Queensland have never even heard of the Helidon Hills. A Queensland Vegetation Management Trust could see funding continue to be allocated on the basis of popular demand rather than ecological significance.

The social and economic circumstances of landholders vary dramatically across South-East Queensland. A rate rebate and further subdivision concessions might be of benefit to landholders in a predominantly urban area such as Logan, where most landholders will not be trying to make an income from their properties, and those few that are trying to make an income will be typically wanting to do it through subdivision.

“Transporting harvested timber from the area provides a vital livelihood for several families.”
Timber transport company owner.

However, many landholders in the Helidon Hills derive, or will derive, their livelihoods directly from their properties through the likes of timber harvesting, grazing, and ecotourism. Rate rebates in return for conservation will help, but a simple rate rebate alone is unlikely to be given even vague consideration by a landholder who is earning their primary income from, for example, timber harvesting.

As well as the landholders themselves, there are also others in the community who derive their income from the economic pursuits of private landholders. For example, the people who own and work at the sawmills where the timber is milled, and

“[Suggested solutions include] Financial assistance for noxious weeds.”
Helidon public meeting 1/4/98.

the people who transport the timber there for milling. These people must also be given assistance.

Effective assistance for landholders and the other dependant people in the community needs to include:

- Financial assistance to establish new ecologically and economically sustainable enterprises or to implement the sustainable management of existing pursuits.
- Direct compensation for any loss of income or potential loss of income caused by setting aside areas for conservation (as is done in South Australia).
- Rate rebates and/or assistance with the costs of managing for conservation (for example, assistance to control weeds and feral animals).
- Paying landholders to manage areas of nearby public land, such as the two Helidon Hills State Forests.

The Sustainable Management of the Helidon Hills project will continue to advance the proposal for a Helidon Hills Landscape Trust with State and Federal Governments. The bottom line is that unless some way can be found to provide effective long-term assistance to landholders, sustainable management objectives for the Helidon Hills will not be met.

4.3.9 Revolving funds

Despite most landholders in the Helidon Hills wanting to retain ownership of their land, there are currently some properties listed for sale, and others will no doubt be listed for sale from time to time. Instead of purchasing these properties for reserve purposes, consideration should be given to establishing a “revolving fund” under a Helidon Hills Landscape Trust or South-East Queensland Landscape Trust. Revolving Funds are another of the policy options described in *Motivating People: Using Management Agreements to Conserve Remnant Vegetation* (see above).

The revolving fund would be used for the purchase of key properties, the placement of conservation agreements on them, and then subsequent resale to a committed landholder. The number of landholders who have purchased land in the Helidon Hills area because they want to own land with conservation values shows that there would be a ready market for the resale of the properties. Because properties are bought and then resold, only a small amount of funding is required to establish the fund.

4.3.10 Conservation agreements

At the public meetings, in comments on the “Have Your Say”

“[Actions/solutions include] Individual agreements for nature conservation - not mandatory but voluntary.”

Helidon public meeting 4/6/98.

forms, in personal communication with landholders, and in written submissions and letters, the view that conservation agreements should be voluntary and compensated was strongly expressed.

Two types of conservation agreement are currently operating in Queensland. These are:

- Nature Refuge Agreements (NRA's), which are administered by the Department of Environment and Heritage and operate under the Queensland Nature Conservation Act 1992.
- Voluntary Conservation Agreements (VCA's), which are administered by Local Governments.

Nature Refuge Agreements and Voluntary Conservation Agreements do not mean that land must be locked up and not used. According to the Queensland Nature Conservation Act 1992, Nature Refuge Agreement areas are managed by the private landholder to conserve the area's natural resources, provide for the controlled use of the area's natural resources and the interests of the landholder, and take into account the area's natural, educational, and commercial values. This can allow for the continuation of commercial activities such as grazing or timber harvesting providing they managed for ecological sustainability, and can also allow for other commercial and educational activities through enterprises such as ecotourism.

Voluntary Conservation Agreement policies, which are prepared by individual Local Governments, can be formulated to have similar management intent to Nature Refuge Agreements.

Nature Refuge Agreements and Voluntary Conservation Agreements do not mean that land must be opened up for public access. The land remains in private ownership and people may only enter with the consent of the landholder.

Nature Refuge Agreements offer the advantage of being able to be attached to the land title, meaning that they can continue to protect the landholder's management intent even if the property is sold. The disadvantage is a slow and cumbersome process.

Voluntary Conservation Agreements offer the advantages of agreements tailored to local needs and a typically rapid and user-friendly process. The disadvantage is not being able to register them in perpetuity on the land title. Both types of agreements offer the ability for the payment of financial assistance and compensation to landholders.

Because of their ability to be attached to title, Nature Refuge Agreements are likely to be the preferred mechanism for the Helidon Hills. However, if legislative changes made it possible for Voluntary Conservation Agreements to be registered on title, then they are likely to be the preferred mechanism because of a better process. There are strong indications that the necessary legislative changes will soon be made.

4.3.11 Land for Wildlife

“[Solutions include] Voluntary signage of nature conservation status of individual properties.”
Helidon public meeting 4/6/98.

Nature Refuge Agreement and Voluntary Conservation Agreement programs do not suit:

- Landholders who are managing primarily for rural production but who also want to look after wildlife on their properties.
- Landholders who are managing primarily for nature conservation but who do not want to enter into a binding agreement.

A new program that is being introduced in South-East Queensland has the potential to address this problem. It is called the “Land for Wildlife” program.

Land for Wildlife has been operating successfully in Victoria for 17 years, with over 3,800 properties now involved. Land for Wildlife is a free, voluntary, and non legally binding program that aims to encourage and assist private landholders to provide and actively manage habitat for wildlife on their property.

Land for Wildlife is responsive to the needs of the landholders and recognises that each landholder will have a different capacity to participate in the program. For example, participants in Victoria include farms, bush blocks, parks, school grounds, golf courses, and cemeteries.

A group of nine Councils has initiated Land for Wildlife in South-East Queensland, with plans to increase the number of participating Councils to 15. The potential for initiating Land for Wildlife in the Helidon Hills, as part of the program expansion, should be investigated.

4.3.12 Conservation of genetic diversity

At one of the public meetings, participants identified the need to protect genetic diversity as well as species diversity.

Within a species, there are typically wide genetic variations that are the result of adaptation by the species to local conditions across the range of the species. The genetic variation will

sometimes be so great that some populations of the species actually constitute a subspecies, or possibly even a new species altogether. An example is the koala fern *Caustis blakei*, which grows in South-East Queensland coastal Wallum heath areas. The koala fern populations in the Helidon Hills are genetically distinct enough to actually be a subspecies, *Caustis blakei* subsp. *macrantha*. Although the species itself is common, the Helidon Hills subspecies has a very restricted range and habitat which has resulted in its pending listing as a vulnerable (V) species.

The genetic distinctiveness of the Helidon Hills koala fern was only recently identified, the result of studies carried out by the University of Queensland Gatton College. The Helidon Hills has a large number of other flora species normally found in coastal sandstone and Wallum vegetation communities, and a large number of flora species normally found in sandstone vegetation communities further inland. Studies have not yet been carried out on these other species, but when they are, further distinct subspecies are likely to be revealed. These subspecies would then be expected to be listed as endangered (E) or vulnerable (V).

Aside from their conservation value, genetically distinct populations of a species can also have notable commercial value. The Helidon Hills koala fern is adapted to a different set of conditions than the coastal koala fern, and for this reason is likely to be useful for the breeding of commercial varieties if koala fern is brought into cultivation. For example, in recognition of the potential commercial value of genetic variations amongst natural populations of *Macadamia* species, the Australian macadamia industry currently has a major project to identify and protect natural macadamias.

“Information needs to be provided to landholders on the flora and fauna of the area.”

Helidon Hills landholder.

The significant genetic diversity of the Helidon Hills needs to be conserved. This involves not only the protection of the populations of the species and their habitat, but also protection against pollution of the gene pool. If the same species as is growing in the Helidon Hills is brought into the area from elsewhere, interbreeding with the natural populations could cause the loss of the distinctive Helidon Hills genetics. For example, if people were to plant the coastal koala fern in gardens then the Helidon Hills subspecies could be lost. This sort of situation can be avoided by planting only local native species in the Helidon Hills area. Landholders can be educated about the need to do this and the reasons why.

The planting of local native species also mitigates the risk of garden plants escaping and becoming bushland weeds.

4.3.13 Education

Throughout the project, landholders have alerted to their need for information on the natural values of the area. For example, many landholders have said that they would keenly protect rare and threatened species on their properties if they knew what they were.

A successful education program would need to include:

- Field days, where flora and fauna experts provide practical hands-on information and advice.
- The production of written material (brochures, booklets).
- Easy access to informed advice that can be consulted as needed.

Included in the functions of the Lockyer Catchment Centre at Forest Hill are the provision of written material and verbal advice on a range of land management issues. However, the following problems currently exist in relation to the provision of adequate education services for the Helidon Hills:

- The Lockyer Catchment Centre is not conveniently located in relation to the Helidon Hills, particularly the western parts of the Hills.
- The Lockyer Catchment Centre is not signposted from the Warrego Highway meaning that people who travel this route, as most Helidon Hills landholders do, are not aware the Centre exists.
- Many Helidon Hills landholders are absentee landholders who only visit their properties and the area on weekends. However, the Lockyer Catchment Centre is not open on weekends.
- Most of the written material distributed to or produced by the Lockyer Catchment Centre relates only to the lowland agricultural areas of the Lockyer, and not to vegetated upland areas like the Helidon Hills.

“[Actions/solutions include] Joint industry/ environmental education/ information centre.”
Helidon public meeting 4/6/98.

These problems could be solved by the Lockyer Catchment Centre taking the following steps:

- Becoming better informed about Helidon Hills nature conservation issues and the needs and views of the Helidon Hills community.
- Expanding operations beyond the centre by, for example, establishing information displays at Helidon and Murphy’s Creek and giving regular presentations to the Helidon Hills community.
- Erecting directional signs on the Warrego Highway.

- Opening for at least one day on weekends.
- Ensuring that the issues of the Lockyer uplands, including the Helidon Hills, are properly reflected in written materials that are displayed and produced.

4.4 Objectives

- Securely conserve the highly significant natural values of the Helidon Hills.
- Implement nature conservation policies that respect the economic and social circumstances of private landholders.

4.5 Actions

4.5.1 Weeds and feral animals

4A Develop and implement a ten year program to control or preferably eradicate lantana and other weeds and feral animals from the Helidon Hills. The programs would need to involve:

- The identification of problem weeds/feral animals.
- Prioritisation and the setting of achievable targets (ideally complete eradication, or if impossible then reduction to specified levels).
- Large-scale coordinated control involving material and financial assistance to landholders. The assistance could include free herbicide and free labour (such as Work for the Dole).

4.5.3 Nature conservation education

4E Promote the nature conservation values of the area by providing information to landholders and the community in regard to the value, identification and conservation of flora, fauna, and ecosystems, including the conservation of genetic diversity. Provide information through:

- Field days, where flora and fauna experts provide practical hands-on information and advice.
- The production of written material (brochures, booklets).
- Easy access to informed advice that can be consulted as needed.

4F Encourage the Lockyer Catchment Centre to carry out the role of providing nature conservation information for the Helidon Hills. To do this effectively the Lockyer Catchment Centre would need to:

- Become better informed about Helidon Hills nature conservation issues and the needs and views of the Helidon Hills community.
- Expand its operations beyond the centre by, for example, establishing information displays at Helidon and Murphy's Creek and giving regular presentations to the Helidon Hills community.
- Ensure that the issues of the Lockyer uplands, including the Helidon Hills, are properly reflected in written materials that are displayed and produced.

4H Further investigate the most appropriate type of conservation agreement for the Helidon Hills (Nature Refuge Agreements or Voluntary Conservation Agreements).

4I Establish demonstration sites for conservation agreements (including landholder assistance).

4J Investigate the potential for initiating Land for Wildlife in the Helidon Hills, as part of the expansion of the South-East Queensland Land for Wildlife program.

4.5.5 Nature conservation planning

4K All new developments in the Helidon Hills (including building construction, mining and extractive industries, and farming) must account for the significant nature conservation values of the area.

4L Investigate the establishment of a nature conservation working group, which could function as a subcommittee of the Landholders' Group (refer to Actions 3E and 3G).

4.5.6 Fire management

4M Implement fire management practices that take into account the fire requirements of the natural vegetation (refer to Fire Management section).

4.6 Achievements

4B Carry out mapping of Helidon Hills vegetation communities at a scale of 1:25,000.

4C Carry out surveys of rare and threatened species, and map the habitats of rare and threatened species at a scale of 1:25,000.

4D Access the nature conservation knowledge, awareness, and interest of landholders and the community by extensively involving them in the vegetation community mapping and rare and threatened species surveying and mapping.

4G Pursue the establishment of a Landscape Trust for the

Helidon Hills or South-East Queensland. The Landscape Trust should provide the following assistance to Helidon Hills landholders for land covered by conservation agreements:

- Rate rebates.
- Fencing assistance.
- Assistance to control weeds and feral animals (material and financial).
- Financial assistance to establish new ecologically and economically sustainable enterprises or to implement the sustainable management of existing pursuits.
- Direct compensation for any loss of income or potential loss of income caused by setting aside areas for conservation (as is done in South Australia).

The Landscape Trust should also include:

- Payments to landholders for the management of areas of nearby public land, such as the two Helidon Hills State Forests.
- A revolving fund component for the purchase of key properties, the placement of conservation agreements on them, and then subsequent resale to committed landholders.

4L Investigate the establishment of a nature conservation working group, which could function as a subcommittee of the Landholders' Group (refer to Actions 3E and 3G).

References and notes

- ¹ Toowoomba Field Naturalists Club Inc. (1987). *Helidon Hills Revisited - Centenary Visit*. Extract from club newsletter featuring the account of a Helidon Hills excursion on April 9, 1887.
- ² Maxwell S. Miles (undated). *The History of Murphy's Creek - Memoirs by Maxwell S. Miles*. Historical material supplied by Cr. Gwen Crozier, Gatton Shire Council.
- ³ P. Grimshaw (1998). *The Vegetation of the Helidon Hills (Helidon Sandstone Unit)*. Unpublished paper, p. 3.
- ⁴ Department of Local Government and Planning (1998). *South East Queensland Regional Framework for Growth Management*. Priority Action 1.1, p. 26.
- ⁵ Binning, C and 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. Executive Summary, pp. ix - xi.

Helidon Hills - Significant Flora and Fauna

Helidon Hills - Endangered, Vulnerable and Rare Flora Species		
Species	Conservation Status	Details
<i>Bertya</i> sp. (Helidon Hills G. Leiper AQ 457013).	Pending possibly Vulnerable (V).	Under consideration, only known from the Helidon Hills.
<i>Caustis blakei</i> subsp. <i>macrantha</i> .	Pending (P) Vulnerable (V).	Subspecies is found only in the Helidon Hills and on Helidon sandstone near Perseverance Dam.
<i>Eucalyptus taurina</i> .	Pending (P) Vulnerable (V).	Found only in the Helidon Hills and Crows Nest areas.
<i>Grevillea quadricauda</i> .	Pending (P) Vulnerable (V).	Found only in the Helidon Hills and at nearby Flagstone Creek.
<i>Grevillea singuliflora</i> .	Rare (R).	Population of this species in the Helidon Hills is disjunct eastern population.
<i>Hovea</i> sp. (Mt. French P. Grimshaw + G36).	Conservation status of Endangered, Vulnerable or Rare anticipated.	Newly found species apparently restricted to South-East Queensland.
<i>Paspalidium grandispiculatum</i> .	Vulnerable (V).	Found only in the Helidon Hills.
<i>Phebalium obtusifolium</i> .	Vulnerable (V).	Found only in Helidon Hills and Crows Nest areas.
<i>Poranthera</i> sp. (Mt. Ballow G. Leiper AQ 502886).	Pending possibly Vulnerable (V).	Under consideration, known only from the Helidon Hills and Mt. Barney areas.
<i>Triplarina bancroftii</i> .	Pending (P) Rare (R).	Population of this species in the Helidon Hills is disjunct southern population.

Helidon Hills - Other Significant Flora Species	
Species normally found in coastal sandstone and Wallum vegetation communities.	<i>Angophora woodsiana</i> , <i>Corymbia gummifera</i> , <i>Corymbia henryi</i> , <i>Echinostephia aculeata</i> , <i>Eucalyptus planchoniana</i> , <i>Hibbertia salicifolia</i> , <i>Xylomelum salicinum</i> .
Species normally found in sandstone vegetation communities further inland.	<i>Acacia buxifolia</i> subsp. <i>pubiflora</i> , <i>Acacia leichhardtii</i> , <i>Allocasuarina inophloia</i> , <i>Aotus subglaucua</i> var. <i>filiformis</i> , <i>Eucalyptus baileyana</i> , <i>Genoplesium filiforme</i> , <i>Gompholobium foliolosum</i> , <i>Kennedia procurrens</i> , <i>Leptospermum lamellatum</i> , <i>Leucopogon biflorus</i> , <i>Lysicarpus angustifolius</i> , <i>Mirbelia speciosa</i> subsp. <i>ringrosei</i> .
Other species.	<i>Rubus probus</i> , which has a disjunct southern population in the Helidon Hills, and <i>Syncarpia verecunda</i> , which is a recently identified species known from only a few locations in South-East Queensland including the Helidon Hills.

DRAFT FOR CONSULTATION

Helidon Hills - Endangered, Vulnerable and Rare Fauna Species			
<i>Note: Concerns have been raised in regard to the accuracy of this list (refer to Section 4.3.1) For this reason, the list should be regarded as preliminary only.</i>			
Genus	Species	Common Name	Status
<i>Litoria</i>	<i>brevipalmata</i>	Green Thighed Frog	R
<i>Delma</i>	<i>torquata</i>	Collared Delma	V
<i>Lophoictinia</i>	<i>isura</i>	Square tailed Kite	R
<i>Accipiter</i>	<i>novaehollandiae</i>	Grey Goshawk	R
<i>Erythrotriorchis</i>	<i>radiatus</i>	Red Goshawk	E
<i>Turnix</i>	<i>melanogaster</i>	Black Breasted Button Quail	V
<i>Calyptorhynchus</i>	<i>lathamii</i>	Glossy Black Cockatoo	V
<i>Lathamus</i>	<i>discolor</i>	Swift Parrot	V
<i>Neophema</i>	<i>pulchella</i>	Turquoise Parrot	R
<i>Ninox</i>	<i>strenua</i>	Powerful Owl	V
<i>Tyto</i>	<i>tenebricosa</i>	Sooty Owl	R
<i>Melithreptus</i>	<i>gularis</i>	Black Chinned Honeyeater	R
<i>Coracina</i>	<i>maxima</i>	Ground Cuckoo-Shrike	R
<i>Petrogale</i>	<i>penicillata</i>	Brush tailed Rock Wallaby	V

5. Cultural Heritage

5.1 Background

5.1.1 Introduction

A predictive cultural heritage assessment has been undertaken on the Helidon Hills area by Ann Wallin & Associates, Cultural Heritage Consultants. This section of the Draft Management Plan summarises the results of the study. The full study results can be found in *Helidon Hills - A Predictive Cultural Heritage Report*, which is a supporting document for the Draft Management Plan and is available from Gatton Shire Council.

Methodology employed included liaison with the client, historical research, analysis of environmental background of the study area, visual field assessment, compilation and analysis of resulting data, and the development of a set of recommendations that complied with the scope of the study.

Helidon Hills is a contiguous geological and ecological unit located north of Gatton. The area spans part of the Gatton Shire and extends into the adjoining Crows Nest and Esk Shires. One third of the area is State Forest while two thirds of the area is freehold. A constraint to the survey was lack of permission from many landholders to enter their property. Other landholders provided information and advice as to how to access and locate known sites within their land.

5.1.2 Methodology

Sites within the landscape exist as a response to environmental and cultural stimulants. Landscape archaeology endeavours to place sites and artefacts within a greater framework, as such archaeological sites cannot be delineated by arbitrary boundaries. Rather they exist within a complex structure of formation processes incorporating concepts of land use, cultural meanings attributed to areas, geological, botanical and commercial values.

Two types of archaeological environments are defined by the present study. Indigenous, relating to the Aboriginal occupation of the landscape: and Historical, pertaining to sites which date from the period of non-indigenous settlement.

“The Lockyer railway bridge has obscene comments spray painted on it. We must realise the area is of great historical importance.”
Helidon Hills landholder.

Indigenous archaeological assessment focuses on material cultural remains, and then only on those types of material culture that have survived through time. The archaeological record only features a part of the original indigenous material culture. This was a varied material culture, featuring items made from substances such as hair, skin, fur, plant fibre, bark, wood, bone, shell and stone. As most of these substances are organic and susceptible to relatively quick decay in most climatic and geomorphic conditions, only a remnant of the original material culture may remain in the archaeological record - thus the apparent dominance of stone, and, in coastal areas, shell.

Shared archaeological assessment (Historical) analyses the possibility of the existence of archaeological material deposited in the past 150 or so years. Such material may contain important data on past activities, and may increase the understanding gained from historical assessment of a site or place. The research, consultation and fieldwork conducted for the historical assessment also identifies sites, places and items of non-indigenous cultural heritage significance in the study area.

This section outlines the nature of the sites located by the consultants.

5.2 Summary of community consultation

Cultural significance is applicable to sites and places that are important in the shared history of the wider community. It is this spread of historical, archaeological and culturally significant sites and places through a specific area that helps to give that community a sense of place, of identity, of difference from other communities. It is also this attachment of cultural significance to a site or place that can become the basis for public concern about the appropriate conservation and management of those sites and places.

“We have a strong interest in local history and have carried out our own study of the area.”
Helidon Hills landholders.

In the context of the Helidon Hills cultural heritage study, consultation has been undertaken with individuals and groups that have indicated a willingness to contribute to the study or that were contacted during fieldwork. The consultation has been conducted in association with the field assessment to both assist in the identification of places of significance and to develop an estimation of their value to the community.

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5.3 Discussion and future directions

The study has indicated the high level of cultural heritage remaining within the Helidon Hills area. This heritage represents the broad range of activities that have occurred in the region, indicative perhaps of the particular geomorphology, vegetation and fauna that forms the study area. These environmental factors have a bearing on the particular land use management that has been used in the hills since the first humans occupied that landscape, and provides evidence of how particular groups interacted with the resources offered by this environment with varying results till the present. This cultural heritage assessment has identified a range of remaining material indicators of this land use.

5.3.1 Preliminary results of indigenous archaeological assessment

Stone is the dominant material in the remains of indigenous material culture located throughout the Study Area. The location of stone cultural material is defined by differing cultural activities such as tool manufacture, indigenous quarry sites, occupation sites, food resource gathering areas and spiritual places. In all of these settings, the position of a particular site can be to a large extent predicted by an understanding of the landscape and human interaction within it.

“[Suggested solutions include] Land inspection by aboriginal group.”
Gatton public meeting 2/4/98.

Previous research has indicated the importance of creeks and watercourses for Aboriginal people, with soil type and vegetation having implications for animal habitats. Soil types have a direct bearing on geology and the environment. They influence the vegetation habitats and thus affected the plant resources available to indigenous people. They also may provide easy access to stone material. Creeks provided food resources and frequently formed boundaries or pathways.

Ethnographic and historical sources consulted for the study indicate that a large number of indigenous sites were located in the Lockyer Valley district at the time of non-indigenous settlement, many of which have been destroyed over time. Moreover the literature provides little indication of the continuing existence of sites in the Study Area.

Within the Study Area, however, a significant number of indigenous sites were identified in the course of the present

“Sites of significant historical and cultural value need to be identified and preserved.”
Community group.

study by fieldwork and consultation. For example, ten identified sites were located above a creek or at the junction of two creeks. Two sites represent camp/occupation sites and are characterised by a variety of flaked stone materials. The density of artefacts ranged between three and seven per square metre. Currently the two defined occupation sites occur within five kilometres of each other, and are each associated with isolated finds and background scatters occurring within two kilometres of these occupation sites. These are extremely valuable sites in terms of cultural and scientific values. These sites have the ability to provide information on the types of localities favoured by Aboriginal people for occupation as well as providing information from analysis of artefact types on the variety of subsistence activities undertaken by Aboriginal people. Outcropping sandstone is noted for its use as a seed-grinding implement. One possible seed-grinding slab was located above the junction of a creek.

Nine sites composed of artefact scatters, background scatters and isolated finds were located along ridgelines. Of these, seven were located along roads. Along one road several artefact scatters and isolated finds were located, including one scarred tree. A possible interpretation is that this road represents an old indigenous pathway that lead towards the Bunya Mountains for access to the Bunya nut festivals. These pathways may also have been used to obtain certain types of stone material, i.e. stone sources south of the study area. A number of sources (Steele¹; Gaiarbaiu, cited Langevad²) suggest that clearly defined pathways crossed through tribal lands, providing access to food and material cultural resources. It is almost certain that many early surveyed roads followed Aboriginal pathways that had been used for centuries. Pathways appear to have largely followed ridgeways and spurs, but passed near resource rich areas such as swamps and creeks, lagoons or stone outcrops suitable for tool manufacture.

A wide variety of stone material was identified in the study area, including chert, chalcedony, various silcretes, and quartz, with implications for the location of the stone sources. One such stone source, a silcrete quarry, was evidenced south of the study area. The location of further sources is a subject for further research.

A total of 34 (at present count) sites have been located. Many other sites were noted outside study area, and although they are not significant for this study they bear a relation within the context of a landscape assessment.

5.3.2 Preliminary results of historical archaeological assessment

As identified in the historical research component of the present study, the history of the Helidon Hills area since non-indigenous settlement has reflected a number of themes. A collection of historical sites and places have been identified during research and fieldwork for the present study that reflect these broad themes in the local context.

The Australian Heritage Commission's draft Framework of Principal Australian Historic Themes³ is intended as a reference document to identify common historic themes in the Australian context. With reference to the draft Framework, the principal themes evident in the history of Helidon Hills and examples of identified sites that reflect those themes are presented as follows.

Surveying the continent and assessing its potential (AHC theme 3.2)

This theme is embodied in the history of the study area by the exploratory journey of Alan Cunningham in 1829, and the subsequent creation of pastoral leases, freehold portions and Crown reserves. *Example of sites: Cunningham memorial plaque, miscellaneous historic survey markers.*

Fighting for the land (AHC theme 2.6)

This theme is illustrated by the local conflicts of the 1840s and the provision of a military garrison in the Lockyer valley.

Developing primary production (AHC theme 3.4)

This theme is illustrated by the era of large scale pastoral leasehold occupation from the 1840s until the turn of the century. *Example of sites: former homestead sites, former cattle yards.*

Promoting settlement on the land through selection and group settlement (AHC theme 2.5)

This theme is evidenced by the patchwork of closer settlement that evolved on the fringes of the study area under various pieces of land legislation from the late 1860s. *Examples of sites: former homestead and hut sites, surveyed boundaries of portions, old fence-lines.*

Moving goods and people (AHC theme 3.7)

This theme is indicated by the development of road and rail networks and associated infrastructure in the study area from the 1860s through to the post-WWII period. *Examples of sites: railway cemetery at Gibbon's Camp, historic road and rail bridges, roads established for defence purposes.*

Exploiting natural resources (AHC theme 3.3) and altering the environment for economic development (AHC theme 3.10)

These themes are principally illustrated by activities associated with the local timber industry from the 1860s to the present day, and by the numerous sandstone quarries that have historically operated in the study area. *Examples of sites: sawmill sites, remains of sawmill tramway, hut sites, places of cleared vegetation; quarry sites and associated machinery.*

5.3.3 Recommendations

It should be emphasised that this research is a first stage study leading towards a strategy for predicting where more intensive cultural heritage assessment will be required.

It is expected, however, that this study will identify a substantial number of the sites, items, places and landscapes of particular cultural heritage significance in the area, and provide a source of data for the assessment of the significance of identified sites.

On this basis, appropriate management of the sites and places identified can be implemented by negotiation between government bodies, traditional owners, landholders and other stakeholders.

Later stages should include further fieldwork to provide data for a more detailed archaeological assessment of discrete areas within Helidon Hills. These discrete survey areas will be recommended within the terms of the present study. This future research would be guided by the predictive understanding of the study area generated in the present study.

5.4 Objectives

- Securely conserve the significant cultural heritage values of the Helidon Hills.
- Implement cultural heritage policies that are developed

through the cooperation of government, indigenous groups and individuals, landholders, and the community.

5.5 Actions

- 5A Producing a Cultural Heritage Management Plan (CHMP) for the sites defined during the previous predictive stage of research.
- A CHMP provides direction for the appropriate management of cultural heritage sites, places and issues within the Helidon Hills study area. It provides advice and direction on the appropriate procedures for the management of the project as a whole; specific sites and places defined during the Cultural Heritage Analysis of the study area; and of unrecorded cultural heritage sites, places and items that may be located, exposed or detected in the future.
Contact with indigenous groups and individuals that possess traditional associations with the study area.
- 5B Detailed study of identified areas which predictively possess a high scientific and archaeological value. Identification of further areas for future work. This need not be undertaken at once, but as funding becomes available or heritage areas prepared for public access.
- 5C Assess the various forms of impact occurring within the study area and the results upon the integrity of such sites, ie borrow pits, quarrying, trail bikes, timber getting, road works.
- 5D Map and provide suitable protection for the scarred tree on Seventeen Mile Road.
- 5E It is recommended that whenever developments are proposed that could impact upon the quarry sites noted in the present report, a comprehensive heritage study should be required to identify the impact upon cultural heritage that any development would present.
- The present study has indicated the historic significance of the Helidon sandstone quarries. Quarries such as Wright's, Montgomery's, and Comerford's (formerly State Government Quarry) are significant at both the local and state levels. Locally, sandstone has been a distinctive product of the Helidon district for some 120 years, representing a continuity of industrial activity that is rare in the Queensland context. At the state level, Helidon and Murphy's Creek sandstone provide a characteristic quality to some of Queensland's most historic public buildings. In addition, the continuity of extraction operations at Helidon quarry sites such as those noted presents the evolution of quarrying activities to the interested observer.

- 5F It is also recommended that Gatton Shire Council and WESROC examine options for the promotion of the heritage aspects of the Helidon quarries in a cultural tourism context. Management at Comerford's quarry, in particular, have indicated an interest in this type of initiative.
- 5G Investigate the establishment of a cultural heritage working group, which could function as a subcommittee of the Landholders' Group (refer to Actions 3E and 3G).

References and notes

- ¹ Steele, J.G. (1984). *Aboriginal Pathways in Southeast Queensland and the Richmond River*. Brisbane: University of Queensland Press.
- ² Langevad, G., ed. (1982) *The Gaiarbau Story*. Queensland Ethnohistory Transcripts 1(1). Brisbane: Archaeology Branch, Queensland Government.
- ³ Australian Heritage Commission (1998) 'Framework of Principal Australian Historic Themes' (draft document provided by the AHC, Canberra).

6. Timber Harvesting

“[Priority issues include] Sandstone, timber harvesting - income producing industry - should not be hindered (financial security, employment).”
Helidon public meeting 1/4/98.

“The income we receive from timber harvesting just pays our rates bill. If we are forced to stop harvesting how will we pay our rates?”
Helidon Hills landholder.

6.1 Background

As a large area of Eucalypt forest, the Helidon Hills has been used as a source of hardwood building timber and also as a source of timber for hardboard manufacture.

The harvesting of timber from the infertile sandstones in the southern part of the Helidon Hills is now comparatively limited, probably because slow growth rates in the poor soils make intensive harvesting economically unviable. However, there is still timber harvesting in this part of the area, and it forms a necessary component of mill volumes and also provides an income source for private landholders.

The situation is very different in the northern part of the Helidon Hills, where better soils and a higher rainfall support large areas of blackbutt (*Eucalyptus pilularis*), a valuable mill timber. The timber industry has a considerable interest in this part of the area, with much of the land owned by timber companies and others with a strong interest in timber harvesting.

6.2 Summary of community consultation

In the community consultation, the following views were strongly expressed:

- Timber harvesting can be carried out sustainably in the Helidon Hills, but at present at least some of the timber harvesting is not being carried out sustainably.
- Timber harvesting provides livelihoods for over 100 people directly and more indirectly, and is an important part of the local economy.

6.3 Discussion and future directions

6.3.1 Timber harvesting on State Forest and leasehold land

“The blackbutt grows rapidly in this area making it a renewable resource.”
Helidon Hills landholder.

Timber harvesting on State Forest land and leasehold land in the Helidon Hills is being addressed through the Regional Forest Agreement (RFA) process. Approximately one-third, or 11302 ha, of the overall Helidon Hills area of 33,430 ha is State Forest. There is also a very small percentage, 2.8% or 957 ha, of leasehold land. The State Forest area is made up of SF 564 White Mountain and SF 616 Lockyer.

The current RFA Interim Management Arrangements (IMA) have suspended mill timber harvesting activities in both SF 564 and SF 616, and also in the 957 ha of leasehold land. The inclusion of SF 564 and SF 616 in the IMA shows that they have high conservation significance at a South-East Queensland bioregional level, and indicates the potential for them to be converted to some sort of secure conservation status, such as National Park or Conservation Park. Temporary alternative sources of timber have been made available to mills that have had their supply affected by the IMA.

Final outcomes of the South-East Queensland RFA are expected towards the end of 1998. Although the amount of timber taken from the Helidon Hills State Forests is now small, it still forms a necessary component of mill volumes. This means that income from timber harvesting in the State Forests is important to the livelihoods of mill owners, mill workers, timber cutters, and the people who transport the timber. The final outcomes of the RFA thus have the potential to significantly disrupt numerous lives and livelihoods.

6.3.2 Timber harvesting on private land

Most of the timber harvested in the Helidon Hills now comes from private land. This consists of:

- Private land throughout the Helidon Hills, where landholders are harvesting timber on their land, or facilitating the harvesting of timber on their land, in order to supplement their income. In most cases this income is an essential component of the landholder's livelihood.
- Private land in the north of the Helidon Hills, where better soils and a higher rainfall support large areas of blackbutt

“I support the continuation of timber harvesting activities provided they are properly managed.”
Helidon Hills landholder.

“We purchased our property several years ago with the view of managing it as an ongoing sustainable source of timber for our sawmill, and were given an assurance at the time by Gatton Shire Council that we would be able to use our property for that purpose.”
Helidon Hills landholder.

(*Eucalyptus pilularis*), which is a valuable mill timber. Much of the land in this part of the area is owned by timber companies or others with a strong interest in timber harvesting. Timber harvesting in this area is vital to the lifestyles and livelihoods of many people including mill owners, mill workers, timber cutters, and timber transport company owners and workers.

Against the lifestyle and livelihood needs of those involved in the timber industry is the need to conserve the very high natural values of the Helidon Hills. Because of the very high nature conservation values of the Helidon Hills - Ravensbourne area:

- The South-East Queensland Regional Framework for Growth Management (RFGM) recommends the establishment of a new National Park in the Helidon Hills, and the investigation of a new National Park in the Ravensbourne area (refer to Nature Conservation section).
- SF 564 and SF 616 have been included in the South-East Queensland Regional Forest Agreement (SEQ RFA) Interim Management Arrangements (IMA), indicating the potential for them to be converted to some sort of secure conservation status, such as National Park or Conservation Park.

Some of the timber harvesting currently carried out in the Helidon Hills is being done with regard for both ecological sustainability and also sustainability of supply. Most of the timber harvesting in the Helidon Hills is being carried out in the northern parts of the area which are dominated by blackbutt. The blackbutt areas have a predominantly grassy understorey, rather than the diverse and significant shrubby understorey found on the sandstones. This means that sustainable timber harvesting is likely to be achievable in the blackbutt areas.

There is also some timber harvesting that is not being carried out sustainably. Problems include harvesting in creeklines, the destruction of significant understorey species, the harvesting of trees with animal habitat hollows, and the harvesting of the rare and threatened Helidon Hills ironbark *Eucalyptus taurina*.

A working group should be established to investigate and facilitate ecologically and economically sustainable timber harvesting in the Helidon Hills. Working group membership should comprise:

- The Helidon Hills timber industry.
- Department of Natural Resources.
- Department of Primary Industries.

“[Actions that could be implemented to solve timber harvesting problems include] Conservation as opposed to preservation.”
Gatton public meeting 2/6/98.

- Department of Environment and Heritage.
- Sustainable Management of the Helidon Hills Project.

If the implementation of sustainable timber harvesting results in a reduction of the overall timber volume from the Helidon Hills, then this will have a serious negative impact on the lifestyles and livelihoods of many people including landholders, mill owners, mill workers, timber cutters, and timber transport company owners and workers.

6.3.3 Farm forestry

A new brochure from the Department of Primary Industries identifies the potential for farm forestry to provide a secure supply of timber¹:

The future of the Queensland forest industry will largely depend on securing and even expanding its supply of raw materials. The environmental constraints on more intensively managing public native forests for timber production, the uncertainty about the outcome of the Regional Forest Agreement Process and the limited availability of suitable public land for plantation development mean that the establishment of timber plantations on private land is the main avenue available to secure the industry's resource base.

A very strong interest in farm forestry in the Lockyer Valley has recently emerged. Such is the level of interest that a new group has been formed, the Lockyer and West Moreton Farm Forestry Group. The group is currently establishing linkages with the local timber industry.

Farm forestry has the potential to assist in providing a secure long term supply of raw materials for the local industry, and could in time make up any shortfalls caused by the RFA or a program of sustainable management of private native forests. It must be recognised, however, that it will take several decades for farm forest plots planted now to reach a harvestable stage, and that the industry needs to survive in the meantime. A transition phase for the implementation of RFA outcomes and the sustainable management of private native forests is a potential solution to this problem.

6.4 Objectives

- Investigate and facilitate ecologically and economically

“[Priority issues include] Subsidised private timber plantations. Urgently!!”
Gatton public meeting 2/4/98.

sustainable timber harvesting in the Helidon Hills.

6.5 Actions

- 6B The timber harvesting working group should investigate the potential for farm forestry to assist in providing a secure long term supply of raw materials for the local industry.
- 6C Vegetation Management Strategies are to be released for comment late 1999 or early 2000. LMG to canvas local opinion and take these views forward
- 6D Regional Forest Recreation Planner has initiated ongoing consultation re minor timber products. Employment opportunities to be investigated re State Forests.

6.6 Achievements

- 6A Establish a timber harvesting working group, which could function as a subcommittee of the Landholder's Group (refer to Actions 3E and 3G), to investigate and facilitate ecologically and economically sustainable timber harvesting in the Helidon Hills. Working group membership should include:
 - The Helidon Hills timber industry.
 - Department of Natural Resources.
 - Department of Primary Industries.
 - Department of Environment and Heritage.
 - Sustainable Management of the Helidon Hills Project.

References and notes

¹ Department of Primary Industries (1998). *Securing Forest Property Rights in Queensland*. Brochure.

7. Farming Enterprises

7.1 Background

Because of the shallow, infertile soils overlying the sandstones that make up most of the Helidon Hills, farming activities in the area are typically very limited. The primary exceptions are:

- Very light cattle grazing on the sandstones.
- More intensive cattle grazing on the creek flats and upland volcanic soil outliers.
- Fruit growing on the creek flats.

In addition to these activities there are also some small-scale cottage-style industries, and some landholders carrying out or experimenting with new rural enterprises including bushfoods, native wildflowers, and native foliage. There has also been wild harvesting of the koala fern *Caustis blakei* subsp. *macrantha* from both State Forests and private land.

7.2 Summary of community consultation

The community consultation revealed the following views:

- Cattle grazing is providing a source of income for many landholders.
- Much of the cattle grazing is being carried out sustainably.
- Cattle grazing should be allowed to continue in forestry areas to reduce undergrowth and thus also reduce the fire risk.
- Fruit growing enterprises on the creek flats can be economically viable, providing a good income source for landholders as well as local employment opportunities.
- A least some of the fruit growers have experienced difficulties getting permission to construct important water infrastructure, and have experienced opposition to their use of chemicals and to their control of flying foxes.
- There are hobby farmers in the area whose needs should be considered.
- Property owners need to get some income from the land.
- There is very strong interest in the establishment of new farming enterprises based on the commercialisation of local native flora.

“We are doing nothing with our land other than light grazing to supplement our limited income. We need to continue to do this to survive.”
Helidon Hills landholder.

“[Suggested solutions include] Encourage good farming practices.”
Gatton public meeting 2/4/98.

- Government assistance should be given for the establishment of new enterprises that are ecologically and economically sustainable.
- Farmers need to be given ownership of the development of new profitable enterprises.
- The wild harvesting of *Caustis blakei* subsp. *macrantha* can be carried out sustainably, but that much of the current harvesting is not carried out sustainably.
- If *Caustis blakei* subsp. *macrantha* was brought into cultivation it would reduce the economic returns from wild harvesting.

7.3 Discussion and future directions

7.3.1 Good quality agricultural land (GQAL)

The South-East Queensland Regional Framework for Growth Management (RFGM) identifies good quality agricultural land (GQAL) in the following parts of the Helidon Hills¹:

- The volcanic outlier to the north-east of the intersection of Seventeen Mile Road and Wallers Road.
- Creek flats, including Sandy Creek and Buaraba Creek.

The RFGM recommends the following Principle and Priority Action in relation to GQAL:²

PRINCIPLE 2.2: Good quality agricultural land is a finite resource that should be used and managed for sustainable agricultural production and protected from alienating uses and inappropriate sub-division, unless there is an overriding need in terms of public benefit to use an area for another purpose.

PRIORITY ACTION 2.3: Designate and protect through planning schemes, areas of good quality agricultural land and forestry land that are available and required for agriculture or forestry.

7.3.2 Cattle grazing

Cattle grazing on areas of good quality agricultural land consistent with the recommendations of the RFGM and for this reason should not be restricted. Much of the northern part of the Helidon Hills is dominated by blackbutt with a mostly grassy understorey. Because of the grassy understorey, cattle

“I am concerned about the impacts of this project on my grazing lease over the State Forest adjacent to my property.”
Helidon Hills landholder.

“I am currently agisting a neighbour’s cattle on my property. Their grazing management practices are very good, resulting in negligible impacts and also the positive benefit of keeping the grass down and reducing the fire risk.”
Helidon Hills landholder.

grazing is also likely to be acceptable in these areas.

In the southern parts of the Helidon Hills on the infertile sandstones, the understorey is predominantly shrubby, with relatively high diversity. Many of these understorey shrubs are rare and threatened species, or species with commercial potential, meaning that cattle grazing in these areas may well be having serious negative impacts. A proper evaluation will be needed to establish sustainable grazing practices.

Issues that need to be considered in an evaluation of the sustainability of grazing in forest areas include:

- The effect of cattle grazing on the shrubby understories, which have high conservation value and also potential commercial value.
- The relationship, if any, between cattle and the invasion of high conservation value forest areas by exotic pasture grasses.
- Whether cattle tracking is contributing to erosion.
- The effect of cattle on high quality water sources and in particular natural springs.
- The economic viability of grazing on the infertile sandstones.
- The implications of the South-East Queensland Regional Forest Agreement (RFA) on State Forest grazing leases.

Changes to grazing practices to make them sustainable could mean a reduction in stock numbers which would negatively impact on the livelihoods of landholders. For this reason, sustainable grazing practices should be implemented through a voluntary Code of Practice where, in return for complying with the Code, landholders receive:

- Financial assistance to establish new ecologically and economically sustainable enterprises, such as ecotourism or the cultivation of native wildflower plants, or alternatively direct compensation for any loss of income.
- Financial assistance for the erection of fencing to exclude cattle from sensitive areas.

The Natural Heritage Trust (NHT) funding application for the second year of the Sustainable Management of the Helidon Hills Project has sought funding to assist landholders with fencing. Funding for financial assistance or compensation would need to be provided from the proposed Landscape Trust (refer to Nature Conservation section).

7.3.3 New enterprises

Jean McRuvie, formerly of the Queensland Department of Primary Industries, relates an article from the financial review³:

“I recommend the investigation of new rural enterprises that are both ecologically and economically sustainable.”
Helidon Hills landholder.

On the 3rd April 1996, the Financial Review published an article looking at the success that farmers were achieving in less traditional agriculture compared with the problems being experienced in most farming industries. The article pointed out that these industries are still in the minority but their success is likely to have a major impact on the whole of the agricultural industry.

...success stories of new farmers who are adopting new methods and enjoying high returns from less traditional agriculture such as aquaculture, horticulture - particularly fruit and vegetables - and cut flowers...

The article also pointed out that these new industries are vital if Australian agriculture is going to survive.

This project has revealed the Helidon Hills to be an area of rural enterprise innovation, with an unusually large number of landholders already engaged in successful fruit growing enterprises or establishing aquaculture or native flower growing enterprises. As the Financial Review article points out, these new enterprises are vital, and for this reason must be encouraged and assisted.

“I have a very successful fruit growing enterprise on the lowland creek flats that provides an income for my family and employs local people.”
Helidon Hills landholder.

7.3.4 Fruit growing

Numerous fruit growing enterprises have been, or are being, established on the fertile creek flats and plains on the southern and eastern edges of the Helidon Hills. Most of the enterprises are economically viable making them important for the local economy and local employment. The fruit growers have alerted to several issues that need to be addressed:

- Growers are facing criticism from neighbours and others in the community over the use of chemicals and noisy machinery on fruit crops and to control lantana.
- Some growers do not have a reliable supply of water for their enterprises, and have had applications for the construction of water storage infrastructure rejected.
- Flying foxes cause significant damage to the fruit crops.

The fruit growing enterprises would be assisted by:

- Buffering from other land uses. Buffering from other land uses would mean that incompatible land uses, such as rural residential, could not be established right next door to

“Fruit growers need to use chemicals on their fruit trees but face opposition to this.”

Helidon Hills landholder.

“[Other solutions that could be implemented include] Government departments to provide technical advice, marketing assistance, financial assistance etc. for the development of commercial enterprises that are environmentally friendly. The income from the enterprises then funds the conservation objectives, taking the burden off government and community.”

Helidon Hills landholder.

properties where chemicals or noisy machinery are being used.

- The provision of a reliable water supply. A number of the fruit growers do not have a totally reliable supply of water, and have faced considerable difficulty in gaining approval to construct dams. The Lockyer Valley Renewed Water Scheme proposes to treat waste water from Brisbane and Ipswich and pipe it to the Lockyer for irrigation purposes. Large-scale water infrastructure constructed to date in the Lockyer, such as Lake Clarendon, has been less than successful in providing a reliable water supply, indicating that the Renewed Water Scheme may be a much better alternative. This Renewed Water Scheme is also likely to be more environmentally friendly than new dams.
- Assistance to reduce chemical use. Most fruit growers would gladly reduce or eliminate altogether their chemical use if they thought they could do so without going broke in the process. If chemical use is to be reduced, then programs need to be found that do not result in financial losses for landholders.
- Assistance to address the flying fox problem. Flying fox netting may be a solution.

7.3.5 Native plant based enterprises

There has been strong support for the establishment of new ecologically and economically sustainable farming enterprises that capitalise on the native flora of the Helidon Hills, in particular the impressive native wildflowers and native foliage.

Native wildflowers, in particular riceflowers, Geraldton wax, and kangaroo paw, are already being successfully commercially grown as cut flower crops in the Lockyer Valley. The growing of Australian native flowers offers significant economic opportunities, but Australians have been surprisingly slow to recognise these opportunities and capitalise on them. Other countries have been much quicker to recognise the potential of our native flora than we have. For example, Israel now exports four times the value of Australian native cut flowers as Australia.

Jean McRuvie, formerly of the Queensland Department of Primary Industries, points out that export native flowers can offer far greater income potential than some traditional agricultural exports⁴:

The industry also suffers from a poor profile, being seen as a ‘hobby’ type industry and not an industry to be taken seriously like grain or cattle. In this regard an interesting

“I support advancing a proposal for research into the commercial potential of Helidon Hills native plants, particularly wildflower and foliage plants.”
Helidon Hills landholder.

“The wild harvesting of *Caustis blakei* subsp. *macrantha* can be carried out sustainably, but much of the current harvesting is not carried out sustainably. If *Caustis blakei* subsp. *macrantha* was brought into cultivation it would reduce the economic returns from wild harvesting.”
Helidon Hills landholder.

statistic that should be taken into account is that:

‘THE JAPANESE SPEND MORE ON FLOWERS THAN THEY DO ON BEEF’ (Jeff Moon, Queensland Horticultural Export Council, July 1995).

Australian native flowers and foliage have been extensively harvested from the bush, but a transition to cultivation is now occurring. This is because of the disadvantages of bush harvesting⁵:

Many of our native flowers and foliage are presently bush harvested and this has several disadvantages. Our export markets demand a regular and guaranteed supply as well as a high quality product. Japanese markets insist on quality and are prepared to pay higher prices for superior stem length and head and foliage quality (Carson and Lewis 1994). The supply of bush harvested species is limited by its natural occurrence and growing season and can be severely interrupted by drought, bushfires, grazing and land development. The bush picker has little control over quality in terms of pest and disease control, wind damage, water stress or nutrient deficiencies. There are also important environmental aspects to consider which include:-

- sustainable harvesting limits are difficult to define and even more difficult to enforce;
- the removal of seed with fruit, flower heads or foliage;
- the removal of nutrients as biomass and subsequent loss of nutrients to what are often very delicately balanced nutrient cycles;
- damage to what are perceived as low value plants which hamper the picker;
- poaching from protected areas;
- the repeated removal of superior stem lengths, flowers and foliage may have the long term effect of changing the makeup of the natural gene pool and may reduce both the diversity and commercial value of the natural stand; and
- the possible spread of plant pathogens, weed seeds and insects through ecosystems.

Many of these problems can be overcome by the domestication of our commercially valuable plants and their subsequent full-scale production.

One native foliage plant, the koala fern *Caustis blakei* subsp. *macrantha*, has been wild harvested in the Helidon Hills. It appears that the wild harvesting can be carried out sustainably,

“We are interested in commercial use of local native flora.”

Helidon Hills landholders.

but this will need to be properly considered in the light of:

- The disadvantages of wild harvesting (as above).
- The pending vulnerable listing of *Caustis blakei* subsp. *macrantha*.

The development of new farming enterprises based on the native wildflowers and foliage of the Helidon Hills needs to involve:

- Seeking Queensland and/or Commonwealth Government funding assistance.
- The identification of species with cut flower or foliage potential.
- Market research including trials.
- Bringing suitable species into cultivation.
- Identifying growing requirements, and from this suitable growing areas.

A project to investigate the potential for the development of new farming enterprises based on the native wildflowers and foliage of the Helidon Hills should be initiated.

7.3.6 Other new enterprises

Landholders have also expressed a strong interest in the establishment of aquaculture enterprises such as red claw crayfish and native freshwater fish.

Assistance should be given to landholders for them to:

- Investigate the viability and suitability of their proposed enterprises.
- Establish sustainable enterprises.

The University of Queensland Gatton College New Crops DOOR-Marketing program offers a self-help method for landholders to investigate the feasibility and marketing of potential new enterprises⁶.

7.4 Objectives

- Assist, encourage, and sustainably manage new and existing farming enterprises.
- The development of new ecologically and economically sustainable farming enterprises based on the native wildflowers and foliage of the Helidon Hills.

7.5 Actions

- 7A In consultation with affected landholders investigate the protection, for the purposes of agriculture, of areas of good quality agricultural land (GQAL) identified in the South East Queensland Regional Framework for Growth Management.
- 7B Carry out a study of forest cattle grazing in the Helidon Hills to determine sustainable grazing practices. Issues the study would need to examine include:
- The effect of cattle grazing on the shrubby understories, which have high conservation value, and also potential commercial value.
 - The relationship, if any, between cattle and the invasion of natural forest areas by exotic pasture grasses.
 - Whether cattle tracking is contributing to erosion.
 - The effect of cattle on high quality water sources and in particular natural springs.
 - The economic viability of grazing on the infertile sandstones.
 - The implications of the South-East Queensland Regional Forest Agreement (RFA) on State Forest grazing leases.
- 7C Implement sustainable grazing practices through a voluntary Code of Practice where, in return for complying with the Code, landholders receive:
- Financial assistance to establish new ecologically and economically sustainable enterprises, such as ecotourism or the cultivation of native wildflower plants, or alternatively direct compensation for any loss of income.
 - Financial assistance for the erection of fencing to exclude cattle from sensitive areas.
- 7D Investigate and implement ways of assisting fruit growing enterprises through:
- Buffering from other incompatible land uses.
 - The provision of reliable water supplies. The proposed Lockyer Valley Renewed Water Scheme offers an innovative alternative to new dams.
 - Assistance to reduce chemical use. If chemical use is to be reduced, then programs need to be found that do not result in financial losses for landholders.
 - Assistance to address the flying fox problem. Flying fox netting may be a solution.
- 7E Investigate the development of new farming enterprises based on the native wildflowers and foliage of the Helidon

Hills through:

- Seeking Queensland and/or Commonwealth Government funding assistance.
- The identification of species with cut flower or foliage potential.
- Market research including trials.
- Bringing suitable species into cultivation.
- Identifying growing requirements, and from this suitable growing areas.

7F Investigate ways of assisting landholders to:

- Investigate the viability and suitability of other new proposed farming enterprises.
- Establish sustainable enterprises.

7G Investigate the establishment of fruit growing, grazing, and native plant enterprises working groups, which could function as subcommittees of the Landholders' Group (refer to Actions 3E and 3G).

References and notes

¹ Department of Local Government and Planning (1998). *South East Queensland Regional Framework for Growth Management*. Map 2B - Natural Economic Resource Areas.

² Department of Local Government and Planning (1998). *South East Queensland Regional Framework for Growth Management*. Priority Action 1.1, p. 26.

³ Rural Industries Research and Development Corporation (1997). *New Crops, New Products - New Opportunities for Australian Agriculture*. Volume 1 - Principles and Case Studies, p. 214. "Queensland Strategy for the Export Native Flower Industry", Jean McRuvie, Qld. Department of Primary Industries.

⁴ Rural Industries Research and Development Corporation (1997). *New Crops, New Products - New Opportunities for Australian Agriculture*. Volume 1 - Principles and Case Studies, p. 218. "Queensland Strategy for the Export Native Flower Industry", Jean McRuvie, Qld. Department of Primary Industries.

⁵ Rural Industries Research and Development Corporation (1997). *New Crops, New Products - New Opportunities for Australian Agriculture*. Volume 1 - Principles and Case Studies, p. 214. "Domestication of Potential New Floricultural Crops", Julie Webber, Margaret Johnson, Lynda Ketelhohn and Shaun O'Brien, The University of Queensland Gatton College.

⁶ Dr. R. Fletcher (1998). *New Crops DOOR-Marketing - Do Our Own Market Research*. Information Booklet - May 1998. School of Land and Food, The University of Queensland Gatton College.

8. Tourism And Recreation

8.1 Background

There is currently very little formal tourism development in the Helidon Hills, the exception being a privately owned campground at Murphy's Creek on the western edge of the area.

The Helidon Hills is used for some informal recreational activity including bushwalking, camping, horse riding, rock climbing, orienteering, birdwatching and wildflower walks. However, participation tends to be restricted to those attached to clubs and others "in the know".

8.2 Summary of community consultation

"We want to be able to set up some sort of nature-based tourism enterprise, which would allow us to make an income out of keeping rather than clearing the bush."
Helidon Hills landholders.

Through the community consultation, many people identified tourism as having major potential for the area. There was considerable interest in exploring the opportunities that tourism might offer for economic development. However, there was an overwhelming concern that development be small-scale and low impact in terms of the natural and social environments, and that large-scale recreation should be avoided completely.

The forms of tourism development of most interest to participants included bushwalking, trail-riding, birdwatching, wildflower walks, rock-climbing and rural tourism.

The major areas of concern in regard to the potential negative impacts of tourism were bush-bashing, litter, the potential for fire and general disrespect of the natural and social environments. People felt that preference should be given to development that specifically minimised these impacts.

The view was expressed that tourism growth would depend on better access roads being developed. On the other hand, there was a view expressed that any upgrade in infrastructure in support of tourism should be minimised because of its potential to impact on current lifestyles.

Through the course of the consultation, several landholders indicated a strong interest in developing their properties for environmental tourism. These people identified that, for tourism in the area to be successful, local and regional planning and advice and assistance are needed. They also expressed concern about the unknown economic viability of their proposals, and whether Councils would be supportive.

8.3 Discussion and future directions

The Helidon Hills is in an area with significant potential for further tourism development. It is close to the major urban areas of South-East Queensland, and offers unique experiences in terms of environment, landscape and heritage. However, there is currently no structured approach to how the Helidon Hills area is used as a recreation or tourism destination.

8.3.1 Tourism and recreation potential

The Office of Sport and Recreation¹ has identified ecologically sustainable outdoor recreation as the use of areas/settings for outdoor recreation purposes both:

- within their capacity to sustain natural processes; and
- so that the benefit of the use to the present generation does not diminish the potential to meet the needs and aspirations of future generations.

Nature-based recreation activities are identified as those that meet the following criteria:

1. Appreciation of nature as the key motivational factor.
2. They do not require substantial modification of the natural environment.
3. The natural environment is critical to the participation and satisfaction of the recreators/participants.
4. They occur in, and are dependant upon settings/locations which are perceived by recreators as not being significantly altered by recent/modern human activity.
5. They occur in, and are dependent upon settings/locations which are not under the direct control of recreators.

The tourism opportunities inherent in the Helidon Hills conform to these criterion.

The recreation and tourism industry is now highly specialised and sectorised. Even within traditional categories there are specialisations based on target groups. These are often referred to as 'niche markets'. The Helidon Hills area provides a location and

“We intend to establish a low impact ecotourism operation involving several cabins and possibly also a camping area, and will shortly be approaching Council to seek approval.”
Helidon Hills landholders.

“There is considerable potential for local income diversification through the development of eco-tourism and sympathetic public use of the Hills.”
Community group.

“If landholders are to engage in nature based tourism then local or regional tourism planning and advice and assistance are needed. Financial assistance would also be helpful.”
Helidon Hills landholder.

environment with potential across a small number of niches.

The key assets the area offers are:

- Forests and natural vegetation, including impressive wildflowers.
- Dramatic escarpments, cliffs, and gorges.
- Waterfalls and lushly vegetated natural springs.
- Farming environments.
- Located a short drive from a major urban area offering an easily accessible escape from high-stress lifestyles.

This proximity to a major urban area means that the Helidon Hills could be considered as a possible destination for overseas tourists, particularly from Asia. From 1960 to 1990 the proportion of overseas arrivals to Australia from Asia has increased from 1 per cent to 11 per cent. Despite the recent downturn, the long-term forecast is for continual growth of approximately 7 per cent per annum.

The other demographic and social trends relevant to the tourism potential of the Helidon Hills area include:

- An aging population with increased time for recreation;
- Growth in part-time and casual work.
- Increased role of women in business and society (greater demand for travel, with an emphasis on safety).
- Smaller and more mobile families.
- Longer hours and increased stress amongst executives.
- More customer-oriented and responsive products demanded.
- Technologies such as the Internet opening up world markets.

These trends are having significant impacts on the demand for tourism.

8.3.2 Options for the Helidon Hills

The options that this research opens up for the Helidon Hills area are:

- Ecotourism.
- ‘Short-break’ tourism.
- Farm stay tourism.
- Environmental education.
- Adventure tourism (eg rockclimbing).
- Small convention/executive retreat tourism.

The Helidon Hills could also be opened up for day trip recreation. However, this would be likely to attract large numbers of people with serious negative impacts on private

“Recreation should be low impact only-not mechanised or horses, and should not be located in the southern areas of the Helidon Hills north of Grantham.”
Helidon Hills landholder.

“What we don’t want: high level intensive invasion.”
Helidon public meeting 4/6/98.

landholders and the environment. Landholders have expressed a strong opposition to this sort of recreation, and the area has a very fragile environment that would be negatively impacted by large numbers of people. Elsewhere in the Lockyer Valley there are areas that, because of their landforms, vegetation, accessibility, and location are much more suitable for large-scale recreation. Particularly suitable is the Queensland Government owned “Glen Rock” property in the southern Lockyer. This property has been purchased for the specific purpose of recreation and open space. Small-scale recreational opportunities, such as bushwalking, could however be facilitated in the Helidon Hills.

8.4 Objectives

- Encourage and facilitate tourism and recreation activities that are compatible with nature conservation and the needs of landholders, such as bushwalking, orienteering, horse riding, and low impact small scale overnight accommodation.
- Discourage incompatible activities, such as motorbike riding, four-wheel driving, large scale day trip facilities.

8.5 Actions

8B Investigate the specific opportunities for tourism development in the area, the impediments to this development, and the solutions to these impediments. Implement the solutions.

8.6 Achievements

8A Establish linkages between landholders interested in tourism and local tourism bodies, the Queensland Tourist and Travel Corporation (QTTC), and tourism researchers.

8C Investigate the establishment of a tourism and recreation working group, which could function as a subcommittee of the Landholders’ Group (refer to Actions 3E and 3G).

References and notes

¹ Office of Sport and Recreation (May 13, 1998) *Definitions of Key Planning and Management Concepts*

9. Sandstone, Extractive and Explosive Industries

9.1 Background

9.1.1 Sandstone industries

“Helidon Sandstone is a unique product and is famous world wide. It is one of the main industries of the Helidon area.”

Sandstone quarry company.

The special qualities of Helidon Sandstone are its uniqueness, good durability (weathering properties in use), compositional make-up, essentially fine grain-size, structural properties and colour range. The colours vary from light brown (the most sought after) through pink and mauve, to white and grey. Some of the sandstone has variegated banding which is commonly concentric, or contains speckled patterns throughout.

Helidon Sandstone has been quarried for use as building and monumental stone for over 100 years, and is Queensland’s premier building stone, having been used in many historic public buildings in SouthEast Queensland. The industry was virtually defunct from the late 1950s until the mid 1980s, when increased demand for quality stone for use in restoration of older buildings and in new modern buildings. This has resulted in a significant expansion of the building stone industry to supply a range of products to both the domestic and export markets.

Production volumes over the last decade have shown a significant increase per tonne value, mainly due to sales of value-added products and products made from waste stone. In 1996/97, a total production of 12,232 tonnes had an estimated value of \$5,700,000. It is estimated that up to 100 people are directly employed in the industry and many more indirectly, subject to fluctuations in markets and demand for sandstone products and contracts.

“There should be a moratorium on new quarries.”

Community group.

Markets for the stone have now been established in Japan, Korea, United States, Italy, Hong Kong and New Zealand.

There are currently four major sandstone operators in the Helidon area. Sandstone from each quarry differs in colour and banding which makes each unique. Different faces (with varying colours) from which the sandstone is being cut are often found on the one operation, and sandstone is cut from

each face according to the requirements of individual orders.

The extraction of sandstone for building/dimension stone purposes essentially involves quarrying with open-cut type operations using various techniques and methods that have long been developed by the industry. In the Helidon area quarries have been developed in fine to medium-grained sandstone where it occurs at or near the surface. Initially, soil cover and weathered rock overburden is stripped by heavy earth-moving machinery to expose the stone surface to be quarried. Topsoil is stockpiled for later use in the rehabilitation of disturbed areas. The standard production procedure involves the cutting of blocks of about 8 to 12 m³ size from the exposed sandstone.

Processing of the sandstone includes cutting or slabbing, grinding and shaping and polishing or finishing stages. Presently, a wide range of sandstone products are produced in separate processing facilities located locally near Helidon or at Toowoomba and Brisbane. Rough blocks are also trucked by road to markets interstate.

Prior to 1990, sandstone mining was carried out through an extractive industry permit issued by the Gatton Shire Council. In September 1990, the new Mineral Resources Act declared sandstone to be a mineral and therefore the extraction of sandstone then came under the jurisdiction of the Department of Minerals and Energy, now Department of Mines and Energy (DME). Extraction of sandstone now requires a mining lease issued by the Department, and is regulated by the Department. Compliance with an Environmental Management Overview Strategy (EMOS), and Plan of Operations is required. Provision for rehabilitation and management of the mining lease area is made in the EMOS and Plan of Operations - on surrender of the lease an audited rehabilitation report is required to certify the requirements of the EMOS have been met. The Mineral Resources Act requires the holder of a mining tenure to deposit security to ensure compliance with conditions of the tenure and the Act and to rectify any damage caused to the land or improvements.

The complex geology of the area makes it difficult to identify the exact location of the good quality sandstone. Industry expansion is predicted for dimension stone and possibly for the crushing of the coarser stone for sand. As part of this project DME has investigated the sandstone resources in the area and has identified a Key Resource Area (KRA) which includes the resource itself and a suitable buffer area. Refer to the map at the end of this Chapter.

“Sandstone Quarries come under strict environmental guidelines set down by the Department of Mines and Energy. We have to abide by the rehabilitation procedures set out during and after mining.”
Sandstone quarry company.

“[Priority issues include] Sandstone, timber harvesting - income producing industry - should not be hindered (financial security, employment).”
Helidon public meeting 1/4/98.

“[Suggested solutions include] Phase out sandstone mining.”
Helidon public meeting 1/4/98.

The KRA is proposed to establish a clear boundary to limit encroachment of development into areas where known and possible resources occur and where mining is presently being undertaken. For example, there has already been encroachment onto known reserves by the existing and planned development of the explosives industries, and hobby farm subdivisions.

The South East Queensland Regional Framework for Growth Management 1998 (RFGM) has identified the majority of land within the KRA as Critical or Broad Nature Conservation Area, but also recognises the area’s natural economic resources. The RFGM has the following principles in relation to mining and extractive industries and nature conservation¹:

PRINCIPLE 1.7: Uses which are incompatible with nature conservation should not be located adjacent to or in critical conservation areas.

PRINCIPLE 2.3: Conservation and environmental protection, amenity impacts, future community requirements and infrastructure needs should be taken into account in planning for the use of extractive and mineral resources and the rehabilitation of sites.

Other values which are impacted on by sandstone extraction include visual landscape (the visibility of the operations from the Toowoomba Range, local lookouts and the Highway), scenic amenity (the effects on waterfalls and gorges in the area), cultural heritage, and the rights and intentions of other landholders in the area. Findings of the cultural heritage assessment of the area carried out as part of this project by Ann Wallin and Associates Pty Ltd (refer to Section 5) indicate the Helidon Hills area is significant in terms of indigenous archaeological evidence. This report recommends further fieldwork be carried out to provide data for a more detailed archaeological assessment of some areas.

9.1.2 Extractive industries

Sand and gravel extraction is defined in the Planning Scheme as an extractive industry and is regulated by Council through the scheme, requiring Council development approval before any extraction can occur. Conditions on a development permit for an extractive industry would ensure that significant impacts of the extractive industry on the environment are adequately addressed, and are contained within the site itself. Disturbed areas are also required to be rehabilitated to achieve a stable landform and an agreed land use suitability.

“I have a significant stone resource on my property that I want to be able to quarry.”

Helidon Hills landholder.

No hard rock quarries are located in the Helidon Hills, and supplies of crushed screenings and aggregates are brought in from quarries in either the Ipswich or Toowoomba areas. There is currently little and irregular sand and gravel extraction occurring within the area. Lateritic ironstone gravels developed in the soil profile on the sandstone have been worked extensively for use in road construction and maintenance, and further potential resources exist. Most of the extraction is being carried out by Gatton Shire Council for materials for local road maintenance projects, and Council has indicated it has a need to continue to extract materials for such purposes into the future.

The main areas of disturbance are on freehold land 1 to 2 km north of the Explosives Reserve. These worked areas have significant environmental impacts as relatively large areas have been cleared resulting in loss of natural vegetation and habitat leaving disturbed areas with only limited potential for other use as topsoil has been stripped away exposing the underlying sandstone. Several rare and threatened plant species are found in these areas. In areas left devoid of topsoil with the sandstone exposed at the surface any regeneration will be limited to the fringes only. No rehabilitation of the land has been undertaken.

The possibility of crushing coarse-grade Helidon sandstone to produce construction sand has been raised in the past.

Discussions with industry and DME indicate this is a new and largely unproven, although promising process with only limited recent experience. Considerable potential resources of coarse sandstone occur within the proposed sandstone KRA, as well as outside the area to the north and east. Future viability of the process depends on the availability of alternative sources of construction sand from hardrock quarries and in-stream extraction.

“We are opposed to the mining of the Mt. Cross hard-rock resource.”

Helidon Hills landholders.

Should the process of crushing coarse-grade sandstone prove to be viable in the future, it could become a significant industry as quality sand nearer to the metropolitan areas becomes harder to extract. The lower reaches of the Brisbane River will be completely closed to dredging by Boral Ltd in December 1998, while Pioneer Concrete (Qld) abandoned their dredging operations in early 1997. In addition, extraction from the upper reaches of the Brisbane River beyond the Wivenhoe Dam has in recent years been subject to a moratorium on new applications, further restricting the future sources of coarse sand for the Brisbane market.

DME has identified a hard quarry rock resource on freehold

land adjacent to Seventeen Mile Road about 16km northeast of Helidon, near Mount Cross. The deposit is significant in the regional context as resources of quality hard rock are limited in the area, and DME has recommended it be protected by a potential KRA designation so development of the resource at some time in the future may be possible should extraction prove to be appropriate for this area. It is not anticipated that extraction would be required for at least 10 years. Refer to the map at the end of this Chapter.

Constraints to the development of the resource may be significant, and include nature conservation issues, visual impact on the landscape, scenic amenity and cultural heritage significance. Visual impact of any extraction would need to be carefully managed, as the resource is located along a ridge line, with views to the Toowoomba Range and Picnic Point lookout, the Highway, and the Gus Beutel lookout at Ravensbourne.

9.1.3 Explosives industries

“We have serious concerns over the potential loss of the sandstone resource through the expansion of the explosives industry or other development.”
Sandstone quarry company.

The Helidon Explosives Magazine northwest of the township of Helidon is probably the largest in Australia. It has been used for explosives storage for many decades. During World War II it was a major Royal Australian Air Force munitions establishment and unexploded relics of that era remain onsite. The exact location of the unexploded ordinances is unknown.

The Magazine, about 245 ha, provides an excellent location that is relatively remote yet still on good transport routes. It is operated by DME as an integral part of its Safety Strategy relating to the safe handling, disposal, storage and transport of explosives, mainly servicing the mining and construction industries. The Magazine has its own rail siding to service the transport of large quantities of explosives mainly sourced from overseas by ship.

There is presently a 2 km buffer imposed around the centre of the Magazine storage area, and development applications within this buffer are referred to DME by the Gatton Shire Council for assessment as to safety aspects and appropriateness of the development. The Magazine has been attracting other industries of a similar nature since the late 1980s. Two explosive manufacturing plants have established adjacent to the Magazine, and a fireworks factory has recently been constructed to the west.

There are approximately 250 – 300 explosives industry employment opportunities currently available in Helidon. This estimate includes the Magazine, two manufacturing plants,

fireworks factory and one of the nation's largest explosives transport companies based in the town. The direct and indirect economic contribution to the local district from the activities of the explosives industry in the Helidon Hills would be of significant proportions and is ongoing.

The Magazine and the 2 km buffer around the storage area has been included in the DME Helidon KRA, such that a clear boundary is established in order to provide a sufficient safety separation distance from the main explosives storage area. Any future expansion of the explosive industry may require an increase in the safety buffer.

9.2 Summary of community consultation

9.2.1 Sandstone industries

Participants at the public meetings were generally supportive of the continuation of the sandstone mining, although some were adamant that it should be stopped completely due to the environmental damage it causes. Concern has been expressed about the environmental impacts of the extraction, and the dust problems caused by the haulage trucks. The lack of rehabilitation of the mined areas is also an issue of concern.

There is concern of sandstone quarry operators that gravel extraction being carried out in the area is mistaken as sandstone extraction, and the large scars from the gravel scrapings are being put down to the activities of the sandstone operators.

Future quarrying of sandstone resources within parts of the proposed Helidon KRA may be opposed by some landholders. Several landholders in the area are keen to establish low-impact ecotourism operations on their properties, and will not want the proposed KRA to restrict or interfere with their plans.

9.2.2 Extractive industries

The view is generally held that gravel quarries disturb a lot more of the land and cause more environmental damage than sandstone mining, and that there is a need for improved management controls. There is concern within the community that impacts of sand and gravel extraction on the environment are significant, and that no rehabilitation of the land is being undertaken. Problems include scarring of the landscape, leaving the land barren, erosion problems resulting from the

“Sandstone quarries must not be confused with gravel extraction pits which are not controlled but show as large scars on the environment.”
Helidon public meeting 4/6/98.

quarrying, and Council trucks damaging roads which are not being properly maintained.

At least one landholder within the area of the Mt. Cross potential KRA wants to quarry the hard-rock resource on his property, but several other landholders in the area are very strongly opposed to this.

9.2.3 Explosives industries

The magazine and the explosive industries were not specifically raised as an issue through the public meetings, the “Have Your Say” forms, personal communication, or written submissions. This is possibly due to the isolated nature, security and low profile of the operations, and the proactive approach to environment and landscape management being taken by the industry.

9.3 Discussion and future directions

9.3.1 Sandstone industries

The areas where sandstone is being extracted include areas which have significant conservation value with several rare and threatened flora and fauna species present. Other constraints to the sandstone extraction include landscape issues (views from the Toowoomba Range, lookouts, and the highway) and scenic amenity (effect on waterfalls and gorges). Any adverse effect on water quality from mining operations is unacceptable and needs to be taken into account of in the EMOS and Plan of Operations. Cultural heritage sites are known to exist in the project area and further investigation of such sites or items needs to be made prior to the granting of any additional mining leases.

The Helidon KRA, which includes the buffer to the resource, is located on land which has been identified as containing areas of both critical and broad nature conservation areas. The RFGM states that conservation and environmental protection should be taken into account in planning for the use of extractive and mineral resources. As detailed in Section 9.1.1 above, other constraints to further development of the sandstone mining industry also exist. These include visual landscape, scenic amenity, cultural heritage, and the likely opposition of some landholders. All of the constraints should also be further

“I estimate that between 20 and 40 hectares of actual mined stone area for the Helidon district. many farms and gravel pits etc. would have disturbed a greater area than the combined sandstone quarries in the Helidon district.”
Sandstone quarry company.

investigated before any action is taken to formally identify the KRA. In accordance with the RFGM, the Department of Mines and Energy must undertake community consultation in relation to the designation of resource precincts. Priority Action 2.8² states that the Department of Mines and Energy should:

Establish and resource an Extractive Industry Unit (EIU) charged with the collection of resource information on extractive materials and the evaluation, identification, approval and establishment of regionally significant extractive resource precincts, including haul routes and buffer areas. The EIU would also be responsible for community consultation in relation to resource precinct designation, impact assessment studies and management plans.

9.3.2 Extractive industries

Sand and gravel resources have been included in the Helidon KRA, which includes areas of both critical and broad nature conservation significance. Hard-rock resources located in the Mount Cross potential KRA also coincide with areas of both critical and broad nature conservation significance. The proposed Mount Cross KRA has been addressed in a series of meetings with DME. A set of proposals and recommendations put to the December 16 meeting is appended to this chapter.

“Gatton Shire Council’s gravel extraction is causing significant damage to the natural environment as well as causing a serious dust hazard.”
Community group.

The RFGM states that conservation and environmental protection should be taken into account in planning for the use of extractive and mineral resources. This is an issue of concern which needs to be resolved before any action is taken to further develop extractive resources within the proposed Helidon KRA, and before any action is taken to designate the Mt. Cross potential KRA. Several landholders have also indicated a strong opposition to extractive industry in the Mt. Cross area. As stated in Section 9.3.1 above, the Department of Mines and Energy must undertake community consultation in relation to the designation of resource precincts.

9.3.3 Explosives industries

The Helidon Explosives Magazine is of regional, State and possibly national significance. It’s operations need to be maintained and protected. The Magazine and the 2km safety buffer around the storage area has been included in the Helidon KRA.

9.4 Objectives

9.4.1 Sandstone industries

- Sandstone resources are sustainably utilised while taking account of nature conservation, scenic amenity, cultural heritage, landholders' rights, and other values.
- Landholders and residents are fully and properly consulted in regard to the designation of the proposed Helidon KRA.

9.4.2 Extractive industries

- Extractive resources are sustainably utilised while taking account of nature conservation, scenic amenity, cultural heritage, landholders' rights, and other values.
- Landholders and residents are fully and properly consulted in regard to the designation of the proposed Helidon KRA and Mt. Cross potential KRA.

9.4.3 Explosives industries

- Explosives industries are managed and operated sustainably while taking account of safety, nature conservation, cultural heritage, landholders' rights, and other values.

9.5 Actions

9.5.1 Sandstone industries

- 9A EPA (formerly DEH) facilitate a detailed assessment of the nature conservation values of land included in the proposed Helidon Key Resource Area (KRA).
- 9B EPA (formerly DEH) facilitate a detailed assessment of the cultural heritage values of land included in the proposed Helidon KRA.
- 9C The Department of Mines and Energy (DME) facilitate a detailed assessment of the impact of existing and future sandstone extraction on scenic amenity within the proposed Helidon KRA, including impact on watercourses, waterfalls, and gorges.
- 9D DME facilitate consultation with landholders whose

properties would be impacted upon by the proposed Helidon KRA.

- 9E DME, EPA and landholders negotiate with a view to satisfactorily resolving the issue of competing values (nature conservation, scenic amenity, cultural heritage, and landholders' rights) attributable to the land included in the proposed Helidon KRA.
- 9F Sandstone industry operations take account of nature conservation, scenic amenity, cultural heritage, landholders' rights and other values, and adequately rehabilitate areas when extraction is ceased.

9.5.2 Extractive industries

- 9G EPA (formerly DEH) facilitate a detailed assessment of the nature conservation values of land recommended to be included in the potential Mount Cross KRA.
- 9H EPA (formerly DEH) facilitate a detailed assessment of the cultural heritage values of land recommended to be included in the potential Mount Cross KRA.
- 9I DME facilitate a detailed assessment of the impact of any proposed extraction of hard rock from the Mount Cross potential KRA area on scenic amenity and visual landscape of the region.
- 9J DME facilitate consultation with landholders whose properties would be impacted upon by the potential Mount Cross KRA.
- 9K DME, EPA (formerly DEH), GSC and landholders negotiate with a view to satisfactorily resolving the issue of competing values (nature conservation, scenic amenity, cultural heritage, and landholders' rights) attributable to the land recommended to be included in the potential Mount Cross KRA.
- 9L Extractive industry operations take account of nature conservation, scenic amenity, cultural heritage, landholders' rights and other values, and adequately rehabilitate areas when extraction is ceased.

9.5.3 Explosives industries

- 9M Include the Helidon Explosives Magazine and the 2 km safety buffer around the central storage area of the Magazine in the Helidon KRA where not already alienated due to existing development.
- 9N DME review the boundaries of the safety buffer for the Helidon Explosives Magazine and the Helidon KRA when any new explosive industries or significant expansion to existing explosive industries are proposed.

- 9O Proposals for any new explosive industry or significant expansion to existing explosive industries to take account of safety, nature conservation, cultural heritage, landholders' rights and other values.

9.5.4 General

- 9P Investigate the establishment of a sandstone, extractive and explosives industries working group, which could function as a subcommittee of the Landholders' Group (refer to Actions 3E and 3G).

References and notes

¹ Department of Local Government and Planning (1998). *South-East Queensland Regional Framework for Growth Management*. Priority Action 1.7, p. 25. Priority Action 2.3, p.30.

² Department of Local Government and Planning (1998). *South-East Queensland Regional Framework for Growth Management*. Priority Action 2.8, p. 32.

Proposed Principles and Recommendations for discussion at 11 December Meeting between Department Mines and Energy, Landholders affected by PKRA and Gatton Shire Council.

The process

DME have joined the consultation process used in the Helidon Hills Sustainable Management Plan and have met with concerned landholders on 16 September and again 11 December. The landholders involved in this planning exercise welcome DME's participation.

The following principles are proposed for discussion at the 11 December meeting. It is intended that these principles if acceptable to all parties, they should form the ground rules for negotiation on the PKRA and be included within the Sustainable Management Plan.

Principles

- Helidon Hills Sustainable Management Plan is a source document for the Planning Scheme currently under preparation.
- Genuine community consultation is required as part of the plan review and approval process of all impact assessable activities under the new Planning Scheme.
- Residents reserve the right to contact and lobby representatives from all levels of government on issues relating to this topic.
- Departmental representatives are not obliged to support the Sustainable Management

Plan.

- Regional significance must be addressed and justified for a quarry to proceed.
- Environmental values are to receive the same level of recognition as potential economic uses and values.
- Hard rock resources, similar to other natural resources should be noted on the planning scheme for Gatton Shire.

Recommendations

To address the concerns of effected landholders and the protection of extractive resources in the Helidon Hills the following recommendations are proposed for the meeting 11 December to consider. These are to be read in conjunction with the principles outlined above.

1. The protection of the resource is to be addressed through the planning scheme with codes or similar instruments to that used in NSW and shall be
 - a. based on performance criteria and impact assessment rather than fixed distances – ensuring adjacent development is protected from impacts and that the resource is not constrained from its full economic potential from adjacent developments.
 - b. any required buffers shall be owned or acquired at a fair market price (assuming no quarrying) by the proponent.
2. The desired environmental outcomes for the Helidon Hills area shall favour environmental values over natural economic resource values.
3. Quarrying may be permitted under an impact assessment which includes DME and EPA as an advice agencies.

10. Fire Management

“Fire management is a high priority.”
Helidon Hills landholder.

10.1 Background

Fire has emerged as an issue of great concern to landholders and the community.

10.2 Summary of community consultation

Fire management is a major concern, with a great diversity of views about how the issue should be addressed.

10.3 Discussion and future directions

Because of the importance of the issue, a sub-project specifically examining fire management was carried out by Marc Gardner, who is a University of Queensland Gatton College student and also a member of the Gatton North and South Rural Fire Brigade.

The sub-project worked with landholders, Rural Fire Brigades, and other stakeholders to:

- Determine the fire requirements of the natural vegetation.
- Determine the fire management requirements and objectives for the full range of land uses in the area.
- Develop fire management strategies that integrate the conservation of natural values and the requirements and objectives of land-uses.

“[Solutions include] Establish fire regime suitable for nature conservation values.”
Helidon public meeting 4/6/98.

The fire management sub-project has produced a Fire Management Plan and a Fire Management User Manual. Both documents set out fire management strategies for individual properties that will achieve both land-use and nature conservation objectives.

The Natural Heritage Trust (NHT) funding for the second year of the Sustainable Management of the Helidon Hills project includes \$7,000 to assist with the construction or upgrading of

fire lines.

10.4 Objectives

- Implement fire management strategies that conserve natural values and achieve the requirements and objectives of Helidon Hills land uses.

10.5 Actions

- 10A Implement the fire management strategies detailed in the Helidon Hills Fire Management Plan and Helidon Hills Fire Management User Manual.
- 10B Following implementation, review the efficacy of the fire management strategies and make improvements to the strategies as required.

10.6 Achievements

- 10C Investigate the establishment of a fire management working group, which could function as a subcommittee of the Landholders' Group (refer to Actions 3E and 3G).

11. Water

“We are not being allowed to construct the water storage infrastructure that we need for our fruit growing enterprises while those carrying out extractive industries in creek areas are allowed to create water storages.”
Helidon Hills landholder.

11.1 Background

The Helidon Hills project area falls within the Lockyer and Buaraba Creek systems. Water for domestic, farming and industrial use within the project area is currently drawn from groundwater supplies, with dams (collecting rainwater runoff and flow from spring fed creeks) and rainwater tanks supplementing this supply. Groundwater use in the project area is not presently regulated.

The Lockyer Valley is one of Queensland’s major vegetable producing areas. Agriculture in the valley is dependant on a mix of surface and groundwater supplies and a continuous and reliable water supply is essential. The Lockyer Valley has been experiencing drought conditions for the last six years, with only one significant rainfall event in 1996 providing some relief. The estimated yield of surface and groundwater systems is less than the present demand, and it is unlikely the present usage levels can be sustained indefinitely without augmentation of supplies.

11.1.1 Groundwater

There is no reticulated water to properties within the project area. Groundwater sources supply water for domestic, farm and industry use. Although the project area provides significant recharge to the alluvial aquifers used to irrigate the Lockyer Valley, groundwater use within the project area is drawn from separate aquifers within the consolidated rocks of basalts, sandstones, and shales, containing mostly small sub artesian aquifers. These aquifers are known as sandstone aquifers.

In the western part of the project area, ie, closer to Murphys Creek, the groundwater is considered to be part of a long term water supply (which is sourced from remote areas) and is not affected by seasons as are the alluvial aquifers. The remainder of the groundwater in the Helidon Hills area, although in sandstone aquifers, may be more seasonal, dependant to some extent on replenishment through rainfall.

Advice from the Department of Natural Resources (DNR) is that the sandstone aquifers provide an adequate long term supply of good quality water. It is considered there is no

“[Priority issues include] Water conservation - quantity and quality (affects beyond the Helidon Hills).”
Helidon public meeting 1/4/98.

present overutilisation of the sandstone aquifer, which is probably due to the fact no water is withdrawn from within the state forest land, which constitutes approximately 40% of the project area. The sandstone aquifers are also not generally used for irrigation purposes.

The project area has been identified as a significant source of alluvial water recharge for Lockyer Valley groundwater resources, ie, groundwater from the unconsolidated sediments of clay, silt, sand and gravel associated with the main creek valleys, containing large sub-artesian aquifers, and used for the irrigation of the vegetable producing areas. Groundwater levels in the alluvial aquifers are seasonal and are mainly affected by use for irrigation and the recharging of the aquifers principally through stream bed recharge (assisted by recharge weirs).

The average annual use of groundwater for irrigation purposes is estimated to be well in excess of long term annual yield. It is likely in the future that if demand for groundwater continues to exceed supply, allocations for water usage may be applied in the declared water area in the lower Lockyer Creek (Clarendon) Sub Artesian Area. Allocations will not however, apply to usage in the project area.

DNR consistently monitors water quality from observation bores and private bores throughout the valley. It has been concluded that no significant worsening in groundwater quality has occurred since sampling commenced in 1944.

The role which groundwater plays in supporting ecosystems in Australia is poorly understood. Groundwater nonetheless fundamentally controls the health of environmentally and culturally significant ecosystems. The sandstone aquifers throughout the project area are thought to contribute to the presence of natural springs in the sandstone, which are important for the environmental well being of the native flora and fauna, and for their contribution to the scenic amenity of the area. Landholders have indicated to the project team that there are springs in the upper reaches of most creeks within the project area.

11.1.2 Surface water

Management of the state forests and timber reserves to ensure a continuous forest cover is essential in maintaining water quality in the streams and creeks, and avoids creating or exacerbating problems further downstream. Most of the remaining forested country north of Lockyer Creek is contained within the state forests and timber reserves and their importance in terms of

“[Suggested solutions include] Water - create storage areas, suitable vegetation, ground water, dams.”
Helidon public meeting 1/4/98.

maintaining water quality and soil stabilisation is significant. Water from the Murphys Creek and Alice Creek systems is considered to be of excellent irrigation quality.

As assessment of Lockyer Creek and major tributaries carried out by DNR in 1997 found all creeks within the project area rated as moderate to very good.

A study¹ in 1969 identified a potential dam site on Lockyer Creek at 109.9 km. This site, generally referred to as the Alice Creek Dam site, is located just downstream of the junction of Murphys and Alice Creeks. The proposed dam featured a 50m high earth and rockfill wall to enable a supply of about 13,500 ML/a. The proposal was considered economically unsound due to the relatively small catchment area and resulting low yielding site, plus the need to realign the railway.

A further 1989 report² indicated a smaller dam height of 30m would be more economically viable and would avoid the need to realign the railway. However, this smaller storage could only supply 3,500 ML/a at 100% reliability or 6,000 ML/a at 95% reliability. The updated cost of this structure is \$30.2 M, which is still a high cost per ML of yield, and unlikely to attract the support of the broader community or a willingness by beneficiaries to contribute significantly to capital costs.

11.2 Summary of community consultation

The issue of water was raised by the majority of groups at the first round of public meetings. The main concern was the conservation and quality of water supplies, and the management and maintenance of the catchment area. Other consultation has raised the significance of the natural springs for the Hills.

It is acknowledged that land management practices are intertwined with the issue of water conservation and quality, for example, the planting of suitable vegetation can reduce water requirements.

11.3 Discussion and future directions

“There are natural springs in the upper reaches of most of the creeks.”

Helidon Hills landholder.

“[Priority issues include] water resource investigation.”

Gatton public meeting 2/4/98.

Advice from the Department of Natural Resources indicates the current level of groundwater usage in the Helidon Hills area appears to be sustainable. However it is unknown what capacity there is for further continued use, or at what point the natural springs in the Hills may be affected. Continued monitoring of water levels and quality should be carried out to ensure any deterioration is noted. If any deterioration is found, an investigation should be carried out to determine the cause, and recommendations made for the rehabilitation of the supply to satisfactory levels.

The natural springs in the Hills area are important from both an ecological and recreational aspect. Their importance cannot be understated, and their protection is paramount. It is important to understand the relationship between groundwater usage and natural spring flows, and as this is presently unknown, it is recommended this relationship be the subject of further study.

Preliminary discussions have been held between the project team and the School of Natural Resource Sciences, Queensland University of Technology, who has indicated its interest in being involved in such a study. The study would also be useful to understand if the spring fed creeks in the Helidon Hills area are a source of recharge for the alluvial aquifers of the area (possibly utilised for irrigation purposes).

If any high water demand proposals are to be made in the area, a detailed investigation of its effect on groundwater supplies, to both alluvial and sandstone aquifers, and to the flow of natural springs should be required as part of the development assessment process.

A number of fruit growers have indicated they do not have a totally reliable supply of water, and have faced considerable difficulty in gaining approval to construct dams. The Lockyer Valley Renewed Water Scheme proposes to treat waste water from Brisbane and Ipswich and pipe it to the Lockyer for irrigation purposes. Large-scale water infrastructure constructed to date in the Lockyer, such as Lake Clarendon, has been less than successful in providing a reliable water supply, indicating that the Renewed Water Scheme may be an alternative (refer to Action 7D).

11.4 Objectives

- Landholders, residents and industry have secure and cost-effective access to sufficient water of appropriate quality.

- Landholders and residents have an understanding of the importance of the relationship between groundwater and natural spring flows.
- Groundwater supplies are not overly exploited.
- Catchment quality is maintained.

11.5 Actions

- 11A Department of Natural Resources (DNR) continue to monitor groundwater aquifers in the Helidon Hills area, and provide the Landholders' Group with the findings of such monitoring. Advice from DNR will be sought should there be any deterioration in water level or quality of the aquifer.
- 11B Negotiate with the School of Natural Resource Sciences, Queensland University of Technology, with the view to commencing student research to determine:
- The role which groundwater in the Helidon Hills project area plays in supporting flora, fauna and ecosystems.
 - The effect of continued increased use of groundwater from the sandstone aquifers on the level of flow and quality of water of natural springs in the Helidon Hills area.
 - What, if any, relationship exists between the spring fed creeks and nearby alluvial aquifers.
- 11C Planning Schemes within the project area be reviewed and amended where required so proposals for any high water demand development within the Helidon Hills project area be made assessable development, subject to impact assessment, requiring submission of a report on the impact of the development on groundwater supplies and the natural springs of the aquifer to assist Local Government in deciding the application.

References and notes

¹ Preliminary Studies of Dams on Lockyer Creek and Tributaries (include Ma Ma, Tenthill and Laidley Cks). SMEAH, 1969

² Report on Investigations of Lockyer Creek Dam Site 109.9 km, WRC, December 1989

12. Property Management

12.1 Background

The continuing decline of many rural communities and increasing environmental constraints on farm operations pose major challenges for farmers and rural landholders. One part of landholders' strategies for making profits is in the creation and adoption of new technologies¹:

Over time, advances in farming have increased our understanding of the land and have created new opportunities for farming profitability. There is a focus on prescription farming, that is, managing a cropping enterprise within a field, for this to be successful technology is not enough...people, knowledge and technology are as important as each other.

Mr Graham Robertson, Chief Executive Officer, Agriculture Western Australia cautions that it is not feasible for all farms to use the latest technology. "A new proposal, even if it is practical and profitable, will not usually be applied if there are insufficient resources", he said. Sustainability is an important consideration in the adoption of new technologies. Unless the effect of agriculture on the natural resource base and the environment are managed in a sustainable way, there will be a very limited future for agriculture in Australia.

This holds as true for property management in the Helidon Hills as elsewhere in Australia.

The other chapters of this Draft Management Plan detail objectives and actions for achieving the sustainable management of the Helidon Hills. What is needed is a way of translating the sustainable management objectives and actions for the overall area into sustainable management outcomes on individual properties.

12.2 Summary of community consultation

Property management was identified as an important issue in

"[Priority issues include] Property management - stock, fire, timber, access, weeds, conservation."
Helidon public meeting 1/4/98.

the community consultation, in particular at the public meetings.

The following views were expressed:

- There is evidence of poor property management.
- Current management approaches are short-sighted.
- There are different management issues for different sized blocks.
- Landholders want to be allowed to manage their own properties and resources with minimal interference.
- The question of “what is a sustainable activity in the Helidon Hills?” needs to be answered.
- Government departments or other relevant bodies should provide technical advice, marketing assistance, financial assistance and the like for the development of commercial enterprises that are sustainable.

“[Priority issues include] Landowners to be allowed to manage their own properties and resources.”
Gatton public meeting 2/4/98.

12.3 Discussion and future directions

Until recently, enhanced property management services were provided through extension officers who worked directly with rural enterprises to develop farm plans. These plans considered issues of farm viability from the perspective of the agricultural products, considering opportunities for farms to enhance productivity through strategic investments such as levee banks.

In recent years this program has been modified, with the responsibility for planning and property management falling directly on the landholders, and the emphasis shifting to business planning, with a clear focus on sustainability. Government agencies, particularly the Department Primary Industries (DPI), provide training and support for property owners to develop their own plans.

In some areas, this planning and property management process has been enhanced by the formation of formal networks of landholders who cooperate by exchanging ideas, reviewing plans and evaluating each others’ performance. The objective is to establish local best farming practices through a structured approach to property management.

Recently the Department of Primary Industries (DPI) has launched its property management program called “Futureprofit”. This is attempting to integrate approaches to property management with a clear orientation to sustainability

“[Suggested solutions include] Each individual property needs different management requirements.”
Helidon public meeting 1/4/98.

and profitability.

The Futureprofit process involves a series of workshops in which facilitators assist the landholders to identify and plan both the land management and business management aspects of their property. Futureprofit works well because it is the landholders who actually make the planning decisions.

Futureprofit should be facilitated in the Helidon Hills to translate the sustainable management objectives and actions for the overall area into sustainable management outcomes on individual properties.

12.4 Objectives

- Landholders will be supported and assisted in achieving the sustainable management of their properties.

12.5 Actions

- 12A Establish linkages with relevant personnel from the Futureprofit program run by the Department Primary Industries (DPI).
- 12B Facilitate property management planning workshops and the preparation of property management plans.
- 12C Investigate the establishment of a property management working group, which could function as a subcommittee of the Landholders' Group (refer to Actions 3E and 3G).

References and notes

- ¹ Robertson, G (1997) Address to the Outlook '97 Conference held in Canberra, 4 February 1997 – sited on the Outlook '97 Media Centre website.

13. Infrastructure

13.1 Background

13.1.1 Powerline easement

“When constructed, the Springdale to Toowoomba powerline will cause significant damage to the scenic and environmental values of the area.”
Helidon Hills landholder.

Powerlink Queensland has acquired a 60 metre corridor through private land in the Helidon Hills project area, and has also identified a 60 metre corridor traversing the Lockyer State Forest and White Mountain State Forest. Compensation has been paid to the owners of private land for the corridor.

The corridor passes through areas identified in the Regional Framework for Growth Management 1998 (RFGM) as Critical Nature Conservation Areas (areas of high priority for maintenance and protection of regional biodiversity) or Broad Nature Conservation Areas (multi-use areas that are important to the maintenance and protection of the region’s biodiversity). Subsequent surveys are expected to result in more of the Helidon Hills area being designated as Critical Nature Conservation Area.

It is proposed to construct a 275KV powerline from Springdale on the eastern edge of the project area, to Murphys Creek, on the western edge of the project area. The sites for these two proposed switching stations have also been acquired. The connecting powerline is presently planned to be constructed in 2002/2003. The powerline will be constructed in the centre of the 60 metre corridor, and the type of towers to be built depends on the particular powerline being carried and the terrain on the ground. Details on the proposed towers are not yet available. Construction of the powerline will undoubtedly result in damage to, or the loss of, nature conservation areas of regional significance.

“[Issues include] Impact of powerlines and other corridors - powerlines (fragmentation).”
Gatton public meeting 2/4/98.

Prior to the construction of the powerline, Powerlink intends to conduct further studies into the conservation values and cultural heritage significance of the corridor. Environmental Management Plans will be prepared for the construction of the powerline, in consultation with affected landholders.

The Springdale switching station is significant in the proposed electricity network. It is proposed that post 2005, a further powerline will link the Springdale switching station with the Greenbank Sub Station south of Brisbane. Negotiation with

landholders on compensation for the acquisition of this corridor is presently underway. Further still into the future a link from Springdale to the Tarong Power Station to the north is envisaged. This will complete the link between NSW and Central Queensland.

13.1.2 Rail

The Main Western Railway Line which connects Brisbane with centres in western and south western Queensland passes through Helidon. The line has been in service from around the 1870s. The line caters predominantly for freight services, with passenger services to the Shire being cancelled in 1993.

Currently, all trains that serve the south western region of Queensland must pass through Toowoomba and down the narrow, winding corridor to Helidon. Each week-day approximately 14 inbound and 10 outbound freight services are provided. These transport between 100 and 2,300 tonnes of freight which includes machinery, motor vehicles, livestock fodder, grain, fruit, fuels, wool, cotton, white goods, timber, plants and shrubs.

The current rail corridor is considered to be inappropriate by Queensland Rail for a modern rail service. The tight curvature and steep gradient of the corridor mean the crossing of the Toowoomba range can take up to two hours longer than could be achieved with a modern railway. As rail tonnages increase and the population of Toowoomba increases, the corridor will continue to limit future development.

Queensland Rail is presently investigating preferred options for a future 160 km/h rail corridor over the Toowoomba Range, which is expected to pass through the southern boundary of the project area just north of Helidon township. Construction of the new rail line could commence within the next 10 to 30 years, depending on the availability of funds, and the commercial pressure to improve the rail network. At present, no commitment to build the new line has been made.

The Grantham to Helidon section of the new line has been determined, however the Helidon to Toowoomba section is still subject to investigation. There are presently no plans to commence discussion of compensation with landholders affected by the proposed line.

The rail line could be expected to carry high speed local and interstate passenger trains as well as large freight trains from the south west of Queensland and perhaps from the central and

“[Issues include]
New projects.
Railway, power,
roads.”
*Helidon public
meeting 1/4/98.*

northern regions of New South Wales if the line is extended into New South Wales.

13.1.3 Roads and access

State-controlled roads

The Warrego Highway (including the Gatton Bypass Road) is the only State-controlled road in the near vicinity of the project area, there being no State-controlled roads within the area.

The Warrego Highway provides the Helidon township with a direct link to the major cities of Brisbane and Ipswich to the east and Toowoomba to the west. The Department of Main Roads has undertaken a study and made recommendations for the upgrading of the highway which involves major works at the Helidon interchange.

State-controlled roads allow use for B-Double vehicles. The Department of Main Roads is presently investigating alternative access routes for the removal of coarse sand from within the project area. Such routes currently necessitate access through the township of Helidon which is of some concern to residents.

Council roads

All roads in the project area are local roads and are the responsibility of the Local Governments.

Permits are required for the use of local roads by B-Doubles, and Queensland Transport has approved the following routes for use by 25 metre B-Double combinations:

- Toowoomba - Helidon - Brisbane
Warrego Highway, Gatton Road, Turner Road, right across railway line, Station Road, Laidley Street, Seventeen Mile Road to site, site to Seventeen Mile Road, Station Road, Arthur Street, George Street, Lawlers Road, Helidon Road, on-ramp to Gatton Bypass and via B-Double routes to Brisbane Wharf.
- Brisbane - Helidon - Brisbane
B-Double route to Gatton Bypass, Helidon off-ramp, Helidon Road, Lawlers Road, George Street, Arthur Street, Station Road, Laidley Street, Seventeen Mile Road, in reverse back to Brisbane.

“Motor bike riders and others seeking recreation opportunities are illegally accessing private property.”
Helidon Hills landholder.

“[Priority issues include] Adequate road access - sealed.”
Gatton public meeting 2/4/98.

“[Priority issues include] Regular maintenance of 17 Mile Road.”
Gatton public meeting 2/4/98.

Bus services

Extensive bus passenger services are provided along the Warrego Highway and Gatton-Helidon Road. Passengers are collected at Helidon for services east to Gatton and Rosewood (and then by rail to Ipswich and Brisbane), and west to Withcott and Toowoomba.

13.1.4 Gas pipelines

Natural gas is piped from the Roma area, 480 km west of Brisbane, along the Roma to Brisbane high pressure gas pipeline, and provides gas to regional centres such as Dalby, Oakey, Toowoomba, Ipswich and Brisbane. The pipeline, which is owned and operated by AGL Ltd, traverses the southern portion of the project area.

Allgas proposes a new gas pipeline be constructed between Gatton and Gympie, part of which will traverse the project area.

Development in close proximity to a high pressure pipeline may increase the risk of accidental damage to the pipeline. The Gatton Shire Planning Scheme includes provisions stating that when considering applications for development near the pipeline, Council shall take into account any effects the development may have on the safety of the operation of the pipeline. Buffering of the pipeline may be required as a condition of development approval if considered necessary. The width of any buffer would depend on the type of land use being proposed, the topography of the area, and any measures designed to offset the additional risk created by the development.

Gatton Shire Council refers development applications in the vicinity of the pipeline to AGL for comment in relation to safety and integrity of the pipeline. Australian Standard AS 2885 - 1987 *Pipelines - Gas and Liquid Petroleum* also applies to the pipeline and its safety.

The Esk Shire Planning Scheme provisions state Council will not approve any application for development within 500 metres of any existing or proposed gas pipeline if, in the opinion of Council, the nature of the development is such that potential occupants of the development will be exposed to any risk from the pipeline.

13.2 Summary of community consultation

13.2.1 Powerline easement

“[Suggested solutions include] Move Springdale.”
Gatton public meeting 2/4/98.

Landholders and residents of the Helidon Hills are concerned about the type of powerline to be constructed, and the disruption it will cause, environmentally and economically to the land and local farming activities. It is believed the powerline will cause the unnecessary removal of vegetation, which creates a break in the otherwise mostly continuous vegetated cover of the Helidon Hills, and also causes fragmentation of properties. Some members of the community are adamant the powerline should not be built at all, and that the switching station at Springdale should be relocated.

13.2.2 Rail

“[Issues include] What’s happening with railway? (Check that its out).”
Helidon public meeting 1/4/98.

At the time of the first round of public meetings in April 1998, it was mistakenly stated that the new railway alignment was not an issue of concern as it was believed the new alignment did not cross into the study area. Consequently, the issue was not discussed at this round of meetings, however one group requested it be checked whether the alignment was in or out of the project area.

The view of landholders who commented on this issue is that the new rail line should not impact on the Helidon Hills area.

13.2.3 Roads and access

Access to and maintenance of roads was an issue consistently raised, however there does not appear to be general agreement as to what standard the roads should be maintained. All weather access would appear to be the generally agreed minimum requirement.

Problems were seen to be:

- Maintenance of roads
- Access to State Forests for recreational use
- 4WD and motor bike tracks wrecking roads and environment
- Dust

Suggested solutions included regular grading of the roads by Councils, and the use of roads as fire breaks and access to the

“I am concerned about the increased traffic that would result from any upgrading of 17 Mile Road.”
Helidon resident.

State Forest. Sealed roads would also help to reduce the dust problem where appropriate.

Other views included:

- Traffic using 17 Mile Road, particularly trucks, is having a negative impact on Helidon residents.
- Gatton Shire Council trucks coming from the gravel pits are causing a serious dust hazard.
- The sandstone and timber industries should contribute to road maintenance, particularly of 17 Mile Road.
- The upper parts of Sandy Creek Road become untrafficable after wet weather. This negatively impacts on residents, particularly farmers who rely on the road as a transport route for their produce.
- The Army has churned up Krugers Road by driving numerous vehicles on it in wet weather.

13.2.4 Gas pipelines

The issue of gas pipelines was not specifically raised at the public meetings or in personal communication. However, concerns were expressed in the “Have Your Say” forms about Governments targeting the area for transport and energy corridors (train, electricity, gas), and information on the location of such proposed developments was requested.

13.3 Discussion and future directions

13.3.1 Powerline easement

“[Suggested solutions include] Power towers to be helicoptered in.”
Gatton public meeting 2/4/98.

Powerlink Queensland advises an Environmental Management Plan (EMP) will be produced prior to the construction of the powerline. This is not expected to be initiated for some time. In order for residents of Helidon Hills to have some expectation that the negative impacts of the construction of the powerline will be minimised, there needs to be consultation between landholders and Powerlink during the formulation of the EMP. The types of issues which will be covered by the EMP are vegetation clearing, access routes, and minimising impacts of the construction of the powerline adjacent to private properties.

Powerlink intends to conduct further studies into the conservation values and cultural heritage significance of the corridor. It may be possible, in the State Forest areas, that the powerline could be moved to lessen the impact on areas which

have high conservation or cultural heritage values.

13.3.2 Rail

Several allotments in the southern portion of the project area to the north and east of Helidon township will be impacted upon by the proposed new rail line. However, this area is not in the upland Hills area of the project. A preferred corridor has been chosen for the line, and Queensland Rail advises that while the final alignment between Grantham and Helidon has been determined, the Helidon to Toowoomba section has not as yet been finally decided.

There will be further consultation with affected landholders, to ensure the preferred corridor is acceptable and that all outstanding issues have been dealt with. The recommendation to commence acquisition of the Grantham to Helidon section will be made at a later date.

13.3.3 Roads and access

The issue of the haul routes is significant for the Helidon Hills area, due to the concern of the landholders and residents about the unacceptable condition of the road at times, and the dust created by the heavy truck traffic. Other problems arise in wet weather by heavy traffic and recreational vehicles churning up the road surface, making it untrafficable. Landholders are sometimes forced to repair the road themselves to maintain access to their properties.

Access to the explosives factory areas can become impassable during wet weather, and must be accessed via Goldmine and 17 Mile Road. Goldmine Road becomes very muddy and access by employees is affected. 17 Mile Road is used by sandstone trucks and timber trucks to at least Goldmine Road, and there is a possibility the use of the road by haul trucks will be extended in the future should extraction of hard rock from the Mount Cross Potential Key Resource Area prove to be appropriate.

Gatton Shire Council should investigate the sealing of 17 Mile Road to Goldmine Road and the upgrading of Goldmine Road to all-weather standard. The investigation should include discussions with the sandstone and timber industries, which are seen as major users of 17 Mile Road, and discussions with landholders who adjoin 17 Mile Road or use it to access their properties. The maintenance and possible upgrading of other roads should also be investigated, including Sandy Creek Road and Krugers Road.

“An alternative traffic link should be established from the 17 Mile Road on the northern side of Helidon across to the Warrego Highway Gatton bypass.”
Helidon resident.

“[Suggested solutions include] Grading of roads by Gatton and Crows Nest on a regular basis.”
Helidon public meeting 1/4/98.

13.3.4 Gas pipelines

Development applications in the vicinity of the Roma-Brisbane gas pipeline are presently referred to AGL Ltd for input to ensure ongoing protection of the pipeline to established standards. Depending on the type of development and the standard of pipeline construction in the vicinity, development requirements may include buffering and separation distances, or alternatively, further pipeline protection. The proposed Allgas pipeline from Gatton to Gympie is to be constructed to a standard which will not require buffering beyond the 25 metre-wide easement or further pipeline protection. A matter before the Court in relation to pipeline buffering may require that current practice and planning scheme provisions be reviewed in light of the Court's decision.

13.4 Objectives

13.4.1 Powerline easement

- Residents and landholders of the Helidon Hills are satisfied that action has been taken to minimise the negative impacts of future powerline construction.
- Construction of the powerline takes account of nature conservation, cultural heritage, scenic amenity, landholders' rights, and other values.
- No new powerline easements or corridors to be taken out over private land or Crown land in the Helidon Hills.

13.4.2 Rail

- Affected residents and landholders of the Helidon Hills are informed and consulted about developments in rail infrastructure that impact on their property.
- Alignment and construction of the proposed rail line takes account of nature conservation, cultural heritage, scenic amenity, landholders' rights, and other values.
- Landholders and residents are adequately compensated for acquisition of land, and are not prematurely displaced.

13.4.3 Roads and access

- Landholders, visitors and industry have appropriate access to areas of interest.
- Recreational traffic is managed to minimise negative impacts on landholders, residents and the environment.

13.4.4 Gas pipelines and other future infrastructure

- Affected residents and landholders of the Helidon Hills are informed and consulted about developments in gas pipeline infrastructure and any other future infrastructure that impacts on their property.
- Alignment and construction of the proposed new gas pipeline and any other future infrastructure takes account of nature conservation, cultural heritage, scenic amenity landholders' rights and other values.
- Landholders and residents are adequately compensated for acquisition of land for future pipeline corridors and any other future infrastructure corridors.

13.5 Actions

13.5.1 Powerline easement

- 13A Powerlink consult with landholders and the broader community in the formulation of the Environmental Management Plans such that the impact of the construction be minimised.
- 13B Powerlink assist in meeting the objectives and principles of the Regional Framework for Growth Management 1998 (RFGM) in the formulation of the Environmental Management Plans for the construction of the powerline.
- 13C Powerlink facilitate detailed studies of the conservation and cultural heritage values of the corridor.
- 13D Where construction of a powerline would impact on areas with high conservation or cultural heritage significance, the powerline be moved where possible in order to lessen the impact.
- 13E Any future powerlines proposed for the Helidon Hills area be contained within existing corridors.

13.5.2 Rail

- 13F Queensland Rail consult with landholders affected by the preferred option for the new rail line in order that any concerns can be addressed.
- 13G Queensland Rail facilitate detailed assessments of all environmental and cultural heritage values of land affected.
- 13H Where significant environmental or cultural heritage values are identified, Queensland Rail consider an alternative corridor.

- 13I Queensland Rail negotiate with landholders who in the future have land or property acquired and compensation paid for the proposed rail line, with a view to continuing occupation of the acquired land or property until such time as Queensland Rail has made a commitment to build the proposed rail line.

13.5.3 Roads and access

- 13J Local Governments investigate the provision and maintenance of all-weather access roads in the Helidon Hills area, including adequate drainage for the purpose of minimising the erosion of roads and adjacent properties.
- 13K Local Governments investigate the upgrading of 17 Mile Road to bitumen seal standard to at least Goldmine Road or Wallers Road. The investigation should include discussions with the sandstone and timber industries, which are seen as major users of 17 Mile Road, and discussions with landholders who adjoin this road or use it to access their properties.
- 13L Gatton Shire Council investigate the upgrading of Goldmine Road to all-weather standard, including adequate drainage for the purpose of minimising erosion. The upgrading of other roads, including Sandy Creek Road and Krugers Road, should be investigated.

13.5.4 Gas pipelines and other future infrastructure

- 13M Infrastructure providers to consult with landholders affected by the preferred option for the new gas pipeline and any other future infrastructure corridors in order that any concerns can be addressed.
- 13N Infrastructure providers to facilitate detailed assessments of all environmental and cultural heritage values of land affected.
- 13O Where significant environmental or cultural heritage values are identified, infrastructure provider consider an alternative corridor.
- 13P Infrastructure providers negotiate with landholders about compensation for the acquisition of the new pipeline corridor and any other future infrastructure corridors.
- 13Q Planning Schemes be reviewed in relation to provisions about development in the vicinity of a gas pipeline, in order to reflect current safety requirements.

14. Planning Schemes

14.1 Background

14.1.1 Planning Scheme overviews - Gatton, Esk, and Crows Nest

Gatton

The Planning Scheme for the Shire of Gatton was gazetted in December 1995. A planning scheme process to satisfy IPA requirements began in August, 1999, with the release of Gatton Shire's Statement of Proposals. This scheme, in common with all others in this state, is to be finalised by the year 2003.

The strategic plan includes the majority of the land in the project area as Rural Landscape or Special Uses and Reserves. The Special Uses and Reserves designation covers the uses under the control of Federal, State and local government. Included in this area are State forests, timber reserves and the Helidon Explosives Magazine. It is intended these land uses be protected from intrusion by other uses.

The Rural Landscape designation includes land with particular natural attributes, and also land of significant visual landscape quality, with the intention that such land is to remain largely in a natural state with significant vegetation preserved. Closer settlement, particularly urban and rural residential development is not intended to occur.

A limited range of other activities, such as quarrying, can be accommodated in the Rural Landscape designation. New applications for such activities are subjected to environmental assessment and acceptable environmental management programs. Low intensity recreational/tourist uses and educational facilities may be permitted if they cause no adverse effect to the natural environment or the quality of the visual landscape and are adequately serviced. The Investigation Area designation is intended to provide areas where development, subject to further investigation as to its suitability, may be carried out at some long term future time.

Small areas of good quality agricultural land located in the project area are designated Rural Agriculture, where such land is protected against incompatible development on land adjacent

“[Suggested solutions include] Limit subdivision to appropriate size.”
Gatton public meeting 2/4/98.

“We want to carry out further subdivision on our property and are concerned about any restrictions on this.”
Helidon Hills landholder.

“I note the suggestion that further subdivision be not allowed under Property Management. This is, I understand, the present policy of Gatton Shire Council. However, is it justifiable to ban the subdivision of a property of over 700 acres into say, two, three, four or even five blocks simply because the Shire allowed a multitude of small blocks elsewhere in the Shire.”
Helidon Hills landholder.

which unduly restricts agricultural practices or contributes to land degradation.

There are also some small areas designated for Rural Residential development. Rural residential development is not envisaged outside of these designated areas. A Development Control Plan (DCP4) for Rural Residential Development regulates such development in the Shire, by providing standards for minimum site requirements and services. Council will not approve any proposed subdivision for rural residential purposes if the development is likely to have a significantly adverse effect on the visual landscape or the natural environment. The Major Infrastructure designation follows the route of the Roma-Brisbane gas pipeline.

Esk

The Planning Scheme for the Shire of Esk was gazetted in June 1992, and includes all the land in the project area in the Rural designation of the strategic plan. The rural designation is intended to identify the land required to ensure the retention of viable rural areas to support the Shire’s rural economic base, or for conservation and forestry reserves, and also includes areas unsuitable for intensive development. Any forms of residential based development are not intended for the designation, however some areas may be suitable for other uses such as recreation and tourist facilities.

Crows Nest

The Crows Nest Town Planning Scheme was gazetted in December 1992, and includes all the land in the project area in the Rural designation of the strategic plan. The designation includes land in rural use, and land which is unsuitable for development because of environmental, slope, drainage or flooding constraints. Other uses may be allowable in the designation as long as these uses do not impact on the character of the rural areas.

14.1.2 Development potential

General

In past years, rural landholders may have been able to subdivide or sell off small allotments for residential purposes, which were then sold to supplement the farm income. Most planning schemes in South East Queensland have now been reviewed or amended and provisions facilitating such subdivision have been removed or considerably tightened.

When such land is sold and used for mainly residential purposes, additional problems are likely to be created when new neighbours locate within farming neighbourhoods, and then complain about farming operations, such as crop spraying, offensive smells, straying stock etc, impacting on their lifestyle.

There are members of the community who would welcome the reintroduction of family and rural subdivision provisions into planning schemes, and the extension of rural residential designations which would facilitate additional rural residential development. These options are seen as a way to supplement income, but must be viewed as a temporary solution only. These options also financially assist those landholders who do not rely on farm income as their main source of income.

A solution to the problem of farm income is to identify alternative sources of farm income to allow farmers to exit a nonviable operation, or look to off farm income. The nonviability of the land for a particular agricultural purpose does not mean the farm could not become viable for an alternative agricultural purpose. It is for this reason the Department of Natural Resources does not support the fragmentation of rural lands which could ultimately cause the nonviability of any type of agricultural purpose due to nonviable (too small) allotment sizes or encroaching residential development.

Gatton

The majority of the project area is included in the Rural zone, the exceptions being the Helidon Explosives Magazine which is zoned Particular Development, and some areas of Rural Residential zone.

Rural:

- The potential for subdivision in the rural area is limited, due to the provisions of the planning scheme. Subdivision is generally allowable only for bona fide agricultural purposes or to facilitate the development of rural service industry. Dual occupancy, or two houses on one allotment, is permitted on larger allotments in the Rural zone where the additional house is required for accommodating any person engaged in a rural use on the land.
- The planning scheme considers subdivision in the rural areas for lifestyle purposes only to be inappropriate, due to the resultant fragmentation of the landscape, and being development which does not support the Shire's agricultural base.
- Development for low intensity uses, such as recreational,

“[Issues include] Limit subdivision - land developers.”
Gatton public meeting 2/4/98.

tourism and educational facilities may be considered in the Rural Landscape designation, subject to further investigation, including impacts on the natural environment and visual landscape.

- The planning scheme does not define host farm as a use.

Rural Residential

- There are several small areas of Rural Residential zoned land on the fringe of the project area which have not yet been developed. Subdivision, including group title subdivision may be possible in accordance with the Rural Residential Development Control Plan. Further rural residential development outside of the areas already zoned is not intended for the Helidon Hills area.
- Gatton Shire as a whole has an oversupply of rural residential zoned land, and it is unlikely applications for additional rural residential areas would be approved. Future rural residential development is likely only to be approved where it is in close proximity to suitable and adequate social and public infrastructure items and facilities, and transport links.

Esk

All of the project area within Esk Shire is zoned Rural A, which provides for a wide range of rural pursuits, and is intended to preserve the rural amenity of the Shire. The scheme limits use of premises in the zone to predominantly rural industries and activities, however host farms are considered suitable, in conjunction with the rural activity on the land. Cabin parks, which would include eco-tourism or rural tourism cabins for overnight accommodation, are not intended for the zone.

The subdivision potential for rural zoned land in Esk Shire is related to the land resource assessment and the Department of Natural Resources Agricultural Land Class maps. Class A land requires a minimum area of 60 ha, Class B land 100 ha, while lower classes of land require a 500 ha minimum. Subdivision to areas below this minimum may be permitted in ‘exceptional’ circumstances if the applicant can demonstrate that the resultant allotments would be an economically viable agricultural or grazing land unit, but absolute minimum for Class A land is 40 ha, Class B 60 ha, and Class C1 100 ha. Lower classes of land cannot be subdivided smaller than 500 ha.

The Esk planning scheme contains provisions which allow for family transfer allotments, where a small allotment (between

2,000 m2 and 1ha in size) may be subdivided from a rural zoned property, for genuine agricultural purposes. These are limited to one, or two lots (in the case of larger allotments) in total to be subdivided from the original allotment.

Crows Nest

There are several parcels of land in the project area within Crows Nest Shire, all of which are zoned Rural A, with the exception of one Special Purpose zoned lot which is for a Camping and Water Reserve. The planning scheme intent in Rural A zones is a minimum allotment size of 40 ha.

There is potential under the planning scheme for a variety of uses in the Rural A zone, in addition to rural and service industries. For example, a cottage industry or tourist attraction development could provide outlets for rural based activities or crafts, while overnight accommodation may be provided through host farm or holiday cabin development. Suitable road access and services would be required, and the issue of compatibility with rural activities would need to be addressed.

Crows Nest planning scheme also contains provisions which allow for family residential allotments, where a small allotment (between 2,000 m2 and 1ha in size) may be subdivided from a rural zoned property, for genuine agricultural purposes. There is no limit on the number of such allotments being subdivided provided a dwelling is constructed on each allotment, and the balance of the original allotment is larger than 40 ha.

“[Issues include] Population density - minimum property size.”
Gatton public meeting 2/4/98.

14.2 Summary of community consultation

The issue of subdivision was raised at the public meetings, the view of several groups being that subdivision should be limited to appropriately sized allotments, with some groups stating that no further subdivision should be permitted.

The issue of subdivision was also raised by a small number of landholders who feel the existing restrictions on subdivisions in the rural zone (in the Gatton Shire Planning Scheme) unduly limit their development potential. This view however, is not widespread, with the general view of landholders being that restriction on further subdivision in the Hills area should be maintained. Some landholders are of the opinion the whole area should be conserved, and no development at all should be

“The area should be conserved rather than developed.”
Helidon Hills landholder.

allowed.

The support for ‘no further subdivision’ was accompanied by statements that the ‘blockies’, or owners of new allotments have unrealistic expectations, do not manage the land satisfactorily, and add to the maintenance problems of roads in the area. The issue of group title development was raised as being suitable for the Helidon Hills, however such development is not presently facilitated through the planning schemes.

14.3 Discussion and future directions

Buffering of farming land is desirable to prevent conflicts between incompatible uses, and any residential development should take account of farming activities in determining building envelope locations.

Mechanisms which may be available to facilitate subdivision without further fragmenting rural land, such as Nature Refuge Agreements/Voluntary Conservation Agreements¹ over land with high conservation values, should be investigated. For example, approval to subdivide could be granted provided the applicant was prepared to set aside high value conservation land, or land with significant cultural values, for such agreement purposes. Signing of the agreement would ensure the protection of the values of the land, and allow the portion of land without high values to be excised. The possibility of rate rebates for areas covered by Nature Conservation Agreements/Nature Refuge Agreements should also be investigated.

Group title subdivisions, where landholders have shared exclusive use rights, may also be viable. For example, the common property can be used for a wide variety of uses and is entirely dependent on the policies of the management plan agreed to by the body corporate. Agricultural land or conservation land (eg remnant bushland, habitat, site of cultural significance) could be contained within the common property. Restrictions on the overall density of the development would need to be determined by a land capability study. The body corporate must be responsible for the maintenance of roads within the group title, and reduce the maintenance cost to Council of other services. Planning schemes in the project area would need to be amended to enable group title subdivisions to

“Group title development could be economically viable and suitable for the Helidon Hills.”
Helidon Hills landholder.

be approved.

Providing opportunities for bed and breakfast, host farm, and environmental tourism accommodation offers new business opportunities in rural communities. These new enterprises can support and complement traditional rural industries. Planning schemes should facilitate the provision of such accommodation, and should not discriminate between these new opportunities and traditional rural uses.

“We are keen to know how supportive Council will be of our [tourism] proposal and how complex the approval process will be.”
Helidon Hills landholder.

Gatton Shire Council has adopted a Planning Guideline for Bed and Breakfast Accommodation, which gives guidance for proposed developments. The Planning Circular ‘Bed and Breakfast and Host Farm Accommodation’² suggests bed and breakfast and host farm accommodation in rural areas catering for up to 12 persons (including usual residents and guests) in the main dwelling need only comply with the Standard Building Law. Where accommodation is proposed in buildings separate to the main dwelling, ie guest houses, the proposal should be subjected to development assessment. Criteria by which the proposal is assessed need to be clearly identified in planning schemes, eg. car parking, water supply and sewerage disposal, impact on natural resources and farming activities, etc.

14.4 Objectives

- Planning Schemes in the Helidon Hills project area assist the achievement of ecological and economic sustainability.

14.5 Actions

The issues raised during this phase of consultation will be dealt with by the relevant local authorities as Planning Schemes’ review is required to be completed by year 2003. Each of these issues have been transferred to the relevant area in this plan.

- 14A Local Governments investigate the suitability of allowing the limited and controlled subdivision of rural land in return for the secure protection of land with high conservation or cultural heritage value.
- 14B Local Governments make use of alternative mechanisms such as voluntary conservation agreements to protect land with high conservation value.
- 14C Local Governments review their planning schemes so

that the provision of bed and breakfast, host farm, and environmental tourism accommodation is facilitated in rural areas, and the assessment criteria for development approval for such accommodation is clearly identified in the planning scheme.

References and notes

¹ Refer to Chapter 4 Nature Conservation for more details on these concepts.

² Planning Circular 2/97, Bed and Breakfast and Host Farm Accommodation, produced by the Department of Local Government and Planning, September 1997.

15. Conclusion and Implementation

15.1 Implementation of the Management Plan

This Draft Management Plan represents the completion of Stages 1 to 3 and the first year of the Sustainable Management of the Helidon Hills Project.

Natural Heritage Trust (NHT) funding has been received for a second year of the project, with Stages 4 to 6 being carried out from December 1998 to October 1999.

15.1.1 Stages 4 to 6

Stage 4 of the project was carried out from December 1998 to February 1999 and involves:

- Review of the Draft Management Plan by landholders, industries, community groups, and government agencies.
- Continued discussions with individual landholders, industries, community groups, and government representatives.
- Accessing, assessing and incorporating the outcomes of the South-East Queensland Regional Forest Agreement (RFA) process as they become available.
- Finalisation of the Management Plan, and finalisation of the implementation of the plan.

Stage 5 was carried out from March 1999 to August 1999, and involves the commencement of Management Plan implementation.

The Natural Heritage Trust (NHT) funding for Stage 5 includes the following assistance to landholders within the project area:

- \$7,000 to assist with constructing firelines.
- \$8,000 to assist with habitat restoration (weed control, replanting etc.)
- \$30,000 to assist with constructing fences to facilitate grazing control in nature conservation significance areas.

To access the Stage 5 assistance, landholders will need to fill in and submit the application form that will be included in a newsletter sent out at the commencement of Stage 5 (March 1999). Applications will be assessed on their merit by

“Funding assistance programs such as ‘Drought Landcare’ are extremely beneficial.”
Helidon Hills landholder.

WESROC. Subject to their acceptance of funding conditions, successful applicants will then receive assistance. These amounts are the total amount of assistance that will be available for the whole of the Helidon Hills project area, and will be broken down into smaller components of assistance for individual landholders.

If a way can be found of funding rate rebates and other forms of assistance (such as weed control and fencing) in perpetuity, then the NHT funding will also include \$20,000 to start the payment of rate rebates to private landholders for areas that are set aside for nature conservation.

The NHT funding also includes \$14,000 to assist with the restoration of gravel scrape areas.

Stage 6 will be carried out from September 1999 to October 1999, and involves a review of the progress of action plan implementation and the fine-tuning of the plans as necessary.

15.1.2 Helidon Hills Landscape Trust

The Stage 5 landholder assistance funding is once-off and will not go very far when spread right across the Helidon Hills. The proposed Helidon Hills Landscape Trust (refer to Sections 4.3.7 and 4.3.8) would provide a way of making larger amounts of assistance available to landholders in the long-term.

The Sustainable Management of the Helidon Hills Project will continue to advance the proposal for a Helidon Hills Landscape Trust with the State and Federal Governments.

The bottom line is that unless some way can be found to provide effective long-term assistance to landholders, sustainable management objectives for the Helidon Hills will not be met.

“[Suggested solutions include] Sustainable management to be regulated by experienced field staff and landholders (not academics).”
Helidon public meeting 1/4/98.

15.2 Implementation at individual property level

By the end of Stage 6, landholders within the project area will need to have complete ownership over project actions. If this is not achieved, then the project will simply stop at the end of October 1999.

A successful transition of project ownership from WESROC to

landholders is to be achieved by:

- Establishing a Landholders' Group.
- Facilitating property management planning on individual properties.

15.2.1 Landholders' Group

Meetings will be held in February 1999 to initiate the formation of a Helidon Hills Landholders' Group (refer to Section 3.3.2).

The makeup of the Landholders' Group will need to:

- Reflect the full range of Helidon Hills land-use objectives and viewpoints.
- Operate in a way that will allow for the diverse objectives and viewpoints of different landholders to be respected and co-exist harmoniously.
- Involve relevant institutional landholders and other relevant stakeholders.

Working groups, which could function as subcommittees of the Landholders' Group, should be established to deal with specific land use issues. The proper establishment of a Landholders' Group is expected to take several months. In the meantime an Interim Landholders' Group will be established. One of the first tasks for the Interim Landholders' Group will be to work with Project Coordinator Bruce Boyes, community groups, and government agencies to finalise the management plan and implementation arrangements.

15.2.2 Property management planning

The Department of Primary Industries (DPI) "Futureprofit" property management planning process will be facilitated in the Helidon Hills to translate the sustainable management objectives and actions for the overall area into sustainable management outcomes on individual properties (refer to Section 12.3).

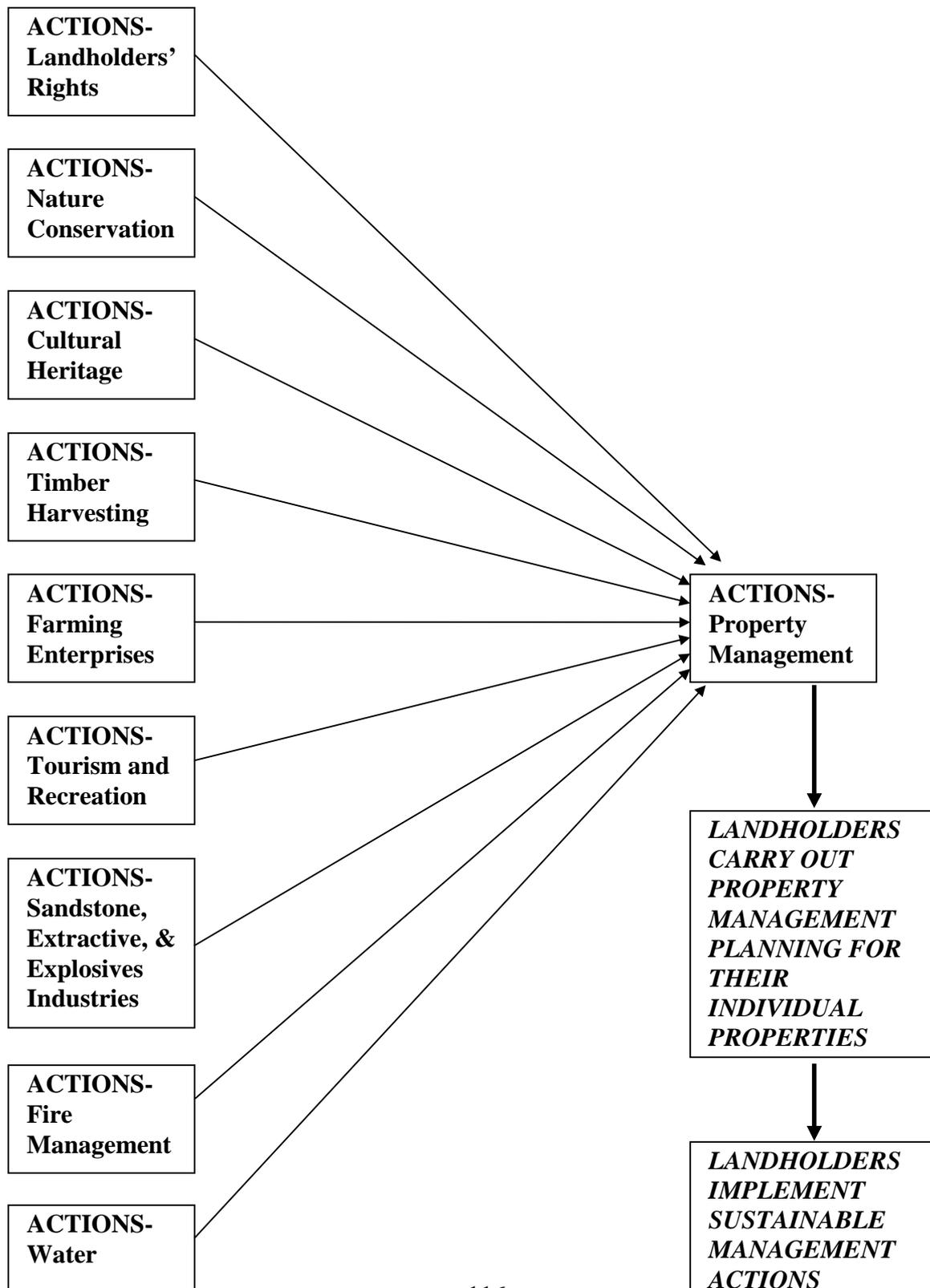
The Futureprofit process involves a series of workshops in which facilitators assist the landholders to identify and plan both the land management and business management aspects of their property. Futureprofit works well because it is the landholders who actually make the planning decisions. This approach is consistent with the approach of the whole project, which is aiming to give landholders ownership over project actions.

The Natural Heritage Trust (NHT) funding for Stage 5 of the project includes \$7,000 for the facilitation of property

management planning workshops and the preparation of plans.

The flowchart on the following page illustrates the property management planning process for the Helidon Hills.

Helidon Hills property management planning



16. Action Plan

16.1 Report Headings

Actions	The sustainable management Actions from Draft Management Plan Chapters 3 to 14.
Participants	All of the stakeholders that need to be involved in the implementation of each action.
Lead Role	Identifies the stakeholder that has the responsibility for leading the implementation of each action.
Status	Progress of the implementation of each action.
Comments	Comments relating to progress of implementation.

16.2 Report Abbreviations

CGRP	Community Groups
CNSC	Crows Nest Shire Council
CON	Consultants
EPA	Environmental Planning Authority (formerly DEH)
DME	Department of Mines and Energy
DMR	Department of Main Roads
DNR	Department of Natural Resources
DPI	Department of Primary Industries
ESC	Esk Shire Council
GSC	Gatton Shire Council
IMG	Interim Management Group
IP	Infrastructure Providers
KRA	Key Resource Area
LCC	Lockyer Catchment Centre
LCCC	Lockyer Catchment Coordinating Committee
LH	Helidon Hills landholders
LHG	Helidon Hills Landholders' Group
LVTA	Lockyer Valley Tourism Association
LWMA	Lockyer Watershed Management Assn. - Lockyer Landcare Group
NCC	WESROC Non-urban Consultative Committee
PL	Powerlink
POL	Police
QR	Queensland Rail
QTB	Queensland Timber Board
RFB	Rural Fire Brigades
TQ	Tourism Queensland (formerly QTTC)
UQGC	University of Queensland Gatton Campus
WG	Working Group

16.3 Landholders' Rights

Actions	Participants	Lead Role	Status	Comments
3A Investigate the establishment of a "Neighbourhood Watch" program in the Helidon Hills.	LH, LHG, POL	LHG	Commenced	To be implemented by landholders group Alan Stoodley and Pat Andrews to convene
3B Provide controlled and designated access to tourism and recreation areas to mitigate the problem of trespass on private land.	LHG, GSC, ESC, CNSC, DNR, EPA, DMR	LHG	Not commenced	Addressed in Recreational Study by DNR
3D Establish a landholder-based management body to oversee the implementation of management actions. The landholder-based management body will need to be reflective of the full range of Helidon Hills land-use objectives and viewpoints, and will need to involve relevant institutional landholders and other relevant stakeholders.	LH, ILHG, NCC, GSC, ESC, CNSC, DPI, EPA, DNR, DME, DMR, RFB, LCC, LCCC, LWMA, CGRP	ILHG	In train	
3E Establish working groups, which could function as subcommittees of the landholder-based management body, to deal with specific land use issues (working groups could include nature conservation; cultural heritage; timber harvesting; fruit growing; grazing; native plant enterprises; tourism and recreation; sandstone, extractive and explosives industries; fire management, water, property management).	LH, ILHG, NCC, GSC, ESC, CNSC, DPI, EPA, DNR, DME, DMR, RFB, CGRP, LCC, LCCC, LWMA	ILHG	Several formed; continuing	
3F Facilitate a rapid transition of project management from WESROC to the landholder-based management body.	NCC, LH, ILHG, LHG	LHG	Being carried out with 3D	

16.4 Nature Conservation

Actions	Participants	Lead Role	Status	Comments
<p>4A Develop and implement a ten year program to control or preferably eradicate lantana and other weeds and feral animals from the Helidon Hills. The programs would need to involve:</p> <ul style="list-style-type: none"> • The identification of problem weeds/feral animals. • Prioritisation and the setting of achievable targets (ideally complete eradication, or if impossible then reduction to specified levels). • Large-scale coordinated control involving material and financial assistance to landholders. The assistance could include free herbicide, free feral pig traps and free labour (such as Work for the Dole). 	LHG, LWMA, ILHG, LH, DNR, EPA, LCC	ILHG, LWMA	To be implemented through other devolved grants &/or threatened species recovery program	To be implemented through LWMA - Lockyer Landcare threat-based recovery project. This project will be known as Lockyer Catchment Biodiversity Planning Recovery Project
<p>4E Promote the nature conservation values of the area by providing information to landholders and the community in regard to the value, identification and conservation of flora, fauna, and ecosystems, including the conservation of genetic diversity. Provide information through:</p> <ul style="list-style-type: none"> • Field days, where flora and fauna experts provide practical hands-on information and advice. • The production of written material (brochures, booklets). • Easy access to informed advice that can be consulted as needed. 	EPA (agreed), LHG, ILHG, CGRP, LCC, UQGC	LCC	LCC Threatened Species Information Project	Fact sheets to be completed through contract with LCC under Lockyer Catchment Biodiversity Recovery Planning Project
<p>4F Encourage the Lockyer Catchment Centre to carry out the role of providing nature conservation information for the Helidon Hills. To do this effectively the Lockyer Catchment Centre would need to:</p> <ul style="list-style-type: none"> • Become better informed about Helidon Hills nature conservation issues and the needs and views of the Helidon Hills community. • Expand its operations beyond the centre by, for example, establishing information displays at Helidon and Murphy's Creek and giving regular presentations to the Helidon Hills community. • Ensure that the issues of the Lockyer uplands, including the 	LHG, ILHG, LCC	LCCC	In train, although the LCC is mainly focussed on the lowlands	Addressed through letter from IMG with suggestions including pamphlets at Helidon Hills and Murphy's Creek at Newsagents Any proposals for a Heritage Centre should include

	Helidon Hills, are properly reflected in written materials that are displayed and produced.				accommodation for Nature Conservation information
4H	Further investigate the most appropriate type of landholder initiated conservation agreement for the Helidon Hills (Nature Refuge Agreements or Voluntary Conservation Agreements).	LHG, ILHG, LWMA, LCC, LCCC, EPA	LCCC	Commenced	Needs to be further investigated by LCC
4I	Establish demonstration sites for conservation agreements (including landholder assistance).	LWMA, LCC, LH, LHG, ILHG, EPA	LWMA, LHG, LCCC	Not commenced	To be implemented through LWMA - Lockyer Landcare threat-based recovery project
4J	Investigate the potential for initiating Land for Wildlife in the Helidon Hills, as part of the expansion of the SEQ Land for Wildlife program.	LH, LHG, ILHG, GSC, LWMA, EPA	LWMA	Done – GSC rejected first application	To be further addressed through LWMA - Lockyer Landcare threat-based recovery project
4K	All new developments in the Helidon Hills (including building construction, mining and extractive industries, and farming) must account for the significant nature conservation values of the area.	GSC, ESC, CNSC, DME, DPI	GSC, ESC, CNSC, DME, DPI	To be addressed in the new Gatton Shire Planning Scheme	Implementation to be commenced through GSC IPA Project
4M	Implement fire management practices that take into account the fire requirements of the natural vegetation (refer to Fire Management section).	LH, LHG, ILHG, RFB, LWMA, LCC	LHG, ILHG, LWMA	Commenced	Fire management plan for overall Helidon Hills area prepared, needs to not be implemented at individual property level. This will be commenced through LWMA - Lockyer Landcare threat-based recovery project

16.5 Cultural Heritage

Actions	Participants	Lead Role	Status	Comments
5A Producing a Cultural Heritage Management Plan (CHMP) for the sites defined during the previous predictive stage of research. <ul style="list-style-type: none"> A CHMP provides direction for the appropriate management of cultural heritage sites, places and issues within the Helidon Hills study area. It provides advice and direction on the appropriate procedures for the management of the project as a whole; specific sites and places defined during the Cultural Heritage Analysis of the study area; and of unrecorded cultural heritage sites, places and items that may be located, exposed or detected in the future. Contact with indigenous groups and individuals that possess traditional associations to be initiated. 	NCC, EPA, GSC, ESC, CNSC, CON	EPA	Not commenced	Funding application submitted to EPA but rejected. A shire wide assessment will be required for the planning scheme, including HH area
5B Detailed study of identified areas which predictively possess a high, cultural, scientific and archaeological value. Identification of further areas for future work. This need not be undertaken at once, but as funding becomes available or heritage areas prepared for public access.	NCC, EPA, GSC, ESC, CNSC, CON	EPA	Not commenced	Funding application submitted to EPA but rejected
5C Assess the various forms of impact occurring within the study area and the results upon the integrity of such sites, ie borrow pits, quarrying, trail bikes, timber getting, road works.	NCC, EPA, GSC, ESC, CNSC, CON	EPA	Not commenced	Funding application submitted to EPA but rejected
5D Map and provide suitable protection for the scarred tree on Seventeen Mile Road.	GSC, EPA	GSC	Commenced	
5E It is recommended that whenever developments are proposed that could impact upon the quarry sites noted in the present report, a comprehensive heritage study should be required to identify the impact upon cultural heritage that any development would present. <ul style="list-style-type: none"> The present study has indicated the historic significance of the Helidon sandstone quarries. Quarries such as Wright's, Montgomery's, and Comerford's (formerly State Government Quarry) are significant at both the local and state levels. Locally, 	DME, EPA	DME	Commenced	This matter should be addressed within the planning scheme preparation process

	sandstone has been a distinctive product of the Helidon district for some 120 years, representing a continuity of industrial activity that is rare in the Queensland context. At the state level, Helidon and Murphy's Creek sandstone provide a characteristic quality to some of Queensland's most historic public buildings. In addition, the continuity of extraction operations at Helidon quarry sites such as those noted presents the evolution of quarrying activities to the interested observer.				
5F	It is also recommended that Gatton Shire Council and WESROC examine options for the promotion of the heritage aspects of the Helidon quarries in a cultural tourism context. Management at Comerford's quarry, in particular, have indicated an interest in this type of initiative.	GSC, DME, LH, LHG, ILHG, LVTA, LWMA	GSC	Commenced	Linkages between LVTA and Comerfords have been made, and tour visit planning is underway. An issue which can be pursued by WESROC and possibly GSC
5G	Investigate the establishment of a cultural heritage working group, which could function as a subcommittee of the Landholders' Group (refer to Actions 3E and 3G).	ILHG	LHG	Not commenced	Priority to be established after formation of LHG

16.6 Timber Harvesting

Actions	Participants	Lead Role	Status	Comments
6B The timber harvesting working group should investigate the potential for farm forestry to assist in providing a secure long term supply of raw materials for the local industry	WG, LCC	LCC	In train	
6C Vegetation Management Strategies are to be released for comment late 1999 or early 2000. LMG to canvas local opinion and take these views forward	LMG, DNR	LMG	Awaiting release of Vegetation Management Strategies	Important issue for LMG to be recognised as "voice" of Helidon Hills

6D	Regional Forest Recreation Planner has initiated ongoing consultation re minor timber products. Employment opportunities to be investigated re State Forests.	LMG, DNR	LMG	Ongoing	Recommend use of local labour
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16.7 Farming Enterprises

Actions	Participants	Lead Role	Status	Comments	
7A	In consultation with affected landholders investigate the protection, for the purposes of agriculture, of areas of good quality agricultural land (GQAL) identified in the South East Queensland Regional Framework for Growth Management.	LH, LHG, DNR, DPI, GSC, ESC, CNSC	DNR, GSC, ESC, CNSC	In train	Implementation to be commenced through GSC IPA Project
7B	Carry out a study of forest cattle grazing in the Helidon Hills to determine sustainable grazing practices. Issues the study would need to examine include: <ul style="list-style-type: none"> The effect of cattle grazing on the shrubby understoreys, which have high conservation value, and also potential commercial value. The relationship, if any, between cattle and the invasion of natural forest areas by exotic pasture grasses. Whether cattle tracking is contributing to erosion. The effect of cattle on high quality water sources and in particular natural springs. The economic viability of grazing on the infertile sandstones. The implications of the South-East Queensland Regional Forest Agreement (RFA) on State Forest grazing leases. 	LH, LHG, ILHG, DNR, DPI, EPA	LHG	Not commenced	The Farm working group should consider this as a possible project & look at forming a working relationship with DNR & DPI
7C	Implement sustainable grazing practices through a voluntary Code of Practice where, in return for complying with the Code, landholders receive: <ul style="list-style-type: none"> Financial assistance to establish new ecologically and economically sustainable enterprises, such as ecotourism or the cultivation of native wildflower plants, or alternatively 	LH, LHG, DPI	LHG	In train	Subject to funding of devolved grants

	<p>compensation for loss of income.</p> <ul style="list-style-type: none"> Financial assistance for the erection of fencing to exclude cattle from sensitive areas. 				
7D	<p>Investigate and implement ways of assisting fruit growing enterprises through:</p> <ul style="list-style-type: none"> Buffering from other incompatible land uses. The provision of reliable water supplies. Assistance to reduce chemical use. Assistance to address the flying fox problem. 	LH, LHG, ILHG, DPI, GSC, ESC, CNSC	LHG, ILHG	Not commenced	Implementation of “buffering from other incompatible land uses” to be commenced through GSC IPA Project
7E	<p>Investigate the development of new farming enterprises based on the native wildflowers and foliage of the Helidon Hills through:</p> <ul style="list-style-type: none"> Seeking Queensland and/or Commonwealth Government funding assistance. The identification of species with cut flower or foliage potential. Market research including trials. Bringing suitable species into cultivation. Identifying growing requirements, and from this suitable growing areas. 	LH, LHG, ILHG, DPI, CGRP, LCC, LWMA, GSC	LHG, ILHG	Commenced	Needs State or Federal funding to progress
7F	<p>Investigate ways of assisting landholders to:</p> <ul style="list-style-type: none"> Investigate the viability and suitability of other new proposed farming enterprises. Establish sustainable enterprises. 	LH, LHG, ILHG, GSC, ESC, CNSC	LHG, ILHG	Commenced	
7G	<p>Investigate the establishment of fruit growing, grazing, and native plant enterprises working groups, which could function as subcommittees of the Landholders’ Group (refer to Actions 3E and 3G).</p>	ILHG	ILHG	Commenced	Native plant enterprises working group established

16.8 Tourism and Recreation

Actions	Participants	Lead Role	Status	Comments
8B Investigate the specific opportunities for tourism development in the area, the impediments to this development, and the solutions to these impediments. Implement the solutions.	LH, LHG, ILHG, GSC, ESC, CNSC, LVTA, NCC, QT	LHG, ILHG	Commenced	Needs State or Federal funding to progress

16.9 Sandstone, Extractive, and Explosives Industries

Actions	Participants	Lead Role	Status	Comments
9A EPA (formerly DEH) land included in the proposed Helidon KRA.	EPA, GSC	EPA	Commenced	Shire wide vegetation mapping plan underway
9B EPA facilitate a detailed assessment of the cultural heritage values of land included in the proposed Helidon KRA.	EPA, GSC & IMG	EPA	Completed but not provided in detail	
9C DME facilitate a detailed assessment of the impact of existing and future sandstone extraction on scenic amenity within the proposed Helidon KRA, including impact on watercourses, waterfalls, and gorges.	DME, DNR (RLU)	DME	Not commenced	Regional Landscape Unit to be contacted as they may provide some assistance
9D DME facilitate consultation with landholders whose properties would be impacted upon by the proposed Helidon KRA.	DME, LH, LHG, ILHG	GSC	Commenced	Working Group to consider inviting DME
9E DME, EPA and landholders negotiate with a view to satisfactorily resolving the issue of competing values (nature conservation, scenic amenity, cultural heritage, and landholders' rights) attributable to the land included in the proposed Helidon KRA.	DME, EPA, LH, LHG, ILHG	GSC	Commenced	Invitation to DME extended from GSC

9F	Sandstone industry operations take account of nature conservation, scenic amenity, cultural heritage, landholders' rights and other values, and adequately rehabilitate areas when extraction is ceased.	DME, EPA, LH, LHG, ILHG	GSC	Not commenced	Possible action is to ask for statement of intent or approach from operators
9G	EPA to facilitate a detailed assessment of the nature conservation values of land recommended be included in the potential Mount Cross KRA.	EPA	EPA	Project consultant assisting	
9H	EPA to facilitate a detailed assessment of the cultural heritage values of land recommended be included in the potential Mount Cross KRA.	EPA	EPA	Commenced	
9I	DME facilitate a detailed assessment of the impact of any proposed extraction of hard rock from the Mount Cross potential KRA area on scenic amenity and visual landscape of the region.	DME	DME	Project consultant assisting	
9J	DME to facilitate consultation with landholders whose properties would be impacted upon by the potential Mount Cross KRA.	DME, LH, LHG, ILHG	DME	Project consultant assisting	
9K	DME, EPA, GSC and landholders negotiate with a view to satisfactorily resolving the issue of competing values (nature conservation, scenic amenity, cultural heritage, and landholders' rights) attributable to the land recommended to be included in the potential Mount Cross KRA.	DME, EPA, GSC, LH, LHG, ILHG, EPA	DME	Project consultant assisting	
9L	Extractive industry operations take account of nature conservation, scenic amenity, cultural heritage, landholders' rights and other values, and adequately rehabilitate areas when extraction is ceased.	DME, GSC, ESC, CNSC, LH, LHG, ILHG	DME, GSC, ESC, CNSC	Not commenced	Implementation to be commenced through GSC IPA Project. Working Group to check & ask for inclusion in Planning Scheme
9M	Include the Helidon Explosives Magazine and the 2 km safety buffer around the central storage area of the Magazine in the Helidon KRA where not already alienated due to existing development.	DME, GSC, EPA	GSC	Not commenced	Implementation to be carried out through GSC IPA Project
9N	DME review the boundaries of the safety buffer for the Helidon Explosives Magazine and the Helidon KRA when any new explosive industries or significant expansion to existing explosive industries are proposed.	DME, GSC, EPA	GSC	To be implemented as required	

9O	Proposals for any new explosive industry or significant expansion to existing explosive industries to take account of safety, nature conservation, cultural heritage, landholders' rights and other values.	DME, EPA, GSC, LH, LHG, ILHG	EPA	To be implemented as required	
9P	Investigate the establishment of a sandstone, extractive and explosives industries working group, which could function as a subcommittee of the Landholders' Group (refer to Actions 3E and 3G).	ILHG	ILHG	Commenced	Potential working group participants identified

16.10 Fire Management

Actions	Participants	Lead Role	Status	Comments	
10A	Implement the fire management strategies detailed in Helidon Hills Fire Management Plan and Helidon Hills Fire Management Plan User Manual.	LH, LHG, ILHG, RFB, LWMA, LCC	LHG, ILHG, LWMA	In train	To be further addressed through LWMA - Lockyer Landcare threat-based recovery project & Rural Fire Boards
10B	Following implementation, review the efficacy of the fire management strategies and make improvements to the strategies as required.	LHG, RFB, GSC	LHG	To be implemented as required	
4M	Implement fire management practices that take into account the fire requirements of the natural vegetation (refer to Fire Management section).	LH, LHG, ILHG, RFB, LWMA, LCC	LHG, ILHG, LWMA	Commenced	Fire management plan for overall Helidon Hills area prepared, needs to not be implemented at individual property level. This will be commenced through LWMA - Lockyer Landcare threat-based recovery project

16.11 Water

Actions	Participants	Lead Role	Status	Comments
11A DNR continue to monitor groundwater aquifers in the Helidon Hills area, and provide the Landholders' Group with the findings of such monitoring. Advice from DNR will be sought should there be any deterioration in water level or quality of the aquifer.	DNR, LHG, ILHG	DNR	Commenced	Suggest working with WESROC NCC & DNR to investigate what is required in Lockyer Valley
11B Negotiate with the School of Natural Resource Sciences, Queensland University of Technology, with the view to commencing student research to determine: <ul style="list-style-type: none"> • The role which groundwater in the Helidon Hills project area plays in supporting flora, fauna, and ecosystems. • The effect of continued increased use of groundwater from the sandstone aquifers on the level of flow and quality of water of natural springs in the Helidon Hills area. • What, if any, relationship exists between the spring fed creeks and nearby alluvial aquifers. 	LHG, LCC	LHG	Commenced	Currently not addressed by the Water Allocation Management Plan (WAMP). Representative role for the Helidon Hills Management Group
11C Planning Schemes within the project area be reviewed and amended where required so proposals for any high water demand development within the Helidon Hills project area be made assessable development, subject to impact assessment, requiring submission of a report on the impact of the development on groundwater supplies and the natural springs of the aquifer to assist Local Government in deciding the application.	GSC, ESC, CNSC, DNR	GSC, ESC, CNSC	Commenced	Implementation to be commenced through GSC IPA Project Possible actions eg. letter sent to GSC, ESC, CNSC; review GSC Statement of Proposals; or request WESROC assistance

16.12 Property Management

Actions	Participants	Lead Role	Status	Comments
12A Establish linkages with relevant personnel from the Futureprofit program run by the Department Primary Industries (DPI).	DPI, PC, LH, LHG, ILHG, LCC	LCC	Commenced	Initial linkages established
12B Facilitate property management planning workshops and the preparation of property management plans.	DPI, LH, LHG, ILHG, LCC	LHG, ILHG, LCC	Commenced	Part of landholder assistance program (to be contracted to LCC)
12C Investigate the establishment of a property management working group, which could function as a subcommittee of the Landholders' Group (refer to Actions 3E and 3G).	ILHG, LCC	ILHG, LCC	Not commenced	

16.13 Infrastructure (Powerline Easement, Rail, Roads and Access, Gas Pipelines)

Actions	Participants	Lead Role	Status	Comments
13A Powerlink consult with landholders and the broader community in the formulation of the Environmental Management Plans such that the impact of the construction be minimised.	PL, LH, LHG, ILHG, CGRP, LWMA, LCC, LCCC	PL	Not commenced	
13B Powerlink assist in meeting the objectives and principles of the Regional Framework for Growth Management 1998 (RFGM) in the formulation of the Environmental Management Plans for the construction of the powerline.	PL, EPA	PL	Not commenced	
13C Powerlink facilitate detailed studies of the conservation and cultural heritage values of the corridor.	PL, EPA	PL	Not commenced	
13D Where construction of a powerline would impact on areas with high conservation or cultural heritage significance, the powerline be moved where possible in order to lessen the impact.	PL	PL	Not commenced	

13E	Any future powerlines proposed for the Helidon Hills area be contained within existing corridors.	PL	PL	To be implemented as required	
13F	Queensland Rail consult with landholders affected by the preferred option for the new rail line in order that any concerns can be addressed.	QR, LH, LHG, ILHG	QR	Completed subject to acceptance of QR study	
13G	Queensland Rail facilitate detailed assessments of all environmental and cultural heritage values of land affected.	QR, EPA	QR	Completed subject to acceptance of QR study	
13H	Where significant environmental or cultural heritage values are identified, Queensland Rail consider an alternative corridor.	QR, EPA	QR	Not commenced	
13I	Queensland Rail negotiate with landholders who in the future have land or property acquired and compensation paid for the proposed rail line, with a view to continuing occupation of the acquired land or property until such time as Queensland Rail has made a commitment to build the proposed rail line.	QR, LH, LHG, ILHG	QR	Completed subject to acceptance of QR study	
13J	Local Governments investigate the provision and maintenance of all-weather access roads in the Helidon Hills area, including adequate drainage for the purpose of minimising erosion of roads and adjacent properties.	GSC, ESC, CNSC, LH, LHG, ILHG	GSC, ESC, CNSC	Commenced	Discussions held with GSC Officers
13K	Local Governments investigate the upgrading of 17 Mile Road to bitumen seal standard to at least Goldmine Road or Wallers Road. The investigation should include discussions with the sandstone and timber industries, which are seen as major users of 17 Mile Road, and discussions with landholders who adjoin this road or use it to access their properties.	DMR, GSC, ESC, CNSC, LH, LHG, ILHG	GSC, ESC, CNSC	Commenced	GSC has had initial discussions. Subject to funding
13L	Gatton Shire Council investigate the upgrading of Goldmine Road to all-weather standard, including adequate drainage for the purpose of minimising erosion. The upgrading of other roads, including Sandy Creek Road and Krugers Road, should be investigated.	GSC, LH, LHG, ILHG	GSC	Commenced	With GSC subject to funding

13M	Infrastructure providers to consult with landholders affected by the preferred option for the new gas pipeline and any other future infrastructure corridors in order that any concerns can be addressed.	IP, LH, LHG, ILHG	IP	To be implemented as required	
13N	Infrastructure providers to facilitate detailed assessments of all environmental and cultural heritage values of land affected.	IP, EPA	IP	To be implemented as required	
13O	Where significant environmental or cultural heritage values are identified, infrastructure provider consider an alternative corridor.	IP, EPA	IP	To be implemented as required	
13P	Infrastructure providers negotiate with landholders about compensation for the acquisition of the pipeline corridor and any other future infrastructure corridors.	IP, LH	IP	To be implemented as required	
13Q	Planning Schemes be reviewed in relation to provisions about development in the vicinity of a gas pipeline, in order to reflect current safety requirements.	GSC, ESC, CNSC	GSC, ESC, CNSC	Commenced	Implementation to be commenced through GSC IPA Project