

# **The State of the Shire- Year 2000 Benchmark**

## **Chapter 1 - Introduction Technical Paper**

**April 2001**

## **INTRODUCTION**

### **1.1. A Message from the Mayor**

It is with pleasure I present to you Johnstone Shire Council’s ‘State of the Johnstone Shire - Year 2000 Benchmark’.

This report is a snapshot of the Shire in the year 2000 and will provide benchmark data against which future comparisons can be made.

The State of the Shire Report is an initiative of the Council, not a legislative requirement as in other states. Council is committed to continue its State of the Shire reporting, with annual updates and a new report produced every 4 years.

Evidence has shown that overall, the Johnstone Shire is in good condition, however further data is required in some areas. Whilst the report found that there are areas requiring improvement such as effluent discharge from the sewage treatment plant. The report has also proven there are many outstanding accomplishments being achieved such as surpassing composting targets and wet waste reduction. It is my hope that the report will be of use to decision-makers, policy makers, planners and members of the broader community alike.

I thank the technical committee representatives who gave freely of their time and knowledge to assist with the report’s technical papers and to the community as a whole who provided invaluable input and assistance into all phases of the reporting process. Without your help, this report would not have been possible.

### **1.2. A General Manager’s Perspective**

Presentation of the first ‘State of the Shire’ is a landmark occasion for local government of the area.

In 1991 Council officially embraced a new philosophy when it accepted that the planning which it did should embrace social and environmental issues in addition to the infrastructure provision which it had concentrated on previously.

That decision proved to be in the forefront of what has become an international movement to a more holistic and communicative form of planning known as ‘Local Agenda 21’.

Since then the Queensland State Government has legislated to have all local government planning schemes prepared in this manner and Council has participated in an international research program on ‘Agenda 21’.

Incorporated in “Local Agenda 21” is a belief that local government has a stewardship role to play on behalf of its community. This means that not only should Council look after its own assets, as shown on its balance sheet, it should also be concerned with looking after the community assets such as rivers and remnant vegetation as well as the health and wellbeing of residents.

This report is a first attempt to look at these community assets and assess their condition.

Having been closely associated with the ‘Local Agenda 21 Program’ since its inception, it gives me particular pleasure to see this document published as it a vital link in the process.

Council has shown great foresight and courage in commissioning the report. There is no legislative requirement to do it, but again Council has shown leadership in pursuing what it believes is responsible management of its area.

The high level of community interest and input into the preparation of the report are clear indicators that it serves a need and Council is indebted to those who have contributed. The final document is a credit to the staff who have worked on it and I thank and commend them for the great job they have done.

### 1.3. Executive Summary

State of the Environment Reporting is not yet a legislative requirement in Queensland, however the Johnstone Shire Council has been proactive in producing a report at year 2000 as a benchmark for future reports. It is anticipated that updates to this report will be provided 2001, 2002 and 2003 with a new report being compiled for 2004. This report defines environment as including the natural, built, social and economic environments and is called a “State of the Shire” report.

Where possible the report uses the traditional model of Pressure-State-Response, with the addition of an implications parameter which is a more recent development in the field. Through this model appropriate responses are proposed to reduce the pressure on the state of the environment and assist the shire with striving to achieve ecological sustainable development.

**Biodiversity – Flora and Fauna** – the Johnstone Shire is part of the Wet Tropics Bioregion of Queensland. It is home to a large but unknown number of flora and fauna species, a significant proportion of which are rare or threatened. The biodiversity of the area is subject to numerous threats, with protected area management being the most prominent initiative to address this concern. Recommendations include further studies, public awareness, and more sustainable management of existing resources.

**Land Management** – within the Johnstone Shire catchment management assists with managing the natural resource. Many disturbances are identified in the Johnstone River, Moresby River and Liverpool Creek Catchments, with the effects of adjacent land uses on waterway health being a significant issue within each catchment. Pest management, minimum-tillage cultivation, and best management practices are being established within the sugar cane industry to protect natural resources. In some locations urban land uses were also found to be degrading the surface waters, ground waters and floodplains. Recommendations include forward planning and management of waterways, improved sewage management throughout the shire, and enhanced sustainability of primary production.

**Water and Atmospheric Management** – ground, fresh, tidal and estuarine, and coastal waters are valuable assets, contributing to the maintenance of many industries and natural resources. Many studies, and monitoring of these resources, have been undertaken, with results indicating that the quality of these resources is generally good. Limited information is available on atmospheric quality with no assessment undertaken, though, it is the belief of many that atmospheric pollution is not an issue in the Shire.

**Solid Waste Management** – Council currently operates a transfer station at Bells Creek, and a transfer station and dry waste landfill at Stoters Hill. Many initiatives have been adopted to reduce the amount of waste for disposal, including waste separation, composting, community education, waste management plans, vermiculture, drummuster, and pre-cyclone clean ups. In addition, a waste stream analysis, wheelie bin survey, and community attitude survey have also been conducted to identify areas for future improvement. Recommendations include establishment of a waste reporting system, monitoring and review, and further public education.

**The Shire Community** – at the time of the 1996 census, the Johnstone Shire had a population of 19,780 persons of varying age and background. These residents were well provided for with regard to housing, education, family support services, cultural and recreational organisations, and legal and public safety initiatives. Access to a greater range of health services is required. There is room for improvement within each of these services, especially in specialist care, and facilities such as youth recreation and specialised housing, with promotion of services available urgently needed. Recommendations include increased specialist care, the provision of culturally sensitive services, and the installation of unstructured youth recreational facilities.

**Economic Development** – economic and urban development in the Shire is built upon the agricultural, tourism and business industries. The Shire has been, and still is, reliant on agricultural industries, with movement toward expansion and creation of new industries. There is potential for increased tourism in the Shire, with existing and proposed attractions being more widely promoted to improve our market share. However, for these industries to prosper, the Shire

must have adequate accommodation, retail, service and professional businesses to meet their needs. Expansion of economy should be matched by an expansion of urban development to cater for the increase in people and businesses. Recommendations include commissioning of a canopy walk, establishment of an ethanol industry, improved public recreational facilities, and establishment of strategies to attract more people to the Shire.

**Council Activities** – Council has in place many programs to manage and protect the environment and reduce environmental harm. Many of these activities are subject to strict monitoring and reporting requirements, with an assessment of Council activities showing a high level of compliance with licence requirements. Council has also assessed old landfill sites, with strategies proposed for remediation of these sites. Council’s focus is now on maintaining its assets especially with a resealing program of the 500km of Council controlled roads in the Shire, replacement of timber bridges, and adoption of programmed building maintenance and total management programs for water and sewage facilities. Recommendations include that Council resource the revolving fund for voluntary acquisition of land with high conservation value, upgrade the Innisfail sewage treatment plant, install sewage at Mission Beach, continue to implement the road resealing program and landfill closure plans.

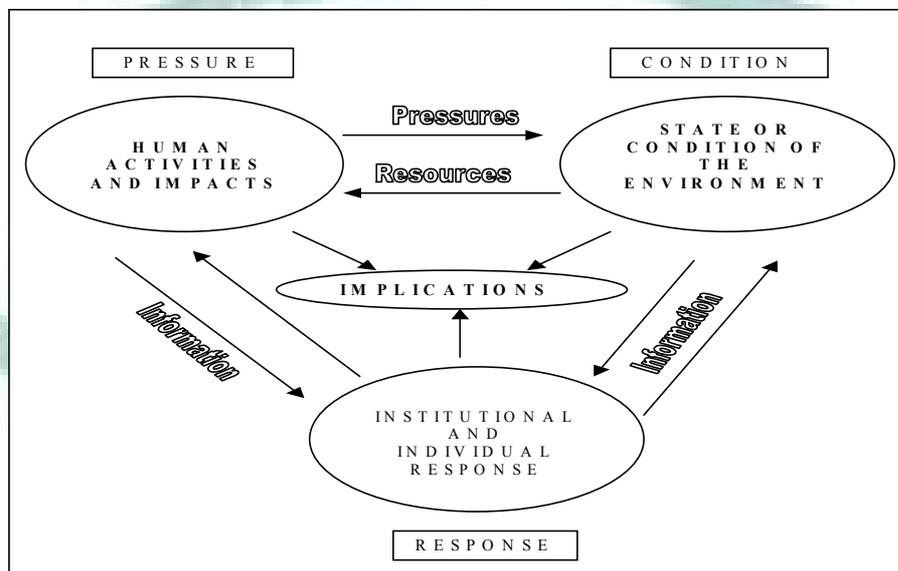
The report has listed a number of recommendations that are aimed at reducing the pressures, where required, or at maintaining the current state. This report provides a benchmark and as such it is impossible to make comment on whether the shire environment (economic, social and natural) is improving, maintaining a constant level, or deteriorating. Future reports will be able to make comparisons to see if the implemented recommendations have reduced the pressures on the environment.

**1.4. Introduction**

1.4.1. What is State of the Shire Reporting?

The State of the Shire Report is a summary of the attributes of the Johnstone Shire environment and the human impacts on the environment within the Shire. The report provides a public record of the activities of government, industry and the community in protecting and restoring the environment. For the purposes of this report, the environment incorporates that which is natural, built, social, or economic.

The State of the Shire Report examines issues identified within the Shire following the pressure-state-response-implications model of reporting as seen in Figure 1.1. The model identifies the pressures on the environment, assesses their current state using a set of indicators, and proposes responses to reducing the pressures on the environment. At each stage of the cycle consideration is given to the implications of actions or inactions. **Through indicators the State of the Shire Report may provide information on actions to achieve ecological sustainable development.**



Indicators are aspects of the natural or built environment that can be monitored to provide information on environmental conditions and trends. Over time they may signal degradation and provide the impetus for a change in management (responses) or they may simply indicate that no change in the management regime is required. Indicators are used to give a representation of a situation at a single point in time, simplify communication of results of measurement, facilitate monitoring of quantitative measures, and assess the progress toward achieving sustainability within the Shire.

The National Strategy for Ecologically Sustainable Development (ESD) defines ESD as:

*“Using, conserving and enhancing the community’s resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased”.*

In 1992, participating countries at the Rio Earth Summit on Environment and Development adopted the United Nations global action plan for sustainable development (Agenda 21) Johnstone Shire Council was one of the first 14 municipalities worldwide to participate in the Model Communities Program which commenced in 1993 to develop ways of implementing agenda 21 locally.

Whilst the Johnstone Shire Council has no specific policy or strategy titled “Local Agenda 21”, it adopted these principles in the preparation of its 1997 Planning Scheme and continues to implement them in its everyday activities.

#### 1.4.2. How the Report was Prepared

To gather information across all elements of the Shire, a number of committees were established to provide information. Environment, Urban and Economic, Social and Council technical committees were established to provide information on relevant chapters in the form of a technical paper. These committees were comprised of members from a broad range of government agencies, private, industry and community organisations possessing technical expertise in a wide range of fields. Membership of these committees was open. The technical papers were produced to provide supplementary information to the main report. A Community Consultative and Organising Committee provided the public with the opportunity to comment on the reporting process, and content, at all stages as well as providing a key role in the organisation of the State of the Shire Forum.

The State of the Shire report aims to:

- Provide regular information on the condition of the environment.
- Report on the effectiveness of policies and programs developed in response to change.
- Assess progress towards achieving goals and targets associated with sustainability.
- Provide input into the development of long term ecological, economic and social policies.
- Identify issues and important gaps in knowledge and data collection.
- Raise community awareness and understanding of the local environment and their contribution to its degradation and protection.

This report is an initiative of the Johnstone Shire Council promoted initially by the Chairman of Council’s Health and Environment Committee. Queensland Local Governments are not legislatively required to produce regular reports, unlike their New South Wales counterparts. Local governments in the southernmost corner of Queensland have prepared State of the Environment reports but to date no Local Government in the northern section of the state has finalised a report. Johnstone Shire Council is working cooperatively with the coordinators of the FNQ 2010 regional plan to develop a framework for reporting in the Far North Queensland Region.

The State of the Shire report is an all inclusive report, identifying issues across 9 broad themes (chapters). Themes covered and an overview of report content are summarised below:

- **Biodiversity – Flora and Fauna** – audit of the unaltered natural resources.
- **Land Management** – commercial usage of natural resources.
- **Water and Atmospheric Management** – water and atmospheric quality and quantity .

- **Solid Waste Management** – waste disposal and management .
- **The Shire Community** – social infrastructure and welfare.
- **Economic Development** – economic viability.
- **Council Activities** – Council facilities and programs.

This initial report will be a benchmark report providing baseline data against which future performance can be measured. Only existing data was used in the preparation of this report and no specific investigations were conducted to fill gaps. However it is expected that these may arise as actions following the publication of the report. Annual updates will be produced, with a full new report prepared every 4 years following the elected term of Council.

It is hoped that this report will be used to address issues in the Shire. Recommendations from the report will be presented to a public forum, at which time the public will have the opportunity to make additional recommendations and prioritise the forum recommendations. It is anticipated that prioritised recommendations will significantly contribute towards a mandate for addressing issues raised by the report.

### 1.4.3. The Johnstone Shire – a perspective

#### *Location*

The Johnstone Shire covers an area of 1,634 km<sup>2</sup> and is located in Tropical North Eastern Queensland, Australia. The major town in the Shire is Innisfail located approximately 90 kilometres south of Cairns. The Shire extends from Eubenangee Swamp in the north to Mission Beach in the south, and west approximately 35km up the Palmerston Highway, and incorporating the Barnard Islands of the Great Barrier Reef to the east.

#### *Climate*



Johnstone Shire has a wet, tropical environment receiving an average 3500mm of rainfall each year. Localised flooding occurs during a distinct wet season, with a single monsoon season during the summer months. The average minimum temperature for the Shire is 19.1 degrees, with an average maximum temperature of 27.9 degrees.

#### *Soils, Geology and Landscape Features*

Processes contributing to the geological formation of the Shire have occurred over a period of 400 million years. Erosion, seismic activity and volcanic activity have been the dominant processes in the formation of the geological landscape. This activity has resulted in the deposition of basalt, alluvial and beach materials, which have subsequently influenced the range and nature of soils in the Shire. Elevation in the Shire varies from below sea level to 1175 metres.

#### *Flora and Fauna*

The Shire has immense biodiversity value due to the wide array of flora and fauna indigenous to the area. Endangered, vulnerable, rare, and common flora and fauna exist throughout the Shire, with one of the most notable being the Southern Cassowary (*Casuarius casuarius johnsonii*). Approximately 50% of the land area of the shire is world heritage listed.

#### *Land Use*

The Johnstone Shire Planning Scheme of 1997 identifies five broad land uses in the Shire, these being conservation, rural conservation, economic development, rural and urban. In the year 2000, 51% of the Shire was zoned as Conservation, 12% as Rural Conservation, 35% as Rural, 1% as Economic Development, and the remaining 1% as Urban.

*Demography*

At the time of the 1996 census, the Johnstone Shire had a population of 19,780 people, with estimations and predictions indicating the 2000 population to be approximately 20,505 people, most of whom reside in the urban centre of Innisfail (the sewered area).