Queensland Land Information Strategy

Benefit Study

May 1997

Spatial information in Queensland is entering a new era. Information resources previously restricted to a single agency will be available right across Government, Business and the Community.

The opportunity to realise the benefits of long term investment in Government information has arrived. With the assistance of recent innovations in information technology and communications, taking action on the recommendations of the QLIS Benefit Study will progressively deliver State wide benefits.

Benefit Study Recommendation Highlights

1. Twenty-two essential State information products were identified. The projected benefits to the State exceed $350 million over the next six years.
2. New State co-ordination structure will be established to deliver benefits.
3. Planned development of a Spatial Information component of the Government's State Information Infrastructure.
4. Regional information and data priorities will drive product development.
5. Joint ventured Government and Industry development of Statewide data sets, information products and services.

To achieve projected benefits identified in the Benefit Study, the Queensland Land Information Council, (QLIC) has endorsed the following Study recommendations:

1. **State Spatial Information Infrastructure.** A Spatial Information component will be developed, primarily comprising 22 essential state information products, and will complement the State Information Infrastructure proposed by the Information Planning Board (IPB), Department of Premier and Cabinet.
2. **Regional Focus.** Specification of information products be driven by local information and data priorities. Initially products will be developed over major growth regions - Wide Bay - Burnett; Brisbane - Moreton; Far North and Fitzroy (refer to *Figure 1*). Collectively this will form the basis of a State Spatial Information Infrastructure which will emerge progressively over the next 6 years.
3. **Key Partnerships - Government, Local Government and Industry**. Government and Industry will jointly specify, fund and develop the state spatial information infrastructure, using the concept of *business information products* as the building blocks. The development of each information product will be directly related to identified business needs and substantiated by a prepared business case and risk analysis.
4. **Queensland Spatial Data Infrastructure (QSDI).** The development of the 22 essential information products will be supported by the QSDI which will be updated according to nationally recognised standards and specifications. The target is to accelerate data coverage and enhancement in priority areas of the State to align with the product development process.

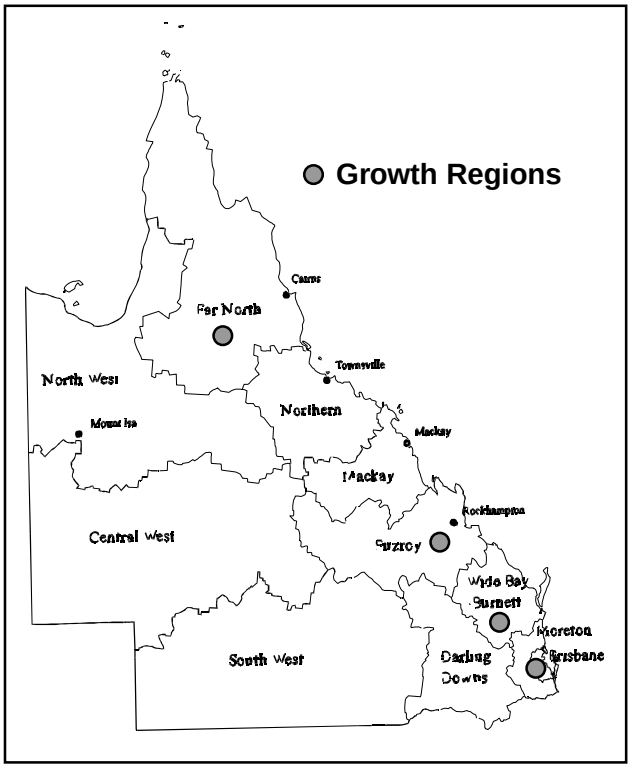


Figure 1 *Information Priorities - Growth Regions*

Benefit Study Details

Background to the QLIS Benefit Study

The Queensland Government Information Infrastructure Strategy (GIIS), is a key component of a broader state planning framework, supporting the State Strategic Plan, State Economic Development Strategy and the Strategic Management Framework.

The Queensland Land Information Strategy (QLIS) was specifically to address the land related information component of the GIIS.

A review of the Queensland Land Information Strategy (QLIS) Lead Agency Agreement in October 1995 recommended that a report be submitted to Cabinet "on the achievements of QLIS to date, and detailing a strategy for the next three years". The QLIS Benefit Study was commissioned by Queensland Land Information Council (QLIC), in October 1996 as a result of this recommendation.

Combined with a recent review of representation required on QLIC, the results of the Benefit Study provide the State with renewed vision and sound strategic direction for the next three years.

Benefit Study Objectives

The QLIS Benefit Study addresses two main objectives:

1. to assess the benefits to the State from past investment in spatial information technology.
2. to identify gaps, overlaps or change in direction required to better address the spatial information needs of the State.

Approach to the Study

The approach to the Study comprised four main tasks:

1. **Conducting 16 Business Information Requirements Workshops,** involving over 100 participants from the following Industry and Government sectors:

   Industry Sectors:
   Primary Production
   Local Government
   Tourism & Recreation
   Property & Finance
   Mining & Energy
   Conservation & Environment

   Government Departments:
   Natural Resources (Group 1)
   Natural Resources (Group 2)
   Local Government & Planning
   Premier & Cabinet
   Economic Development & Trade
   Transport
   Main Roads
   Public Works & Housing
   Mines & Energy
   Environment
   Health
   Education
   Treasury
   Emergency Services (incl. Sport & Recreation)

2. **Review of State Strategies**, Ministerial Program Statements; the Report of the Queensland Commission of Audit and other relevant reports to determine significant issues facing the State.
3. **Survey of Benefits and Costs** of key spatial information agencies to establish pre 1996 costs and benefits of investment in spatial information technology; together with estimates of proposed costs and benefits for the six years to 2002.
4. **Preparation of Case Studies** demonstrating the benefits of specific spatial information projects. Benefits achieved since 1980, and potential benefits of essential State information products required over the next six years, are separately identified in detailed reports.

Essential information products are those that support the efficient functioning of the State. That is, if any investment is to be made in spatial information technology, these information products should be produced first.

Major Benefits to Queensland

The Study identified the benefit of spatial information products required by government and industry decision - makers in areas such as increasing the economic competitiveness of the State, the prudent expenditure of billions of dollars of public and private sector investment capital on new infrastructure development (roads, schools, hospitals, community facilities), and the disposal of surplus assets.

Benefits (past and potential) accrue mainly through lower costs of conducting business in industry and the community from having efficient access to value added information products and services; and through better targeted government programs (lower risks of inappropriate, or poorly timed expenditure on infrastructure and services).

Major Achievements: Benefits to date

Major spatial information technology achievements over the last 16 years (with substantial tangible and intangible benefits) include:

Department of Natural Resources

- Digital Cadastral Database (DCDB)
- Automated Titles System (ATS)
- Basic Land Information Network (BLIN)
- Integrated Valuation & Sales (IVAS)
- Government Land Register (GLR)
- Tenure Administration System (TAS)
- Notings Database
- National Drought Alert Strategic Information System
- Statewide Land Cover and Tree Cover Assessment
- Land Resources Information System (LRIS/ SALI)
- Pest Info
- Cape York Peninsula Land Use Study (CYPLUS)

Primary Industries - Forestry

- Forest Resource Mapping

Local Government & Planning

- South East Queensland 2001 Regional Framework for Growth Management
- Wide Bay 2020 and Far North Queensland Project.
- Residential land supply and consumption
- Broad Hectare Study
- Land Use Activity Analysis

Department of Main Roads and Transport

- Roadview
- Pavement Management System.
- Integrated Regional Transport Planning.
- DMR GIS Facility

Public Works and Housing

- Digital archiving of government records and plans

Department of Environment

- Location of rare and endangered species (WILDNET)
- Contaminated Sites Register
- Protected Estate Areas
- 25 + Spatial Information Projects

Department of Mines and Energy

- Mineral and Energy Resource and Location Information Network (MERLIN)

Department of Health

- Demographic analysis (Cdata)

Department of Education

Demographic analysis (Cdata)

- School building plans

Department of Emergency Services

- Computer Aided Dispatch - Fire and Ambulance
- Chemical Spills / Hazards Impact Analysis

Investment in spatial information technology (hardware, software, staff and data) in Queensland government, after 16 years of development is estimated to be $387 million (present value).

Potential Six Year Benefits

Based on preliminary projections, potential benefits of the essential state spatial information products and integrated information services over the next six years to all sectors are very conservatively estimated to be in the order of $360 million (present value).

The majority of investment over the last 16 years has been on digital data conversion and system building in the land administration area; and on natural resources projects. Significant State benefit has been gained from value added spatial information products and services.

- By the year 2002, the State will have invested an estimated $0.53 billion in the development of spatial information technology.
- Government agencies propose investing a further $145 million (present value) over the next six years.

(Equivalent local government estimates are $66 million investment since 1990, with a further $84 million estimated over the next six years).

Spatial Information Opportunities

The traditional application areas, land administration and natural resources dominate investment in the technology to date. The most significant opportunities for spatial information to contribute to the State's economic and social development, and environmental well-being are in:

Economic Development

- Mining
- Major Projects Facilitation
- Integrated Planning of Growth Centres
- Infrastructure Management

Social Development

- Community Facilities Optimisation
- Public Safety

Environmental Well-being

- Ecologically Sustainable Development

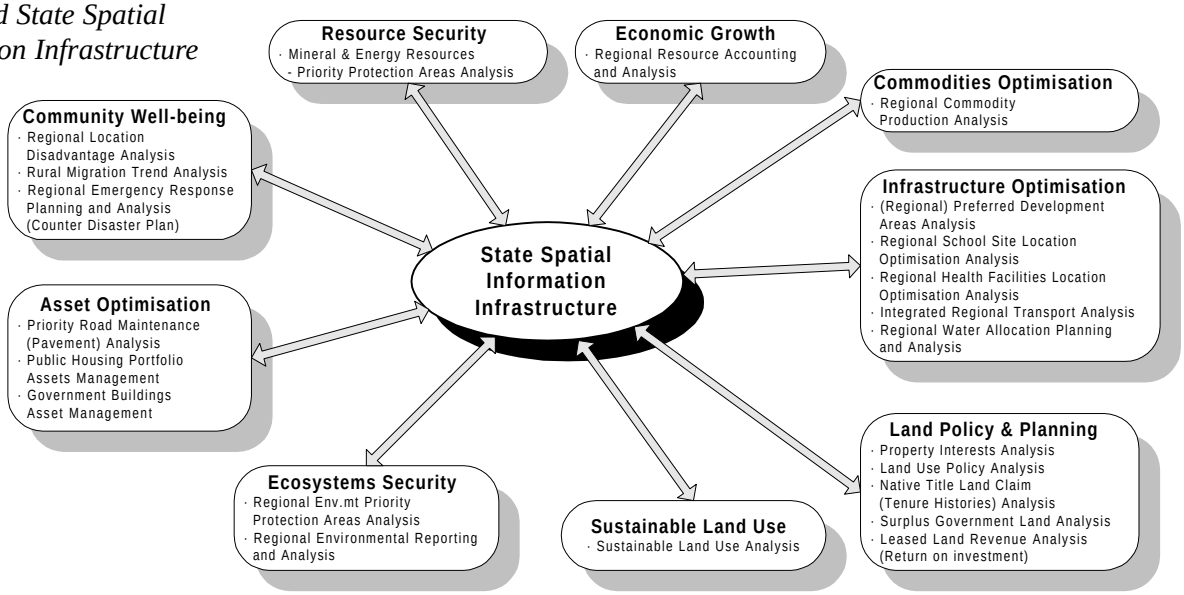
Priority Information Requirements

'Essential' state information products *(Figure 2)* reflect information required by more than one agency, information required across different levels of government; or information that has statewide application across all sectors.

Although one agency may play a leading role in the development of an information product, involvement of key stakeholders at the information product planning/specifications stage will be encouraged. The cost of developing and maintaining the product is then shared between stakeholders.

The essential state information contributes to an understanding of data priorities, providing a focus for the coordinated development of the Queensland Spatial Data Infrastructure (QSDI) comprising more than 80 data sets. Development of product specifications (and hence data specifications) for the 22 proposed regional products, in conjunction with local government and industry will lead to the establishment of an integrated regional spatial data infrastructure.

***Figure 2**. Information Products - Integrated State Spatial Information Infrastructure*



Conclusion

The development of the spatial component of the State Information Infrastructure will assist the State to:

1. **Maintain National & International Competitiveness.** The 'Global Information Age' is rapidly transforming the way business is conducted in government and the private sector. Spatial information has the potential to contribute to 'best practice' in many areas of business.
2. **Achieve outcomes identified in the State Strategic Plan.** The spatial component of the State Information Infrastructure will allow government and the private sector to access information that directly addresses key issues identified in four of the policy areas covered by the State Strategic Plan: - Economic; Social, Regional and Rural Development; and Environmental Management.
3. **Better Manage Risks Associated with Providing Infrastructure and Services.** Better information lowers the risk of a poor decision - making.
4. **Create Industry Growth, Employment & Revenue.** Establishment of a State Spatial Information Infrastructure meets objectives outlined in the State Strategic Plan to establish industries specialising in knowledge services and technological innovation, while providing opportunities for the employment of highly skilled professionals.

Development of viable 'on-line' transactional information services, accessible state wide, offers scope for increased revenue well in excess of current returns, an avoidance of data duplication, and improved data quality.

For further information about the Benefit Study, or to obtain a copy of the executive summary or volume 1 of the final report contact:

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