NATIVE TITLE LAND CLAIM ANALYSIS PRODUCT

PROJECT PROPOSAL FOR PRODUCT SPECIFICATION

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1. INTRODUCTION

Background

The Queensland Spatial Information Infrastructure Strategy (QSIIS) has been implemented to maximise the benefits of an estimated $0.5 billion that has already been invested in spatial information technology in the State over the last two decades. The first stage of this will be to accomplish the specification, development and implementation of key spatial information projects.

The Benefit Study (March, 1997) defined a candidate list of twenty-two State information products that should be developed to create a State Spatial Information Infrastructure. An information product is defined as the output generated by processing two or more data sets on a common spatial reference or key value, where the newly generated product has greater information value than that of the component data sets. Spatial Information Products are integrated views of information designed to meet a specific business requirement. The Queensland Spatial Information Infrastructure Council (QSIIC) chose the Property Interest Products (PIP) as the first to be specified. The specification project for PIP has been completed, and the product concept is presently being tested through a prototyping project.

The Product Specification process involves the capture, recording, and analysis of ‘User Requirements’ and the subsequent preparation of ‘Product Design’ and ‘Business Case’ documents. These documents provide a basis to develop and implement products.

The Products Committee of QSIIC at their meeting on 10 December 1998, requested the specification of two products over the ‘Far North’ region of Queensland. These products and their proposed sponsors are the:

- **Planning and Development Product** (Department of Communication and Information, Local Government and Planning)
- **Native Title Land Claim Analysis** (Department of Premier and Cabinet, Department t of Natural Resources)

The Far North Region of Queensland has been identified as one of four growth areas in the state and includes the local authorities of Cairns, Atherton, Eacham, Herberton, Cardwell, Johnstone and part of Mareeba.

This project proposal covers the Native Title Land Claim Analysis Product.

Proposed Native Title Land Claim Analysis Product

The Benefit Study proposed that this product be used to ‘facilitate rapid processing of information relating to Native Title Claims, drawing on information from a range of cross-government systems.’

The principal data set requirements identified by the Benefit Study to assemble the product are:

DATA	SOURCE
Property Boundaries	DNR (DCDB)
Tenure	DNR (ATS, DCDB, GLR)
Permits, Leases and Licences	DNR (DCDB), DME (MERLIN)
Native Title Land Claim	DNR (ATSILCS, DCDB, Digital MapInfo) DME (MERLIN)
Designated Landscapes (cultural heritage)	DEH (Digital ArcInfo)

More detailed requirements of each data set will be reviewed during the specification project.

The Native Title Claim product conceptually involves the union of two spatial datasets, the first being the customary lands of the indigenous inhabitants, and the other being the land granted to settlers. Therefore, the product is essentially based on property information making it a logical extension of the Property Interest Product.

Existing Native Title Claim Processes

To understand the existing processes for dealing with Native Title Claims, it is necessary to consider the events followed in a Native Title Claim. These are described in Appendix A – Native Title Claim Processing.

The Department of Natural Resources developed the Aboriginal and Torres Strait Islander Land Claim System (ATSILCS) as a textual record of claims and tenure related research by that Department. As part of this business process maps are produced showing claim boundaries as an overlay of the Digital Cadastral Data Base (DCDB). This process uses MapInfo software. Claimable parcels are highlighted and labelled on the claim map. Digital copies of the files are sent to the State Government contact officers, the Department of Premier and Cabinet, the National Native Title Tribunal and DNR regional offices. The digital claim maps are not spatially linked to ATSILCS.

Future upgrading of the ATSILCS database is proposed in response to changes in Federal legislation that extinguishes native title over leases that have been granted exclusive possession. DNR is also considering providing a map output showing the correlation of parcels in the Digital Cadastral Data Base (DCDB) and Native Title Land Claims.

The Department of Mines and Energy has developed and implemented GIS capacity within MERLIN to manage native title claim issues as they impact on mining tenure administration..

The apparently advanced state of development of MERLIN suggests it be considered a candidate system for development before committing to an entirely new spatially-linked database.

The National Native Title Tribunal in Perth has also proposed an Australian-wide spatial directory of native title claims.

Preliminary Product Concept

It is not intended that the concepts described in this section should pre-empt or replace the specification process. However, based on initial discussions with key stakeholders, it is possible to suggest a preliminary configuration for the product.

It is envisaged that the proposed Native Title Land Claim Analysis product will present a digital map of Queensland with menu buttons that enable the overlay of Property Boundaries, Native Title Claim and Determination Boundaries, Indigenous Land Use Agreements and recording of extinguished land..

The system could have dual functionality. The first function could show claim boundaries superimposed over a map base depicting roads, rivers, coastlines, railways and towns. The second function could be a property related viewing system focusing on those parcels that have been claimed within the original claim boundary.

Each claim could display attributes about the claimant, the claim's status and the history of the claim. Attributes attached to claimable parcels will indicate whether native title is extinguished and provide a brief comment on the decision. The research information used to arrive at the decision may not be made available to users of the product. Instead, the user may be given a reference number and contact point for further information about the research information.

Some stakeholders consider that a linkage to the aerial photograph reference number at a particular point on the cadastre could be of benefit to further research on inconsistent usage of the land involved in a native title claim. They also suggest that the product could have access to a scanned copy of the registered claim.

The user requirements and specification process of this project will investigate the spatial material to be displayed, determine the search mechanism needed and identify the attributes required by stakeholders and users. Part of this research may consider whether the property searching functions of the Native Title Product are best achieved as a logical extension to the Property Interest Product.

2. PROJECT OVERVIEW

Project Description

This project covers the feasibility phase in the development life cycle of the Integrated Spatial Information Product. This phase conforms to the product development cycle shown in Appendix C.

Spatial Information Product specification is the design and feasibility stage for a product that addresses a business need. In previous specifications, this has involved:

- **User Requirements Analysis** to better identify and define the users' needs.

- **Product Design** to suggest design options and a preferred product(s).
- **Business Case** and Funding Strategy to present a case for product development.

Specific tasks identified in the specification process are included in Appendix E.

3. OBJECTIVES

Project Objectives

The objective of the entire specification stage is to determine the feasibility of developing and implementing the proposed product identified in the Benefit Study.

The specification stage is used in order to formulate a policy and funding decision on the development of the product. This must be supported by recognition of the opportunities and constraints (pertaining to institutional, financial, data and technology issues) and the potential strengths and weaknesses of the proposed product.

Implementation of the proposed product will support the business goals of the sponsor.

Sponsor's Objectives

The concept of a Native Title Land Claims Analysis Product was put forward by both the Department of Premier and Cabinet, and the Department of Natural Resources.

Department of Premier and Cabinet

The Native Title Services Branch, Department of Premier and Cabinet was established in 1996-97 as the lead agency for the administration of the Native Title Act 1993 and the Native Title (Queensland) Act 1993.

One of the future issues for the Branch, in relation to the future development of the State, is to determine where native title has been extinguished by grants of exclusive tenures. With this information, the Government can then make legitimate, consistent and appropriate decisions on their use and allocation. (Department of Premier and Cabinet Annual Report 1997-98)

Department of Natural Resources

The Land Services Program, Department of Natural Resources provides secure and responsive land tenure and administration systems for recording interests in land, reliable valuations and mapping and surveying infrastructures which together underpin the economic growth and development of the state. (Department of Natural Resources Annual Report 1997-98)

The Native Title Services Group work towards program objectives by providing tenure-related research for native title claims and coordinating the Department's

response to native title claim related matters. This research is supported by the provision of mapping over claims.
The Native Title Land Claim Analysis product would support the goals and future interests of the sponsoring departments, but more importantly, provide a consistent and reliable source of native title information to the whole of government, industry and the community.

Strategic Objectives

The design, development, maintenance and delivery of the Queensland Spatial Information Infrastructure (QSII) can best describe the strategic direction of the products identified in the Benefit Study.

QSII will allow access to information that addresses the issues covered by the State Strategic Plan, with respect to environmental management, and economic, social and regional development.

4. PROJECT SCOPE

Project Boundaries

In order to achieve the project objectives, the feasibility phase can be separated into three distinct areas:

- Project Management
- Consultancy Services
- Feasibility Evaluation.

Roles and responsibilities for individuals, teams and the project board are identified and implemented in the Project Management Phase as shown in Appendix D.

It is expected the Project Manager will recommend to the Project Board that a contractor or contractors be engaged to contribute to the Product Specification (or parts of it).

However, the appointment of a contractor does not release the Project Board or the Manager from their responsibility to direct the project and to ensure realisation of the project goals.

Contractors that are invited to submit an offer for the specification project in response to a Project Brief. They may be drawn from a list of preferred consultants established by a Standing Offer Agreement CSA156, Consultant / Contract Services – Professional Advice and Related Services for the Queensland Spatial Information Infrastructure.

There is an extensive list of tasks necessary for Product Specification (See Appendix E). These tasks are intended to be a basis of discussions between the Project Board, Project Manager, Integrating Teams and, if necessary, the contractor. They are conducted during the project planning stage. The scope of these requirements will require a prescriptive definition in the Project Brief to contractors, taking into account the project budget and the Project Board's expectation of the level of detail to be provided by the contractor.

The Project Manager produces a summary report on the User Requirements, preferred Product Design and Business Case established during the contracting phase. This report is endorsed by the Project Board and is used for an executive level decision on the product's further development. They must consider the broader implications of the progression of the specified product from a political, economic, cultural and technological perspective.

Assumptions and Constraints

Listed below are the assumptions and constraints placed on the project:

- The project relies on the support, funding and resources of the product's sponsor, and some initial funding and administrative support from QSIIC.
- If consultants are engaged under Standing Offer Agreement CSA156, this phase is subject to the terms and conditions in this Agreement.
- The Project Board will endorse the outcomes of the User Requirements before the Product Design stage is commenced and similarly, the Project Board will endorse the outcomes of the Product Design before the Business Case is commenced.
- The project methodologies may be modified by the outcomes of the QSIIS Property Interest Analysis Product.

Relevant Legislation / Policy

Racial Discrimination Act 1975
Mabo [No.2] decision 1992
Commonwealth Native Title Act 1993
Queensland Native Title Act 1993 (including amendments proclaimed 30.9.98)
Waanyi Decision 1996
Wik Decision 1996
Land Act and Land Titles Act
Mineral Resources Acquisition Act
Trade Practices Act 1974
Copyright Act 1968
Queensland Treasury Guidelines for the preparation of Business Cases
Native Title Work Procedures.

5. STAKEHOLDER IDENTIFICATION

Principal Stakeholders

A initial list of stakeholders includes: relevant officers from the sponsoring Departments, the contact officers who receive the Native Title Claims from the Department of Premier and Cabinet (See Appendix B) and representatives from the "Far North" region, including the local authorities, mining companies and developers.

Sponsoring Departments

The Queensland Spatial Information Infrastructure Council has assigned lead agency status for the Native Title Land Claim Analysis information product to two departments. They are the Department of Premier and Cabinet who have lead agency status for Native Title Services in Queensland, and the Department of Natural Resources who control major data sets on Native Title tenure history research.

Contributing Agencies

Federal Government

Key federal government agencies include:

- National Native Title Tribunal
- Federal Court.

State Government

Key state government agencies include:

- Department of Premier and Cabinet
- Department of Natural Resources
- Department of Mines and Energy
- Department of Environment and Heritage
- Department of Aboriginal and Torres Straight Islander

Local Government

QSIIC Products Committee decided on the 24th July 1998 that the priority councils for implementation of the products should be:

- Atherton
- Cairns
- Cardwell
- Douglas
- Eacham
- Herberton (part)
- Johnstone
- Mareeba (part)

Private Sector

Some private companies are involved in spatial technology that may become involved in the project are:

- Data value-adding suppliers

- Mining Companies
- Development Companies
- Hardware and Software vendors
- Aboriginal and Torres Strait Islander representative bodies.

Distribution and Marketing Agencies

It is possible the private sector will be responsible for product creation, distribution and delivery of a range of information services to end users.

End Users

Potential users of the products were identified in the QSII Product Implementation Workshop – Product Checklist, August 1997. A selection of possible users is listed below.

- Federal and State Government Agencies
- Local Government
- Conveyancing Industry
- Development Industry
- Commonwealth Government
- Utilities / Infrastructure Service Providers.

Related Projects

The following projects may have an influence on this project:

- BLIN (DNR)
- QUEST prototype
- Access Management Environment (DNR)
- DCDB enhancement (DNR)
- ATSILCS enhancements (DNR)
- Property Interest Analysis Project (QSIIS)
- Administrative Working Map Project (DNR)
- MERLIN (DME)

6. POTENTIAL BENEFITS

Benefits

The Benefit Study Situation Report has defined the benefits of each product. It assumes that there is a two-year lag time before the benefits of the products are delivered.

1. The product will help reverse a trend of exploration and mining companies investing offshore due to delays in accessing land due to the uncertainty of native title claims.

2. The product can be used as an aid to the planning of priority exploration areas, priority protection areas, development proposal and acquisitions and disposals of land by the public and private sector.

3. Elimination of the duplication and conflicting native title assessments across government departments of the processing of claims, determination of boundaries, tenure history research and in inconsistent use investigations.

4. The product fills the government policy of making information readily available to all stakeholders to a claim.

5 Resolution of Native Title claim issues such as overlapping claims, can easily be identified, and the claimants can be brought together to resolve the disputed boundaries as well as removing extra barriers in the negotiations of developments over these areas.

The Business Case report, which is to be developed as part of this project, will indicate the benefits, returns, service improvements, cost savings, revenue increases and socio–technical changes for the Native Title Land Claim Analysis Product.

Opportunity Cost

In addition to identifying benefits of the products, the Benefit Study highlighted the risk associated with not fulfilling the information needs of these products. These are listed below:

1 Dissatisfied Aboriginal Community
2 Lack of investor confidence slows economic growth
3 Business lost to interstate competitors
4 Litigation.

7. COSTS

Below is a summary of the costs associated with the Specification Project

TOTAL PROJECT COSTS, SPECIFICATION PHASE

Resources Required	Funding
Project Manager for up to 4 months	Resourced by ?? Department of Premier and Cabinet
Equivalent of 1 full-time Information Integration Unit officer (supporting project coordinators)	Resourced by QSIIS Coordination (DNR – IIU)
User Requirements Contract	10 000
Product Design Contract	20 000
Business Case and Funding Strategy Contract	10 000

Travel	10 000
Incidentals	5 000
Total	$55 000

The project board may transfer funds between activities as required.

8. DEVELOPMENT STRATEGY

Development Model

The specification of information products has been accepted by the Queensland Spatial Information Infrastructure Council (QSIIC), as a robust method to progress the development of a world class spatial information infrastructure for fast, structured access to a wide range of information about the state. This approach leads to the specification of standards for information and data, and the operational and institutional environment required too create the Queensland Spatial Information Infrastructure. This approach is complementary with national initiatives to develop an Australian Spatial Data Infrastructure (ASDI).

Using an output-focused approach allows institutional, administrative and operational requirements to be identified, so that all processes add value in the chain of activity required too generate the specified output products or services.

Products require state and local government, and the private sector to cooperatively establish the infrastructure and skills required too deliver an electronic (Internet based) information service. The scope of this project within the product development cycle is shown in Appendix C.

9. PROJECT ORGANISATION

Project Management

The project will be administered using the project management technique Integrated Product Teams (IPT's) within a boarder framework of an Evolutionary Acquisition approach.

Evolutionary Acquisition (EA) pursues a 'user-first' philosophy, which allows the product's users to give feedback on each operational increment as the product is developed and to have their feedback influence the specifications of subsequent increments.

Integrated Product Teams are cross-functional, multi-disciplinary teams that are formed to perform specific roles or tasks in the development of a product. An IPT is an advisory body to the Project Manager. The Project Manager is in charge of the project. The Integrated Product Teams used in this project are the:

- Project Board
- Lead Team
- Working Team.

Outlined in Appendix D is the project management structure and the responsibilities of the various teams within an Evolutionary Acquisition (EA) project using Integrated Product Teams.

Project Members

Project Sponsor

The project sponsor is the agency or business area with a primary interest in the development of the product. In the case of the Native Title Land Claim Analysis Product, the sponsor proposed is the Department of Premier and Cabinet as Lead Agency for Native Title in Queensland.

Project Owner

The Project Owner usually is an executive level officer of the relevant business area of the agency that has the primary interest in the development of the product.

Paul Smith	Director, Native Title Services, Department of Premier and Cabinet.	Phone: 3222 2482 Paul.Smith@premiers.qld.gov.au

Project Board

This is a multi disciplinary team that is formed of senior managers drawn from the relevant state and local governments, private sector companies and other major stakeholders of the product.

Paul Smith	Director, Native Title Services, Department of Premier and Cabinet.	Phone: 3222 2482 Paul.Smith@premiers.qld.gov.au
Graeme Rush	General Manager; Surveying and Mapping Sub Program; Land Services Program; Department of Natural Resources	Phone: 3896 3118 Graeme.Rush@dnr.qld.gov.au
Richard Eden	Director; Information Planning and Strategy; Department of Natural Resources	Phone: 3896 3200 Richard.Eden@dnr.qld.gov.au
Graham Fletcher	Director; Strategic Policy; Department of Aboriginal and Torres Strait Islander Affairs	Phone: 3222 2484
Helen Gregory	Director; Cultural Heritage; Department of Environment and Heritage.	Phone: 3227 6492

Mary Worthy	Director; Information and Administrative Services; Department of Mines and Energy.	Phone: 3237 1541
Mick Lord	Director; Information Integration Unit; Department of Natural Resources	Phone: 3896 3119

Project Manager

The project manager heads the lead team. The Project Manager should be drawn from the sponsor agency's business area.

??????? Ian Andrews	Senior Advisor, Native Title Services, Department of Premier and Cabinet.	Phone: 3227 7930
?????? Andrew Kingsford	Project Director Surveying and Mapping Sub Program; Land Services Program; Department of Natural Resources	Phone: 3896 3225

Lead Team

A multi disciplinary team drawn from the functional areas of the stakeholders who manage and coordinate the project.

Ian Andrews	Senior Advisor, Legal Branch, Department of Premier and Cabinet.	Phone: 3227 7930
Andrew Kingsford	Project Director Surveying and Mapping Sub Program; Land Services Program; Department of Natural Resources	Phone: 3896 3225
Gavin Shanks	Principal Policy Advisor; Legal Branch; Department of Premier and Cabinet.	Phone: 3222 2561
Jason Mayo	Manager; Native Title Services; Surveying and Mapping; Land Services; Department of Natural Resources	Phone: 3896 3090
Yolanda Sucic	Manager; Native Title Policy; Surveying and Mapping; Land Services; Department of Natural Resources.	Phone: 3406 2963
John Rowland	Manager; Technical Support; Resource Development;	Phone: 3237 9928

	Department of Mines and Energy.	
Warwick Willmott	Manager; Land Use; Resource Development; Department of Mines and Energy.	Phone: 3237 1592
Graeme Lacey	Manager; Products Group; Information Integration Unit; Department of Natural Resources	Phone 3896 3295 Graeme.Lacey@dnr.qld.gov.au
Peter Henderson	Senior Policy Officer; Cultural Heritage; Department of Environment and Heritage.	Phone: 3227 6492.

Information Integration Unit

They are officers from the Department of Natural Resources that are accountable to QSIIS. They are used to facilitate the project, especially with respect to administrative support for the Project Board and the management of Integrated Product Teams.

Peter Danaher	Program Officer, Products Group, Information Integration Unit, Department of Natural Resources.	Phone: 3896 3192
Michael Madden	Program Officer, Products Group, Information Integration Unit, Department of Natural Resources.	Phone: 3896 3290

Working Team

Staff from functional areas of different business areas that focus on the delivery of a particular sub-product or process as directed by the Lead Team. Working teams are brought together to accomplish certain tasks within the project. Given these facts it is best to nominate the business units who would supply personal for a working team rather than particularly nominating staff members.

10. PROJECT MILESTONES

The project tasks have been identified in the project schedule below.

Tasks	Timeframe
Agreement with Sponsor	29th January 1999
Project Proposal endorsed by QSIIC – Products Committee	4th February 1999
Project Proposal and Management Structures approved by QSIIC	Late April 1999
Project Manager appointed	7th April 1999

Work Breakdown Structure prepared	Late April 1999
Consultancy Brief prepared	Early May 1999
Invitation to Offer	Mid May 1999
Consultancy Appointment	Mid June 1999
User Requirements Report	30th July 1999
Product Design Report	17th September 1999
Business Case Report	29th October 1999
Specification Project Report	26th November 1999

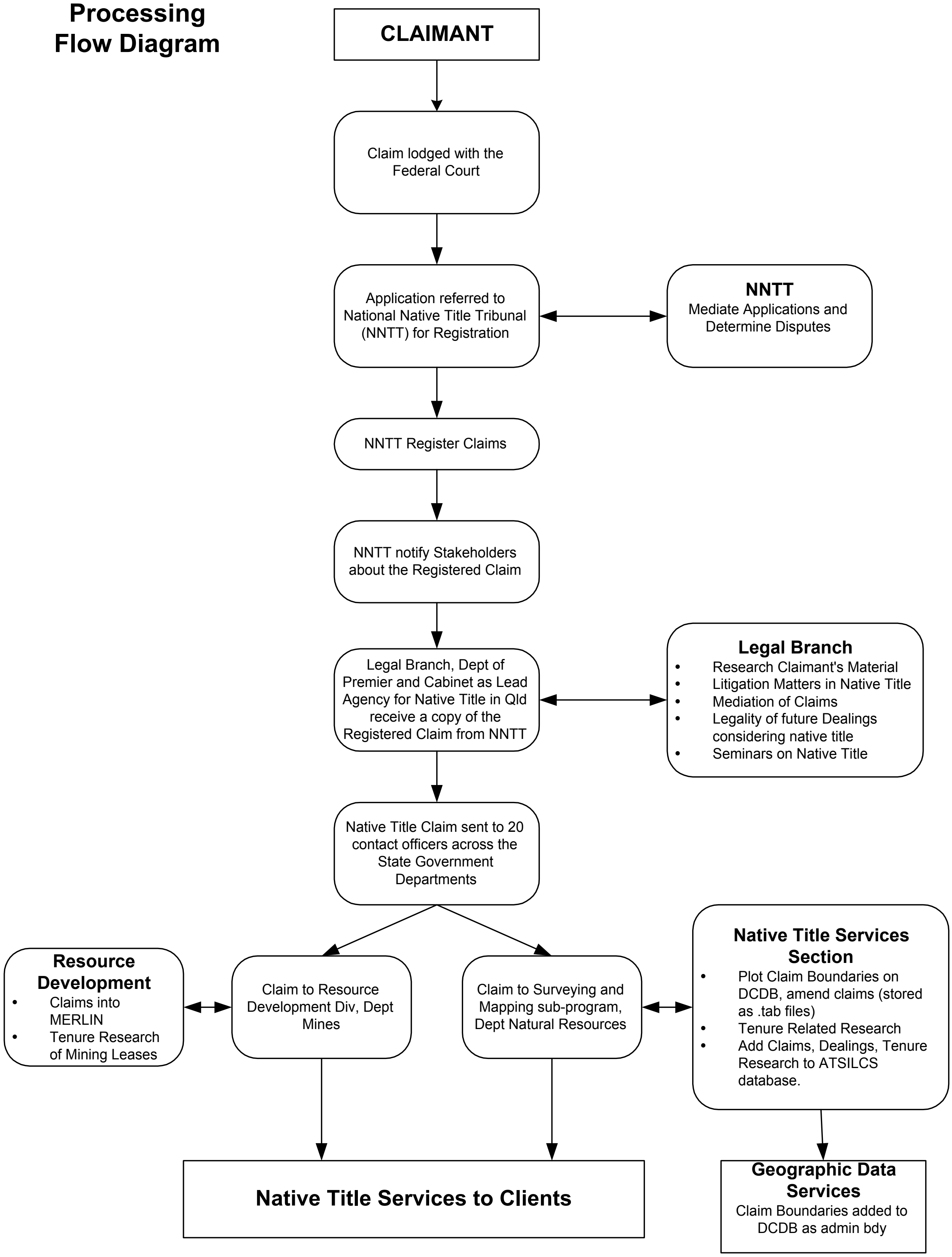
The Project Board may review these timeframes during the project.

APPENDIX A – Native Title Claim Processing Procedures

To understand the existing processes for dealing with Native Title Claims, it is necessary to consider the events followed in a Native Title Claim. These are illustrated in the diagram following. Important aspects of this diagram show:

- Registered claims are the official record of a claim boundary
- The Department of Premier and Cabinet have lead agency for Native Title Services in Queensland
- The Department of Natural Resources are funded by the Department of Premier and Cabinet to produce claim boundary mapping for mediation purposes with the claimant and to undertake tenure related research on claimable parcels. The Department of Mines has a duplicated claim mapping process using the MERLIN system. However their research includes past mining tenures as well as past land tenures where these mining leases coincide.
- Registered claims and claim mapping are sent to contact officers in all government departments
- Tenure related research for new dealings over crown land, is undertaken by the Department whose Act controls the action.
- The Aboriginal and Torres Strait Islander Land Claim System (ATSILCS) is used as a record of claims and tenure related research by the Department of Natural Resources, while the Mines Department use the MERLIN system for their administrative requirements.
- At present, there is no spatial (map) link to ATSILCS, although the Department of Natural Resources has commenced a project to provide this.

Native Title Claim Processing Flow Diagram

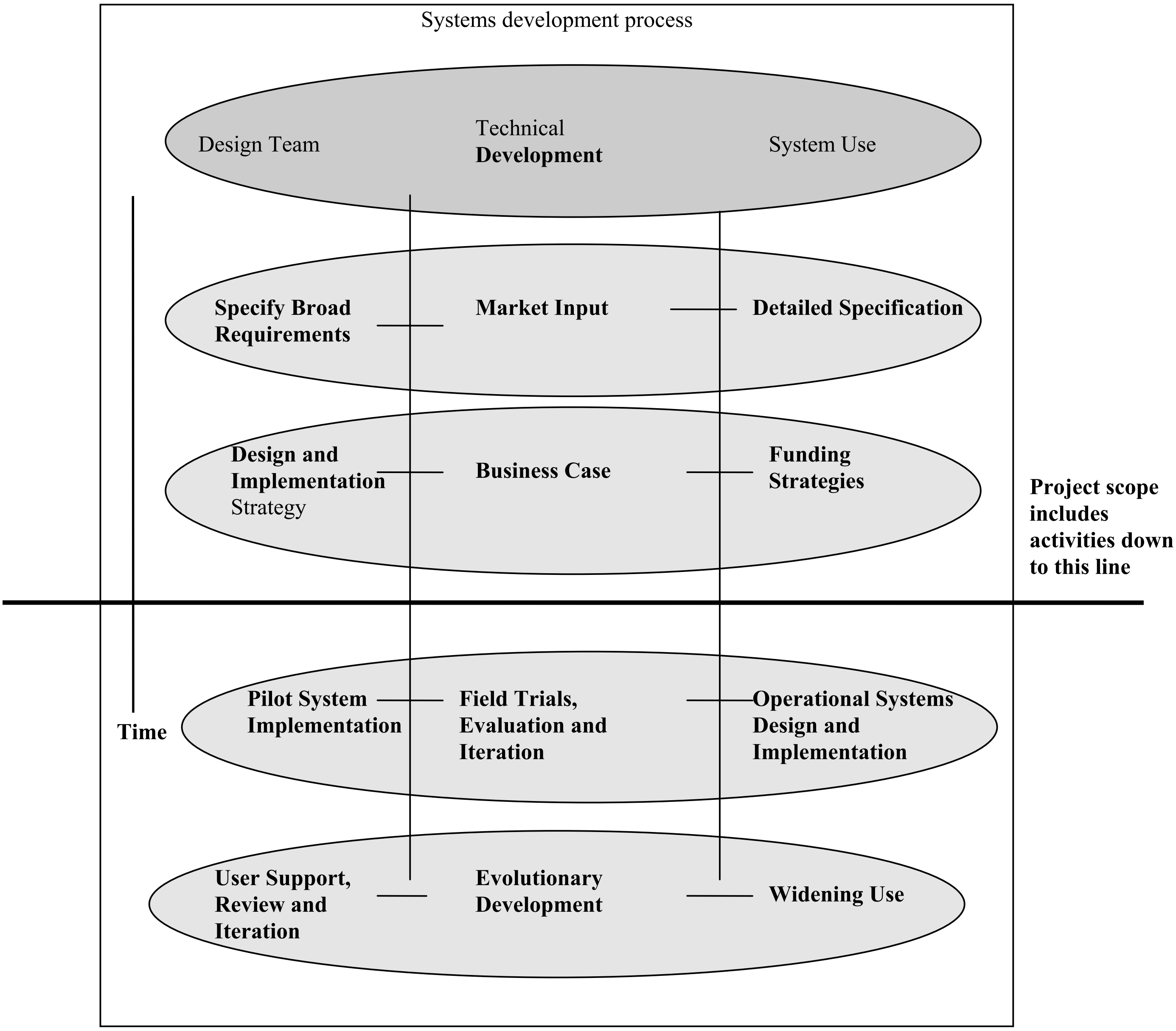


APPENDIX B – Government Native Title Contact Officers

Department	Division	Name	Address	Phone	FAX
State Development	Director Generals Office	Ms Robyn Potter	PO Box 168 Albert St, Brisbane 4002	3225 2841	3225 8914
Education	Facilities and Services	Mr Gary Clear	PO Box 33 Albert St, Brisbane 4002	3235 4652	3237 0747
Emergency Services	Financial and Asset Services	Mr Bob Keogh	GPO Box 1425, Brisbane 4001	3239 0106	3239 6558
Environment and Heritage	Cultural Heritage	Ms Helen Gregory	PO Box 155 Albert St, Brisbane 4002	3227 6492	3227 6534
Families, Youth and Community Care	Director General's Office	Mr Mark Healey	GPO Box 806, Brisbane 4001	3224 2808	3225 8833
Health	Capital Works and Asset Management	Ms Gail Jessup	PO Box 48, Brisbane 4001	3234 1590	3234 1482
Justice and Attorney General	Crown Law	Mr Pat Dwyer	GPO Box 149, Brisbane 4001	3239 6190	
Justice and Attorney General	Policy and Legislation	Mr Walter Vitali	GPO Box 149, Brisbane 4001	3239 0755	3221 2534
Communication, Information, Local Govt and Planning	Cabinet Legislation Services	Mr Victor Tumath	PO Box 31 Albert St, Brisbane 4002	3235 4303	3235 4326
Main Roads	Business Services	Mr Bob Rose	GPO Box 1412, Brisbane 4001	3834 2360	3834 2788
Mines and Energy	Resource Development	Mr John Martin	GPO Box 194, Brisbane 4001	3235 4254	3834 2788
Natural Resources	Surveying and Mapping	Mr Graeme Rush	Locked Bag 40, Coorparoo Delivery Centre 4151	3896 3118	3896 3765
Primary Industries Fisheries and Forestry	Cabinet and Liaison Services	Mr Nev Gorman	GPO Box 46, Brisbane 4001	3239 3002	3239 6718
Public Works and Housing	Legal and Contractual Services	Mr Greg Conrick	GPO Box 2457, Brisbane 4001	3225 8589	3224 5544
Tourism, Sport and Racing		Ms Carol Perrett	GPO Box 1141, Brisbane 4001	3224 2062	3224 7581
Employment, Training and Industrial Relations	TAFE Queensland	Mr John Poxon	GPO Box 69, Brisbane 4001	3227 5187	
Transport	Transport Coordination and Logistics	Mr Spencer Nightingale	GPO Box 1549, Brisbane 4001	3225 8513	3237 9691
Corrective Services Commission	Contract Administration	Mr Tom Murphy	GPO Box 1054, Brisbane 4001	3227 4111	3227 6668
Queensland Police Service	Administration	Mr Bob Carson	GPO Box 1440, Brisbane 4001	3364 4402	3364 4258
Aboriginal and Torees Strait Islander Affairs	Strategic Policy	Graham Fletcher	GPO Box 806, Brisbane 4001	3222 2484	3227 8004
Treasury	Legal Services	Ms Stephanie Ning	GPO Box 611, Brisbane 4001	3226 0932	3210 0514

APPENDIX C – Product Development Cycle

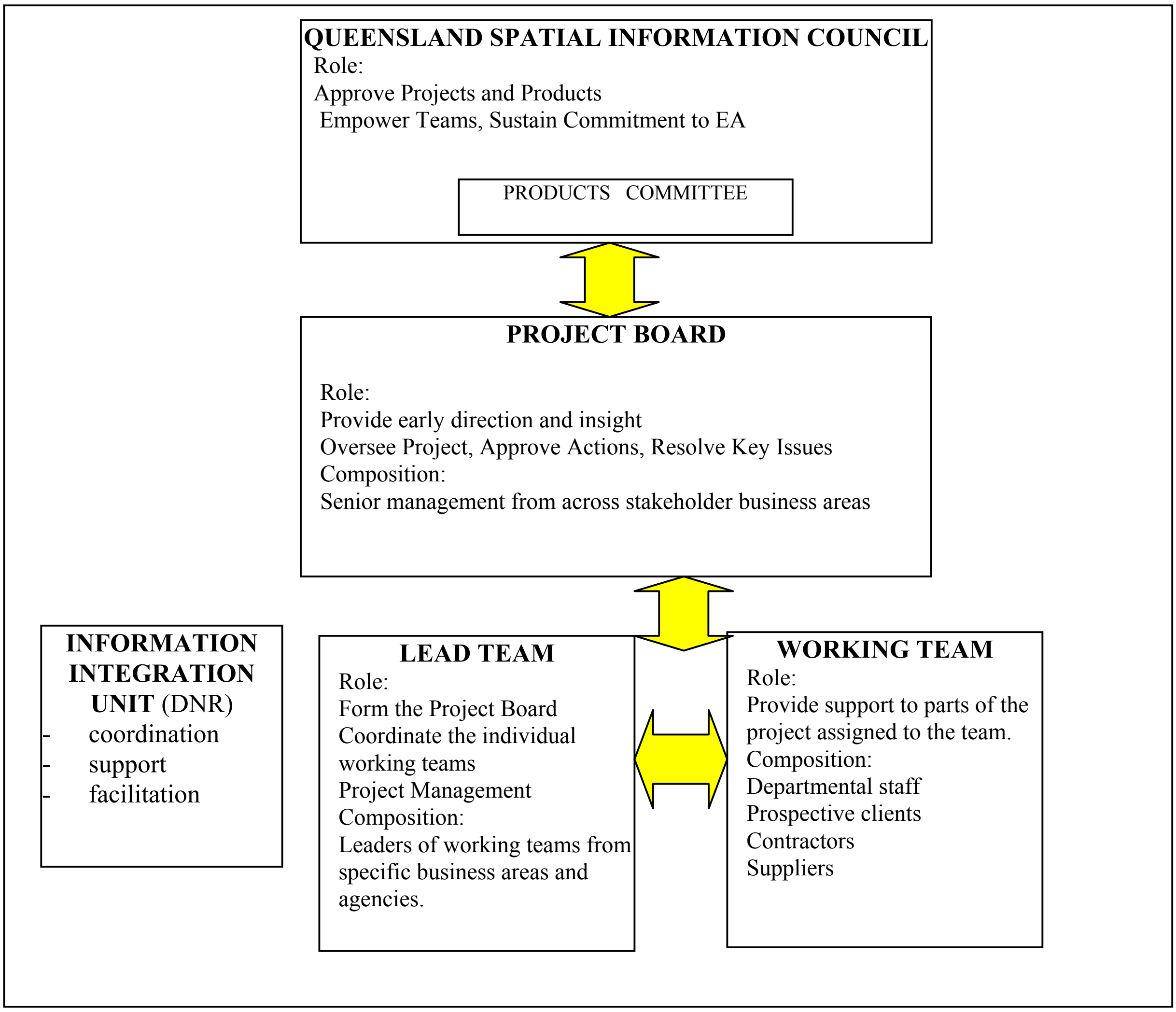
The following diagram shows the scope of this project in the product development cycle.



APPENDIX D – Project Management

The figure below outlines the project management structure and responsibilities of the various teams within an Evolutionary Acquisition (EA) project using Integrated Product Teams (IPT).

PROJECT MANAGEMENT STRUCTURE



Project Board

The Project Board is made up of senior management staff from the stakeholder's business areas who:

- Oversee and review of a particular project.
- Act as a high-level review team, but the 'shift' is from oversight to early insight.
- Work out the issues relating to a specific project.
- Focus on strategic guidance, program assessment, and issue resolution.
- Participate early, and on an ongoing basis with the project's Lead Team, resolving issues as they arise, rather than during the final decision review.

Lead Team

The Lead Team is a working team made up of senior operational leaders from the stakeholders' business areas whom:

- Manage and coordinate the project.
- Identify needs, set project concepts, co-ordinate all working teams' efforts, cover all topics not otherwise assigned to another working team, and organise the formation of the Project Board and working teams.

Working Team

The Working Team is comprised of operational staff from the stakeholders' business areas, prospective users, contractors and suppliers who:

- Produce particular products and/or provide services, which are required to deliver the project's outcomes. These tasks are to be identified in the Work Breakdown Structure.
- Are structured by the Integrating Team and approved by the Project Boards. Each Working Team is focused on a particular process, and consists of a multi-disciplinary staff containing representatives from different organisations.

Working teams will be drawn together as required to perform specific tasks towards the completion of the overall project. The lead team will coordinate the working teams and manage the project.

APPENDIX E – Specification Project Tasks

The tasks associated with the Specification Project are tabled below.

Specification Project Tasks

Task	Outcome
Agreement with Product Sponsor	Roles / responsibilities identified
Prepare Project Proposal	Approval to proceed with project
Prepare Work Breakdown Structure	Plan tasks and assign resources to tasks
Prepare Consultancy Brief	Evaluate proposals from consultants
Appoint Consultant/Contractor	Start of consultancy
Submit Progress Reports	Monitor consultancy progress
Submit Consultancy Reports: Requirements Capture, Product Design, Business Case and Funding Strategy	Endorse consultancy reports
Recommend Strategy and Actions for Progressing Product	Decision to proceed or abandon product
Specification Project Report	Recommend next phase

The Scope of Spatial Product Specification

Project Boards, Managers, Teams and Contractors appointed to specify spatial information products require a clear understanding of the scope of the Spatial Product Specification process, necessary to produce a rigorous specification that provides a basis for any decision to develop the product.

Spatial Information Product

The term *Information Product* is defined as the output generated by processing two or more data sets, where the newly generated product has greater information value than that of the individual data sets. Information is data that makes a difference.

Spatial Information Products are views of information integrated by a common spatial reference or key and designed to meet a specific business requirement. They are also made to allow additional combinations of the data to be integrated to meet other business needs.

The fundamental spatial information concepts concern these ideas of; data integration, value-adding data, response to business needs and an underpinning of other products.

Spatial Information Products will be different from each other in their geographic relevance, data content, product form and functionality.

Overview of Product Specification

Spatial Information Product specification is the design and feasibility stage for a concept of integrated data that is intended will solve a government, business or community need and involves:

- **User Requirements Analysis** to define the users' needs.
- **Product Specification** to suggest design options and a preferred product(s).
- **Business Case and Funding Strategy** to present a case for product development.

The specification stage, which is a consequence of a strategic decision to develop a product, is instrumental to the further progress of the product. It has the goal of identifying the opportunities and constraints (pertaining to institutional, financial, data and technological issues) and the potential strengths and weaknesses of the proposed product.

Overview of Product Specification

Certain tasks have been identified in the specification process. Generally, the process is intended to describe (and justify) how a proposed product will satisfy a business need (such as government legislative needs and public benefit needs) by accessing information and knowledge from integrated spatial data. To achieve this, the specification process needs to:

1. Identify all stakeholders interested in the development of the product;
2. Determine the potential users of the product, their character (interests, expectations, geographic and temporal differentiation) and relationship with other stakeholders and the stakeholders of similar products;
3. Obtain a consensus from stakeholders about a common vision for the product, particularly from data custodians and their respective executive;
4. Describe the requirements of the enterprise and potential (internal and external) users, concentrating on the business needs;
5. Identify the spatial datasets, data items and tools needed to build the product;
6. Determine the suitability of spatial datasets by analysing their availability, cost, completeness, coverage, quality, integrity and common keys to enable integration;
7. Identify the data and integrity gaps and other restrictions to the integration of data;
8. Specify the institutional, data, and technology requirements for the product;
9. Propose options for the design (look and feel) of the product and its delivery to users;
10. Obtain endorsement of these designs from stakeholders and identify a preferred product design and delivery system that is technically capable of integration;
11. Prepare a business case and funding strategy for the value-adding and commercial justification of the proposed product;
12. Summarise the user requirements, preferred product specification and business case for an executive level decision on the product's further development.

The main focus of the specification phase is to determine a spatial information product that satisfies the stakeholder and user's needs, and has economic benefits to the sponsor.

Detailed Requirements for Product Specification

The following extensive list of tasks necessary for Product Specification is intended to be a basis of discussions between the Project Board, Project Manager, Integrating Teams and, when engaged, the Contractor. The particular requirements of the project are negotiated during the project planning stage and prior to any agreement to provide services. This will require a prescriptive definition in the Project Brief to contractors, taking into account the project budget and the Project Board's expectation of the level of detail to be provided by the contractor.

User Requirements Capture

A essential need of the specification is an understanding of the requirements of users, and especially the potential for the product to satisfy their statutory, business and community obligations and needs. Tasks associated with this process include:

1. Identify all Stakeholders (including data custodians, suppliers of equipment and services, and potential users who represent public sector, private sector, community or individual interests) interested in the development of the product. Having certain information management rights and responsibilities, the interests of Data Custodians is critical, as is the need to understand the legislation, policies, practices, administrative arrangements, agreements, pricing, standards and technologies for accessing, building and maintaining their data.
2. Determine the potential users of the product, their character (interests, expectations, roles, knowledge, geographic location and temporal requirements) and their relation to other stakeholders.
3. Recognise other potential users of similar products whose common needs with that of the sponsor may provide economies of scale and economies of scope in their future development.
4. Identify the common needs of these potential users of similar products where a product can utilise the same data sets.
5. Determine the Statutory, Business, Community and Individual needs and Product Requirements of the potential users through appropriate consultation such as various types of questionnaires, focus groups, workshops, interviews, or through other public sector, private sector and community consultations.
    - These needs are not necessarily satisfied by Data (isolated facts, datasets or themes). The users' needs can be addressed by Information (value added data, data with context, derived from data and the integration of data). Information provides answers to users' questions or enables users to incorporate their own experience and knowledge to answer their questions. Needs are also addressed by Knowledge (fusion and interpretation of data, information, experience, values, contextual information, intuition and expert insight). The processing of Knowledge requires decision rules.
    - The identification of the Product Requirements is a logical conclusion to the User Requirements, though there are some characteristics common to the Product Design stage. This part of the User Requirements should suggest a potential product or products (rather than the explicit design created later) and include:
        - Users' business activities and why the product will fulfill their needs
        - Importance of the product to the stakeholders' activities
        - Importance of the product to the end user

- Economic aspects of the requirement for the product (ability to pay, potential revenue generation)
- Public good of the proposed product
- Perceived benefits that might come from using the product over the use of existing methods
- Estimated frequency and duration of use of the product.
- Expected response time for access and delivery of products
- Differentiation of the potential product in different regions
- Need and capacity of potential product to enable integration of local data
- Necessity to incorporate spatial analysis and modelling in the product
- Necessity to incorporate expert and experiential knowledge in the product
- Necessity to incorporate decision support systems in the product
- Necessity to incorporate management information reports in the product
- Desired spatial resolution of the product
- Synergies and conflicts existing between the proposed products and others from this agency and external agencies
- Strengths and weaknesses of the relationships with other products
- Possible limitations or constraints on achieving objectives for the potential product
- Strengths and weaknesses evident in the potential product delivery mechanism

6. Define the core Spatial Data Sets, Data Items and Tools needed for the product. The User Requirements and Product Design stages may require different data analyses. The User Requirements stage can be restricted to a review of the data sets needed, their content, current status, custodianship, constraints on access and utility to stakeholders (generally, the metadata).
7. Identify a preferred (or various) options for the design of the product and its means of delivery to users.
8. Report the capture of the User Requirements .

The contractor will submit draft reports at agreed intervals throughout the User Requirement phase to the Project Manager, who, with advice from an Integrating Team, may suggest changes to these draft reports. Before progressing to the Product Design phase, the contractor must obtain endorsement of the User Requirements by the Project Board.

Product Design

The User Requirements may identify one or more products (or a number of sub-products) needed by users. The design of the product(s) is formed in the Product Design stage. Product Designs are to be developed for each product (or subproduct) to meet the major requirements recognised in the User Requirements stage. The Product Design stage requires a more detailed review of the required data and, eventually, the endorsement of an acceptable product (or products) by key stakeholders. Tasks associated with this process are:

1. Summarise the needs of the potential users.
2. State the Product Requirements of the potential users
3. Define the main spatial information products that can be generated (variations or derivatives of the product).
4. Define the core Spatial Data Sets, Data Items and Tools needed for each product, listed in a data dictionary and complying with current data standards in terms of their content, quality requirements, current status as spatial data sets (availability, cost, extent, completeness, coverage, format, currency, accuracy, scale, resolution, attributes, comprehensiveness, compatibility, integrity, and availability of common keys to enable integration of data into a product).
5. Identify the institutional, data, logical and physical opportunities and constraints on spatial data integration, sufficient to enable costing of the product.
6. Identify the relationships (synergies, conflicts) and dependencies (data, structure, user interface, search and analysis options, delivery mechanisms) existing between the specified product and other government agency and QSIIS products.
7. Develop scenarios (including example map (geographic) and list (text) data to be produced including information content, scale, symbolisation and legend) for each product to demonstrate its usage. The designs should contain an outline of the products per scenario including:
    - The people, processes, data formats and locations
    - A list of product options with strengths and weaknesses
    - Priorities for development and implementation of product stages
    - The adaptation and differentiation of the product and its attributes according to users needs and geographic location
    - The relationship between the products and subproducts
8. List the data custodians, their definitive source of data to be used to create the product and a description of the essential components, including metadata (to QSIIC standard), spatial entities, attribute entities and agency's infrastructure.
9. Review existing spatial data models used by data custodians and identify shortfalls and deficiencies with respect to the product design.
10. Define the logical linkages between data sets used to create the product
11. Identify the data integrity and data quality issues and other restrictions on the integration of data and the preparation of strategies and proposals to resolve these issues and increase the integrity, quality and availability of data required to create the product
12. Identify the inadequacies in existing data which impact on product generation, especially with respect to gaps in data.
13. Suggest the priorities and strategies for filling gaps in data
14. Identify the potential for using surrogate (or modelled) data to fill gaps in data and the risk of using this approach
15. Identify any requirements for digitising, document scanning and imaged document retrieval or other data handling functions
16. Describe the referential, topological, relative, and absolute error tolerances for all information products (including degree of spatial concurrence to meet 'fitness for purpose')
17. Predict the volumes of data needed (data access and communication rates) to produce each product

18. Provide a description of the required spatial data processing functions and other functionality, including decision-support and management-support tools.
19. Identify the criteria for measuring the success of the product relative to stakeholder needs . Specify the Institutional Environment and requirements for product development spanning intra-department, inter-department, private sector and community interests and including:
    - The characteristics of the data custodians
    - The existence of agreements for the exchange of data (inter/intra government)
    - Roles and responsibilities of each stakeholder in the product
20. Specify the Information Management issues and requirements for product development and include consideration of policies, standard procedures and documentations that relate to the storage, maintenance, tracking and retrieval of data and information in and between enterprises.
21. Specify the Technological Environment and requirements for product development sufficient to recognise the opportunities and constraints on the integration of data generated across agency boundaries or produced by stakeholders using different production and storage systems and include:
    - Hardware and software systems used by stakeholders
    - Options and recommendations for the most appropriate technology to deliver the product(s)
    - The present level of technology resources available to develop the product, including recommendations to address specific deficiencies.
    - Processing options and recommended processing environment (dynamic, batch, etc.)
    - Technological constraints on the development and delivery of the product
22. Recognise the capabilities of spatial information technology and the industry to develop a potential product, utilising knowledge of: metadata, data, data exchange formats, database management, required data integration and spatial processing functions, data costs and product production costs and risks.
23. Summarise the scope and limitations of the product(s) (geographic, technological, institutional, temporal, data, information content, integration and analysis).
24. Obtain endorsement for the design of the tangible product(s) from users and other stakeholders who recognise the design as the basis for the Business Case and Funding Strategy.
25. Identify the preferred (or various) options for the Design of the Product and a staged product implementation strategy addressing information priorities; and the feasibility of developing each product and the means of its delivery to users.
26. Identify the goals and objectives for developing the product during the next 5 years, including a suggested product life cycle; and a recommended update cycle.
27. Propose a preferred approach to progressing product development (e.g. evolutionary development, incremental development, prototyping, etc.)
28. Report the Product Design to the Project Manager.

The contractor will submit draft reports at agreed intervals throughout the Product Design phase to the Project Manager who, with advice from an Integrating Team, may suggest changes to these draft reports. Before progressing to the Business

Case phase, the consultant will obtain endorsement of the Product Design from the Project Board.

Business Case

A Business Case and Funding Strategy will be prepared for the development and implementation of each product. It must comply with the Queensland Treasury guidelines for infrastructure projects and must be a suitable document for submission to Executive or Administrative level of State or Local government or private industry for financial endorsement and support. It must provide a sound basis on which the future development of the product is decided and include the following tasks:

1. Conduct market research including analysis of:
   - Product users and estimated product demand
   - Capacity/ willingness of users to pay for the product
   - Benefit – Cost of the product
   - Competitive products
   - Potential to substitute products
   - Financial risks in the development, delivery and maintenance of the product
   - Sensitivity Analysis
   - Non – Financial (public good) Values
2. Identify tangible and intangible benefits accruing from the product's development
3. Identify opportunities for external funding and private sector investment
4. Identify options and preferred strategy to maintain the financial viability of the product taking into account product revenue (profitability), statutory requirements and Community and Government Service Obligations.
5. Specify the type and level of government and private sector contribution required to establish and maintain the product.
6. Suggest sources of funds to build, deliver and maintain the product.
7. Identify options for revenue sharing between investors in the product.
8. Prepare a milestones schedule and strategic plan for the product's development.
9. Identify performance indicators to manage risks; and monitor the progress and effectiveness of the product over the expected life of the product, acceptable to the Department of Treasury, the Auditor-General and private sector financial institutions.
10. Develop funding strategies considering whole of government, inter-agency and intra-agency implications of the product, including budget implications for government stakeholders

The contractor will submit a draft reports near the completion of the Business Case phase to the Project Manager who, with advice from an Integrating Team, may suggest changes to these draft reports.