ASSESSMENT | PLANNING | MANAGEMENT

Gnangara Sustainability Strategy Biodiversity Values Data Protocols and Information Management

(Proposal No. P1241T)

Proposal prepared for:
WA Department of Environment and Conservation

ABN 87 096 512 088 | address Suite 11, 69 Wharf Street Tweed Heads
postal PO Box 1191 Coolangatta QLD 4225 | phone 07 5536 1999 | fax 07 5536 1944
web www.ecoaus.com.au

Contents

1. INTRODUCTION

1.1 Proposal highlights

Eco Logical Australia is pleased to submit this proposal to prepare Data Protocols and Information Management Tools for the Gnangara Sustainability Strategy – Biodiversity Values. Highlights of this proposal include;

- A highly qualified and respected team to undertake the project
- A company with a proven track record of completing similar high quality projects for a number of clients including local and state government agencies.
- A company that has a number of highly qualified mapping and technical GIS staff and ecologists ensuring both a quality outcome and the ability to meet project timeframes
- A company that backs up sound science with effective and practical planning outcomes
- GIS software that is compatible with that of the Department of Environment and Conservation (DEC) and extensive experience with maintaining the integrity of complex GIS and tabular databases
- A collaborative approach to undertaking projects that seeks to ensure high levels of information flow to facilitate capacity building
- A flexible and responsive approach enabling new ideas to be included during the course of the project
- An ability to 'hit the ground running' to achieve an effective project initiation and turnaround

1.2 Structure of the proposal

This proposal presents a background to Eco Logical Australia and an understanding of the scope of services required to undertake the project. This is followed by a detailed methodology of our proposed approach to the project, resources and timing, and our recent experience on similar projects.

A detailed fee proposal, outlining time and resources allocated to individual tasks, is followed by project assumptions, exclusions and options.

Finally our response to Part B of the project brief as well as curricula vitae for individual team members is included as an appendix.

2. ECO LOGICAL AUSTRALIA

2.1 About Eco Logical Australia

Eco Logical Australia Pty Ltd is a multi-disciplinary company providing an innovative, high quality and professional consulting service to strategic planning organisations, natural resource and land managers. Our holistic approach combines sound scientific principles and strategic thinking with effective communication and integrity.

The Eco Logical Australia team offers a wealth of experience and knowledge in environmental assessment, management and planning. Our vision is to:

"Protect, improve and manage the environment to enhance quality of life"

We pride ourselves on our attention to detail, being up-to-date with the latest developments in our field, having a clear understanding of statutory requirements and being able to work collaboratively with our clients to provide tailored and technically rigorous products.

We provide a unique range of skills which cover all aspects of environmental and conservation assessment, planning and management. We have gained a name for our work in ecological assessment, computer mapping and spatial analysis (GIS), bushfire assessment and strategic planning.

3. APPRECIATION OF THE SCOPE OF SERVICES

We understand that the Western Australian Government is preparing a Sustainability Strategy to assess land use and water resources across the Gnangara Groundwater System. The DEC is responsible for 3 large projects which are part of this strategy, namely Biodiversity Values, State Forests and Other Crown Reserves and Prescribed Burning and Groundwater Recharge. As part of these projects, there is a need to address critical gaps in the capacity to measure biodiversity values and potential impacts of land use change in the Gnangara System. In order to support the filling of these gaps and provide adequate systems for the Sustainability Strategy Frameworks, there is a requirement to have a number of protocols and tools in place to provide the ability to collect and analyse information in a standardised and consistent manner.

This project will provide the DEC with the appropriate protocols and tools for the collection, storage and query of information so that it may be used within a whole of Government framework to support the Gnangara Sustainability Strategy.

4. METHODOLOGY

The method proposed in this tender has been developed to fulfil the requirements of the brief and provide a high quality product. It provides a comprehensive sequential approach that has been broken into key components and distinct tasks, each of which is described below.

The approach focuses on close consultation with DEC and the project study team as well as other relevant agencies or experts. Please contact us if you would like to discuss any part of this method.

Component 1 – Data Protocols

Task 1 - Project Inception

The study team propose to meet with DEC and the relevant project team staff to initiate the project. This will provide opportunities to obtain additional materials, discuss the proposed methods and 'put faces to names'. This meeting will provide an opportunity to initiate a key personnel and contacts list for consultation throughout the components of the project.

Task 2 - Consultation

Eco Logical Australia Pty Ltd is aware that there are a range of stakeholders involved in data collection, management and analysis as part of the Sustainability Strategy, as well as State wide data management and policy groups. In order to identify and develop appropriate data protocols, each of the relevant agencies and data management groups will be consulted to identify a number of objectives as identified in the project brief.

Following project inception a consultation program will be finalised which will involve round table meetings as well as individual interview of appropriate personnel. Meetings will be conducted face to face.

Agencies and groups which will be consulted with may include (but are not limited to):

- Department of Environment and Conservation
- Department of Water
- Department of Planning and Infrastructure
- Department of Agriculture and Food
- Forests Products Commission
- Water Corporation
- Western Australian Land Information System (WALIS)
- Other Natural Resource Management data management groups as required

A key component of the consultation will focus on determining data/information needs from users.

Task 3 - Draft information/spatial data manual

Following consultation, a draft manual will be prepared which reports the requirements of the relevant agencies and key stakeholders for data users as part of the Gnangara strategy and defines appropriate protocols and standards to guide collection and use of ecological data and information.

The manual will include:

- Current information/data standards for WA
- Issues and guidelines for information/data for the assessment of land use planning, landscape conservation planning and integration of information in the Gnangara System
- Hardware and software standards and requirements
- Data quality standards and data capture requirements/standards
- Data documentation requirements (metadata)
- Data transfer standards for the sharing and supply/access of information
- Information security requirements
- Mapping standards

A digital copy of the manual will be provided to DEC for comment at a date specified at project commencement.

Task 4 - Final information/spatial data manual

A deadline for comments will be agreed to by DEC and ELA. Comments received by this time will be addressed for inclusion in the final documentation. Subsequent comments received after the deadline will be considered a project variation.

The following copies of the final report will be provided:

- 1 hardcopy
- 1 digital copy in Acrobat PDF format / MS Word Format

Component 2 – Survey Requirements and Methodologies

Task 1 - Project Inception

The study team propose to meet with DEC and the relevant project team staff to initiate the project. This will provide opportunities to obtain additional materials, discuss the proposed methods and 'put faces to names'. This meeting will provide an opportunity to initiate a key personnel and contacts list for consultation throughout the components of the project.

***Note**: This task will be combined with Task 1 of Component 1 – Data Protocols if Eco Logical Australia is appointed for both projects, providing a cost saving for the total project.*

Task 2 - Consultation

Eco Logical Australia Pty Ltd is aware that there is a requirement for standardised capture of information from field survey and data collection, as part of the Sustainability Strategy, that may be carried out by a variety of stakeholders. In order to identify and develop appropriate and repeatable survey methods for the Gnangara Biodiversity requirements, each of the relevant stakeholder groups will be consulted to identify a number of objectives as identified in the project brief.

Following project inception a consultation program will be finalised which will involve round table meetings as well as individual interview of appropriate technical personnel to refine survey requirements in the Gnangara System. Meetings will be conducted face to face. Follow up refinement of information will be by phone and email where appropriate.

The primary agency to be consulted with is the Department of Environment and Conservation, however, this will be further confirmed on initial discussion with the project team at the inception meeting.

Task 3 - Draft Survey Guides

Following consultation, draft survey methods and proformas will be prepared which include the requirements of key stakeholders for biodiversity field survey as part of the Gnangara strategy. Existing survey methods will be used where appropriate and these will be tailored to the requirements of the Gnangara System land use planning process.

The methods and proformas will be collated into a guide and will include:

- Survey type requirements for relevant projects
- Standardised survey methods for information capture
- Tailored survey proformas
- Protocols for the definition of field survey location

A digital copy of the manual will be provided to DEC for comment at a date specified at project commencement.

Task 4 - Final Survey Guides

A deadline for comments will be agreed to by DEC and ELA. Comments received by this time will be addressed for inclusion in the final documentation. Subsequent comments received after the deadline will be considered a project variation.

The following copies of the final report will be provided:

- 1 hardcopy
- 1 digital copy in Acrobat PDF format / MS Word Format

Component 3 – Information System

Task 1 - Project Inception

The study team propose to meet with DEC and the relevant project team staff to initiate the project. This will provide opportunities to obtain additional materials, discuss the proposed methods and 'put faces to names'. This meeting will provide an opportunity to initiate a key personnel and contacts list for consultation throughout the components of the project.

***Note**: This task will be combined with Task 1 of Component 1 – Data Protocols if Eco Logical Australia is appointed for both projects, providing a cost saving for the total project.*

Task 2 - Consultation

Consultation will be carried out with appropriate agency personnel to identify the requirements for the design of an information system which will:

- Store, query, report and access survey data as defined by the survey methods and requirements
- Allow provision of information to DEC staff and other government agencies
- Be compatible with WA government accessibility protocols
- Allow flexibility for future modification

Consultation will be carried out with key technical personnel within DEC and broader WA Government to ensure that all requirements for the information system are met. A refined consultation program will be confirmed on initial discussion with the project team at the inception meeting.

***Note**: There is an opportunity for cost savings as part of this task if combined with consultation tasks from Components 1 and 2, as there may be overlap of a number of relevant personnel. This is conditional on Eco Logical Australia being appointed to complete all three components of the project.*

Task 3 - Draft Database Design

A database design document, based on identified spatial relationships and requirements will be developed. The design will be graphical in nature to allow the visual representation of the database components. The graphical database design will be supported by definition tables describing database components.

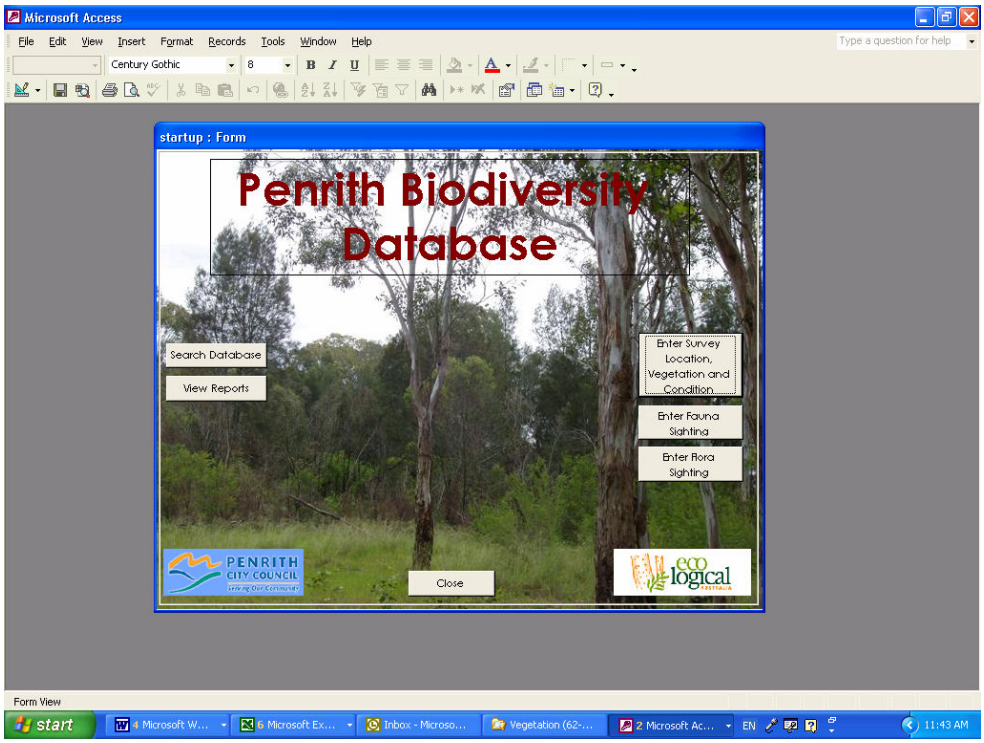
The design will be submitted to DEC for comment at a date specified at project commencement.

A deadline for comments on the database design will be agreed to by DEC and ELA.

Task 4 - Develop Draft Database

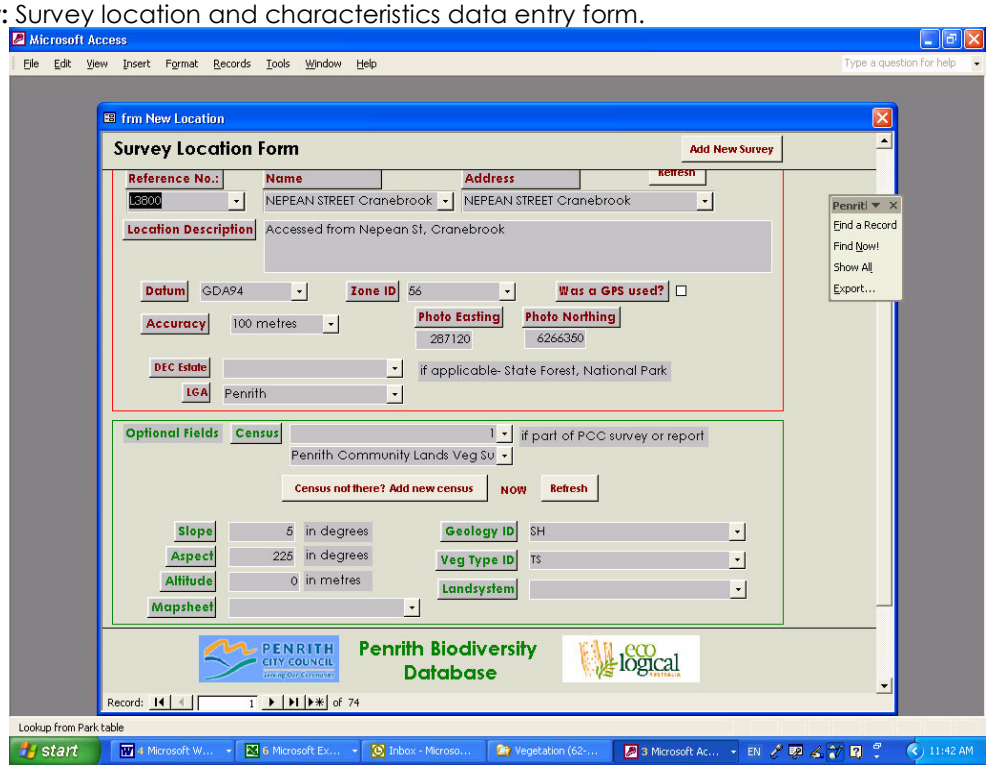
Following approval of database design by the DEC project team, the database will be developed to contain results of field survey relating to the defined biodiversity survey methods and requirements. The database is to be developed using MS Access and will provide a link to spatial data.

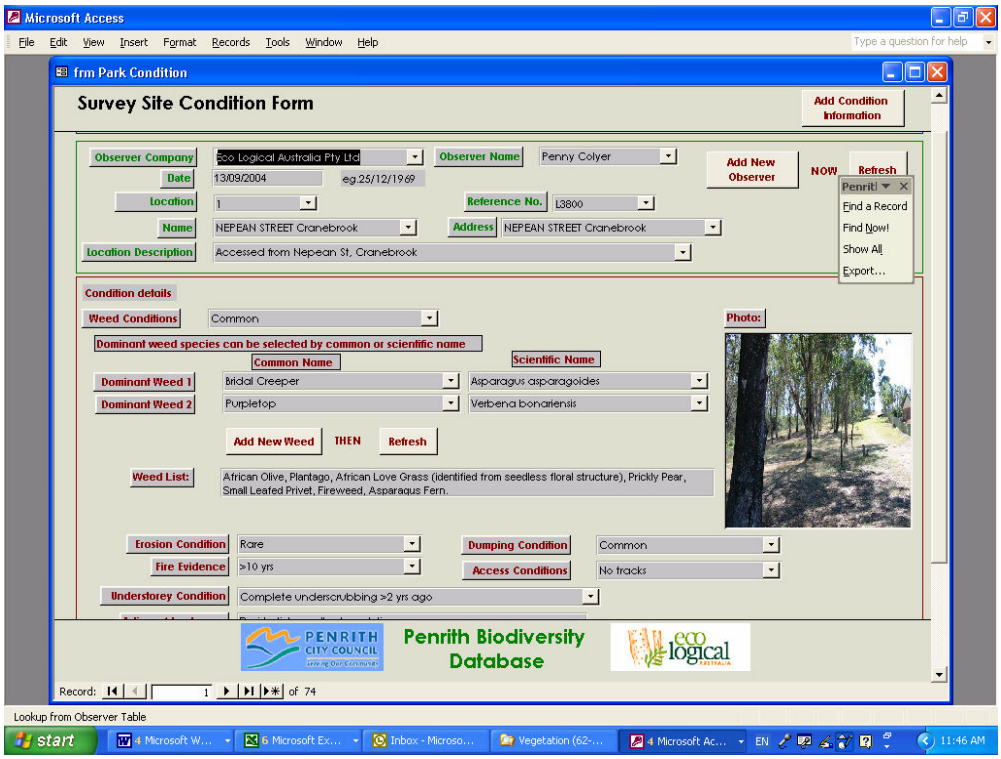
The design will ensure maximum compatibility with DEC or WA Herbarium databases as well as established coding protocols. The database will include a Graphical User Interface (GUI) for easy data entry and data extraction with a number of in-built queries and search functions to support the land use planning process. An example of a similar database prepared by Eco Logical Australia for Penrith City Council (NSW) is provided on the following pages.



Above: Penrith Biodiversity Front Page, with options for entering site and condition assessment, fauna and flora sighting information. Search and report tabs are on the left-hand side.

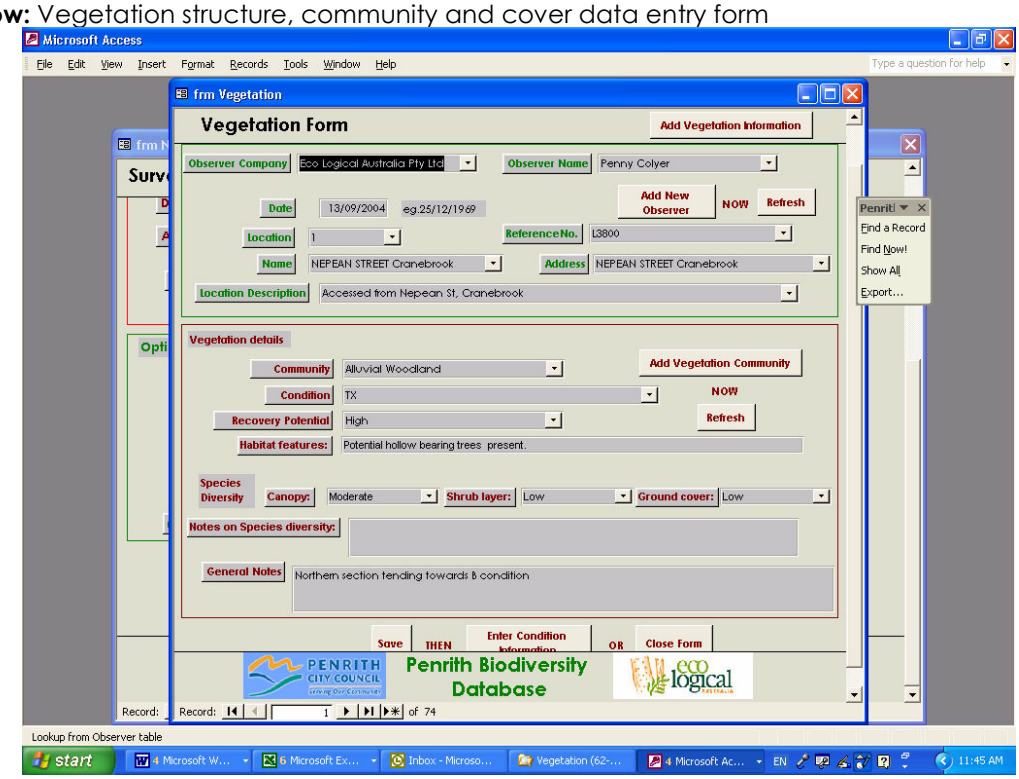
Below: Survey location and characteristics data entry form.

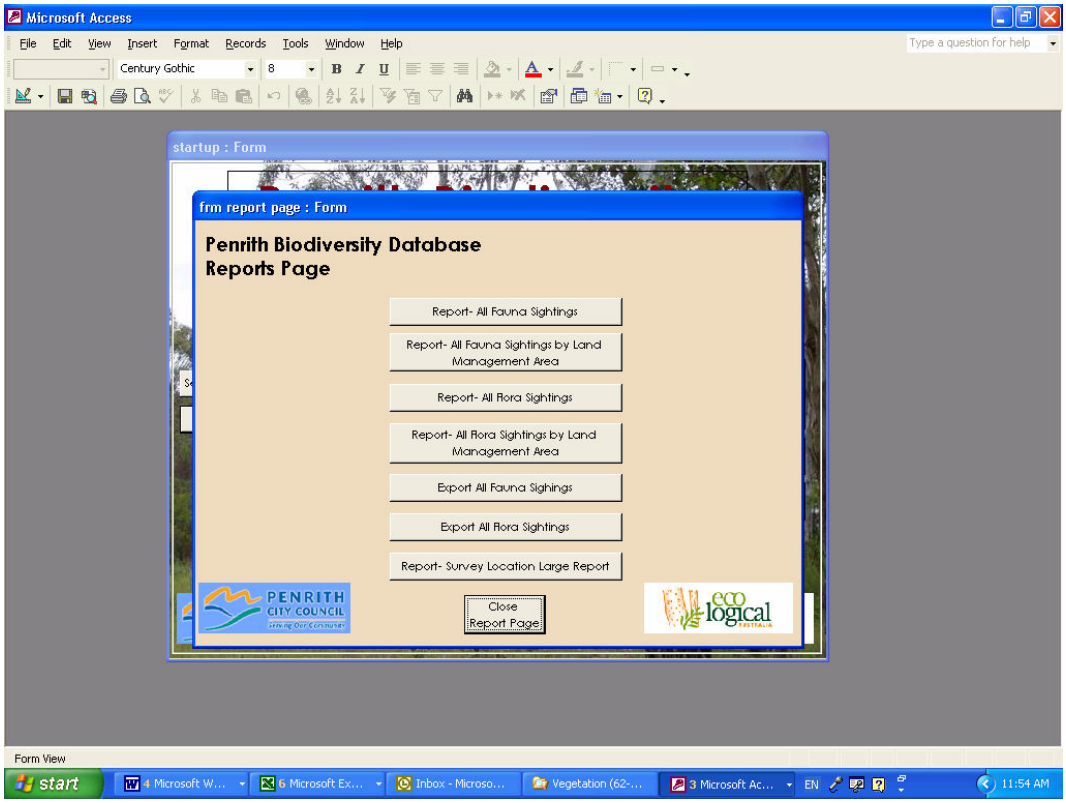




Above: Survey site condition and recovery potential data entry form. Note inclusion of site photo in database.

Below: Vegetation structure, community and cover data entry form





Above: Customised reports form

The database will be designed in order to provide compatibility with appropriate web based information delivery and query as part of the reporting components of the database. This may include direct reporting to web compatible data formats or as part of a linked spatial reporting mechanism through GIS.

A draft copy of the database will be provided digitally to DEC for comment at a date specified at project commencement

Task 5 - Final Database

A deadline for comments will be agreed to by DEC and ELA. Comments received by this time will be addressed for inclusion in the final database. Subsequent comments received after the deadline will be considered a project variation

Task 6 - Linkages with Existing Systems / Protocols

The information system will be developed in line with any protocols identified as part of the Natural Resource Management components of the Shared Land Information Platform (SLIP) to enable integration with other State data. Primarily the system will provide tailored information to support the land use planning process for the Gnangara Sustainability Strategy, however there may be a need for the provision of either part or all of the data collected within the system to contribute to other relevant State, Local or Commonwealth Government agencies or even to the public in some form.

Required linkages will be identified and implemented as part of this task,

Project Management

The Project Manager will ensure the product fulfils the requirements of the brief, is of a high standard and addresses the relevant statutory requirements. The project manager will maintain regular phone and e-mail contact with the project team and provide regular updates on the progress of the project through e-mail and phone contact with DEC project staff.

Project team updates will be held at least monthly, which will be in the form of face to face meeting or by phone depending on meeting requirements. Four face to face meetings have been budgeted for as part of this proposal.

5. SPECIAL PROVISIONS

A total of four (4) meetings have been budgeted for in this quote. The 4 meetings include:

- A project initiation meeting (Project Start)
- Progress meeting to discuss draft survey methods paper (Month 2)
- Progress meeting to discuss database design (Month 3), and
- Progress meeting to discuss database (Month 4)

Additional meetings to those described above will require a project variation and will be charged at the hourly rates provided.

Cost savings will apply to the total lump sum for the project (see section 7.2) if ELA is appointed to carry out all three components of the project. The cost savings include the

- consolidation of time required for inception meeting
- consolidation of consultation tasks
- consolidation of project management requirements
- consolidation of travel and accommodation

6. PROJECT TEAM

6.1 Project Team

Eco Logical Australia is committed to providing a highly experienced and well regarded team to undertake the project. Our personnel are able to draw on a wealth of experience in GIS, database creation and management, mapping, data management, ecological assessment and statistical analysis. Provided below is a summary of personnel which will be drawn upon to undertake the project.

Eco Logical Australia has a proven capacity to undertake large projects operating over extended time frames and frequently balances numerous large jobs of this at any one time. The key personnel presented below are available throughout the duration of the project.

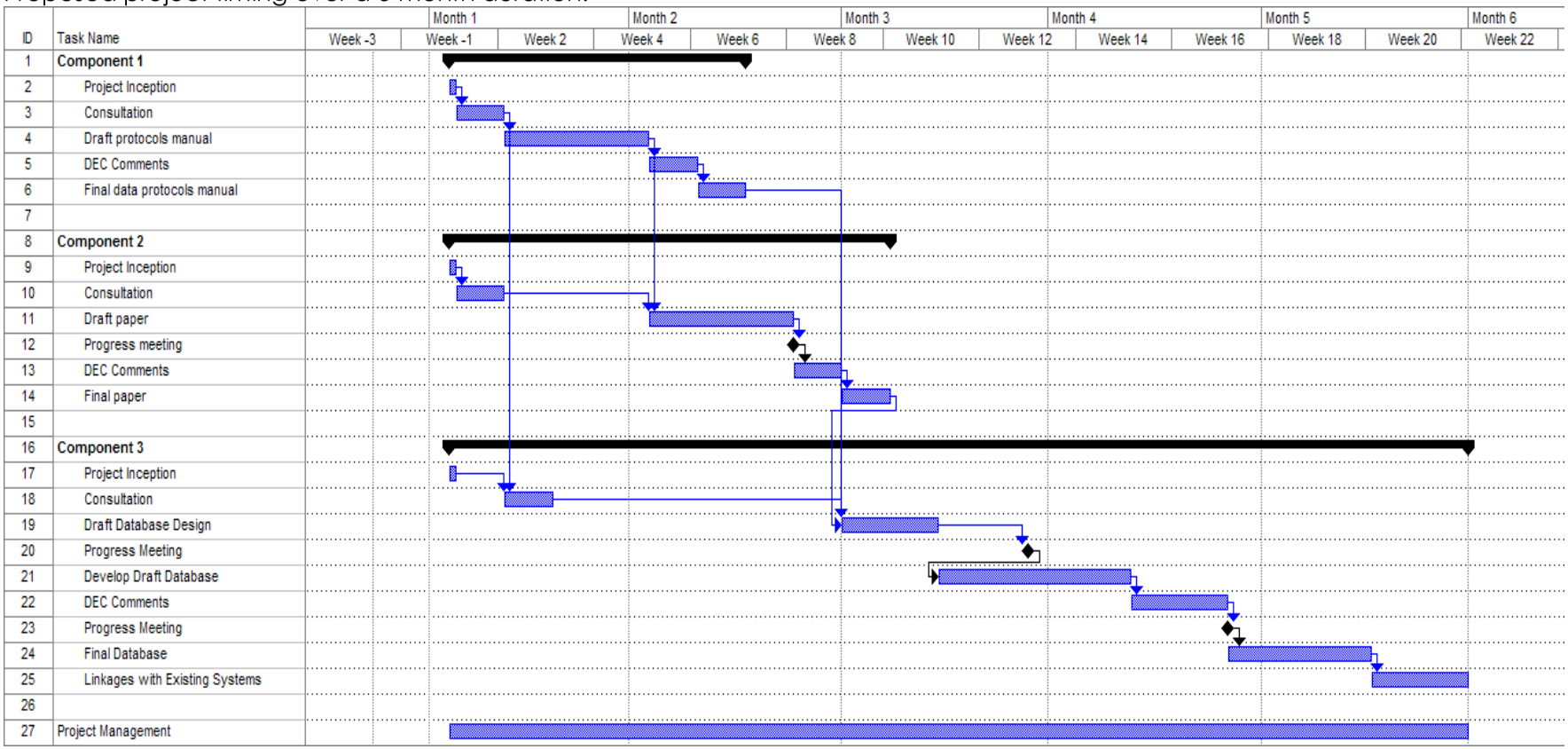
Name	Project Role	Hourly Rate (ex GST)
Steven House, Director	Project Director	$220
Robert Mezzatesta, Senior Consultant	Project Manager, Consultation, Data Protocols, Reporting	$160
Julian Wall, Senior Environmental Scientist	Data Protocols, Survey Methods	$140
Darren James, Manager GIS	Data Protocols, Reporting	$130
Nathan Kearnes, Manager Landscape Conservation and Bushfire	Survey Methods, Database development	$130
Alistair Patton, GIS Officer	Database, Reporting	$100

Curriculum vitae have been provided in Appendix 2.

7. FEE PROPOSAL AND PROGRAM

7.1 Study Program

Proposed project timing over a 5 month duration.



7.2 Fee Proposal (ex – GST)

Component 1 – Data Protocols

No.	Task Description	Subtotal
1	Project Inception	$2,560
2	Consultation	$3,840
3	draft protocols manual	$7,200
4	final data protocols manual	$1,120
5	project management	$1,280
	Sub Total	**$16,000**
	Disbursements:	**$2,000**
	Total:	**$19,000**

Component 2 – Survey Requirements and Methodologies

No.	Task Description	Subtotal
1	Project Inception	$1,280
2	Consultation	$2,560
3	draft paper	$7,400
4	final paper	$1,120
5	project management	$1,280
	Sub Total:	**$13,640**
	Disbursements:	**$3,000**
	Total:	**$16,640**

Component 3 – Information System

No.	Task Description	Subtotal
1	Project Inception	$1,280
2	Consultation	$3,360
3	Draft Database Design	$5,800
4	Develop Draft Database	$9,600
5	Final Database	$1,320
6	Linkages with Existing Systems	$5,960
7	Project Management	$2,560
	Sub Total:	**$29,880**
	Disbursements:	**$5,000**
	Total:	**$32,880**

A combined cost for the three components is $59,520 (ex-GST) plus disbursements up to $10,000 (ex-GST) to cover travel, accommodation, printing, mail and phone costs.

It is anticipated that there is a considerable opportunity for cost savings of $4,500 (ex-GST) and a saving of $2,000 in disbursements (ex-GST) if ELA were to be appointed to carry out all three of the project components. This would bring the total project cost to $55,020 (ex-GST) plus $8,000 (ex-GST) for disbursements. These savings would be made up from:

- consolidation of time required for inception meeting
- consolidation of consultation tasks
- consolidation of project management requirements
- consolidation of travel and accommodation

8. SELECTION CRITERIA

8.1 Data Protocols

(a) Demonstrated experience in the development of sound biodiversity / natural resource information management policy in a multi-disciplinary environment at a State Government level; and
(b) Demonstrated experience in the development of spatial data standards and protocols for biodiversity and natural resources information
Our project manager, Robert Mezzatesta, has previously worked for the NSW National Parks and Wildlife Service (now Department of Environment and Climate Change (DECC)) for over 8 years, managing spatial systems and major GIS projects for the agency. Part of Robert's role within the organisation was to develop and implement spatial information policy, standards and guidelines within NPWS as part of a whole of government Comprehensive Regional Assessment (CRA) process to support the Regional Forestry Agreements and coordinate these policies and guidelines with other stakeholder natural resource management agencies through the process.

Robert was also involved in the development of Natural Resource Management (NRM) policies on data management in NSW, was a member of a number of NRM agency steering groups on information standards and management, including metadata standards and guidelines, data/information access policy, as well as the Community Access to Natural Resources Information (CANRI) process.

Other relevant ELA projects include:

- *Spatial Data Strategy for the NSW Marine Parks Authority, Scoping Document:* Included the analysis of current systems and recommendations for implementation of efficient spatial information management frameworks across the Authority. This included consultation with key personnel and development of effective data management structures

(c) Knowledge of spatial data infrastructure and its relationship with biodiversity and natural resources information
ELA has worked with a number of Local, State and Commonwealth Government agencies in the development and provision of biodiversity information. In all cases, data management and the relationship of project information to current spatial data infrastructure was a key component of the efficient delivery of effective information to these agencies in their role as natural resource managers.

As part of NSW NRM agency data management steering groups Robert Mezzatesta (Project Manager) was involved in the development of an effective spatial data infrastructure for NSW.

Other relevant ELA projects include:

- *NSW Biodiversity Strategy GIS Analysis:* Scope data available to support the development of the NSW Biodiversity Strategy for Department of Environment and Conservation. The project includes identification and audit of appropriate GIS data and development of methodologies using spatial data for modelling existing biodiversity values, vulnerability, and biodiversity opportunities across NSW

- *Spatial Data Strategy for the NSW Marine Parks Authority, Scoping Document:* Included the analysis of current systems and recommendations for implementation of efficient spatial information management frameworks across the Authority. This included consultation with key personnel and development of effective data management structures
- *Strategy and Guidelines for Establishing Biodiversity Conservation Priorities for the Sydney Basin*: Prepared guidelines for identifying conservation priorities across the Sydney Basin. Included a sub-regional analysis of threatened species and land unit distribution across individual provinces. Project undertaken as Geoanalysis Pty Ltd
- *Spatial Data Strategy for the NSW Marine Parks Authority, Scoping Document: Included the analysis of current systems and recommendations for implementation of efficient spatial information management frameworks across the Authority. This included consultation with key personnel and development of effective data management structures.*

(d) Knowledge and demonstrated experience in large regional GIS analysis and analysis requirements for biodiversity and natural resources assessment

ELA project team members, including Robert Mezzatesta, Stephen House, Julian Wall, Darren James and Nathan Kearnes have worked for NSW DECC and have been involved in the management, coordination and analysis of GIS data and conservation planning operations in large whole of government subregional and regional assessments, often supporting the Regional Forestry Agreements within NSW. These include:

- Eden Comprehensive Regional Assessment
- Upper North East Comprehensive Regional Assessment
- Lower North East Comprehensive Regional Assessment
- Southern Comprehensive Regional Assessment
- Western Regional Assessment
- Nandewar Bioregional Assessment
- Cobar Peneplain Bioregional Assessment
- Cumberland Plain (Western Sydney) Vegetation Mapping and Recovery Plan

Other relevant projects carried out by ELA include:

- *Statewide Vegetation Change Mapping Project:* Carried out an audit of suitable vegetation mapping data for inclusion for the Australian Greenhouse Office to undertake an assessment of vegetation change across NSW
- *Wingecarribee Systematic Vegetation Survey*: Undertook a systematic vegetation survey of Wingecarribee Shire Council, identifying the type and location of vegetation species and communities and interpreted this information into a series of maps designed to help planners and landholders manage land for optimal biodiversity. Analysed threatened species habitat, prepared a conservation significance assessment and mapped local and regional corridors for inclusion into Councils' Corporate database.
- *Updated Lower Hunter Central Coast Regional Environmental Management Strategy Vegetation Mapping (2002):* Arcview GIS and digital aerial photos (orthophotos) were used to identify extant vegetation and condition across the entire Lower Hunter Valley and Central Coast Regions. This information was combined with a pre1750 model of vegetation communities to prepare an extant vegetation map and identify conservation targets across the region as part of a Regional Biodiversity Conservation Strategy

- *Western Sydney Growth Centres Conservation Plan*: Developed a conservation plan to support biodiversity certification requirements of the Western Sydney Growth Centres SEPP for the Department of Planning
- *Nandewar Western Regional Assessment – Vegetation Mapping and Survey*: Coordinator of the vegetation mapping and survey component of the Biodiversity Surrogates Project to achieve a mapped coverage of native vegetation communities across 2.2 million ha. Tasks included project management, field survey planning, floristic data analysis, derivation of native vegetation communities, ecological modelling and production of distribution maps of the current and predicted extent of vegetation communities, presentation to key stakeholders, and reporting
- *Liverpool City Council Biodiversity Strategy:* Prepared a biodiversity conservation strategy for Liverpool City Council including aerial photo interpretation, vegetation community mapping, conservation significance assessment and preparation of an environmental offsets strategy for inclusion in Councils LEP
- *Eden and Northern Comprehensive Regional Assessments (CRA)s:* Undertook statistical fauna habitat modelling for NPWS for two CRA areas. Used a combination of statistical Generalised Linear and Generalised Additive Models and expert models produced within the Arcview GIS system. Produced GIS maps of National Estate values including centres of endemism, and refugia. Integrated outputs from NPWS conservation assessments and State Forests FRAMES information into C-plan

(e) Familiarity with the variety of biodiversity data available and information requirements for development of analysis techniques for regional biodiversity assessment (including habitat modelling)

ELA have completed a number of regional biodiversity strategies which have required the derivation and analysis of key biodiversity datasets. These datasets ranged from existing data, data collected from field survey and data resulting from analysis and modelling. All key datasets are commonly compiled to form the basis of information to inform land use planning decisions within region.

Some relevant projects carried out by ELA include:

- *Wingecarribee Systematic Vegetation Survey*: Undertook a systematic vegetation survey of Wingecarribee Shire Council, identifying the type and location of vegetation species and communities and interpreted this information into a series of maps designed to help planners and landholders manage land for optimal biodiversity. Analysed threatened species habitat, prepared a conservation significance assessment and mapped local and regional corridors for inclusion into Councils' Corporate database.
- *Updated Lower Hunter Central Coast Regional Environmental Management Strategy Vegetation Mapping (2002):* Arcview GIS and digital aerial photos (orthophotos) were used to identify extant vegetation and condition across the entire Lower Hunter Valley and Central Coast Regions. This information was combined with a pre1750 model of vegetation communities to prepare an extant vegetation map and identify conservation targets across the region as part of a Regional Biodiversity Conservation Strategy
- *Nandewar Western Regional Assessment – Vegetation Mapping and Survey*: Coordinator of the vegetation mapping and survey component of the Biodiversity Surrogates Project to achieve a mapped coverage of native vegetation communities across 2.2 million ha. Tasks included project management, field survey planning,

floristic data analysis, derivation of native vegetation communities, ecological modelling and production of distribution maps of the current and predicted extent of vegetation communities, presentation to key stakeholders, and reporting

- *Liverpool City Council Biodiversity Strategy:* Prepared a biodiversity conservation strategy for Liverpool City Council including aerial photo interpretation, vegetation community mapping, conservation significance assessment and preparation of an environmental offsets strategy for inclusion in Councils LEP
- *Eden and Northern Comprehensive Regional Assessments (CRA)s:* Undertook statistical fauna habitat modelling for NPWS for two CRA areas. Used a combination of statistical Generalised Linear and Generalised Additive Models and expert models produced within the Arcview GIS system. Produced GIS maps of National Estate values including centres of endemism, and refugia. Integrated outputs from NPWS conservation assessments and State Forests FRAMES information into C-plan
- *Wollondilly Picton Thilmere-Tahmoor Local Environment Study:* Developed a series of vegetation, habitat, corridor and threatened species maps and compiled the results into a planning, zoning and management plan for the area
- *Hawkesbury Vegetation Validation, Hawkesbury City Council:* A validation of mapped vegetation and condition is being carried out across the Hawkesbury LGA. The validation has developed an agreed rapid survey technique to be used across the remnant vegetation within the LGA. Survey focuses on lands which are under the care and control of Council, roadside corridors, riparian corridors and wetland areas. Management implications for Council are being targeted, such as significant species and communities and weed distribution
- *Cumberland Plain Predictive Fauna Habitat Modelling for DECC Parramatta*: Predictive habitat modelling for thirty fauna species across the Cumberland Plain, Western Sydney (some listed as threatened species on the TSC Act 1997). Records of species locations were analysed statistically against various environmental datasets (topographic, substrate, climatic, vegetative indices) to identify relationships and highlight potential drivers to habitat preference and species distribution. A technical report, GIS data layers and maps were produced showing potential habitat areas for each species across the study area.

8.2 Survey Requirements and Methodologies

(a) Demonstrated experience in the development of biodiversity survey methodologies and guidelines for regional assessment projects

ELA is familiar with the development of required biodiversity survey methodologies. There are a number of survey methodologies which have been defined at State or Commonwealth level which provide guidance to regional survey methodology. In the majority of projects, existing methods provide base requirements for a methodology which can be modified to suit the requirements of survey, while still providing a standardised approach to biodiversity survey.

Selections of relevant ELA projects where we have modified standardised survey methodology to meet regional requirements include:

- *Warringah Bushland Reserve Survey:* Conducted an on-ground survey and mapping of 15 bushland reserves managed by Warringah Council. For each reserve, high resolution mapping and survey was conducted for vegetation resilience; infrastructure, including tracks and their condition; encroachments to the reserves; and significant features. The survey information was provided as digital information and completed mapping for the preparation of management plans for each reserve

- *Wollongong Riparian Corridor Survey:* Carried out field survey and width sampling of 150km of urban creeks within the Wollongong LGA to assess and record bank and riparian zone condition as well as riparian vegetation characteristics and significant infrastructure and geomorphologic features. Produced GIS line and point features with linked bank and riparian condition data as well as significant feature locations and width data to aid council in planning and management of creeks in the LGA. Particular focus was on identification of weed species and areas of major infestation
- *Wollondilly Picton Thilmere-Tahmoor Local Environment Study:* Developed a series of vegetation, habitat, corridor and threatened species maps and compiled the results into a planning, zoning and management plan for the area
- *Hawkesbury Vegetation Validation, Hawkesbury City Council:* A validation of mapped vegetation and condition is being carried out across the Hawkesbury LGA. The validation has developed an agreed rapid survey technique to be used across the remnant vegetation within the LGA. Survey focuses on lands which are under the care and control of Council, roadside corridors, riparian corridors and wetland areas. Management implications for Council are being targeted, such as significant species and communities and weed distribution
- *Port Stephens Wetland Mapping and Management Project* (Port Stephens Council and Department of Infrastructure Planning and Natural Resources)**:** This project undertook detailed mapping using existing data and field survey of all wetlands in the LGA, and a relational database of wetlands. The project has also involved the development of a classification and prioritisation process for wetlands, which takes account of biophysical, condition, threat assessment and statutory criteria. The final stage of the project is the development of management recommendations for the mapped and prioritised wetlands. This project involves working closely with a range of government agencies involved in a reference group
- *Penrith vegetation Mapping*: Update and field validate vegetation community mapping on Council owned lands within the Penrith LGA. Collected detailed land use, condition and disturbance information, digital photograph and GPS point at each site. Presented the information as "point-and-click" functionality for use in a GIS and in a database for future use and updating

(b) Demonstrated experience in the development of biodiversity / natural resources technical reports for use in regional assessment

A key component of most of the projects carried out by ELA is the preparation of technical reports which describe and analyse biodiversity information for its use in land use planning outcomes. A selection of relevant ELA projects include:

- *Updated Lower Hunter Central Coast Regional Environmental Management Strategy Vegetation Mapping (2002):* Arcview GIS and digital aerial photos (orthophotos) were used to identify extant vegetation and condition across the entire Lower Hunter Valley and Central Coast Regions. This information was combined with a pre1750 model of vegetation communities to prepare an extant vegetation map and identify conservation targets across the region as part of a Regional Biodiversity Conservation Strategy
- *Western Sydney Growth Centres Conservation Plan*: Developed a conservation plan to support biodiversity certification requirements of the Western Sydney Growth Centres SEPP for the Department of Planning
- *Nandewar Western Regional Assessment – Vegetation Mapping and Survey*: Coordinator of the vegetation mapping and survey component of the Biodiversity Surrogates Project to achieve a mapped coverage of native vegetation communities across 2.2 million ha. Tasks included project management, field survey planning, floristic data analysis, derivation of native vegetation communities, ecological

modelling and production of distribution maps of the current and predicted extent of vegetation communities, presentation to key stakeholders, and reporting

- *Ecological Assessment- Managing Sydney's Urban Growth (South West and North West Sector):* Assessed the ecologic values of two large-scale urban release proposals in western Sydney. The project involved field validation and analysis of aerial photography and mapping, aquatic biodiversity assessment and identification of threatened flora and fauna. A number of options for regional scale habitat connectivity were produced, and expert workshops were held. Analysis of each connectivity option and discussion of other key findings were reported

(c) Demonstrated experience in operational biodiversity / natural resources field survey as part of large multi-disciplinary regional assessment

ELA has a number of specialist staff that are proficient in the coordination and carrying out of biodiversity field survey. A selection of past projects which involve or support large scale regional assessments include:

- *Wollondilly Picton Thilmere-Tahmoor Local Environment Study:* Developed a series of vegetation, habitat, corridor and threatened species maps and compiled the results into a planning, zoning and management plan for the area
- *Hawkesbury Vegetation Validation, Hawkesbury City Council:* A validation of mapped vegetation and condition is being carried out across the Hawkesbury LGA. The validation has developed an agreed rapid survey technique to be used across the remnant vegetation within the LGA. Survey focuses on lands which are under the care and control of Council, roadside corridors, riparian corridors and wetland areas. Management implications for Council are being targeted, such as significant species and communities and weed distribution

(d) Demonstrated experience with large regional biodiversity assessments

As stated above, a large number of ELA staff have extensive experience in regional biodiversity assessments, both at a State government level, when previously employed by NSW DECC or at regional government level, particularly in the development of biodiversity strategies. A further selection of projects involving regional assessments include:

- *Liverpool City Council Biodiversity Strategy:* Prepared a biodiversity conservation strategy for Liverpool City Council including aerial photo interpretation, vegetation community mapping, conservation significance assessment and preparation of an environmental offsets strategy for inclusion in Councils LEP
- *Northern Rivers CMA Biodiversity Forecasting Project*: Vegetation mapping for the NRCMA using integration of CRA API linework and forest ecosystem models. Involved high level GIS analysis, expert assignment of ecosystems to broad API codes, and communication with CMA and DEC staff. Further consultation with DEC staff at GIS unit to support application of the final product to the Biodiversity Forecasting Toolkit
- *Wollondilly Biodiversity Strategy:* Developed a detailed strategy which incorporates national, state, regional and local policies to enhance, protect and restore biodiversity in the Shire. The strategy addressed and provided actions for each of the key functions of Council including land use planning, land management, education, resourcing, monitoring/reporting and data management. Research on local issues, biodiversity data audit and analysis for conservation significance was carried out in the Shire. Active communication with Council and staff was a significant part of the process

(e) Demonstrated and effective consultation experience with biodiversity and natural resources experts

ELA have over 45 staff with a diverse professional background. This ranges from academia, state and commonwealth government as well as private firms. As part of biodiversity assessment projects staff regularly consult with peers who are biodiversity and natural resource experts. Consultation is in the form of involvement of expert panels as part of biodiversity assessment exercises, being invited as biodiversity experts on working groups, facilitation of workshops and steering groups made up of biodiversity experts or as part of the wider peer community that ELA has established over the years. Some relevant projects that have required a consultation focus include:

- *Port Stephens Wetland Mapping and Management Project* (Port Stephens Council and Department of Infrastructure Planning and Natural Resources)**:** This project undertook detailed mapping using existing data and field survey of all wetlands in the LGA, and a relational database of wetlands. The project has also involved the development of a classification and prioritisation process for wetlands, which takes account of biophysical, condition, threat assessment and statutory criteria. The final stage of the project is the development of management recommendations for the mapped and prioritised wetlands. This project involves working closely with a range of government agencies involved in a reference group
- *Cultural Heritage Regional Assessment Tool Workshops*: Facilitated a series of workshops across Department of Environment and Conservation (DEC) regional offices regarding Aboriginal heritage regional assessment and its implications for DEC in planning and management
- *A Review of 'Overcleared' Landscapes in the PVP-Developer for NSW Catchment Management Authorities:* Percentage-cleared estimates were upgraded into the Mitchell Landscapes Database in *BioMetric* for all CMAs in NSW. Grassland mapping and landscape delineation issues were addressed. The project combined expert consultancy analysis and expert workshops review
- *NSW Vegetation Classification Review for NSW CMAs*: Reviewed and upgraded the statewide vegetation classification system underlying the *BioMetric Tool* of the PVP-Developer, a tool set up under the *Native Vegetation Act* to facilitate CMAs to assess clearing and incentive applications on private land. The vegetation type review involved internal expert input, and organisation and facilitation of a number of expert workshops in various centres throughout NSW
- *Technical Support for the Threatened Species Database Upgrade, Department of Environment and Conservation:* This role is primarily focused around upgrading the Threatened Species Database utilised in the Biodiversity Banking Project and PVP. The role included carrying out an audit of baseline spatial and textual information related to the threatened species database, identifying and documenting data required, coordinating focus groups and expert workshops and collecting the data for entry into the threatened species database

(f) Familiarity with the variety of biodiversity data available and information requirements for development of analysis techniques for data collection and regional biodiversity assessment (including habitat modelling)

See response to 8.1 (e) above. Some additional relevant ELA projects include:

- *Habitat Modelling for Paralucia spinifera (Purple Copper Butterfly):* Carried out spatial statistical modelling using Arcview GIS to generate a habitat potential model. This included collation of existing siting information for the species and generation of Generalised Linear Models (GLM) and Generalised additive models (GAM) to produce a refined dataset and high quality maps of potential species distribution
- ELA is currently undertaking a data audit for WA DEC before conducting a species modelling project throughout the DEC Swan Region. The data audit included collecting all relevant spatial data layers for the study area (Swan Region), assessing their relevance, generating indices and identifying potential gaps in the data. Once the data audit is complete the modelling process will begin
- *Cumberland Plain Predictive Fauna Habitat Modelling for DECC Parramatta*: Predictive habitat modelling for thirty fauna species across the Cumberland Plain, Western Sydney (some listed as threatened species on the TSC Act 1997). Records of species locations were analysed statistically against various environmental datasets (topographic, substrate, climatic, vegetative indices) to identify relationships and highlight potential drivers to habitat preference and species distribution. A technical report, GIS data layers and maps were produced showing potential habitat areas for each species across the study area

8.3 Information System

(a) Demonstrated experience in the development of user friendly biodiversity databases for large regional assessments

ELA has produced a number of biodiversity databases incorporating the development of data standards and survey methodologies to support regional land use planning. A small selection of projects involving database development includes:

- *Port Stephens Wetland Mapping and Management Project* (Port Stephens Council and Department of Infrastructure Planning and Natural Resources)**:** This project undertook detailed mapping using existing data and field survey of all wetlands in the LGA, and a relational database of wetlands. The project has also involved the development of a classification and prioritisation process for wetlands, which takes account of biophysical, condition, threat assessment and statutory criteria. The final stage of the project is the development of management recommendations for the mapped and prioritised wetlands. This project involves working closely with a range of government agencies involved in a reference group
- *Penrith vegetation Mapping*: Update and field validate vegetation community mapping on Council owned lands within the Penrith LGA. Collected detailed land use, condition and disturbance information, digital photograph and GPS point at each site. Presented the information as "point-and-click" functionality for use in a GIS and in a database for future use and updating
- *Hawkesbury Vegetation Validation, Hawkesbury City Council:* A validation of mapped vegetation and condition is being carried out across the Hawkesbury LGA. The validation has developed an agreed rapid survey technique to be used across the remnant vegetation within the LGA. Survey focuses on lands which are under the care and control of Council, roadside corridors, riparian corridors and wetland areas. Management implications for Council are being targeted, such as significant species and communities and weed distribution

(b) Knowledge and experience in the development of information delivery techniques and systems at a State Government level for biodiversity data

ELA has provided guidance, coordinated, managed and developed a number of information delivery techniques for use at a State and Commonwealth government level. Some examples of past projects include:

- *Marine Pest Risk Assessment Application Scope:* prepared a scoping document for the development of a suitable system for the collection and presentation of information and data relating to marine pests for the NSW Department of Primary Industries
- *National Vegetation Information System (NVIS)*: Undertook an audit and collation of all available vegetation mapping and survey datasets across NSW under contract to the NSW NPWS. All spatial and metadata information was recorded in the NVIS database and provided to the Department of Environment and Heritage for preparation of a National Vegetation Map
- *Technical Support for the Biobanking Assessment Tool, Department of Environment and Conservation*: Providing technical assistance in the development of the Biobanking Assessment Tool and accompanying assessment methodology. The role has included investigating several different methodologies, writing detailed functional requirements and technical specifications for the tool, engaging a software programmer and undertaking detailed testing and error checking.
- *NSW Coast Economic Value Mapping*: This project put together digital spatial data associated with the economic values of the natural environments of the NSW Coast at an LGA level. An interactive web mapping application was developed to view and query the derived GIS data. The application was packaged into an easily distributable self contained CD with a web browser interface
- *Web Service Delivery Options Scoping Report for Water ways Authority of NSW:* Prepared a scoping document to review of available options and identify appropriate strategies and directions for web map serving within Waterways

Robert Mezzatesta, also managed a number of projects developing information delivery systems when previously employed with NSW DECC, including:

- *Greenweb Sydney web mapping Application*: Managed and developed the web mapping application of the Greenweb Sydney website. The application identifies areas that either have been or are proposed to be revegetated and regenerated in the Greater Sydney Area (http://www.greenwebsydney.net.au/ mapping/index.cfm).
- *Key Habitats and Corridors Application, NPWS*: Managed the development of a web mapping application to deliver the results of the NPWS north east Key Habitats and Corridors spatial data to the public via the internet (http://maps.nationalparks.nsw.gov.au/website/npws_maps/keyhabs/).
- *NPWS Atlas of NSW Wildlife Web Application*: Implemented and managed the development of the Atlas of NSW Wildlife web application to deliver a publicly available search interface for the Atlas (http://wildlifeatlas.nationalparks.nsw.gov.au/wildlifeatlas/watlas.jsp)

(c) Knowledge of biodiversity requirements in a land use planning environment

The ELA staff nominated as part of the proposed project team have over 70 years collective experience in the planning, management and analysis of biodiversity information for use in a land use planning environment to support landscape conservation planning. All team members have a strong knowledge of biodiversity requirements to support land use planning projects. This provides one of the

strongest and most experienced teams available in the private sector to carry out this project.

Relevant ELA projects include:

- *Strategy and Guidelines for Establishing Biodiversity Conservation Priorities for the Sydney Basin*: Prepared guidelines for identifying conservation priorities across the Sydney Basin. Included a sub-regional analysis of threatened species and land unit distribution across individual provinces. Project undertaken as Geoanalysis Pty Ltd
- *Western Sydney Growth Centres Mapping:* Updated land use mapping within the identified north western and south western growth centres for the Department of Planning using SPOT 5 satellite imagery. Provided an analysis of the breakdown of landuse, vegetation community and ecological constraint within the growth centres

(d) Demonstrated and effective consultation experience with biodiversity and natural resources experts

See response to 8.2 (e) above. Further ELA projects involving expert consultation for the development of a system to assist in land use planning decisions include:

- *Parramatta City Council Waterways Prioritisation:* An assessment of waterways within the Parramatta LGA based on social, economic and environmental values. The project includes preparing a GIS database, modelling methodology and undertaking analysis to prioritise reaches, works and funding opportunities. A decision support tool was developed to identify the management priority of the catchments within the Parramatta LGA
- *Lake Cathie / Lake Innes CLAM*: Developed a Coastal Lake Assessment and Management (CLAM) tool for Lake Cathie / Lake Innes to allow stakeholders, in particular Local Government Planners, to assess the social, economic and environmental trade-offs associated with development, remediation and use options for coastal lakes and estuaries. The tool is an interactive software driven decision support system that investigates proposed management scenarios in the catchment and their effect on the lake and catchment as a whole to be used as part of management and planning processes in the catchment.
- *Technical Support for the Threatened Species Database Upgrade, Department of Environment and Conservation:* This role is primarily focused around upgrading the Threatened Species Database utilised in the Biodiversity Banking Project and PVP. The role included carrying out an audit of baseline spatial and textual information related to the threatened species database, identifying and documenting data required, coordinating focus groups and expert workshops and collecting the data for entry into the threatened species database

9. REFEREES

Referee 1	Referee 2
Name: Michelle Englehard	Name: Ron Avery
Position: Parks Professional Officer	Position: Head, GIS Major Programs Unit
Organisation: Hawkesbury City Council	Organisation: DECC
Ph: (02) 4560 4444	Ph: (02) 9585 6695
Project: Hawkesbury Vegetation Validation	Project: Mitchell Landscapes Review and Editing

APPENDIX 1 PART B - CONTENT REQUIREMENT AND RESPONDENTS OFFER

PART B – CONTENT REQUIREMENT AND RESPONDENT'S OFFER

PART B SHOULD BE COMPLETED BY THE RESPONDENT AND RETURNED TO THE CONTRACT AUTHORITY (REFER 'SUBMISSION OF OFFER' REQUIREMENTS OF CLAUSE 1.2 IN SECTION 1 IN PART A).

1. NOTE TO RESPONDENT

In preparing its Offer, the Respondent must:

a) address each requirement in the form set out in this Part B;
b) in respect of the Qualitative Requirements in Section 0 in this Part B, provide full details of any claims, statements or examples;
c) assume that the Contract Authority has no knowledge of the Respondent, its activities, experience or any previous work undertaken by the Respondent for the Contract Authority or any other Public Authority; and
d) nominate any Offer Information that the Respondent wishes to expressly and reasonably nominate as confidential for the purposes of clause 1.11(d) of Section 1 in Part C.

2. IDENTITY OF RESPONDENT

The Respondent must declare and provide the following details:

RESPONDENT TO COMPLETE:

Name of Legal Entity: Eco Logical Australia Pty Ltd

Business Name: Eco Logical Australia Pty Ltd

Contact Person: Robert Mezzatesta, Senior Consultant

ABN or ACN: 87 096 512 088 (ABN) , 096 512 088 (ACN)

Registered address or address of principal place of business:

Head Office - Suite 2-4, Merton St. Sutherland NSW 2232;

Tweed/SEQ – Suite 11, 69 Wharf St Tweed Heads NSW 2485

Email: robertm@ecoaus.com.au

Telephone: (07) 5536 1999

Facsimile: (07) 5536 1944

Address and facsimile number for service of contractual notices:

PO Box 1191, Coolangatta QLD 4225; Fax (07) 5536 1944

NB: The Offer does not require the Respondent's signature.

3. COMPLIANCE AND DISCLOSURE REQUIREMENTS

The Contract Authority will, in its Value for Money assessment, consider the extent to which the Offer satisfies the following Compliance and Disclosure Requirements. The Contract Authority

reserves the right to reject any Offer that does not properly address and satisfy any of the Compliance and Disclosure Requirements.

COMPLIANCE

Special Conditions

The Respondent must confirm whether it will comply with the Special Conditions. If the Respondent will not comply with any of the Special Conditions, the Respondent must set out:

9.1.1.a.1.1 the Special Condition it will not comply with;

9.1.1.a.1.2 the extent of non-compliance – including the alternative clause, if any, or a description of any changes it requires to the Special Condition; and

9.1.1.a.1.3 the reason for non-compliance.

RESPONDENT TO COMPLETE:

Does the Respondent agree to the Special Conditions?

Yes

If no, provide details.

General Conditions

The Respondent must confirm whether it will comply with the General Conditions. If the Respondent will not comply with any of the General Conditions, the Respondent must set out:

9.1.1.a.1.4 the General Condition it will not comply with;

9.1.1.a.1.5 the extent of non-compliance – including the alternative clause, if any, or a description of any changes it requires to the General Condition; and

9.1.1.a.1.6 the reason for non-compliance.

RESPONDENT TO COMPLETE:

Does the Respondent agree to the General Conditions?

Yes

If no, provide details.

DISCLOSURES **Participants (including subcontractors)**

RESPONDENT TO COMPLETE:

Is the Respondent acting as an agent or trustee for another person or persons?

No

If yes, provide details.

AND

Is the Respondent acting jointly or in association with another person or persons?

No

If yes, provide details.

AND

Has the Respondent engaged, or does the Respondent intend to engage, another person or persons as a subcontractor.

No

If yes, provide details.

Criminal Convictions

The Respondent must confirm that neither the Respondent nor any person included in the Specified Personnel has been convicted of a criminal offence that is punishable by imprisonment or detention.

RESPONDENT TO COMPLETE:

Has the Respondent or any person included in the Specified Personnel been convicted of a criminal offence that is punishable by imprisonment or detention?

No

If yes, provide details.

Conflict of Interest

The Respondent must declare and provide details of any actual, potential or perceived conflict of interest.

RESPONDENT TO COMPLETE:

Does the Respondent have any actual, potential or perceived conflict of interest in relation to the performance of the Contract (if awarded) by the Respondent?

No

If yes, the reasons why.

Professional Standards Scheme

The Respondent is required to disclose whether it is a member of an occupational association for which a scheme has been approved under the *Professional Standards Act 1997* (WA) or equivalent legislation of another State or Territory of Australia.

RESPONDENT TO COMPLETE:

Is the Respondent a member of an occupational association for which a scheme has been approved under the *Professional Standards Act 1997* (WA) or equivalent legislation of another State or Territory of Australia?

No. Individual members of Eco Logical Australia are members of the Spatial Sciences Institute

If yes, the Respondent must provide details.

Small Business

The Respondent is required to disclose whether it is a small business that employs less than twenty (20) people.

The Respondent should note that its response to this Compliance and Disclosure Requirement:

9.1.1.a.1.7 will be used by the Department of Treasury & Finance for statistical purposes only; and

(B) will not be used by the Contract Authority in its evaluation of the Offer.

RESPONDENT TO COMPLETE:

Is the Respondent a small business that employs less than twenty (20) people?

No, Eco Logical Australia has over 40 staff

4. QUALITATIVE REQUIREMENTS

The Contract Authority will, in its Value for Money assessment, consider the extent to which the Offer satisfies the following Qualitative Requirements. The Contract Authority reserves the right to reject any Offer that does not properly address and satisfy any of the Qualitative Requirements.

Each Qualitative Requirement has equal weighting.

A. SUITABILITY OF PROPOSED SERVICES

The Respondent must:

1. demonstrate the proposed Services meet the description set out in clause 2.2 of Section 2 in Part A; and

demonstrate appreciation and understanding of the requirements of the Request and the Respondent must provide an outline of its proposed methodology and approach.

RESPONDENT TO COMPLETE:

Respondent to demonstrate suitability of proposed Services. –

Eco Logical Australia has put together a methodology and works program that fulfils the requirements of the brief and ensures that all aspects of the project, as defined in the scope of works, are completed to a high standard and in a timely manner. Please refer to Sections 4 and 7 of the proposal document for a full description of our proposed methodology.

Please refer to section 8 of the proposal document for our response to each of the required selection criteria from clause 2.2 of section 2 in Part A of the tender documents

B. SPECIFIED PERSONNEL

The Respondent must:

1. identify any proposed Specified Personnel together with a brief curriculum vitae for each of them;
2. detail the availability of the proposed Specified Personnel for the Contract during the Contract Term; and
3. describe the industry experience of all proposed Specified Personnel.

RESPONDENT TO COMPLETE:

Respondent to provide the Specified Personnel information required under this clause.

See section 6 and Appendix 2 of proposal document

C. ORGANISATIONAL CAPACITY

1. The Respondent must demonstrate that it has the organisational capacity to perform the Contract.
2. The Respondent must provide a comprehensive timeframe for the delivery of the proposed Goods and / or Services, identifying key dates and milestones and outlining how any timing requirements specified in clause 2,2 of Section 2 in Part A will be met.

RESPONDENT TO COMPLETE:

Respondent to provide the organisational capacity information required under this clause.

Eco Logical Australia Pty Ltd commenced business in June 2000 as a specialist strategic environmental planning consultancy. Over the past seven years the company has grown from a handful of staff to having over 40 staff and 3 directors working in six different offices spread throughout New South Wales and the ACT. As well as growth in numbers, the company has developed in experience and in the range of environmentally based services it can provide. We provide specialist services in the areas of Strategic Data Planning and Management; Spatial Information Planning, Assessment and Management; Biodiversity Planning, Assessment and Management; Strategic Planning; Impact Assessments and Bushfire and Landscape Management.

Eco Logical Australia currently employs over 40 people with a diverse spread of experience in data and natural resource management. Our staff include strategic data, GIS and mapping technicians, environmental and strategic planners, terrestrial and aquatic ecologists, environmental scientists and project managers

A comprehensive program of works is provided in section 7.1 of the proposal document

D. DEMONSTRATED EXPERIENCE

i. The Respondent must provide details of contracts for similar goods and / or services provided for other clients. The Respondent must provide:

(A) a detailed description of the Goods and / or Services provided;

(B) similarities between the previous contract and this Request;

(C) address the key selection criteria as described under section 2.2.1, 2.2.2 and 2.2.3;

ii. The Respondent must also provide a minimum of [2] referees in respect of the contracts detailed above. Referee details must include:

(A) the referee's name and position;

(B) company name;

(C) the contact telephone number; and

(D) the contract or project title.

RESPONDENT TO COMPLETE:

Respondent to provide the demonstrated experience information required under this clause.

See section 8 of the proposal document for demonstrated experience relating to required selection criteria and section 9 for 2 referees

5. INSURANCE REQUIREMENTS

The Respondent must demonstrate that it has the insurances required under clause 2.5 of Section 2 in Part A.

RESPONDENT TO COMPLETE

Does the Respondent have the insurance requirements specified in clause 2.5 of Section 2 in Part A?

Yes

If yes, the Respondent must complete the following table:

	Insurer	ABN	Policy No	Insured Amount	Expiry Date	Exclusions, if any
Public and Product	Zurich	13 000 296 640	25040735X GLG	$10,000,000	30/7/08	
Professional Indemnity	AON	17 000 434 720	63MIS7037582	$10,000,000	7/2/08	
Workers' Compensation	QBE	83 564 379 108 004	1GF00359 36GWC154	$2,510,000	30/6/08	

6. OFFERED PRICE AND PRICING REQUIREMENTS

The Contract Authority will, in its Value for Money assessment, consider the extent to which the Offer satisfies the following Offered Price and Pricing Requirements. The Contract Authority reserves the right to reject any Offer that does not properly address and satisfy any of the Offered Price and Pricing Requirements.

(a) **OFFERED PRICE AND PRICE SCHEDULE**

i. If this Request contains a Price Schedule, the Respondent must include in the Offer the completed Price Schedule.

ii. The Respondent must state the basis of its Offered Price in Australian Dollars and any price variation provision, arrangement or mechanism applicable to the Offered Price.

iii. The Offered Price will be deemed to include the cost of complying with this Request (including the Specification and Special Conditions) and the General Conditions and the cost of complying with all matters and things necessary or relevant for the due and proper performance of the Contract. Any charge not stated as being additional to the Offered Price will not be payable by the Contract Authority or the Customer.

iv. If the Offered Price is consideration for a taxable supply under the GST Act, the Offered Price will be deemed to be inclusive of all GST applicable to the taxable supply at the rate in force for the time being.

RESPONDENT TO COMPLETE:

Lump Sum

Please see section 7.2 of the proposal document for a detailed breakdown of the fee proposal

Ref	SERVICE DESCRIPTION	No. of Hours	Hourly Rate (inc GST)	Total Cost (inc GST)
1	Provision of an operational information / special data manual directly relevant to the Gnangara Groundwater System (GGS) and land use planning process as described in Part B section 2.1 and 2.2.1	75 40 Disbursements	$176 $110	$13,200 $4,400 $2,200
2	Provision of a survey methods operational guide to support the survey requirements for landscape conservation assessment and planning on the GGS as described in Part B section 2.1 & 2.2.2	59 12.3 26 Disbursements	$176 $143 $110	$10,384 $1,760 $2,860 $3,300
3	Provision of a database and special link with GIS to contain survey results and establish links with existing systems and data protocols for the GGS as described in Part B section 2.1 & 2.2.3	63 198 Disbursements	$176 $110	$11,088 $21,780 $5,500
	TOTAL COST (Lump Sum) **+ Disbursements**		$	$65,472 $11,000
	Hourly rate for any additional ad-hoc work requirements **See section 6 of the proposal document for hourly rate breakdown by staff member**		$242 $176 $154 $143 $110	

As identified in section 7.2 of the proposal document there is opportunity for cost savings of $4,950 (GST incl) and a saving of $2,200 in disbursements (GST incl) if ELA were to be appointed to carry out all three of the project components.

The revised Total Costs (inclusive of GST) for the project would then be:

TOTAL COST (Lump Sum) $60,522

Disbursements $8,800

Cost + Disbursements $69,322

(b) IMPORTED CONTENT

The Western Australian's Government's "Buy Local" Policy provides for government agencies, when comparing bids, to apply a 20% price impost to the portion of a bid that comprises goods and / or services that have been sourced from overseas, excluding New Zealand.

The cost of the goods (and associated services) that have been sourced from overseas is referred to as "imported content".

The imported content is calculated in dollar terms and is defined as the estimated duty paid cost of the portion of the bid sourced from overseas.

Estimated duty paid cost includes:

1. the cost of any services related to importing the goods (for example – overseas freight and insurance, software in computer tenders, consultancy or engineering effort); and
2. any charges of overseas origin together with customs clearing charges.

RESPONDENT TO COMPLETE:

The Respondent must complete the table below.

If the Respondent believes that there is no imported content in its Offer, the Respondent must enter "Nil" or "not applicable" in the final row.

All values used and shown in the table shall not include any allowance for GST.

Goods / Services Imported from Another Country, Excluding New Zealand	
Goods / Services	**Cost ($A)**
Total Cost of Imported Content	**$ NIL**

APPENDIX 2 CURRICULUM VITAE