

KEMPSEY SHIRE COUNCIL

CONSULTANT BRIEF



KOROGORO CREEK

ESTUARY MANAGEMENT STUDY & MANAGEMENT PLAN

October 2007

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PART A: CONSULTANT BRIEF

1.0 INTRODUCTION

1.1 General

This brief is to seek consultant services to prepare an estuary management plan for Korogoro Creek in accordance with the general provisions of the States Estuary Management Manual (1992) and the management framework proposed for “Healthy Modified Conditions” as detailed in the Coastal Lakes report by Healthy Rivers Commission (2002).

1.2 Location

The entrance to Korogoro Creek is located at the coastal village of Hat Head within the Kempsey LGA on the mid-north coast of NSW (Figure 1).

Hat Head has a permanent population of 354 (Population Profile 2005) and is about 32km north-east of Kempsey located on the coast midway between Crescent Head and South West Rocks.

Hat Head residents have a strong community spirit and actively seek action to maintain the health of their environment.

Hat Head and its environs is a popular tourist and surfing location that experiences a major influx of visitors during school holiday periods. This influx often doubles or triples its population which exerts huge pressure on local resources.

Tourism is a major industry within the Kempsey LGA with 415,000 visitors spending an estimated \$90 million per year (Kempsey Tourist Information Centre)

The main attractions in this area include the picturesque coastal setting of Hat Head village and Hat Head National Park



Figure. 1. Korogoro Creek location map. (Source MVC)

1.3 Background

Prior to the arrival of Europeans the area had been inhabited by the Ngamba-ngagu Aborigines. Their peaceful existence was briefly disturbed in 1817 when John Oxley passed through the area but he found the river swampy and inaccessible and did nothing to encourage settlement.

Sandmining was a significant activity in Hat Head National Park for the extraction of rutile, zircon, monazite and ilmenite for up to fifty years. All mining operations had ceased in Hat Head by the late 1970's. (NPWS 1997).

Korogoro Creek is a small coastal estuary that has been physically modified by the construction of flood mitigation infrastructure and levees. A paper produced for the Flood Mitigation Seminar held in Kempsey December 1976 indicated by 1969 \$324,500.00 was spent on the Korogoro Creek Scheme.

The area has been at the vanguard of coastal protection. As early as 1987 Hat Head was chosen for a pilot dune care scheme. The following year the Hat Head Community Dune Care Group – the first of its kind in Australia – was formed.

Fish kills, red weed problems, water quality, siltation and potential dune erosion are just some of the recurring issues reported for Killick Creek.

The small coastal village of Hat Head has a relatively high proportion of older persons, 40% over 55 years old. Significantly 48.4% of private dwelling are unoccupied, indicating seasonal population fluctuations.

Hat Head National Park adjoins Korogoro Creek and covers an area of 6445 hectares with camping facilities at Smokey Cape and Hungary Head.

The Hat Head Tourism Park is located on the eastern bank of Korogoro Creek. A Draft Management Plan for the Tourism Park is currently being developed.

1.4 Description of Korogoro Creek

- a) The natural catchment area of Korogoro Creek is approx 16 km². With a waterway area ~0.2 km² (see Fig 2).
- b) Korogoro Creek is small sized estuary with no significant tributaries.
- c) The entrance is untrained but always open due to good protection from the south (MHL 2005)
- d) Hydrologically the Swanpool Wetlands and a series of coastal aquifers connects to Korogoro Creek via a constructed flood mitigation drain and natural drainage patterns
- e) There are a number of SEPP 14 Coastal Wetlands mapped in the Korogoro Creek catchment (see Land Use & Tenure)
- f) Major flood mitigation infrastructure is located 4.3 and 5.3 kms up stream from the entrance.



Figure 2. Korogoro Creek and the village of Hat Head.

1.4.1 Entrance

The entrance is untrained but always open, although sand shoaling is evident due to good protection from the south. The 1956 aerial photograph shows Korogoro Creek with a narrow channel opened to the sea.

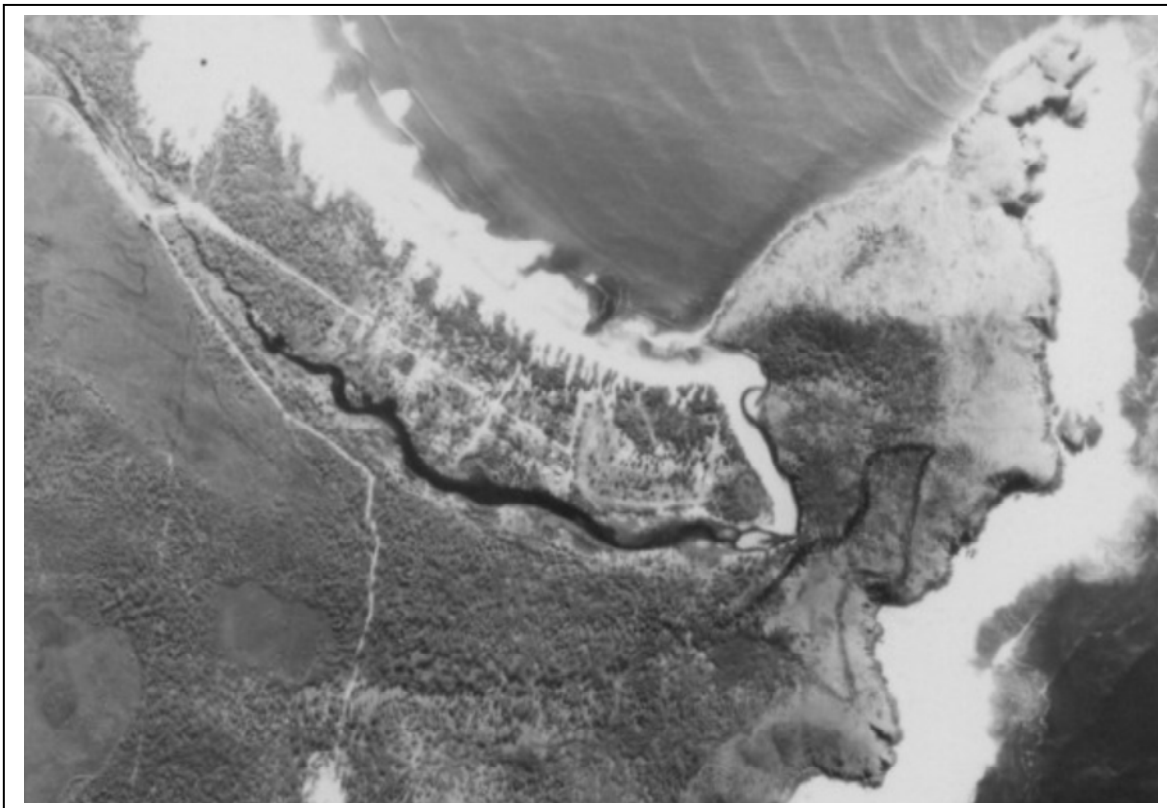


Figure 3. 1956 aerial photograph of Korogoro Creek and Hat Head village.

Korogoro Creek was chosen to provide a natural outlet to the sea. The Macleay River Flood Mitigation – Korogoro Creek Model Investigation (S.J.G Day Feb 1967) Report No. 119 details the objectives of using Korogoro Creek as a component of flood mitigation.

1.4.2 Land uses & Tenure

- a) The town of Hat Head is located at the entrance with its urban residential areas largely in the eastern and western sides of Korogoro Creek.
- b) Hat Head National Park encompasses the coastal catchment to the south and west.
- c) Swanpool Wetland in the north-west and large tracks of land surrounding Korogoro Creek are largely National Park estate. Cattle grazing is the dominant land use in the upper sections of the catchment.
- d) All land in the vicinity of the entrance to Korogoro Creek below mean high water is Crown Land. The adjacent foreshore is Crown Reserved Land for Public Recreation & Resting Place. Trusteeship of Reserve No R52803 is vested in Kempsey Shire Council.
- e) SEPP 14 Coastal Wetlands (see Fig 4)



Figure 4. SEPP 14 locations in Korogoro Creek catchment.

- f) LEP Land use zoning:

- 8 (a) National Park – large areas to the south-east, south and west of Korogoro Creek
- 6 (a) Open Space – located along the creek banks below the traffic bridge
- 7(f1) Coastal land protection – beach and dune areas
- 1(d) Rural Investigation (D) – to the south
- 29 (v) Village – located on both sides of the creek down stream of the traffic bridge

1.4.3 Water Quality

The urban areas are sewered via the Treatment plant located near the south of the creek. Effluent disposal is via dune sand exfiltration on the eastern side of the creek, north-west of the village. Water Resource Laboratory has undertaken groundwater monitoring of the area.

Stormwater discharge from urban areas of Hat Head largely discharge into the Korogoro Creek system.

Acidic and blackwater discharge from the Swanpool and coastal aquifers areas.

2.0 ESTUARY PLANNING PROCESS

2.1 Coastal & Estuary Management Committee

Kempsey Shire Council has an active Coastal & Estuary Management Committee with membership recently reviewed to ensure all key stakeholders are included. Their role is to facilitate the development of management plans for the estuaries and coastal resources of the Kempsey LGA, largely through Councils funding supported with matching dollars from the States Estuary & Coastal programs

2.2 Korogoro Creek Working Group

A small working group of stakeholders from Hat Head and Swanpool Wetland area have assisted in identifying local issues and providing local knowledge. This working group reports back to the main Coastal & Estuary Management Committee. Further feedback to this group on current planning outcomes and process is a matter of priority.

2.3 Estuary Management Policy

To encourage the integrated, balanced responsible and ecologically sustainable use of the States estuaries. (NSW Government 1992)

2.4 Planning Process

The States Estuary Management Manual (NSW Govt 1992) was published to outline the processes of preparing an estuary management plan.

The estuary management planning process is being currently reviewed as part of the Coastal Protection Package announced by the Premier 2001. It is intended for both the coastal and estuary planning processes to be combined into a coastal zone management manual.

The planning process as outlined in the current revised Manual involves a 7-stage process as follows:

1. Form an Estuary Committee
2. Identify Issues and Set Goals
3. Undertake an estuary processes study
- 4. Undertake an estuary management study**
- 5. Prepare estuary management plan**
6. Adopt and implement estuary management plan
7. Monitor and Review management process

This brief is for steps 4 and 5 of the process.

Community consultation is an essential component of the estuary management process.

Prospective consultants must satisfy themselves as to the adequacy of the available data for the preparation of the Estuary Management Study and the Management Plan.

Additional data requirements and community consultation strategies including costs must be clearly identified in the proposal submitted.

3.0 STUDY AREA .



Figure 5. Korogoro Estuary Plan Study Area

3.1 Estuary Management Plan Study Area

The study area comprises the catchment of Korogoro Creek, which includes the upper Swanpool wetland area to the north as well as the coastal dune system.

4.0 RIVER MANAGEMENT GOAL

Health Rivers Commission in its discussion paper on north coast rivers defines a healthy river as “A river whose condition, as indicated by a broad range of environmental, social and economic characteristics, enables it to support the natural ecosystems, commercial activities and social amenity desired by the community”

It is envisaged the consultant will develop an appropriate goal for Killick Creek acknowledging the State, Council and community interests.

5.0 ISSUES

Refer Korogoro Creek Data Compilation and Processes Study for identification of issues determined by the Hat Head community in regards to the management of Korogoro Creek

<http://www.kempsey.nsw.gov.au/estuarymanagement.htm>

5.1 Water Quality

5.1.1 Salinity

- a) Water quality from Swanpool and dune aquifers and its impact on Korogoro Ck
- b) Saltwater issues resulting from ingress of saline water into freshwater wetlands
- c) Killing off vegetation in freshwater swamp

5.1.2 Stormwater

- a) Stormwater pollution and its impacts on the health and recreational use of Korogoro Creek as well as the local tourism industry at Hat Head and environs
- b) Faecal coliform and contaminants (pesticides, insecticide and chemical residues)
- c) Bowling green runoff and stormwater outlets

5.1.3 Recreational Use

Ensure water quality is fit for swimming and recreational use by future generations

5.1.4 Acid Sulfate Soils

Acid sulfate soils have been mapped in the upper catchment – Swanpool area

5.2 Entrance Management

- a) Entrance shoaling
- b) Creek entrance management
- c) Boating access

5.3 Ecology

- a) Korogoro Creek natural functioning
- b) What's the extent of change to flora and fauna?
- c) Maintenance of natural creek functions how possible with flood & drain mitigation
- d) Wetland management - How to keep freshwater wetlands wetter
- e) Fish stock depletion
- f) Red weed access into Korogoro Creek during NE winds in summer time and king tides

5.4 Sediments

- a) Concern over black ooze in bottom sediments & its effects on flora and fauna, seeming lack of fish stock
- b) Siltation of upper & lower reaches of Korogoro Creek, no longer a lagoon, now heavily shoaled
- c) Composition of siltation within drainage channel (black ooze)

5.5 Flood Mitigation

5.5.1 Floodgate management

- a) Has flood mitigation become swamp drainage
- b) Explore ways of mimicking natural system functions
- c) Flood function versus drainage function
- d) Clarification of hydrologic effects
- e) Manage to maximise benefit for landholders and environment
- f) Prevent scalding of pasture from saline incursion
- g) Retain freshwater on wetland areas

5.5.2 Drain Management

How does the management of the drain affect Korogoro Creek?

5.5.3 Choke/throttle Management

How does the management of the Choke/throttle affect Korogoro Creek?

5.5.4 Drains

Korogoro Cut drain depth, management and maintenance

5.5.5 Acid Sulphate Soils

ASS scalds in the Swanpool Wetland area

5.5.6 Sea Level Rise and Landuse Implication

Implications of sea level rise for future landuse options

PART B -SCOPE OF WORKS

6.0 ESTUARY MANAGEMENT STUDY

The consultant is to prepare an Estuary Management Study that;

- a). Frames the context of management

- b). Identifies estuary values, significance, critical processes and threats.
- c). Maps current and future land uses highlighting those posing a threat or risk to the estuary
- d). Explore management options for issues under consideration and river health goal achievement
- e). Describe the local institutional management frameworks and responsibility
- f). Assess & evaluate options ability to promote the adopted goals and objectives
- g). Make recommendations as to preferred management options
- h). Detail method of implementation and accountabilities

6.1 Establish the Context

- 6.1.1** Critically review and analyse the listed issues to establish clear idea of the direction required in the management planning process and to identify those issues that potentially threaten the long term health of the catchment and its estuary.
- 6.1.2** Refine the primary outcomes required within the suggested management framework approach as defined for “healthy modified conditions” Coastal Lakes report (HRC 2002) and Statement of Intent (NSW Govt 2003), ensuring consistency with the NSW Coastal Policy
- 6.1.3** Review the process study findings to check that sufficient understanding exists to progress effective management of issues. Flag those questions that remain unanswered,
- 6.1.4** Broadly group issues that pose a high risk and or threat to achieving the primary outcomes

6.2 Estuary Values

- 6.2.1** Identification of areas of high natural and or cultural values of Korogoro Creek estuary that make it important in a local, regional or national sense. (Such features may include cultural, visual, ecological, recreation, education, economic and social characteristics.)

6.3 Aboriginal Values

- 6.3.1** Desktop assessment of known aboriginal values to highlight priority interests and outcomes to guide further consultation.

6.4 Regional Significance

- 6.4.1** Assess the significance of the Korogoro Creek estuary in terms of broader coastal planning issues such as, a tourist destination and regional recreational and economic resource.

6.5 Critical Processes

- 6.5.1** Provide an overview of the critical processes that maintain the structure and functioning of estuary

6.6 Current Land uses

Current uses refer to all activities associated with the use of Korogoro Creek its floodplain, waterfront lands, submerged lands, and the waterway

- 6.6.1** Map current land and waterway uses of the Korogoro Creek estuary and its foreshore areas land status and tenure, control and occupation noting all crown reserve lands that may potentially provide public access to creek system and its

foreshore.

- 6.6.2 Broad land use patterns
- 6.6.3 Existing waterway infrastructure including, wharves, jetties, pontoons, boat launching ramps, bridges, walkways and
- 6.6.4 Map all flood mitigation, drainage structures, STP and stormwater outlets with details of tenure and control responsibility
- 6.6.5 Highlight conflicts between existing uses
- 6.6.7 Highlight and discuss those uses and developments that may threaten or pose a risk to the estuary's structure, health, ecological processes, and existing uses
- 6.6.8 Define and map those areas vulnerable to coastal processes ie sea level increases and climate change
- 6.6.9 Environmental planning, development and management controls including, REP, SEPP, LEP, & DCPs. Urban development strategies, land assessments

6.7 Future Landuse

Map future landuse noting future urban growth strategies of Council

- 6.7.1 Highlight those areas that pose potential threat and risk to ecosystem structure and health

6.8 Management Objectives

- 6.8.1 Document broad objectives for river health as defined by Healthy Rivers Commission in its Coastal Lakes and North Coast Rivers Inquiry Reports
- 6.8.2 For each issue or group of issues define the management objectives acknowledging State policies specifically the NSW Coastal Policy, State Wetlands Policy, NSW Flood Risk Management Policy, local Council and community interests

6.9 Community Consultation

- 6.9.1 Hold a workshop at Hat Head involving the Committee, working group, key stakeholders and local community representatives to develop management objectives and discuss and rank management strategy options.
- 6.9.2 Workshop to be held at a time to optimize opportunity for community input.
- 6.9.3 The Consultant will facilitate the workshop and prepare appropriate handouts for distribution prior to the workshops.
- 6.9.4 A summary of outcomes is to be produced immediately following the workshops and distributed to participants for approval.
- 6.9.5 The consultant is to prepare comprehensive plain English report addressing and clearly documenting all items of the Estuary Management Study work. Whilst the use of colour is encouraged the report should be able to be clearly photocopied in black and white. The consultant shall divide the estuary into a number of zones and provide issues, options, impacts and figures specific to each zone.
- 6.9.6 The report is to be presented in a format that integrates and shows the linkages between issues, objectives, options and impacts.

7.0 Investigation Potential Management Options

- 7.1 Compile a comprehensive list of management options for dealing with each management issue, indicative actions are those most likely to be necessary and effective
- 7.2 Present detailed information on likely costs, benefits, constraints, opportunities, practicality, impacts and responsibilities.

8.0 Social Attitudes, Institutional Structures and Management Frameworks

- 8.1** Describe the current management of Korogoro Creek and its catchment noting other management plans
- 8.2** Detail where and how existing management structures may improve delivery of outcomes from future investment
- 8.3** List and detail relevant legislation and policies including NSW Coastal Policy 1997, State Rivers and Estuaries Policy, Coastal Crown Lands Policy, Crown Land Foreshore Tenures Policy (Non-Commercial Occupations), NSW Wetlands Policy,
- 8.4** Survey of community attitudes, awareness and preferences for information and consultation methods

9.0 Assess and Evaluate Management Options

- 9.1** A decision making framework must be established for management objectives to be ranked and options assessed against objectives. For some objectives, multiple options will be appropriate and these are to be ranked using categories such as high, medium and low

- 9.2** Options be evaluated according to explicit criteria that reflect a wide range of social, economic, environmental and financial considerations. Suggested criteria may include;

- a). sustainability
- b). consistency with goals
- c). likely impacts
- d). planning framework consistency
- e). public domain
- f). acceptable risk
- g). cost benefit
- h). financial
- i). legal and regulatory
- j). community support

10.0 ESTUARY MANAGEMENT STUDY REPORT

- 10.1** It is expected that the Estuary Management Study report will include:

- a). An executive Summary
- b). Summary of important findings from the process study
- c). Critical analysis of issues
- d). Primary outcomes sought
- e). Results of community workshop on analysis of issues and management options
- f). Appraisal of management issues
- g). Management options for each management issue including advantage, disadvantage, comment, capital cost, maintenance cost and community acceptance.
- h). List of ranked management issues and preferred management options
- i). Description of local institutional arrangement, management frameworks and accountabilities
- j). Methods of implementation and evaluation

- 10.2** Figures.

Map current and future landuses highlighting areas of potential threat /& risk

Note: map figures to use orthorectified airphotos as base plan with appropriate layers to allow ease of reference by lay people

- 10.3** It is intended the Kempsey Council will place final draft management study on public exhibition.
- 10.4** The consultant will be required to review comments received and following discussions with the Committee amend the draft management study prior to finalisation.

11.0 ESTUARY MANAGEMENT PLAN

- 11.1** On completion of the Estuary Management Study the Consultant shall prepare a Korogoro Creek Estuary Management Plan
- 11.2** This Plan shall be prepared in accordance with the recommendations of Healthy Rivers reports on Coastal Lakes for “Healthy Modified Conditions” and North Coast Rivers report and using the general approach as outlined in the NSW Governments “Coastal Zone Management Manual” draft in preparation DSNR 2003
- 11.3** The Management Plan shall present a scheduled list of fully costed management strategies and actions to be recommended for adoption by council State Agencies and all key players, that satisfy the objectives and resolve the identified issues in a simple step by step format

11.4 The Plan shall;

- 11.4.1** Provide an overview of the estuary, its processes, values, key features, uses and conflicts, issues and pressures and current management responses;
- 11.4.2** Use mapping as principle tool to convey management options. Maps should utilise an orthorectified air photo base map as the primary layer.
- 11.4.3** Document the community’s aspirations for the future of the estuary, its goals and management objectives;
- 11.4.4** Rank objectives and strategies in order of degree of threat &/or risk posed to health of river system
- 11.4.5** Detail the actions and responsibility required to implement each strategy;
- 11.4.6** Clearly articulate the changes required in specific planning and development control instruments to improve management of activities and afford improved care of the physical attributes of the estuary
- 11.4.7** Provide conceptual designs of any works proposed
- 11.4.8** Include performance measures that can be used to gauge whether each strategy is having the desired effect in both the short and long term;
- 11.4.9** Document an implementation strategy. This will detail
 - a). Most appropriate methods to implement each of the strategies
 - b). Include sequence of implementation steps to be followed for incorporation into councils’ planning instruments, environmental assessment processes,
 - c). Design of any structural measures or works which may be required
 - d). Outstanding questions that must be answered by further studies and assessments
 - e). Provide a priority listing of management actions with a draft program for their implementation;
- 11.4.10** Detail capital, operation and maintenance costs and method of funding the implementation of each strategy; and

- 11.4.11 Ensure that plan activities and actions are practical, achievable and achieve sustainable outcomes
- 11.4.12 Recommend a process for Plan review and monitoring detailing the criteria and responsibility
- 11.4.13 Outline appropriate management strategies for the Korogoro Creek floodgates.

12.0 PLAN FORMAT

12.1 The Estuary Management Plan (EMP) shall be presented in both a document and digital format

12.2 The document shall include both written and diagrammatic information describing how particular areas of the estuary and its surrounds are to be used and managed.

12.3 The document shall incorporate the finding of the Management Study.

12.4 The following is a suggested format for the Plan:

- a) Summary
- b) Introduction
- c) Management Plan boundary
- d) Management Plan Framework
- e) Estuary management goals and desired outcomes
- f) Land Status and tenure
- g) Estuary Setting and Processes
- h) Regional Significance and Key Values
- i) Current Uses and Threats
- j) Future Land and Estuary Uses
- k) Management Objectives
- l) Scheduled List of preferred management actions fully costed and ranked to outcomes desired for management issues
- m) Plan Components
- n) Costs, Funds and Timing
- o) Plan Implementation
- p) Plan Monitoring and Review
- q) Future Studies

12.5 Tables

- i) Summary of preferred management actions
- ii) Attributes of Korogoro Creek estuary/catchment
- iii) Zoning categories and percentage estuary catchment area, relative significance
- iv) Strategic Plan grouped in order of priority actions for implementation. Within each priority level, strategies/actions are to be grouped into planning and development controls, protective and remedial works education programs, and monitoring and research.
- v) For each management issue/objective, show the strategy, action, responsibility, environmental performance measures and target.

12.6 Figures/Maps

- i) Location plan and extent of catchment.
- ii) Areas of significant aquatic and riparian habitat.
- iii) Location of overall strategies for implementation of the management plan.
- iv) Location of existing waterway development jetties, pontoons, boat ramps,

- v) Land zoning and ownership in the catchment.
- vi) Recommended landuse zoning changes
- vii) For each management issue, the areas of concern.
- viii) For each management issue, the location and extent of management strategies
- ix) Concept designs of management plan components eg Estuary foreshore plan should show location and concept design of gross pollutant traps, new accessways and foreshore restoration works.
Reserve facilities should show location and concept design of landscaping, pathways, facilities etc.

12.7 Plans to show ecological, hydrodynamic and water quality, recreation, visual quality and archaeological data and values as required.

12.8 The Management Plan is to be a working document that can be supplemented at regular intervals as more monitoring, investigation and changes occur. Consideration be given to adopting an appropriate format (e.g. ring bound, loose leaf) to facilitate future amendments.

13.0 DRAFT PLAN REPORT

13.1 A draft Estuary Management Plan will be subject to public display and review to provide all interested parties with the opportunity to:

- a) Assess what management is proposed for Korogoro Creek estuary, the means and implications of proposed controls, remediation actions,
- b) Register any objections or suggestions.

13.2 Attention is to be given to presenting information in clear written, graphical, diagrammatic and tabular form that is readily understood by councils, Government agencies and the community.

13.3 One (1) loose leaf copy of a preliminary draft report including plans plus an electronic copy in a format suitable for web listing and email be provided for review by the Committee.

13.4 Following incorporation of Committee comments, forty (20) copies plus one (1) loose leaf copy plus an electronic copy of the draft report shall be provided to Council by the Consultant for public exhibition. The draft shall be of a quality appropriate for broad community distribution.

13.5 During the public exhibition period the Consultant will be required to attend a public meeting and give a presentation on how the Plan was achieved and provide answers to any enquires.

13.6 For the public exhibition and meeting the Council will:

- a) distribute copies of the draft plan report;
- b) chair the public meeting;
- c) prepare advertisements and pay advertising costs;
- d) provide a suitable venue
- e) print handouts;
- f) be in attendance at the public meeting to provide assistance.

13.7 For the public exhibition and meeting the Consultant will:

- a) prior to the public exhibition, prepare a 1-2 page newspaper article that summarises the issues, options and main aspects of the Management Plan;
- b) facilitate the public meeting;

- c) prepare a handout summarising the main issues;
- d) provide a short presentation at the public meeting;
- e) answer any technical enquires;
- f) take into consideration community feedback not brought forward previously.
- g) prepare a panel display summarising the outcomes of the plan.

14.0 FINAL PLAN

14.1 Following appropriate consideration of community comments, review by the Committee of proposed amendments, and written approval, the Consultant shall print forty (40) copies (with colour exhibits) of the final Korogoro Creek Estuary Management Plan for distribution.

14.2 In addition the Consultant shall supply to Council an unbound printing quality master copy (including artwork) of the Estuary Management Plan plus a copy in the following electronic form:

- a) textual data (report) - Word 6.0 for Windows or later version
- b) pdf file format
- c) format suitable for web listing
- d) graphical data - Mapinfo.TAB format or Autocad.DXF format, Mapinfo version 4.5 Autocad Version 14
- e) Tabular data - Excel 5.0 format or later version

14.3 The final report including figures shall also be published in web page format for distribution on CD ROM and by a web site.

15.0 REPORTING AND TIMETABLE

15.1 The Consultant shall supply in the proposal a realistic timeframe and program timetable for completion to draft plan report and time required from receipt of community comments to final plan report stage.

15.2 Brief and concise progress reports to Council on the study are required **bi-monthly**. These reports should highlight aspects of the study that may not have been identified in the brief but could add value to the end product or improve on the process to arrive there.

16.0 CONTACT OFFICER

The Council officer responsible for briefing and liason

Mr David Masters	Ron Kemsley
Manager Planning & Natural Resources	Senior Natural Resources Officer
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Mr John Schmidt	DECC
[John.Schmidt@dnr.nsw.gov.au]	(02) 6561 4975

17.0 FEES

- 17.1** The fee shall be a lump sum as accepted by Council with the exception of hourly rates for attendance at Committee or other public meetings that are additional to the meetings and community consultation identified in the Brief.
- 17.2** The lump sum fee shall include final printing of the Study and Plan, specified meeting attendance, field surveys and data collection, and all costs associated with the community consultation process.
- 17.3** A fee proposal shall be submitted on the Lump Sum Fee Schedule at **Schedule 1**.
- 17.4** For work that may arise which is beyond the original engagement, the Consultant is required to provide hourly rates for professional and technical staff from which a time based fee for additional work can be negotiated.
- 17.5** Progress payments shall be made in accordance with an agreed payment schedule that reflects completion of tasks and/or achievement of milestones. The consultant shall submit as part of its proposal a proposed time based progress payment schedule.

18.0 QUALITY ASSURANCE

- 18.1** All work under this engagement, including work by sub-consultants, secondary consultants and service providers, shall be carried out under a quality system based on AS/NZ ISO 9001:1994 (or AS/NZS ISO 9002 : 1994 if applicable).
- 18.2** The proposal must be prepared as a Quality Assurance document.

19.0 COMPLETION OF PROPOSAL

The Consultant is to submit the following information in writing within the time allowed. Four (4) copies of the Consultant's proposal are required.

- a) Consultant's capabilities with respect to methodology, understanding of the brief, experience, team to be used and community consultation program. The Consultant must demonstrate that the disciplines of hydrologic and hydrodynamic engineering, marine biology, ecology, natural resources/town planning, community consultation are adequately covered.
- b) Consultant's fee proposal, itemised as per **Schedule 1**.
- c) Name of the Project Manager for the commission, key staff employed on the work, and persons empowered to accept direction from Council.
- d) Name of proposed sub-consultants
- e) A detailed program showing:
 - start and finish dates for each project task,
 - milestones and critical dates for specialist input,
 - proposed meetings with the Committee and/or council,
 - key personnel working on each project task and allocated time in hours;
 - progress payments schedule; and
 - time allowances for reviews and exhibitions.
- f) Confirmation of required professional indemnity and public liability insurance cover.

- g) Details of the Consultants quality system.
- h) Details of recent and relevant work performed by the Consultant.
- i) Any pecuniary or possible conflict of interest associated with the Commission

20.0 ACCEPTANCE

Written acceptance and agreement from the Consultant that the work will be undertaken in accordance with the Brief is required before the Commission can begin.

21.0 SELECTION CRITERIA

21.1 Proposals shall be assessed by a sub-committee of the Macleay Coast & Estuary Management Committee. The sub-committee is likely to be comprised of representatives from Councils, DSNR and the community.

21.2 Proposals will be assessed on an objective basis in general accord with the following selection guidelines. Factors to be considered in the assessment process will be:

- a) methodology;
- b) demonstrated level of understanding of what is required to produce a quality outcome;
- c) the quality of the Consultant's team in terms of demonstrated experience in the field. Of particular importance is the presence of sufficient depth of experience to cover the broad range of skills needed to address the issues and formulate objectives and strategies;
- d) community consultation proposal and skills;
- e) overall fee;
- f) project timetable; and
- g) understanding of the Estuary Management Process.

22.0 TERMS OF ENGAGEMENT

22.1 General Conditions of Engagement

The tasks as identified in the brief are based on Council's assessment of the study. The consultant may suggest any amendments required to achieve the study objectives during the course of the study.

Any proposed departure from the agreed study tasks must first be ratified by Council before proceeding.

The conditions under which the consultant will be engaged shall be generally in accordance with the Association of Consulting Engineers Australia Guide to Consulting Engineering Services and this Brief.

22.2 Termination

The consultant's commission to carry out the study may be subject to termination due to non-performance or inability to meet set deadlines. The consultants will be informed by letter of such termination. This letter will be final and not subject to further correspondence.

22.3 Confidentiality

Investigations and reports will remain confidential unless, or until, released by the Council.

22.4 Sub-Consultants

The primary consultant may engage a sub-consultant for a specified part of the study subject to the written approval of Council. The primary consultant is responsible for the sub-consultant's work and compliance with the terms of the study. The sub-consultant has no claim on Council for fees or expenses.

22.5 Insurance

22.5.1 Professional Indemnity

The consultant shall maintain a current Professional Indemnity policy of insurance at a sum not less than \$300,000 or not less than that sum specially nominated in the Letter of Engagement. The consultant shall maintain a policy of insurance for an amount that is sufficient to indemnify the consultant after completion of the commission.

22.5.2 On Site Public Liability

The consultant is responsible for taking out at least \$5 million public liability insurance giving cover to himself/herself, his/her employees and any agent engaged by consultant for the duration of the work.

The consultant should also be aware of the obligations and liabilities under the "Occupational Health and Safety Act, 1983" and National Code of Practice pertaining to the Act.

22.5.3 Employees or Agents

Before commencing work under the commission, the consultant shall ensure that a suitable insurance policy is taken out giving cover to the consultant, the consultants employees and agents against any liability, loss, damage, costs and expenses arising at common law or under any statute as a result of personal injury to or death of any person employed by the consultant or the consultants agents in or about the work.

22.5.4 Inspection of Insurance Policies and Receipts for Premiums

The consultant shall make available for inspection the policies of insurances effected, for the purpose of complying with this section and the receipt for payment for the current premiums or other such evidence of insurance as may be requested by Council.

22.6 Copyright

Results of the study and the models developed in the course of the study are the ownership of Council. All data files are to be provided to Council on completion of the study.

22.7 Conflict of Interest

The consultant shall inform Council immediately of any matter connected with this study which could give rise to an actual or potential conflict of interest. This information will be treated as confidential.

22.8 Certification

All final documents prepared by the Consultant must be signed by the Project Director nominated in the consulting proposal to certify that they have been prepared by competent professional staff, checked for accuracy and comply with relevant regulations and the requirements of the brief.

22.9 Corrections

Any error, ambiguity or deficiency, which becomes apparent during the course of the study, shall be referred to the consultant for correction or clarification. The consultant shall not be entitled to an additional fee where the correction or clarification arises from a fault of the consultant.

22.10 Acceptance of Commission

Written confirmation of acceptance of the commission for the study, in accordance with the conditions of engagement, is required before work commences

22.11 Payment and Costs

Progress payments will be made after project progress reports. Progress payments are not acknowledgment of the satisfactory performance of work and Council reserves the right to recover any overpayment.

Council will retain 10% of project costs on completion of the draft documentation. All monies will be paid on acceptance of the final documentation.

Clause SC2 - Goods and Services Tax

"Goods and Sales Tax (GST)" means any tax on goods and/or services, including any value added tax, broad based consumption tax introduced in Australia.

"GST Law" includes and Act, order or regulation which imposes or otherwise deals with the administration or imposition of a GST in Australia.

Notwithstanding any other provision of this Agreement:

- (a) If a GST applies to any supply made by any party or in conjunction with this Agreement, the consideration provided or to be provided for that supply will be increased by an amount equal to the GST liability properly incurred by the party making the supply.
- (b) If the imposition of a GST or any subsequent change in the GST law is accompanied by or undertaken in connection with the abolition of a reduction in any existing taxes, duties or statutory charges (in this clause "taxes"), the consideration payable by the recipient of the supply made under this Agreement will be reduced directly or indirectly as a consequence of the abolition of or reduction in taxes.

Each party warrants that at the time any supply is made under this agreement on which GST is imposed, that party is registered under the GST law. If the other party requests written evidence of registration, the party claiming to be registered will promptly produce evidence satisfactory to the party seeking such evidence.

Any invoice rendered by a party to this agreement which seek to recover an amount of GST payable by that party must conform to the requirements for a tax invoice (as that term as defined in the GST law). If requested to do so by the recipient of the supply, the supplier must provide a tax invoice within 14 days.

Council shall not be obliged to make any payment unless it is satisfied that the work satisfies the requirement of the brief.

The consultant shall be responsible for all his/her own costs for travel, accommodation and other expenses.

23.0 RESPONSIBILITY OF CONSULTANT

- 23.1** The responsibility for the preparation of the entrance management strategy and the supervision of sub consultants and their integrity, effectiveness and suitability for the purpose rests with the consultant. Council is relying upon the consultants

knowledge, skill and judgement to produce a finished product which is fit for its intended purpose.

- 23.2** The consultant shall accept full responsibility for all work undertaken as a requirement of this brief.
- 23.3** The consultant is responsible for ensuring that adequate data and information to meet the requirements of this brief have been supplied are obtained from the appropriate sources.
- 23.4** Draft documents submitted for review by Council shall be signed by the consultants principal nominated in the proposal to certify that the documents represent adequate professional presentation for the particular of the work. All final documents prepared by the consultant must be signed by the consultants principal nominated in the proposal to certify that the documents have been prepared by competent professional staff and have been checked for accuracy, compliance with relevant regulations, the requirements of the brief and fully co-ordinated with all related documents.
- 23.5** Any errors, ambiguities or deficiency, which becomes apparent during the commission, shall be referred to the consultant for correction or clarification in suitable form. The consultant shall not be entitled to an additional fee where the correction or clarification arises from the fault of the consultant.
- 23.6** The consultant should ensure that the documents produced under the commission comply with relevant Acts, Codes, Ordinances and Regulations. The consultant shall immediately advise Council and obtain direction if the work requirements conflict with any such statutory requirement.
- 23.7** The consultant is to advise Council of any conflict of interest that may arise in the undertaking of this study from other work undertaken by the consultant in the study area.

24.0 BUDGET

A fee proposal is to be submitted on lump sum basis with the exception of hourly rates for additional work or meetings requested by Kempsey Council.

A budget in the vicinity of \$30,000.00 has been set for works as outlined.

Should the consultant consider the budget inadequate for the scope of the work required, an alternate fee proposal can be submitted.

SCHEDULE 1

LUMP SUM FEE SCHEDULE

**KOROGORO CREEK
ESTUARY MANAGEMENT STUDY AND MANAGEMENT PLAN**

<u>Item</u>	<u>Amount</u>
Stage 1 Estuary Management Study	
1 Frame the context	\$.....
2 Identify and assess estuary values, significance, key features and uses in accordance with the Brief.	\$.....
3 Define Management Objectives.	\$.....
4 Develop Management Strategy Options.	\$.....
5 Conduct community workshops.	\$.....
6 Prepare draft Management Study report.	\$.....
7 Present draft Management Study report to Committee	\$.....
8 Undertake public exhibition of final draft Management Study.	\$.....
9 Finalise and print Stage 2 Reports (40 copies).	\$.....
10 Cost per additional copy if required.	\$.....
Stage 2 Estuary Management Plan	
1 Prepare draft Estuary Management Plan for the whole of the Estuary in accordance with the Brief.	\$
2 Give presentation on estuary plan to Committee.	\$
3 Undertake public exhibition of the draft Plan and assist in the review of the final draft.	\$
4 Finalise the Estuary Management Plan and print Reports (50 copies).	\$
5 Cost per additional copy if required	\$
Other	
1 Disbursements (all Stages).	\$.....
2 Additional data requirements – (detail if required).	\$.....
3 Work in the brief not covered by the above items.	\$.....
TOTAL	\$.....
Additional Meetings	
Attend any additional meetings as directed (per meeting).	\$.....

