

KEMPSEY SHIRE COUNCIL

CONSULTANT BRIEF



KILLICK CREEK

ESTUARY MANAGEMENT STUDY & MANAGEMENT PLAN

May 2003

PART A: CONSULTANT BRIEF

1.0 INTRODUCTION

1.1 General

This brief is to seek consultant services to prepare an estuary management plan for Killick 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

Killick Creek is located in the coastal village of Crescent Head within the Kempsey Local Government Area on the mid-north coast of NSW.

Crescent Head has a population of around 1200 and is about 20km from Kempsey located on the coast midway between Port Macquarie and South West Rocks.

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

Crescent 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 its population which exerts huge pressure on local resources.

Tourism is a major industry within the Kempsey LGA with 415,000 visitors contributing an estimated \$90 million per year to the local economy. (Kempsey Shire Council Community Profile 1998)

Some of the main attractions in this area include the picturesque coastal setting of Crescent Head village and Hat Head National Park to the north, Goolawah Reserve and Limeburners Creek Nature Reserve to the south

1.3 Background

A report on a fish kill in the upper reaches of Killick Creek following heavy rain in January 1980 was prepared by the State Pollution Control Commission (now Environmental Protection Authority)

In 1992 Council commissioned Southern Cross Uni / University of New England to produce a report on “The Biological and Hydrological Status of Killick Creek” Fish kills, red weed problems, and poor water quality, siltation and potential dune erosion were some of the recurring issues reported for Killick Creek.

A floodplain management strategy (July 2000) for the Upper Belmore / Scotts / Killick drain area has been developed by Council however the scope of this strategy does not include the Killick Creek Estuary downstream of the flood headworks structure.

In 2000 Kempsey Council recommenced its efforts to put in place management strategies for the estuaries located at South West Rocks and Crescent Head. Existing data for Killick Creek Estuary was reviewed, issues clarified with the community and a Killick Creek Estuary Processes Study report (MHL 1125) was completed by Manly Hydraulics Laboratory in November 2002.

The Processes Study report focussed on development of conceptual models for critical processes operating in Killick Ck, and also covers catchment characteristics and processes, hydrodynamics, water quality, ecological processes, entrance behaviour, estuary sediments and issues for future management.

1.4 Description of Killick Creek

Killick Creek is a small estuarine creek that was an intermittently closed and open lakes and lagoon (ICOLL) however it has been substantially physically modified by

- Its formal connection into the Macleay Flood Mitigation Scheme as a swamp storage outlet during the late 1950's (previous landholder efforts as early as 1890)
- Realignment and training of the entrance in 1957

Killick Creek formerly drained perched wetland swamp areas behind the main dunes to the north of the village. Killick is now connected to 90 sq km of the Upper Belmore River and its associated backswamp areas via Scotts and Killick drain as well as 40 sq km of the upper Maria River via Connection Creek.

Floodgates occur at Scotts Drain, Killick Creek cutting and upper Connection Ck.

Management of the Belmore Swamp areas has an integral influence on the ecology of Killick Creek during and after flood events.

Water quality in Killick Creek is influenced by inflows from its local catchment, the Macleay River catchment and its floodplain via Belmore River and its backswamp, and during extreme rainfall events by the Hastings River catchment via Connection Creek and the Maria River.

Council mechanically realigns the creek entrance to correct a meander, which potentially may erode the dune vegetation on the sand spit to the north of the entrance. The meander makes boat passage difficult, if not at times impossible. This has been undertaken on a regular basis since the 1970's, and commonly occurs prior to school holidays in April, September and / or December.

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 Killick Creek Working Group

A small working group of stakeholders from Crescent Head and Belmore Swamp 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 (Refer Attached Figures).

3.1 Estuary Management Plan Study Area

The study area comprises the catchment of Killick Creek including the upper Belmore Swamp area (Macleay) to the north as well as the Connection Creek segment of the Upper Maria River (Hastings). Consultants must consider and draw reference where applicable from these adjoining catchments.

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 States, Councils and community interests.

5.0 ISSUES

In summary the issues raised by Killick Creek Working Group and Coastal & Estuary Management Committee and findings of Killick Creek Estuary Process Study include;

- ◆ water quality management
- ◆ flood mitigation management during flood and non flood periods
- ◆ seal level rise and implications backswamp landuse management
- ◆ recreational use / access
- ◆ entrance management
- ◆ creek ecology functioning
- ◆ community consultation processes
- ◆ bed sediment black ooze
- ◆ sedimentation / shoaling

5.1 Water Quality

5.1.1 Salinity

- a) Water quality of Scotts / Belmore Kinchela Drains and its impact on Killick Ck
- b) Saltwater inundation and associated impacts into Belmore Kinchela and Scotts drain and Belmore swamp area,
- c) Dieback of vegetation in freshwater backswamps
- d) 20 yrs saline incursion into Belmore backswamp area
- e) Local farm water quality tests identified seawater inundation as probable reason for results
- f) 8 yrs of local effort by landholders to raise issue

- g) Saltwater leads to creation of scalded bare earth sections

5.1.2 Stormwater

- a) Stormwater pollution and its impacts on the health and recreational use of Killick Creek as well as the local tourism industry at Crescent Head and environs (KSC Urban Stormwater Management Plan in prep)
- b) Faecal coliform and contaminants (pesticides, insecticide and chemical residues)
- c) Query the water quality sampling technique used by Kempsey Council
- d) Bowling green and golf course runoff and stormwater outlets
- e) Potty waste from caravan park users

5.1.3 Recreational Use

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

5.2 Entrance Management

- a) Entrance shoaling, need for improved flushing
- b) Creek entrance management
- c) Location and orientation of creek entrance
- d) Berm heights - what is the natural cycle of heights and widths
- e) Establish risk of erosion of sand dune from creek meandering at entrance
- f) Boating access
- g) Suggest any entrance manipulation to consider the surf break sand bars as Crescent Head is renowned for its surfing
- h) Communication by Kempsey Council of proposed entrance works to local surfing, fishing and recreational users essential
- i) Clear justification / rationale for realigning the entrance
- j) Flood mitigation requirements

5.3 Ecology

- a) Killick 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) Algae (cornflake) including red weed access into Killick 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 Killick Creek, no longer a lagoon, now heavily shoaled

- c) Composition of siltation within drainage channel (black ooze)
- d) sand movement and entrance shoaling

5.5 Flood Mitigation

5.5.1 Floodgate management

- a) Flood management during flood and non flood period
- b) Removal of Killick Creek from flood mitigation scheme
- c) Has flood mitigation become swamp drainage
- d) Explore ways of mimicking natural system functions
- e) Flood function versus drainage function
- f) Clarification of hydrologic effects
- g) Manage to maximise benefit for landholders and environment
- h) Prevent scalding of pasture from saline incursion
- i) Retain freshwater on wetland areas – drop board management

5.5.2 Drains

Belmore Killick drain depth, management and maintenance

5.5.3 Acid Sulfate Soils

ASS scalds in the Upper Belmore River area

5.6 Sea Level Rise and Landuse Implication

5.6.1 Implications of sea level rise for future landuse options in upper Belmore area

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 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 issue . 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 Killick 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 Killick 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 Landuses

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

6.6.1 Map current land and waterway uses of the Killick 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; and

6.6.6 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

6.6.7 Define and map those areas vulnerable to sea level increases and climate change

6.6.8 Environmental planning, development and management controls including, REP, SEPP, LEP, & DCPs. Urban development strategies, land assessments

6.7 Future Landuse

6.7.1 Map future landuse noting future urban growth strategies of Council

6.7.2 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 Crescent 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.

6.10 Investigation Potential Management Options

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

6.11 Social Attitudes, Institutional Structures and Management Frameworks

- 6.11.1** Describe the current management of Killick Creek and its catchment noting other management plans
- 6.11.2** Detail where and how existing management structures may improve delivery of outcomes from future investment
- 6.11.3** 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,
- 6.11.4** Survey of community attitudes, awareness and preferences for information and consultation methods

6.12 Assess and Evaluate Management Options

- 6.12.1** 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

6.12.2 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
- k). practicality

6.13 Estuary Management Study Report

6.13.1 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

6.13.2 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

6.13.3 It is intended the Kempsey Council will place final draft management study on public exhibition.

6.13.4 The consultant will be required to review comments received and following discussions with the Committee amend the draft management study prior to finalisation.

7.0 Estuary Management Plan

7.1 On completion of the Estuary Management Study the Consultant shall prepare a Killick Creek Estuary Management Plan

7.2 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

7.3 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

7.4 The Plan shall;

7.4.1 Provide an overview of the estuary, its processes, values, key features, uses and conflicts, issues (including the influence of Ryann’s Cut on coastal water movement into Killick Ck) and pressures and current management responses;

7.4.2 Use mapping as principle tool to convey management options. Maps should utilise an orthorectified air photo base map as the primary layer.

7.4.3 Document the community’s aspirations for the future of the estuary, its goals and management objectives;

7.4.4 Rank objectives and strategies in order of degree of threat &/or risk posed to health of river system

7.4.5 Detail the actions and responsibility required to implement each strategy;

7.4.6 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

7.4.7 Provide conceptual designs of any works proposed

7.4.8 Include performance measures that can be used to gauge whether each strategy is having the desired effect in both the short and long term;

7.4.9 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;

7.4.10 Detail capital, operation and maintenance costs and method of funding the implementation of each strategy; and

7.4.11 Ensure that plan activities and actions are practical, achievable and achieve sustainable outcomes

7.4.12 Recommend a process for Plan review and monitoring detailing the criteria and responsibility

7.4.13 Outline appropriate management strategies for the Killick Cut floodgates.

7.5 Plan Format

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

7.5.2 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.

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

7.5.4 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

Tables

- i) Summary of preferred management actions
- ii) Attributes of Killick 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.

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.

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

7.5.6 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 (eg. ring bound, loose leaf) to facilitate future amendments.

7.6 Draft Plan Report

7.6.1 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 Killick Creek estuary, the means and implications of proposed controls, remediation actions,
- b) Register any objections or suggestions.

7.6.2 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.

7.6.3 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.

7.6.4 Following incorporation of Committee comments, forty (40) 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.

7.6.5 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.

7.6.6 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.

- 7.6.7** 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.

7.7 Final Plan

7.7.1 Following appropriate consideration of community comments, review by the Committee of proposed amendments, and written approval, the Consultant shall print fifty (50) copies (preferably with colour exhibits) of the final Killick Creek Estuary Management Plan for distribution.

- 7.7.2** 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

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

8.0 REPORTING AND TIMETABLE

8.1 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.

8.2 Brief and concise progress reports to Council on the study are required **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.

9.0 CONTACT OFFICER

The Council officer responsible for briefing and liason

Bruce Casselden	Ron Kemsley
Director Environmental Services	Environmental Officer
Kempsey Shire Council	Kempsey Shire Council
02 65663200	02 6566 3248
bruce.casselden@kempsey.nsw.gov.au	ron.kemsley@kempsey.nsw.gov.au

10.0 FEES

- 10.1** 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.
- 10.2** 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.
- 10.3** A fee proposal shall be submitted on the Lump Sum Fee Schedule at **Schedule 1**.
- 10.4** 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.
- 10.5** 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.

11.0 QUALITY ASSURANCE

- 11.1** 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).
- 11.2** The proposal must be prepared as a Quality Assurance document.

12.0 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

13.0 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.

14.0 SELECTION CRITERIA

14.1 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.

14.2 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.

15.0 TERMS OF ENGAGEMENT

15.1 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.

15.2 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.

15.3 Confidentiality

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

15.4 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.

15.5 Insurance

15.5.1 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.

15.5.2 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.

15.5.3 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.

15.5.4 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.

15.6 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.

15.7 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.

15.8 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.

15.9 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.

15.10 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.

15.11 Payment and Costs

Monthly 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.

17.0 RESPONSIBILITY OF CONSULTANT

17.1 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.

17.2 The consultant shall accept full responsibility for all work undertaken as a requirement of this brief.

17.3 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.

17.4 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.

17.5 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.

17.6 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.

17.7 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.

18.0 FEES

18.1 The fees to be paid for the work described in the Brief shall be a lump sum nominated by the consultant in the proposal for the work. The lump sum is to include all fees for sub-consultants. The fees for sub-consultants shall be stated separately.

- 18.2** The lump sum fee may only be exceeded if work additional to the extent of this Brief is requested by Council.
- 18.3** Items not specifically mentioned in the Brief but which are necessary for the satisfactory completion and performance of the work shall be executed by the consultant without adjustment to the nominated fees.
- 18.4** No payment for additional work will be made in excess of the nominated fee unless the additional work is first authorised in writing by Council. The fees shall be deemed to include all works and costs necessary to carry out the work set out in the brief.
- 18.5** The lump sum fee submitted by the consultant shall be a true reflection of the cost of professional services to be provided. The lowest fees submitted will not necessarily be accepted by Council.

19.0 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 \$30000.00 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

**KILLICK 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).	\$.....

