

“Where will our knowledge take you?”

## Environmental Impact Assessment and Development Approvals in the Coastal Zone



*Wattamolla Beach*

BMT WBM is a recognised leader across New South Wales (NSW) for our expert technical investigations and management planning studies undertaken in and around the open coast and estuaries. This includes a large proportion of the plans and strategies prepared for local Councils through the NSW Coastal and Estuary Management Programs over the past 20 years.

As the NSW population within the coastal zone grows, there will be an increasing focus on the need for works and development such as dredging to maintain channels, harbour works, coastal protection works, beach nourishment and tourist and recreational infrastructure.

BMT WBM can deliver high quality, effective and timely environmental assessments and have proven experience in guiding approval processes for coastal development projects to a successful completion. This includes work with local Councils, State Government Departments, developers and infrastructure providers on the coast.



*Arrawarra Creek*



*Warrell Creek*

## Trusted Leaders in Specialist Coastal Investigations and Management Planning

Our multidisciplinary team routinely works together on integrated coastal and marine assessments, involving:

- Field data collection
- Coastal or flood modelling
- Coastal and wetland ecology
- Water quality and sediment quality
- Environmental management and monitoring plans
- Community and stakeholder engagement
- Regulatory agency consultation and management

As specialists in coastal and marine management, we have a unique understanding of the technical issues, planning and policy frameworks surrounding coastal development as well as an extensive network of contacts across State and local government in New South Wales.



Nambucca River

## Approval Documentation

BMT WBM is a solution based consultancy, driven by the desire to maintain strong client relationships and provide value for money.

Our reports and studies are of the highest quality to assist our clients to obtain approvals, to demonstrate compliance with environmental and planning requirements and to minimise information requests.

Documentation that BMT WBM can prepare and review in relation to coastal works and development projects include:

- Pre-feasibility and approval strategies
- Review of Environmental Factors (REF) and Environmental Impact Statements (EIS) under the Environmental Planning and Assessment Act 1979
- Referrals under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999
- Development applications including management of the lodgement process, in accordance with local councils Local Environmental Plans (LEP) and Development Control Plans (DCP)
- Assessment reports to support development applications including responding to regulatory agency information requests
- Environmental Management Plans (EMP), offset plans and environmental monitoring strategies
- Reviewing conditions of approval
- Preparation and delivery of communication and engagement strategies for stakeholder and regulatory agency consultation
- Strategic advice, peer review, audits of conditions and expert witness reports

## Our Experience

### Hexham Swamp Rehabilitation EIS and Management Plan

Through the EIS process, BMT WBM developed a number of options to achieve a modified operation of flood gates in order to rehabilitate extensive wetlands on the outskirts of Newcastle. Expertise included ecological assessment, flood / floodgate opening scenario modelling, environmental, economic and social impact assessment and cost benefit assessment.

#### Project Outcome:

Staged approval was received by the State Government under Part 3A of the EP&A Act in 2006. The gates were progressively opened between December 2008 and July 2013, bringing saltwater back into the highly prized estuarine wetland.

### Impact Assessment of Hawkesbury-Nepean Valley Infrastructure Flood Mitigation Options



BMT WBM delivered a high level environmental, social and cultural heritage impact assessment of four flood mitigation infrastructure options using a risk-based impact assessment approach. The options included operational change to Warragamba Dam for flood detention purposes, and three alternate options downstream of the dam which included levee banks, a diversion channel and dredging.

#### Project Outcome:

The study identified and assessed environmental, social and cultural heritage impacts within a common assessment framework allowing for the comparison of options to/between each other and the current baseline values. The assessment will inform future project stages.

### Warringah Lagoons Entrance Management Review (and REF)

The entrance management of coastal lagoons can be a 'grey' area within local and state legislation. BMT WBM undertook a detailed review of the environmental and legislative aspects of existing entrance management practice for the Warringah Lagoons. In addition to changes to the triggers for inducing an artificial breach, recommendations were provided regarding changes to environmental planning instruments, Plans of Management and incorporation of special provisions within Council's new LEP.



#### Project Outcome:

The REF and supporting development application allowed Warringah Council to continue to artificially open the lagoon entrances in accordance with the revised entrance management policies. This has ensured that private and public assets around the lagoons remain protected without detrimental impacts on the unique lagoon environments.

### Tallows Creek (Byron Bay) Opening Strategy Ecological Assessments and Review of Environmental Factors

BMT WBM defined the potential ecological impacts associated with the implementation of an opening strategy for Tallows Creek. The study team prepared a Review of Environmental Factors on behalf of Byron Shire Council for submission to OEH to gain the licence agreement.

#### Project Outcome:

Licence granted from NPWS to allow Byron Shire Council to manage Tallows Creek entrance within the Arakwal National Park to mitigate potential effects of elevated flood waters or poor water quality. The licenced opening arrangements balance both social and environmental considerations.

### Coffs Harbour Eastern Breakwater Review of Environmental Factors



BMT WBM was engaged to assist with the preparation of a Review of Environmental Factors for undertaking remedial works to the eastern breakwater. The proposal included casting and storage of concrete "Hanbar" armour units, supply and placement of quarried rock to upgrade of an accessway along the crest of the breakwater and rearmouring of the breakwater trunk by placement of Hanbar armour units along both sides of the breakwater to protect the core and integrity of the structure.

#### Project Outcome:

The breakwater remedial works has since been constructed.

**BMT WBM has a proven record in addressing today's engineering and environmental issues.**

**We aim to continue to enhance our services, capabilities and areas of application to meet the community's future development and environmental protection needs.**



1 Number of BMT WBM offices in region

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