

JRPP NO:	2010HCC038
DEVELOPMENT APPLICATION NO:	39496/2010 PART 1
APPLICANT:	GOSFORD CITY COUNCIL
PROPOSED:	DESIGNATED DEVELOPMENT: DRAINAGE IMPROVEMENT WORKS PARTLY WITHIN SEPP 14 COASTAL WETLAND INVOLVING UPGRADE OF EXISTING CULVERTS/DRAINAGE PIPES (JRPP) ON STR: 140200, BALOO ROAD WEST GOSFORD
DIRECTORATE:	ENVIRONMENT AND PLANNING
BUSINESS UNIT:	DEVELOPMENT

Assessment Report and Recommendation

The following item is defined as a planning matter pursuant to the Local Government Act, 1993 & Environmental Planning & Assessment Act, 1979.

EXECUTIVE SUMMARY

Reason for Referral to Joint Regional Planning Panel (JRPP)

Designated Development with works undertaken by Council is regional development, pursuant to Part 3 Division 2 Clause 13B of State Environmental Planning Policy (Major Developments) 2005.

Assessing Officer

D Spithill

Reviewing By

Independent Development & Environment Panel (IDEP)
Director Environment and Planning
General Manager

Date Application Received

28/09/2010

Proposal

Drainage Channel Improvement Works including upgrade of Existing Culverts/Drainage Pipes and clearing of the understorey vegetation within the lower section of the channel located partly within SEPP 14 mapped wetland.

The proposed development is declared to be “*designated development*” pursuant to Section 29 of the Environmental Planning and Assessment Act, as clearing of land identified as SEPP 14 wetland is designated development under Clause 7(1) of the Policy.

Zone

Part Industrial General 4(a) GPSO and Part Conservation 7(a) under IDO 122

City Vision 2025

Although not a statutory Plan, the proposal is consistent with the City Vision.

Public Submissions

None

Pre-DA Meeting

Not Held

Political Donations

None declared

Relevant Statutory Provisions

- 1 Environmental Planning & Assessment Act, 1979 – Section 29, 79C,
- 2 Gosford Planning Scheme Ordinance
- 3 Interim Development Order No 122
- 4 State Environmental Planning Policy No. 14 – Coastal Wetlands
- 5 State Environmental Planning Policy (Major Developments) 2005
- 6 State Environmental Planning Policy (Infrastructure) 2007
- 7 Fisheries Management Act 1994
- 8 Water Management Act 2000
- 9 Threatened Species Conservation Act 1995

Key Issues

- 1 Proposed Development
- 2 The Site
- 3 Designated Development Provisions
- 4 Relevant Statutory Provisions - Various SEPPs
- 5 Relevant Provisions - IDO 122 and GPSO
- 6 Draft LEP
- 7 Environmental Impact Assessment – (flora and fauna, utilities, access and traffic, waste, acid sulphate soils, water and soil management, noise impacts)
- 8 Assessment Comments Environmental Officer
- 9 Flooding and Drainage
- 10 Assessment Comments Flooding and Drainage Development Engineer
- 11 Environmental Monitoring and Management
- 12 Government Referrals - Comments
- 13 Climate Change and Sea Level Rise

Recommendation

Approval

REPORT

Proposed Development

It is proposed to undertake clearing works of the understorey vegetation within the lower section of the channel to allow storm water flows to escape and prevent flooding of the adjacent

property. The lower section of the open channel is impacted by land classified as SEPP 14 wetlands.

This work is associated with engineering works intended to improve the drainage within the West Gosford area. Specifically these works include an upgrade of the existing culverts on the subject site and realignment of the existing open channel. The new channel will be deeper and straighter and the banks will be lined with sandstone boulders. The channel will not feed directly into Narara Creek, but will fan out on a gentle grade, thus gradually draining into existing vegetation at the eastern end of the subject site.

The Site

The subject land is identified as Baloo Road, an unformed “paper road” located in the West Gosford industrial estate. The “road” runs from the eastern side of Manns Road eastward to Narara Creek, approximately 400 metres north of the Manns Road – Pacific Highway intersection. **Refer Figures 1 and 2.**

The subject site is long and narrow, being approximately 300 metres long and 20 metres wide, occupying an area of approximately 0.6 hectares. Most of the site is zoned Industrial (General) 4(a) with a narrow strip along Narara Creek zoned as Conservation 7(a).

The land is flat and low-lying and therefore prone to flooding. There are two pipes feeding into the western and south western parts of the subject site that drain under Manns Road and the surrounding lands to Narara Creek. The central part of Baloo Road contains a drainage channel, beginning approximately 20 metres from the western boundary of the subject site and meandering eastward to Narara Creek. The channel is deep and open at the western end of the subject site where it is fed immediately by the pipes, but becomes shallow and is choked by vegetation as it progresses eastward. This meandering through dense vegetation impedes the flow of water during heavy rain and exacerbates the flooding of surrounding and upslope properties.

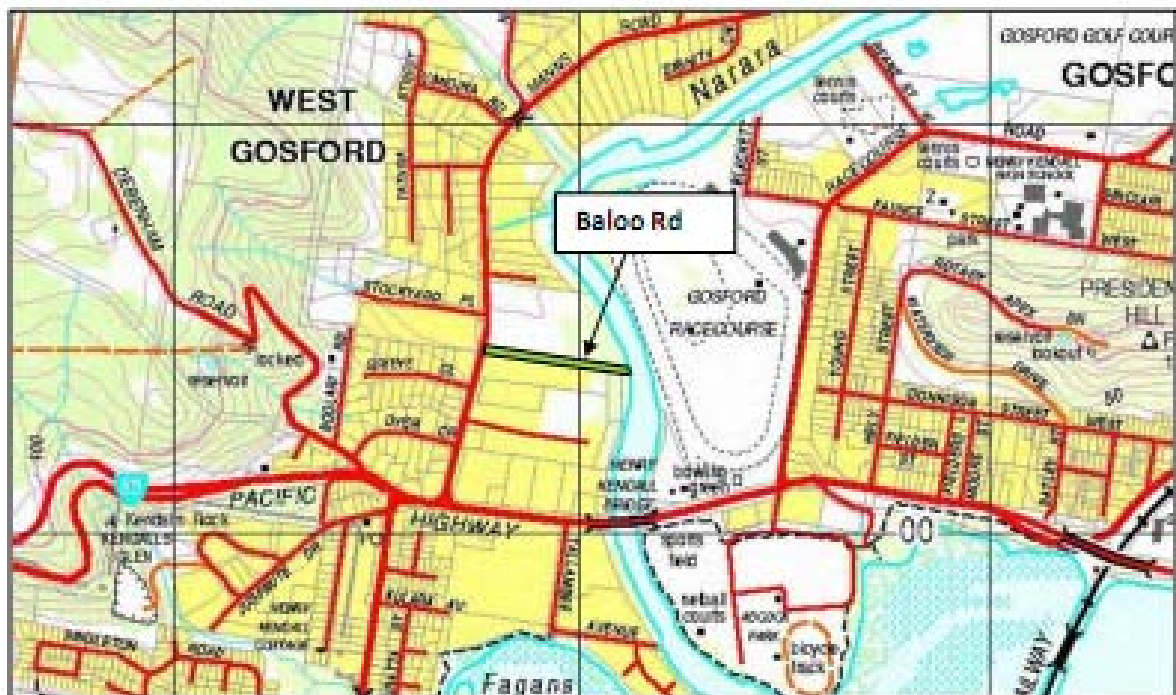


Figure 1: Location of the subject site (green) showing surrounding lands. Source: Keystone Ecological, May 2010



Figure 2 - Aerial Photograph showing the subject site (red) in relation to vegetation and development in the local area. Source: Keystone Ecological, May 2010

Relevant Statutory Provisions

Environmental Planning and Assessment Act 1979 - Designated Development Provisions

The proposed development is declared to be “*designated development*” pursuant to Section 29 of the Environmental Planning and Assessment Act, as clearing of land identified as SEPP 14 wetland is designated development under Clause 7(1) of the Policy.

An Environmental Impact Statement relating to the proposed upgrade of the channel on the subject land has been prepared in accordance with the Director-General’s Requirements and related provisions of the *Environmental Planning and Assessment Act 1979* and *Environmental Planning and Assessment Regulation 2000*. The Environmental Impact Statement includes information provided by Keystone Ecological, specialist sub-consultants and relevant government agencies.

State Environmental Planning Policy (Major Developments) 2005

The proposal is regional development under Part 3 Division 2 Clause 13B(1)(e) of State Environmental Planning Policy (Major Developments) 2005 which applies to designated development.

State Environmental Planning Policy (Infrastructure) 2007

Under Division 20 clause 111 of State Environmental Planning Policy (Infrastructure) 2007:

- “(1) Development for the purpose of stormwater management systems may be carried out by or on behalf of a public authority without consent on any land.
- (2) A reference in this clause to development for the purpose of stormwater management systems includes a reference to development for any of the following purposes if the development is in connection with a stormwater management system:
 - (a) construction works,
 - (b) routine maintenance works, including maintenance dredging to remove sediment build-up in a stormwater canal or at exit points into natural waterways that affects the efficiency of the stormwater management system,
 - (c) environmental management works.”

Under Division 20 clause 112 : *“development for any of the following purposes carried out by or on behalf of a public authority is exempt development if the development is in connection with a stormwater management system and complies with clause 20 if the development involves no greater soil or vegetation disturbance than necessary and does not involve any increase in stormwater drainage or run-off from the site concerned ... including (c) routine maintenance or associated landscaping works, including the (i) removal of litter or debris from stormwater quality improvement devices...”*

Notwithstanding, such provisions, if there is an inconsistency between the Infrastructure SEPP and SEPP 14 - Coastal Wetlands, SEPP 14 prevails to the extent of the inconsistency. Development may only be carried out on land to which SEPP 14 applies under clauses 41 (2) (b), 79 (2) (b) and 94 (2) (b) of this Policy if any adverse effect on the land is minimised. These clauses relate to electricity transmission or distribution, emergency services facilities and bush fire hazard reduction, rail infrastructure facilities and emergency works, or routine maintenance works, carried out on an existing public road or on land that is adjacent to such a road. As such, the provisions under *State Environmental Planning Policy (Infrastructure) 2007* do not apply to the proposal.

State Environmental Planning Policy No. 14 – Coastal Wetlands

The eastern part of the subject land is within a mapped wetland area defined under SEPP 14 Coastal Wetlands. However most of the wetland no longer exist on the subject site or on adjoining lands.

Clause 7(1) of SEPP 14 states the following restrictions on development of certain land: land:

“(1) In respect of land to which this policy applies, a person shall not:

- (a) clear that land,*
- (b) construct a levee on that land,*
- (c) drain that land, or*
- (d) fill that land,*

except with the consent of the council and the concurrence of the Director.

(2) In considering whether to grant concurrence under subclause (1), the Director shall take into consideration:

- (a) the environmental effects of the proposed development, including the effect of the proposed development on:*
 - (i) the growth of native plant communities,*
 - (ii) the survival of native wildlife populations,*
 - (iii) the provision and quality of habitats for both indigenous and migratory species,*
 - (iv) the surface and groundwater characteristics of the site on which the development is proposed to be carried out and of the surrounding area, including salinity and water quality,*
- (b) whether adequate safeguards and rehabilitation measures have been, or will be, made to protect the environment,*
- (c) whether carrying out the development would be consistent with the aim of this policy,*
- (d) the objectives and major goals of the “National Conservation Strategy for Australia” (as set forth in the second edition of a paper prepared by the Commonwealth Department of Home Affairs and Environment for comment at the National Conference on Conservation held in June, 1983, and published in 1984 by the Australian Government Publishing Service) in so far as they relate to wetlands and the conservation of “living resources” generally, copies of which are deposited in the office of the Department,*
- (e) whether consideration has been given to establish whether any feasible alternatives exist to the carrying out of the proposed development (either on other land or by other methods) and if so, the reasons given for choosing the proposed development,*
- (f) any representations made by the Director of National Parks and Wildlife in relation to the development application, and*

- (g) any wetlands surrounding the land to which the development application relates and appropriateness of imposing conditions requiring the carrying out of works to preserve or enhance the value of those surrounding wetlands.
- (3) Pursuant to section 29 of the Act, development for which consent is required by subclause (1) is declared to be designated development for the purposes of the Act.”

Assessment Comment

The *Flora and Fauna Impact Assessment* (Keystone Ecological, 2010) included identification of the actual boundary of extant wetland vegetation. Figure 3 illustrates the actual extent of wetlands in this area (yellow) compared to the land mapped as SEPP 14 wetlands (red). The proposed engineering works would not extend into the actual wetland area. The report advises that the extent of works within the wetland vegetation is limited to the clearing of weedy understorey in Swamp Oak vegetation and the continued maintenance of that understorey as an open structure to prevent pooling and backing up of water with subsequent flooding of neighbouring property.

The EIS has adequately addressed the aims and objectives of the SEPP and relevant considerations and environmental effects of the proposed development under sub clause 7 (2) of SEPP 14, as detailed in proceeding sections of this report.



Figure 3: Aerial Photograph showing the gazetted SEPP 14 wetland boundary (red) and the actual boundary of the wetland vegetation (yellow) Source: Keystone Ecological, May 2010

The Director General, Department of Planning has granted concurrence to the application pursuant to Clause 7(1) of SEPP 14 - Coastal Wetlands and Section 30 and 79B of the *Environmental Planning and Assessment Act 1979* to clear vegetation and construct drainage works affecting SEPP 14 Wetland number 921 at STR 140200 West Gosford.

State Environmental Planning Policy No 71 – Coastal Protection

The provisions of State Environmental Planning Policy (SEPP) No 71- Coastal Protection requires Council consider the Aims and Objectives of the SEPP together with the matters for consideration listed in Clause 8 of the SEPP when determining an application within the Coastal Zone. The Coastal Zone is an area defined on maps issued by the Department of Planning NSW. The subject property falls within the Coastal Zone.

The Aims and Objectives and the matters listed under Clause 8 have been considered and the application complies with the provisions of the SEPP.

Gosford Planning Scheme Ordinance

Permissibility

The land is zoned part 4(a) Industrial General under the Gosford Planning Scheme Ordinance and part 7(a) Conservation under Interim Development Order No 122 (**Refer Figure 4: Zoning Map**). Pursuant to Clause 50 and Schedule 5 2(a) of the GPSO and Clause 60 (6)(a) of IDO 122, development consent is not required for the carrying out of drainage works (at or below the surface of the ground) by persons who are carrying on public utility undertakings (i.e. Council) and assessment of the environmental impacts of the proposal would be undertaken in accordance with Part 5 of the EP& A Act 1979.

It should be noted however that development consent is required for the proposal in this instance under the provisions of Clause 7(1) of SEPP 14 – Coastal Wetlands.



Figure 4: Zone Map showing zoning in immediate locality and Baloo Road (subject site).

Objectives of Zone

Clause 10(3) of the Gosford Planning Scheme Ordinance and Clause 5(3) of Interim Development Order No 122 stipulates that consent must not be granted for development of land within the prescribed zone, unless the objectives of the zone have been taken into consideration in conjunction with the objectives of the Local Government Act 1993, pertaining to Ecologically Sustainable Development.

In this instance, it is considered that the proposal is consistent with the stated objectives of the 4(a) Industrial zone and 7(a) conservation zone as well as being consistent with the principles of Ecologically Sustainable Development, as specified within the Local Government Act 1993.

Character

Clause 10(4) of the Gosford Planning Scheme Ordinance and Clause 5(4) of the Interim Development Order No 122 stipulates that the Council must not grant consent for development unless it has taken into consideration the character of the development site and the surrounding area, where, for the purpose of this provision, character means the qualities that distinguish each area and the individual properties located within that area.

In this instance, the proposal does not detract from the character of the immediate locality.

Draft Gosford Local Environmental Plan 2009

The application has been assessed under the provisions of Draft Gosford Local Environmental Plan 2009 in respect to zoning, development standards and special provisions. The assessment concluded the proposal is consistent with the Draft Plan. Under the draft plan the land is zoned RE1 – Public Recreation and In1 – General Industrial. Public utility undertakings are permitted under clause 5.12 and SEPP (Infrastructure) 2007.

Environmental Assessment

Flora and Fauna

The proposed works are located outside the actual extent of the wetlands and the proposed understorey clearing is confined to swamp oak vegetation. No works will occur within the mangrove scrub along the banks of Narara Creek. The application is accompanied by a *Flora and Fauna Impact Assessment*, prepared by Keystone Ecological, May 2010 which has determined that *“the proposed works will have no adverse impact on the site’s biological diversity, nor the ecological integrity of the local environment.”*

Council's Environmental Assessment Officer has assessed the environmental impact of the above proposal in accordance with section 79C of the *Environmental Planning and Assessment Act 1979* (EP&A Act):

“In review of the EIS I am satisfied that the proposed works will not lead to a significant impact on threatened species or the endangered ecological community listed as Swamp Oak Forest on Coastal Floodplain. Further, the proposed works will not significantly impact on threatened aquatic species or their habitats.”

No excavation works are proposed within SEPP 14 wetland areas. Given the recommendations and mitigation measures outlined within the EIS are incorporated into a Vegetation Management Plan (VMP) no objection is raised to the application subject to the inclusion of the conditions provided.”

Utilities (Electricity, Telephone, Water Supply, Sewer)

The proposed works have been designed to minimise the impacts on existing electricity, telephone, water and sewer within the area. The contractor must confirm location of all existing services prior to any excavation to avoid damage. Owners of the utility may be contacted if further information is required by the contractor in locating the existing service. **Refer Condition 5.1**

Access, Transport and Traffic

The proposed works will be located within the unformed road reserve of Baloo Road and Manns Road. Minor traffic delays would be experienced during the works. As such a traffic management plan would be prepared and provided to Council for approval prior to the works commencing to implement traffic controls during the works. **Refer Condition 2.2**

Waste

There is anticipated to be very little waste generated by site activities. Vegetative material and topsoil obtained during the works that is uncontaminated by weeds or acid sulphate respectively is to be re-used by Council.

Acid Sulphate Soils

The eastern portion of the subject land is classified as disturbed terrain and has a high potential for acid sulphate soils under Council's Acid Sulphate Soils Map. Geotechnical Investigations have been carried out by Council for the area. Any excavated material is to be treated and deposited appropriately on land according to its contamination and acid sulphate soils characteristics. **Refer Condition 2.4**

Water and Soil Management

A water cycle management plan (WCMP) has been prepared by SRB Consulting for the proposal which has considered the existing site investigation in terms of vegetation, topography and soils; existing drainage patterns and water quality; flooding; and water quality.

Section 3 of the report provides a description of the proposed works with regard to the SEPP 14 Wetland boundary as follows:

"The proposed works consists of the excavation, realignment and amplification of the existing drainage channel from approximately 15m east of the Manns Road boundary extending some 200m through to the start of the SEPP 14 wetland boundary.

This will include the placement of sandstone rock retaining walls on either side of the upgraded channel, the removal of both understorey vegetation and some trees, and a vehicular access track on either side of the channel to enable periodic maintenance to be undertaken.

Beyond the SEPP14 boundary the works will be limited to the construction of rock walls to define the access track and understorey clearing to improve the hydraulic capacity of the channel. There will be no excavation within the SEPP14 land.

The works will also consist of the upgrade of the existing Manns Road culverts with an 1800x900 RCBC and a 3600x900 RCBC, and landscaping of the channel invert and adjacent maintenance tracks. Access to the site will be retained off Manns Road.

The proposed works have been included within the submitted Baloo Road West Gosford Culvert Upgrade and Channel Improvements Plans No.C4/209 (19 Sheets)."

The WCMP identifies the key potential water management issues as follows:

"The works could lead to increased nutrient loadings within the downstream creek, which may cause siltation issues, habitat destruction and eutrophication. This could result from poor sediment and erosion control practices during construction, as well as oil and grease from vehicles and industry.

It is proposed to adopt Best Management Practices (BMP) during both the construction and post-construction phases, which will include the construction of measures to reduce the nutrient levels to within acceptable limits."

The WCMP outlines the applicable water quality objectives, and identifies the target pollutants (including gross pollutants, total suspended solids; total phosphorus; total nitrogen) and the pollutant load reduction targets as set out in Council's Water Cycle Management Guidelines for post-development pollutant treatment rates for typical development sites draining into Narara Creek.

Stormwater runoff quality assessment and management measures include the following erosion and sediment control measures:

Treatment of runoff and construction wash water will consist of:

- Settlement prior to discharge;
- Provision of silt fences and sediment traps (rock groynes) along length of the channel and inlet structures; and
- Limiting the amount of exposed loose loam or earth.

Post construction stormwater pollution control measures will include:

- Preservation of native vegetation;
- Buffer strips;
- Gross pollutant traps; and
- Non-structural best management practice strategies.

The proposed stormwater treatment process for the Baloo Road channel is as follows:

1. *Stormwater runoff collected from the upstream catchment will be collected in a series of inlet pits before being piped to the channel via the two proposed new culverts beneath Manns Road. It is anticipated that in the future, the inlet pits will be fitted with pit insert baskets such as the RSF100 produced by Ecosol;*
2. *Collected runoff will be discharged from the culverts via a headwall structure into a native grass-lined channel. The vegetation, which has a mature height of approximately 0.5m will assist in the removal of pollutants during frequent storm events as it is conveyed through the channel;*
3. *An online Gross Pollutant Trap (GPT) will be constructed upslope of the SEPP14 wetland boundary to remove gross pollutants prior to entering the wetland area;*
4. *Two existing natural depressions within the channel will be retained just inside the SEPP14 land, which will act as natural sedimentation basins. These will reduce the velocity of the flow and encourage the further precipitation of sediments prior to entering the mangrove vegetation and Narara Creek.*

The stormwater runoff quality assessment concludes that the: *“the implementation of water quality measures on the developed site in a ‘treatment train’ approach will assist in reducing the post developed pollutant loads into the downstream receiving waters by between 18% and 100%. Whilst the proposed water quality measures do not meet the target pollutant removal rates required under Gosford City Council’s Stormwater Management Plan, the intent of the current works is primarily to combat flooding issues and not to rectify existing water quality issues caused by poor past industry practices.*

The future implementation of additional water quality measures as the catchment is re-developed should, however result in the target rates being met, and possibly even exceeded. In addition, the implementation of the proposed water quality measures will result in a reduction in pollutant loads entering the wetland area in comparison to current levels.”

The function and required maintenance and monitoring of the proposed buffer strip and gross pollutant trap is provided within Section 7 of the WCMP and will be incorporated as conditions of consent. **Refer Conditions 2.1 and 3.6).**

Noise Impacts

The site is within a highly developed industrial area with a constant stream of traffic along Manns Road and the Pacific Highway, including heavy vehicles. There are no residential areas nearby. Works on the project will be restricted to the following hours: Monday to Saturday from 7:00am to 6:00pm. **Refer Condition 3.1**

The proposed works will entail the use of some heavy machinery, soil excavation and movement of rocks. However, given the noise profile of the immediate area and the short term nature of the works, the proposal does not give rise to any concerns regarding noise and vibration.

Flooding and Drainage

The proposed works are essential to mitigate flooding of surrounding and upslope properties during heavy rain. There is documented evidence of flood events within the adjacent building (Lot 1 DP519446). The eastern portion of the subject land is mapped as flood prone land pursuant to Council's mapping.

The WCMs report deals with the water cycle management objectives of the proposed works with respect to flooding and water quality. The report advises that:

"backwater analysis modelling undertaken has demonstrated that the clearing of vegetation and the excavation and realignment of the channel will enable the 1% AEP design flow rate to be safely conveyed through to Narara Creek, without resulting in overbank flooding into the neighbouring properties."

MUSIC modelling undertaken has demonstrated that the introduction of the stormwater management measures will also ensure that the existing pollutant loads from the contributing catchment are reduced prior to entering the downstream receiving waters."

Section 5 of the WCMP contains a flood level assessment including a hydrological analysis and hydraulic assessment. The flood assessment concludes:

"The backwater analysis has determined that the upgraded drainage channel would be subject to 1% AEP top water levels ranging from approximately 4.32m AHD adjacent to Manns Road down to 1.95m AHD adjacent to Narara Creek. The freeboard to the adjacent site to the south was estimated to be at least 500mm. The submitted plans illustrate the extent of the flood and demonstrate that the 1% AEP flood levels would be contained within the Baloo Road corridor and would not leave the channel and flow further south into the adjacent property."

A sensitivity analysis was also undertaken on the effect of an increased Mannings coefficient of 0.12 through the invert of the main channel and Sepp14 land (mangroves were retained at 0.15). The value of 0.12 is defined in the HEC-RAS manual as being dense weeds as high as the flow depth, which would represent the channel in the event than no maintenance was carried out on the upgraded channel. Adopting the revised Mannings coefficient, the backwater analysis demonstrated that the channel could still convey the design flows through to Narara Creek with a minimum freeboard of 300mm still being achieved to the neighbouring property to the south of the site."

Comments - Council's Flooding and Drainage Engineer

Council's Flooding and Drainage Engineer has assessed the proposal and has provided the following comments:

"I have undertaken a review in terms of the concept of the proposed drainage and channel works at Baloo Road, West Gosford. I have not undertaken a detailed assessment in terms of catchments, pipe sizes, flow rates and calculated depths of flow in the channel etc."

- *The existing pipes under Manns road that discharge to the drainage channel in Baloo road are to be upgraded to increase capacity and reduce flow over Manns road in storm events.*
- *The drainage channel along Baloo road is to be widened, have weedy vegetation removed and be rock lined in places to increase capacity to Narara Creek.*
- *Maintenance access has been provided.*

- *Calculated depths of flow in the channel provide adequate freeboard during the 1% AEP event, and thus flow is constrained within the channel. Currently, flooding occurs from the channel to the southern neighbour.*
- *Additional stormwater pollution removal is to be provided by way of a trash rack.*

The proposed works appear to improve stormwater management in the area and reduce the risk of flooding. Therefore, I would not object to this application.

The only other feedback I would provide on the design is that generally, the only items I have seen collected in trash racks are plastic bags, shopping trolleys and branches. With the construction of new culverts under Manns road there may be potential for a low flow diversion device (or weir) at the outlet to the channel and diversion to a GPT or CDS/Vortex unit for subsequent stormwater pollution removal. The level of treatment provided by a manufactured GPT will be superior to that provided by a trash rack, and is likely to remove all litter (and cigarette butts) smaller than approximately 1mm. In addition, maintenance is likely to be simplified." **Refer Advice Condition 5.8**

Environmental Monitoring and Management

Mitigation measures are proposed to ensure the proposed works area is managed appropriately to minimise environmental harm. A draft statement of commitments have been prepared to assist the consent authority to outline appropriate environmental monitoring and management measures in which to evaluate the upgrade of the drainage channel.

The statement of commitments responds to the supplied DGR's, the recommendations of the specialist consultants and has regard to the Environmental Planning and Assessment Regulation 2000, and the Summary of EIS Requirements developed by the Department of Urban Affairs and Planning in September 1996. These commitments have been incorporated as conditions of consent.

Government Referrals

Department of Planning

DG Requirements identified the following key issues to be addressed in the EIS:

- The ecological function and amenity to adjacent waterways of the fresh and intertidal wetlands on the site
- The hydrological function of the drainage line in relation to local flooding
- Water quality, particularly the management and treatment of possible pollutants emanating from businesses and car parks draining into the wetland, and sediments and nutrients from the local catchment.

Such issues have been addressed in the EIS, prepared by Keystone Ecological as summarised in the report.

Department of Industry and Investment

"The information provided about the proposal does not indicate works involving dredging, reclamation, harm marine vegetation or the obstruction of fish passage that would require permits from I&I NSW to authorise such activities.

The proposed design allows for the diffuse runoff of stormwater to enter Narara Creek and appears to be suitable for reducing potential impacts to the aquatic habitats of the creek..

Subject the proposal meeting these requirements I&I NSW has no objection to the above proposal.”

NSW Office of Water

- *“In accordance with S39A(1) of the Water Management (General) Regulation 2004, local councils are exempt from S91E(1) of the Water Management Act 2000 (WMA). This means that Gosford City Council does not need to obtain an approval before undertaking works on waterfront land.*
- *However, it is considered that GCC is required to consider and abide with the Water Management Principles (S5 of the WMA) as well as NOW Guidelines for Controlled Activities (available at www.water.nsw.gov.au).*
- *In general, NOW would expect GCC to consider the provision, maintenance and restoration of riparian corridors and buffer zones for waterfront land where possible.*
- *Any proposed works on waterfront land should consider replanting of appropriate native vegetation for compensation and buffer zones. Proposed works should satisfactorily consider replanting of native vegetation within the channel and adjacent areas.*
- *GCC must ensure that all proposed works improve and enhance the stability of the bed / banks of Narara Creek, all existing wetlands, and any other waterfront land. (note that wetlands are defined as waterfront land within the WMA). The proposed works must not cause scour or erosion of waterfront land.” Refer Advice conditions 5.4, 5.6 and 5.7*

NSW Department of Environment Climate Change and Water

No comments were received during referral period.

Climate change and sea level rise

Climate change and sea level rise have been considered in the assessment of this application. Climate change and sea level rise will be felt through:

- increases in intensity and frequency of storms, storm surges and coastal flooding;
- increased salinity of rivers, bays and coastal aquifers resulting from saline intrusion;
- increased coastal erosion;
- inundation of low-lying coastal communities and critical infrastructure;
- loss of important mangroves and other wetlands (the exact response will depend on the balance between sedimentation and sea level change); and
- impacts on marine ecosystems.

Internationally there is a lack of knowledge on the specifics of climate change and the likely impact it will have on the subject development. Government action may mitigate the impact of climate change and the question of sea-level rise may be able to be addressed through the construction of containment works or through Council's policies that may be developed over time.

In the absence of any detailed information at the present however, refusal of this application is not warranted on this issue.

Conclusion

The proposal is for engineering works intended to improve the drainage within the West Gosford industrial estate. Specifically these works include an upgrade of the existing culverts on the

subject site, realignment of the existing open channel and clearing works of the understorey vegetation within the lower section of the channel to allow storm water flows to escape and prevent flooding of the adjacent property. The lower section of the open channel is impacted by land classified as SEPP 14 wetlands.

The proposed development is declared to be “*designated development*” pursuant to Section 29 of the Environmental Planning and Assessment Act, as clearing of land identified as SEPP 14 wetland is designated development under Clause 7(1) of the Policy. An Environmental Impact Statement relating to the proposed upgrade of the channel on the subject land has been prepared in accordance with the Director-General’s Requirements and related provisions of the *Environmental Planning and Assessment Act 1979* and *Environmental Planning and Assessment Regulation 2000*.

The proposed development has been assessed in accordance with the relevant matters for consideration under Section 79C of the Environmental Planning and Assessment Act 1979, and relevant provisions under the GPSO and IDO 122, and various SEPPs and raises no significant planning or environmental issues subject to compliance with conditions of consent incorporating mitigations measures as recommended in Section 6, of the EIS.

Pursuant to Clause 7 (1) of SEPP 14, the Director General Department of Planning has given their concurrence to the application to clear vegetation and construct drainage works affecting SEPP 14 wetland number 921.

The EIS has considered alternatives to the proposed clearing and has provided adequate justification for the proposed works. In this respect:

- The proposal is necessary to reduce flooding to adjacent and upstream sites;
- The proposed excavation works are located outside of the actual extent of the wetlands (Appendix A) and the proposed understorey clearing is confined to Swamp Oak vegetation. No works whatsoever will occur within the Mangrove Scrub along the banks of Narara Creek; and
- The Flora and Fauna Assessment contained in Appendix D has determined the proposed works will have no adverse impact on the site’s biological diversity, nor the ecological integrity of the local environment.

The application has been reviewed by Council’s Development Engineer, Flooding and Drainage Engineers and Environmental Officer who have raised no objections to the proposal. The application is therefore recommended for approval, subject to conditions of consent.

RECOMMENDATION

- A The JRPP as consent authority grant consent to proposed Drainage Channel Improvement Works consisting of an upgrade of the existing culverts and pipeline, realignment of the existing open channel and clearing works of the understorey vegetation within the lower section of the channel which are partly located within SEPP 14 Wetland in Street 140200, Baloo Road West Gosford.
- B The applicant is advised of the JRPP’s decision and of their right to appeal to the Land and Environment Court within 12 months after the date of determination.
- D The Department of Planning, and other external authorities and Government Departments be notified of the Joint Regional Planning Panel decision.

1. PARAMETERS OF THIS CONSENT

1.1 Approved Plans and Supporting Documents

The development shall be implemented substantially in accordance with the plans and supporting documents listed below as submitted by the applicant and to which is affixed a Council stamp "*Development Consent*" unless modified by any following condition.

Architectural Plans by Boyden and Partners Pty Ltd

Drawing	Description	Sheets	Issue	Date
Project 4371	Cover Sheet	00	A	
C4/209	General Arrangement Plan Upper Channel	01	A	21/08/2010
C4/209	General Arrangement Plan Lower Channel	02	A	21/08/2010
C4/209	General Arrangement Plan (North Western)	03	A	21/08/2010
C4/209	Catchment Plan & Hydraulic/ Hydrological Data	04	A	21/08/2010
C4/209	Channel Cross Sections ch00 – ch30	05	A	21/08/2010
C4/209	Channel Cross Sections ch40 – ch90	06	A	21/08/2010
C4/209	Channel Cross Sections ch100 – ch150	07	A	21/08/2010
C4/209	Channel Cross Sections ch160 – ch 210	08	A	21/08/2010
C4/209	Channel Cross Sections ch220 – ch270	09	A	21/08/2010
C4/209	Channel Cross Sections ch280 – ch310	10	A	21/08/2010
C4/209	Pipeline Longitudinal Sections	11	A	21/08/2010
C4/209	Box Culvert Base Slab Details	12	A	21/08/2010
C4/209	Box Culvert Wingwall & Headwall Details	13	A	21/08/2010
C4/209	Special Pit & Mitre Bend Details	14	A	21/08/2010
C4/209	Special Pit & Concrete Notes	15	A	21/08/2010
C4/209	Gross Pollutant Trap Details	16	A	21/08/2010
C4/209	Sedimentation and Erosion Control Plan	17	A	21/08/2010
C4/209	Sedimentation and Erosion Control Plan	18	A	21/08/2010
C4/209	Landscape Plan	19	A	21/08/2010

Supporting Documentation

Document	Title	Date
GCC 09-310	Environmental Impact Statement (Keystone Ecological)	July 2010
GCC 09-310	Updated Flora and Fauna Impact Assessment (Keystone Ecological)	May 2010
-	Water Cycle Management Plan (SRB Consulting Pty Ltd)	April 12 , 2010

-	Waste Management Plan (GCC)	27.09.2010
---	-----------------------------	------------

2. PRIOR TO COMMENCEMENT OF ANY WORKS

- 2.1 Compliance with all recommendations and mitigation measures as contained within Section 6 of the Environmental Impact Statement Reference GCC 09-310 dated July 2010 prepared by Keystone Ecological, Sections 6 to 8 of the Water Cycle Management Plan prepared by dated 12 April 2010 SRB Consulting Pty Ltd and Section 9 of the Updated Flora and Fauna Assessment Report REF GCC 09-310 dated May 2010 prepared by Keystone Ecological.
- 2.2 Submission of a traffic management plan which outlines the traffic control measures to be implemented during the works. The traffic management plan shall be provided to Council's Development/Traffic Engineer for approval prior to the works commencing.
- 2.3 Submission of a Vegetation Management Plan to address the following issues:
 - Weed control and subsequent understorey management within the Swamp Oak Forest to emphasise the use of low impact manual techniques. Aerial parts of plants only are to be removed in order to control siltation and/or acid sulphate soil hazards to the aquatic environment.
 - The timing of these clearing works is to have regard to tides, flooding or storm surge.
 - Gosford City Council's replacement planting ratio of 4:1 for Eucalyptus robusta Swamp Mahogany should be observed.
 - Any plantings should be of native species of local provenance.
 - The species to be used should be consistent with those naturally-occurring in map units E37 Swamp Mahogany – Paperbark Forest, E40 Swamp Oak Rushland Forest and E47 Mangrove-Estuarine Complex of Bell (2004a, 2004b).
 - The planting schedule and Vegetation Management Plan should be developed by a suitably qualified and experienced professional in the discipline of ecology, horticulture and/or restoration landscape design.
- 2.4 An Acid Sulphate Soils Management Plan is to be submitted to and approved by Council prior to commencement of works.
- 2.5 A Vegetation Management Plan (VMP) shall be prepared by a suitably qualified consultant and shall incorporate the recommendations and mitigation measures outlined in the EIS (Keystone Ecological, REF GCC 09-310, July 2010). The VMP shall be submitted and approved by the Principal Certifying Authority.
- 2.6 Site works are not to commence until the sediment control measures have been installed in accordance with the approved plans. Sediment and erosion control measures outlined in the sediment and erosion control plans Sheets 17 and 18 are to be employed.
- 2.7 Should dust impacts associated with the earthworks occur these should be mitigated via use of a watering truck.

3. DURING WORKS

- 3.1 Clearing of land, excavation, and/or earthworks, building works, and the delivery of building materials shall be carried out between the following hours:

Mondays to Saturday - 7:00am to 6:00pm, except as noted in Clause 'b'

a No work is permitted on Sundays and Public Holidays

- b No work is permitted on:
 - Saturdays when a public holiday is adjacent to that weekend.
 - Construction industry awarded rostered days off.
 - Construction industry shutdown long weekends.

Clause b does not apply to works of a domestic residential nature as below:

- i Minor renovation or refurbishments to single dwelling construction.
 - ii Owner occupied renovations or refurbishments to single dwelling construction.
 - iii Owner builder construction of single dwelling construction; and/or
 - iv Any cottage constructions, single dwellings or housing estates consisting of predominantly unoccupied single dwellings.
- 3.2 Erosion and Siltation control measures must be undertaken and maintained in respect to any part of the land where the natural surface is disturbed or earthworks are carried out. The controls shall comply with Council's Code of Practice of Erosion and Sedimentation Control.
- 3.3 Supplementary back up sediment control measures are to be implemented in case of failure of the primary fencing. Such back up controls include extra sediment fencing and / or booms and / or silt curtains in the water.
- 3.4 Should any Aboriginal objects or artefacts be uncovered during works on the site, all works shall cease. The Department of Environment and Climate Change shall be contacted immediately and any directions or requirements complied with.
- 3.5 The weather forecasts and rainfall are to be monitored throughout the project and works are to cease if a flood event is anticipated. In the unlikely event that flooding occurs during the construction works, works shall cease until such time as it is appropriate to recommence. Any and all repairs and restoration works will be implemented in a timely manner as required.
- 3.6 Implementation of sediment and erosion control measures as outlined within Water Cycle Management Plan (WCMP), prepared by RB Consulting Pty Ltd, dated 12 April 2010 and consent plans.
- 3.7 Any excavated material is to be treated and deposited appropriately on land according to its contamination and acid sulphate soils characteristics
- 3.8 Implementation of buffer strip and construction of gross pollutant trap as outlined within WCMP
- 3.9 This development is subject to Council's DCP106 – Controls for Site Waste Management. The Waste Management Plan submitted as supporting documentation with this development consent is required to be implemented during all stages of demolition and construction. Reuse and recycling opportunities for any waste products generated to be explored prior to disposal. Any waste products not able to be reused or recycled would be disposed of at the appropriate waste management facility. Vegetative material cleared is to be mulched and reused by Council.
- 3.10 Silt controls must be in place while the channel is being constructed and maintained until such a hazard no longer exists in order to minimise the chance of downstream impact.
- 3.11 Water quality and quantity monitoring should be carried out before, during and after the proposed activity to ensure that silt and other pollution controls are working and that the hydrological targets are being met.

4. ONGOING OPERATION

- 4.1 The approved Vegetation Management Plan must be implemented.
- 4.2 Management and monitoring of Buffer Strip as per Section 7.1 of WCMP including implementation of checklist (Section 7.4).
- 4.3 Management and monitoring of Buffer Gross Pollutant Trap as per Section 7.1 of WCMP including implementation of checklist (Section 7.4)
- 4.4 Implementation of non-structural best management practice strategies as detailed within WCMP.
- 4.5 Nest boxes of a variety of sizes should be erected in retained trees on or near the site. This will enhance the breeding habitat available for a number of species of birds and bats.
- 4.6 To minimize disturbance to acid sulphate soils, works must be carried out strictly in accordance with the Acid Sulphate Soils Management Plan.

5. ADVICE

- 5.1 The public authorities may have separate requirements and should be consulted in the following aspects:
 - a *Energy Australia* for any change or alteration to electricity infrastructure or encroachment within transmission line easements;
 - b *Telstra, Optus* or other telecommunication carriers for access to their telecommunications infrastructure.
 - c *Gosford City Council* in respect to the location of water, sewerage and drainage services.

All existing services must be confirmed by the contractor prior to any excavation to avoid any possible damage. If an existing services is damaged the owner of the relevant service must be notified immediately so any required repairs can be performed without delay diminishing possible impacts on users of the service.
- 5.2 All work carried out under this Consent should be done in accordance with WorkCover requirements including the Occupational Health and Safety Act 2000 No 40 and subordinate regulations, codes of practice and guidelines that control and regulate the development industry.
- 5.3 The value of using rough sandstone blocks as the channel walls should be considered as it not only breaks up the flow of water, it provides habitat niches for amphibians and reptiles.
- 5.4 The applicant should consider and abide with the Water Management Principles (S5 of the WMA) as well as NSW Office of Water (NOW) Guidelines for Controlled Activities (available at www.water.nsw.gov.au) and the in general, the provision, maintenance and restoration of riparian corridors and buffer zones for waterfront land where possible.
- 5.5 Any proposed works on waterfront land should consider replanting of appropriate native vegetation for compensation and buffer zones. Proposed works should satisfactorily consider replanting of native vegetation within the channel and adjacent areas.
- 5.6 The applicant must ensure that all proposed works improve and enhance the stability of the bed / banks of Narara Creek, all existing wetlands, and any other waterfront land.

Note: wetlands are defined as waterfront land within the WMA. The proposed works must not cause scour or erosion of waterfront land.

- 5.7 With the construction of new culverts under Manns road there may be potential for a low flow diversion device (or weir) at the outlet to the channel and diversion to a GPT or CDS/Vortex unit for subsequent stormwater pollution removal. The level of treatment provided by a manufactured GPT will be superior to that provided by a trash rack, and is likely to remove all litter (and cigarette butts) smaller than approximately 1mm. In addition, maintenance is likely to be simplified.

6. PENALTIES

Failure to comply with this development consent and any condition of this consent may be a **criminal offence**. Failure to comply with other environmental laws may also be a **criminal offence**.

Where there is any breach Council may without any further warning:

- Issue Penalty Infringement Notices (On-the-spot fines);
- Issue notices and orders;
- Prosecute any person breaching this consent, and/or
- Seek injunctions/orders before the courts to retain and remedy any breach.

Warnings as to Potential Maximum Penalties

Maximum Penalties under NSW Environmental Laws include fines up to \$1.1 Million and/or custodial sentences for serious offences.

7. RIGHT OF APPEAL

- 7.1 Sections 96(6) or 97 of the Act, where applicable, confers on an applicant who is dissatisfied with the determination of a consent authority a right of appeal to the Land and Environment Court exercisable within 60 days or 12 months respectively, from the date of determination.
- 7.2 To ascertain the date upon which the determination becomes effective refer to Section 83 of the Act.

