



Department of Climate Change, Energy, the Environment and Water

Your ref: PP-2023-2833
Our ref: DOC24/200145

Ms Suzi Stojcevska
Strategic Planner
Kiama Municipal Council
PO Box 75, KIAMA NSW 2533

By email: suzis@kiama.nsw.gov.au

Re: Planning Proposal – Kiama West Planning Proposal - Kiama City Council

Dear Ms Stojcevska

Thank you for referring the above Planning Proposal (PP) to the Biodiversity, Conservation and Science Group (BCS) of the Department of Climate Change, Energy, Environment and Water (DCCEEW). The Planning proposal is to rezone the site from predominantly RU2 Rural Landscape to a variety of new land use zones including Residential (R2, R3, and R5), Recreation (RE1), Special Purpose (SP4) and Conservation (C2). The site covers approximately 114 hectares of land and is located approximately 1.7 km west of the Kiama Town Centre.

Council is aware the PP is not identified as an urban expansion greenfield area in its Local Strategic Planning Statement. Additionally, Council should ensure the proponent more fully addresses many other environmental Objectives and Strategies set out in the overarching Illawarra Shoalhaven Regional Plan (ISRP) (2021). The ISRP is to be implemented via strategic planning and local plan making processes such as PPs.

From a strategic context, BCS prefers that new urban expansion is accommodated where there is a well-informed understanding of broader catchment functioning and the sensitivity of the lands affected (as much as understanding broader urban planning/servicing matters). A speculative PP such as this will likely have also triggered new thinking and pressures for further urban development on nearby lands or similar peri-urban locations.

By itself, this new proposal will considerably increase the footprint of urban development in a largely rural catchment of modest size. The PP also proposes an on-site utility hub/water centre that sets a concerning precedent for the next speculative PP to also pursue. The subject lands will ultimately drain to Spring Creek, an identified sensitive estuary. BCS is mindful that engineered solutions have a risk of failure and any impacts need to be well considered for the receiving waterway. There is not yet a risk-based framework for considering water quality for the catchment and managing the health of Spring Creek.

While there is some information about the subject land, BCS is not convinced there is enough information about the broader catchment such as water management (including flooding and water quality), biodiversity (including sensitivities and connectivity needs) and optimising integrated issues such as appropriate management and use of riparian lands. This knowledge is critical to guide any appropriate urban expansion footprints, inform subdivision layouts, the siting and

provision of services/utilities including understanding whether one or more on-site utility hub/water centres are suitable in the catchment and under what regime (eg sizing, design, tenure, management, funding, compliance, etc).

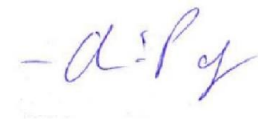
Advancing this PP involves a major decision to enable a considerable scale of urban development in a small catchment as much as inviting future speculation for more development. A major decision such as this should be based on improved strategic information.

Detailed comments on flood risk assessment, estuarine and waterway health and biodiversity are provided in Attachment A. Our main comments and recommendations are:

1. A fit for purpose Flood Impact and Risk Assessment (FIRA) report be prepared.
2. Further flood assessment work be undertaken to address public safety risks.
3. An assessment of potential impacts of the altered land-use on water quality prior to rezoning be undertaken to ensure adequate spatial and zoning provisions are incorporated.
4. Restoring riparian lands is supported but such land should be zoned to C2 or C3 rather than RE1.
5. A C2 zoning be considered for all significant biodiversity values on the site including areas mapped as "high ecological constraints" (some attributes currently zoned C3 may warrant C2 zoning longer term given the management intentions).
6. In addition to remnant native vegetation within the study area, significant biodiversity should be mapped and incorporated into non-urban zoning where possible, including hollow bearing trees, lone cabbage tree palms (*Livistona australis*) and large fig trees (*Ficus* spp.).
7. Buffers be applied to all remnant vegetation to prevent "edge effects" (eg. weed infestation, trampling, etc.) particularly Threatened Ecological Communities and populations of *Zieria granulata*.
8. Further ecological assessment be carried out at the Planning Proposal stage to determine if suitable areas for rehabilitation of the *Melaleuca armillaris* Tall Shrubland Critically Endangered Ecological Community occur within the subject site. If so, these should be included in conservation zones and rehabilitated in accordance with a Vegetation Management Plan VMP and/or an in-perpetuity conservation agreement.
9. Council appraises the land tenure outcomes of the conservation zoned land to ensure adequate funding/mechanism for ongoing management. Vegetated lands that may be transferred to Council are an opportunity to investigate the proponent establishing an actively managed Biodiversity Stewardship Agreement site/s before transfer.
10. A Vegetation Management Plan (VMP) be prepared for the Spring Creek riparian corridor, adjacent areas of remnant vegetation and any areas proposed for rehabilitation, and this should be secured at development application stage.
11. Asset Protection Zones (APZs) be contained within existing cleared areas (noting that the Master Plan indicates some APZs appear to be located within areas of "high ecological constraint").

If you have any further questions about this issue, please contact Vanessa Allen, Senior Conservation Planning Officer, Illawarra Planning on 0242244186 or at Vanessa.Allen@environment.nsw.gov.au.

Yours sincerely



22 March 2024

Chris Page
Senior Team Leader
Biodiversity, Conservation and Science Group

2

Attachment A: BCS Detailed comments – West Kiama Planning Proposal

Flood Risk Management

As the planning proposal involves the rezoning of flood prone land it should be considered in accordance with section 9.1 (2) Local Planning Direction - Focus Area 4: Resilience and Hazards 4.1 Flooding and the NSW Government's Flood Prone Land Policy as set out in the Flood Risk Management Manual, 2023 (FRMM). The policy aims to reduce the impact of flooding and flood liability on individual owners and occupiers, and to reduce private and public losses resulting from flooding utilising ecologically positive methods wherever possible.

The approving body for the planning proposal should consider and be satisfied that the following matters have been adequately addressed with relation to floodplain risk management:

- the impact of flooding on the development - including local overland flows and the range of possible floods up to the Probable Maximum Flood (PMF)
- the impact of the development on flood behaviour – particularly adverse impacts of existing communities downstream of the site
- the impact of flooding on the safety of people for the full range of possible floods
- the implications of climate change on flooding - particularly increased rainfall intensity on flood behaviour; and
- The flood behaviour implications of proposed natural rehabilitation of the riparian zone, climate change and stormwater management infrastructure are understood and used to inform the establishment flood planning levels.

Generally, and where possible, significant land areas identified for future rezoning are identified and planned for by preparing Floodplain Risk Management Studies and Plans prior to development. This ensures the appropriate management of flood risk to future communities but also ensures that adverse impacts associated with new development on flood behaviour are appropriately planned and managed. In this area, however, we are unaware of the existence of a Flood Risk Management Plan prepared and adopted by Kiama Municipal Council. Council is therefore encouraged to undertake a Floodplain Risk Management Study and Plan for Spring Creek to build on the Spring Creek Flood Study information and to inform its decision making for planning proposals.

To enable Council to move forward and in line with current best practice, it is recommended that a fit for purpose Flood Impact and Risk Assessment (FIRA) report be prepared. A FIRA should be completed to an adequate standard to address the requirements of the local planning direction and FRMM.

Guidance to assist planning authorities (and proponents) on the scope and assessment requirements for a flood impact and risk assessment to support large proposals such as this can be found here:

<https://www.environment.nsw.gov.au/research-and-publications/publications-search/flood-impact-and-risk-assessment>.

The Preliminary Water Cycle Management and Flood Assessment Report (J. Wyndham Prince, Jan 23) is inconsistent with or does not provide sufficient evidence to demonstrate consistency with the requirements detailed in the Section 9.1 Direction 4.1 (3), which should be addressed as part of best

practice for floods up to the probable maximum flood (PMF). The scale of the proposed development on the floodplain warrants a more comprehensive FIRA. A FIRA should be prepared in consultation with Council's flood team who are familiar with the flood policy and guidelines and can seek further advice as required from our technical flood officers.

The PP has not adequately addressed the risks associated with public safety. The determining authority should ensure that risks to life and emergency management measures are considered for all proposed residential areas over the full range of floods including those above the flood planning level up to the PMF. This should include any issues linked with flood access and isolation to the proposed community and may warrant consultation with the SES.

It is also unclear whether adequate consideration has been given to floods greater than the proposed 1% AEP design flood planning level, including the potential to establish a greater flood immunity to future owners and occupiers of flood prone residential sites. A greenfield development in such an area could potentially be planned and designed to avoid the need for flood notations on future planning certificates and reduce flood insurance for new owners of flood prone land. Council should also note that the recent NSW Flood Inquiry recommends the need for greater attention by land use planners to flood risk up to the PMF and as such these risks require careful planning to avoid future flood liability.

We also note that climate change has not been considered as required by Council's LEP (5.21 (1) (b)) in accordance with current practice and the FRMM. Climate change should be considered at the PP stage to ensure the overall development addresses climate change impacts to flood risk and the design of landform modifications including flood planning levels. Climate change is a critical element to ensure that the flood risk management objectives are achieved for the design life of the proposed development.

In the absence of adequate mapping and description in the flood study, it is unclear whether the PP appropriately provides for, and integrates, riparian corridor outcomes into the flood modelling. A suitable hydraulic roughness value for the future riparian corridors should be utilised for both existing and the longer term developed case modelling. The appropriate extent and roughness values should be determined in consultation with Council considering the likely long-term planned vegetated condition of the watercourse.

The following technical matters are also raised for Council consideration:

- ARR19 suitability has not been considered in any FRMS&Ps in Kiama. Significant issues have been identified with adopting ARR19 "off the shelf" in neighbouring LGAs. It is therefore recommended that the ARR87 methodology is retained until the suitability of ARR19 is adequately assessed in a Council adopted FRMS&P.
- No information has been provided on how issues associated with rain on grid models including losses and volume loss have been addressed. Hydrology verification has not been provided.
- Calibration to Council's adopted Spring Creek flood study has not been provided. Doing so would add significant confidence to the existing case flood modelling parameters.

Estuarine and Waterway Health

The site is not located within the coastal zone, however, its development has the potential to affect water quality and hydrology within Spring Creek and its downstream estuary. Spring Creek is listed as a sensitive estuary in the Illawarra Shoalhaven Regional Plan 2041 (ISRP). Strategy 11: *Protect Important environmental assets* is particularly relevant to the proposal.

Strategy 11.5 of the ISRP to: *Protect coastal lakes and estuaries by implementing the NSW Government's Risk Based Framework for considering waterway health outcomes in Strategic Land-Use Planning decisions* has not yet been addressed. An assessment of potential impacts of the altered land use on water quality and quantity prior to rezoning would help to ensure that adequate spatial provisions for Water Sensitive Urban Design and water cycle management infrastructure is included to manage any impacts of the proposed development on water quality and the downstream estuary.

NRAR and DPI-Fisheries should be consulted on appropriate future works on the riparian lands and if there are any additional riparian buffer requirements to ensure that vegetated riparian zones are adequately provided as per Council's planning instrument and development controls. Currently C2 and C3 zonings only apply to the remnant vegetation, with the remaining riparian areas proposed to be zoned RE1 Public Recreation. The restoration of these riparian corridors, in addition to their protection, will help to improve waterway health and biodiversity outcomes consistent with Strategies 11.1, 11.2, 11.3 and 11.4 of the Plan. As such, the riparian lands suit a future land use zoning such as C2 (or C3 depending on any compatible uses) rather than the large extent of RE1 proposed.

Biodiversity

We have reviewed the Kiama West Planning Proposal Biodiversity Technical Study (Eco Logical Australia 2022) and the Planning Proposal Report and maps (Mecone, December 2023) and provide the following detailed comments for your consideration.

The site contains a mixture of cleared rural lands and significant areas of native vegetation, predominantly along the Spring Creek corridor. The site also contains isolated clumps of native vegetation, individual trees, planted and exotic vegetation.

Parts of the site are mapped as "High Environmental Value" under the ISRP (see Figure 1 below). Strategy 11.1 of the ISRP states that strategic and local plans should recognise HEV in local environmental plans, minimise potential impacts arising from development on areas of high environmental value, implement the 'avoid, minimise and offset' hierarchy, and consistently manage riparian corridors through strategic conservation planning initiatives that accommodate natural physical processes...". The site is not mapped as being within a Regional Biodiversity Corridor under the ISRP. The Spring Creek corridor is mapped on the Biodiversity Values Map and the Terrestrial Biodiversity Layer (Kiama LEP 2011) applies to parts of the site.

The proposal suggests that most of the native vegetation would not be subject to direct impacts and riparian corridors would be restored under a Vegetation Management Plan to improve currently degraded remnants. The proposal would result in removal of 3.44 ha of remnant native vegetation and retain 16.08 ha of remnant native vegetation within the study area. As such, it is likely the Biodiversity Offsets Scheme (BOS) under the *Biodiversity Conservation Act 2016* (BC Act) would be triggered for biodiversity assessment at the development application stage, however a future development application/s would need to consider thresholds on a case-by-case basis. For further information, refer to <https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity-offsets-scheme/about-the-biodiversity-offsets-scheme/when-does-bos-apply>.

Threatened species

One threatened plant species, *Zieria granulata* (Endangered, BC Act; Endangered EPBC Act), was recorded 'in abundance' throughout the study area (Biodiversity Technical Study). From the information provided, it appears that *Z. granulata* mostly occurs in the proposed non-urban zones. No threatened fauna was recorded, however, the site contains habitat features which may be suitable for a number of species.

No targeted threatened species surveys were undertaken, however, it is noted there are several threatened plant species occurring close to the site, and which are known to have habitat within the

site. *Cynanchum elegans*, *Solanum celatum*, *Daphnandra johnsonii*, *Gossia acmenioides* and *Rhodamnia rubescens* all have high potential to occur, as do numerous threatened fauna species. The majority of habitat features, including one of the two recorded hollow-bearing trees, appear to occur within proposed non-urban zones.

Native vegetation

Two Threatened Ecological Communities (TECs) occur on site, Illawarra Lowland Subtropical Rainforest (Endangered, BC Act, Endangered EPBC Act) and *Melaleuca armillaris* Tall Shrubland (Critically Endangered, BC Act). Both TECs are listed as "Serious and Irreversible Impact" entities, in accordance with the BC Act. The concept of "Serious and Irreversible Impacts" is fundamentally about protecting threatened entities that are most at risk of extinction from development.

Figure 11 of the Biodiversity Technical Study maps ecological constraints. The Report states that all validated Plant Community Types (PCTs) on site meet the definition of 'high constraint' as they are 'Serious and Irreversible Impact' entities. Areas containing *Zieria granulata* are also defined as 'high constraint'.

For local development applications made under Part 4 of the EP&A Act, the consent authority must not grant approval if they determine that a proposed development is likely to have a serious and irreversible impact on biodiversity values.

Recommendations

Currently, the land is zoned predominantly RU2, with C2 and C3 pockets located along Spring Creek. The PP is to rezone rural-zoned land to R2, R3, E1, and RE1. The proposal is consistent with Ministerial Direction 3.1, Conservation Zones, as it does not reduce the amount of land zoned for conservation purposes and the existing C2 and C3 zoned land will remain in place. Nonetheless, we consider there is scope to increase the area of C2/C3 land as part of this proposal but note that the future tenure of such lands is not clear.

Given the biodiversity significance of the site, we recommend that C2 or C3 zones be applied to all areas mapped as 'high ecological constraints' (Figure 11 Biodiversity Technical Study). We also consider that RE1 zoning should be limited to parts of the site which will be used for higher intensity recreational purposes (eg. hard-stand areas, children's playgrounds etc.), with most of the area currently proposed to be zoned RE1 better suited to C2 or C3 zoning. There is scope to integrate shared pathways with riparian lands when it is done sensitively and the C3 zoning can achieve that outcome. It is also noted that the Concept Master Plan maps areas of remnant vegetation as 'environmental conservation' while the proposed LEP applies RE1 zoning to these same areas. This inconsistency between maps should be clarified.

Additionally, we recommend that all areas of 'high ecological constraint' be buffered by a suitable distance to prevent indirect impacts (eg. edge effects, weed infestation) on existing native vegetation, provide adequate bushfire protection, and provide strategic opportunities for rehabilitation and enhancement of biodiversity values within the area. In particular, we recommend that the area mapped as PCT 3872, i.e., the Critically Endangered Ecological Community (CEEC) *Melaleuca armillaris* Tall Shrubland (Figure 8 of the Biodiversity Report), be buffered in the area shown with purple hatching (Figure 2, shown below).

Buffer areas should be appropriately zoned for conservation. We also support the use of perimeter roads to protect and manage conservation-zoned land. We were not sent the Bushfire Report, however, the PP should ensure that the proposed zoning allows adequate scope for Asset Protection Zones (APZs) to be contained within existing cleared areas. We suggest that Council clarifies this as the PP Masterplan appears to show APZs encroaching into areas of remnant native vegetation.

Field observations indicate the site contains large fig trees (*Ficus spp.*) and lone cabbage tree palms (*Livistona australis*). These provide habitat for wildlife and have likely scenic and heritage

values. Further assessment of these values should be considered in the PP, and where possible, protected through appropriate conservation zoning.

We recommend investigating opportunities for in-perpetuity management of all areas of retained native vegetation. A Conservation Agreement or Biodiversity Stewardship Agreement (BSA) under the NSW *Biodiversity Conservation Act 2016*, and/or dedication to Council for ongoing management may be appropriate. A fully funded and managed conservation area would allow for the enhancement and management of the two TEC's, *Zieria granulata* and other biodiversity on site. We are willing to discuss this further with Council if required.

Figure 1 Map showing High Environmental Value (HEV) areas in green.

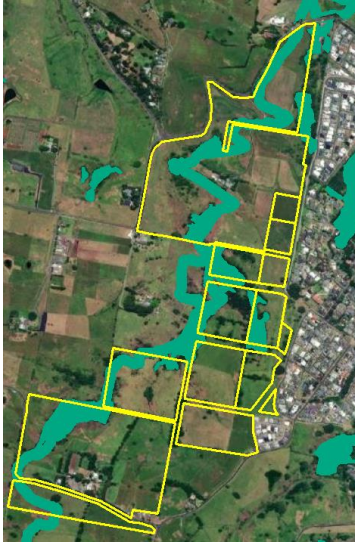


Figure 2 Map showing suggested buffer for the *Melaleuca armillaris* Tall Shrubland Critically Endangered Community (see purple hatching). Rehabilitation of the area would also buffer Illawarra Subtropical Rainforest and reduce the edge to area ratio of this considerable patch of vegetation.

