

## West Culburra Mixed Use Concept Plan

Submission by John Toon in response to the Independent Review of the Water Quality Assessment for the West Culburra Mixed Use Concept Plan undertaken by UNSW Water Research Laboratory (WRL) dated 11 September 2018.

This response relates to matters of land use, zoning and staging of development raised in the WRL review. Matters relating to the water quality assessment will be dealt with by separate submissions from the project Consulting Engineers, Martens and Associates, and Cardno, the independent water quality reviewer appointed by the proponent.

WPL raise three issues that colour their understanding of and response to the proposed water quality management plan.

The three issues are: (1) site context and definition; (2) uncertainty as to what is proposed; and (3) staging over an indicative 20 year period. Each issue is considered below.

1. Site Context and definition. When the site was initially identified as being suitable for urban development there was uncertainty as to the precise location of the divide between the catchments of the Crookhaven River and Lake Wollumboola. Part of the original DGR's was to identify by survey the location of the divide. This divide was to form the southern boundary of the site. The north boundary is the Crookhaven River, the east boundary is Canal Street East (i.e. the western edge of Culburra) and the west boundary is the western boundary of Lot 61, DP755971. Culburra STP sits between the east and west parts of the site. The entire site and all the adjoining land is owned by the proponent. Thus the site initially selected was entirely in the catchment of the Crookhaven River. This determination was presumably based on the assumption that the Crookhaven estuary catchment was better able to accommodate urban development than the Lake Wollumboola catchment. Detailed site analysis indicated that many parts of the divide were of very low gradients which offered the opportunity to easily drain land by gravity that was formally in the lake catchment to the Crookhaven catchment. This allowed the proponent a small amount of flexibility where other constraints led to a solution that encroached on the lake catchment whilst still draining to the Crookhaven catchment. An example is the proposed industrial zone adjacent to the STP (members of the IPC may recall this location which we visited on the site visit; our first stop inside the site was the location of the industrial zone, I pointed out the fact that the site was virtually flat although the actual divide runs through the zone). The drainage of surface water from the entire industrial zone has always been to the Crookhaven estuary despite the fact that a small part of the proposed zone (about 17%) falls within the catchment of the lake. In this case the dominant constraint was the requirement to extend the existing industrial access road into the expanded industrial area which could not be achieved

without transgressing the divide by about 50m. The comprehensive estuarine analysis conducted by Martens and Associates led them to conclude that the estuary is 'a disturbed ecosystem with compromised health in existing conditions'. It was recognised from the outset that the Crookhaven River estuary, being the location of a significant oyster industry, would be sensitive to urban run-off. The fact that it was tidal and subject to constant diurnal flushing is considered to be the principal reason for its comparative health, a point underscored by Ecology Australia (Aquatic Ecology Impact Assessment. 2017) who conclude 'The healthy condition of marine vegetation indicates it is tolerant to numerous existing catchment pressures (e.g. dairy farming, residential use)'. Some 40% of the Crookhaven catchment, comprising some 5000 ha in total and extending as far westwards as the Worrigea Swamp, is occupied by an intensive dairying industry; in very wet weather periods drainage from these dairy farms regularly cause the oyster industry to shut down for periods up to two months. The Crookhaven River estuary is excluded from the schedule of sensitive water bodies identified in Illawarra Shoalhaven Regional Plan 2015 (Table 2, p.56) (ISRP). It is considered that the estuary is not classed as a sensitive estuary on account of its strong tidal flushing and the occasional pollution flush from the upstream dairy farms. Both the dairy and the oyster industry are classed as being of high regional significance in the ISRP, 2015. The proponent, as part of the plan formulation stage, engaged with the oyster industry in a series of meetings at Greenwell Point circa 2012. The outcome of these meetings was that the industry representatives expressed satisfaction with a monitoring system the proponent undertook to install. The system will be designed to trigger a 'stop work' alarm should any of the agreed benchmarks be crossed. The industry representatives and the proponent consider this and the requirement to achieve NorBE on the landside treatment train to yield an environmentally sound outcome for all parties and interest groups. WPL state in Section 3.1 of their review 'The Crookhaven estuary can be considered a sensitive ecosystem...' whilst failing to note that this estuary is excluded from the schedule of sensitive water bodies identified in the ISRP. WRL then go on to state 'Wetland environments such as the two (SEPP14) wetlands north of the development are highly sensitive to changes in surface water flows .....

implying that these wetlands are at risk. Had WRL interrogated the Supplementary Response to Submissions 2017, which is cited in their references, they would have noted in the Aquatic Ecology Impact Assessment (Appendix 8) an assessment of the Mangrove Forest (the SEPP14 wetland referred to by WRL) in which the forest is reported to be in good health despite it frequently exceeding ANZECC trigger values for Ammonia as Nitrogen and Total Phosphorous. Ecology Australia stated that the SEPP14 wetland vegetation is likely to remain in good health providing there is no change to the tidal regime. WRL ignore this evidence, preferring to refer to unsubstantiated 'likely adverse impacts', particularly on the SEPP14 wetlands. WRL fail to acknowledge the comparative robustness of the Crookhaven River estuary as the principal receptor body for surface water drainage from the proposed development. WRL fail to make any reference to the results of the estuarine

study or to its demonstrated dispersion (of nutrients) effects which are indicative of its performance as a receiving body of water. Instead WRL prefer to focus their attention on Lake Wollumboola whilst failing to acknowledge that the proposal is designed to have no adverse impact on the lake and, in the case of the roundabout, have a positive impact by providing a bio-retention basin serving some 500m of Culburra Road as well as the new intersection. The section dealing with 'Cumulative impacts and Tipping Point for Lake Wollumboola' is largely irrelevant to the West Culburra Project. Somewhat inconsequentially the final paragraph of this section reverts back to the SEPP 14 wetlands in the Crookhaven expressing concern about the proposed cycle/walkway 'increasing the risk of long term damage to this sensitive ecosystem'. Members of the Commission may recall that this area was inspected on the site visit and we all went to the edge of the SEPP 14 wetland – the mangrove forest. The Commission may have noted the nature of the forest between the track and the shoreline. It is dominantly dry forest with many large mature trees. I estimate the distance between the track and the shoreline to be about 100m; a 3.5 m. wide cycle/pathway is not considered to have any adverse impact on the foreshore reserve. OEH presumably agree because they support the pathway proposal (as reported in the Response to submissions); further, the proponent proposes to fund an on-going management program for this reserve, clearing out noxious weeds such as lantana, blackberry and bitou bush. WRL ignore this evidence and these commitments.

2. Uncertainty and lack of detail. The misleading and now totally discredited understanding of the location of the West Culburra Mixed Use Concept Plan as reported on by DPE has, in our view, led to a misunderstanding of the proposal by WPL. The title of the Concept Plan was determined by the DPE at the outset. It was always intended to be a two-tier process whereby the technical details of the proposal would be submitted as normal DA's to Shoalhaven City Council once the overall concept was approved by the then PAC (the proposal was originally categorized as a Major Project due to its coastal location). The Concept Plan is qualified by the term 'mixed use' because, at the outset, the proposal was considered sufficiently comprehensive to warrant making provision for both industrial and commercial uses; other uses, such as tourist facilities, were also considered feasible. Land was zoned for both Industrial and Commercial uses in SLEP1985 and these zones had standing for the Concept Plan. The area covered by the Concept Plan is as outlined in the previous section. This has been the location of the Concept Plan since its inception. Over time the Concept Plan has been subject to several administrative amendments. In the first instance the proponent sought to carry out a small lot subdivision of about 40 dwellings. This was not allowed as it was contrary to policy at that time; the relevant policy stating that no application for more than 24 dwellings would be considered where it was part of a larger scheme. The second instance was when it was determined that the Concept Plan has to conform to the underlying zonings as per SLEP1985; that is that the Concept Plan could not be used to change zonings.. This meant that the commercial zone, for which no demand exists, had to remain vacant; the proponent considered it suitable

for residential development. The same rationale applied to a parcel of land south of Culburra Road zoned for special uses and part of the industrial zone, both of which are considered more suitable for residential uses by the proponent; both remain unallocated in the current plan. In the third instance the proponent was advised to remove all details of local road layout and subdivision because any subsequent alteration to the plan, however minor, would have to be approved by DPE before being approved by Council. Since the exact type of development and time frame for implementation of the Concept Plan were indeterminate it seemed prudent to follow the recommendation. In the fourth instance Shoalhaven City Council recommended that the 'leisure hub' be identified by a symbol (the letter T) and otherwise left undefined pending detailed planning of the location – Cactus Point. The proponent welcomed and has adopted this recommendation. In the fifth instance, following advice of an adverse report from the DPE water quality reviewers, certain areas were deleted from the proposal to facilitate the achievement of NorBE for each stage of the proposal. The areas deleted were part of the industrial zone because it is a substantial contributor to polluted run-off, and a medium density hilltop area south of the collector road because it is an awkward shape (it has a long irregular boundary to the divide) and current thinking with respect to the Planning Proposal is that the south side of the hill will form part of the future urban footprint which will make this site much more amenable to a good urban design solution. These changes are part of the normal process of project refinement.

3. Staging. The Concept Plan has always been regarded by the proponent and the DPE as a staged project. The plan has changed very little over the nine years of its development. The main changes are outlined above. It is, at present, primarily a residential development although the level of demand for residential lots is uncertain. What is known is that there is a strong demand for 'down-sizers' accommodation (estimated at 40-50 households already resident in Culburra). This number might be augmented by demand from elsewhere; further, this type of housing might also appeal to other sectors of the market such as young households. The proponents are sufficiently confident that this demand exists to have committed to construct the small-lot housing proposed for Stage 1 and sell house and land packages, subject, of course, to the Concept Plan receiving consent. It is anticipated that later stages will be part house and land packages and part land sales. There is less certainty about demand beyond that initially identified. Consequently the project is broken down into stages as the concept plan and the water quality management plan clearly set out. The lot size and site coverage adopted are based on surveys of recent developments in Nowra. Road standards are those adopted by Council as expressed in various DCP's. The best guess estimate of the time frame for completion is 10 years. 20 years is an outer estimate. Dealing with these uncertainties is part of any urban development process. In our view the Concept Plan provides sufficient information for it to be assessed on basic planning principles including infrastructure provision, access and transportation water quality management, offset strategy and other key factors. As indicated, each

stage will be the subject of detailed development plans which will include all the relevant details relating to water quality management, infrastructure provision, details of lot dimensions and, in selected situations, detailed house designs. These plans will require Council consent before they can be implemented. The proponent is strongly of the opinion that there is no point in preparing plans showing high levels of detail, detail that may well prove to be redundant, until the overall Concept Plan is approved. It is surprising that a unit such as WRL with its claimed level of experience finds the task of reviewing this Concept Plan so difficult.

4. Critical Stages. **Stage 1** is proposed to be the initial phase of development. It is intended as a small-lot development suited to down-sizers. The reason for this is that this location is within easy walking distance (a level 400m). It is the only area available in close proximity to the existing town facilities. Members of the Commission may recall that we stopped on Culburra Road in front of this site on the site visit; the site is a cleared paddock at the front running to woodland at the rear. I pointed out the shallow gradients and the slight decline to the east where the existing retirement village is located. Stage 1 has a frontage to Culburra Road of 190m; its depth, to the divide, ranges from 50 to 70m. The area available within the Crookhaven River catchment is insufficient to carry out a worthwhile development; the only form feasible would be a row of single house lots fronting Culburra Road or a row of multi-storey units; the latter proposition was vigorously rejected by the community and by Council and was not pursued by the proponent. Due to the limitations of the site depth the proponent explored the scope for extending the site into the lake catchment. Detailed site survey and analysis indicated that an extension of the development area into the lake catchment to a depth of about 150m could be drained for surface water and sewerage by gravity to Culburra Road where they would connect to the existing town systems. This created the opportunity to design a 43 dwelling community-oriented arrangement around a park in which an attractive set of existing red gums will be retained, all within easy walking distance of the existing town centre. It is considered that the approximate 2.0 ha intrusion into the lake catchment is insignificant in the context of the entire catchment; it is also noteworthy that this location is some 500m from the lake with intervening development between it and the lake. The critical point in its favour is that there is no identifiable impact on the lake ecology. In a formal sense, the proposed development is not part of the lake catchment because it is proposed to drain the whole area of Stage 1 to the town system. WRL make some general comments about the lake ecology and recommend exclusion of all development 'along the foreshore of Lake Wollumboola' which definition appears to include elements of the concept plan, the proposed golf course and certain approved single rural dwellings in the lake catchment. No part of the proposals embodied in the Concept Plan could conceivably be considered to be 'along the foreshores of the lake'. Neither OEH nor Scanes (see 'Environmental Sensitivity of Lake Wollumboola', 2013) adopt this extreme position. Scanes recommends a precautionary approach be adopted to assessing development near the lake and future development in the vicinity of

the lake should be placed as far as possible from the lake to minimise risk. As noted above, Stage 1 is located some 500m as the crow flies from the lake and 750m by drainage line with significant intervening development including the retirement village and associated care facilities, the community hall and associated car parking and the bowling club with its extensive parking area. In our opinion the location of Stage 1 amply accords with the Scanes notion of 'as far as possible from the lake'. The adjoining use to the west, with a near identical relationship to the lake as Stage 1 (distances and drainage patterns), is the Council works depot which was previously the town waste tip. WRL make no reference to the context of Stage 1, specifically its proximity to the town centre, nor to the surrounding land use relationships. In town planning terms the proposed use in this location is considered close to ideal. **Stage 2** is located about 1300m west of the town centre, immediately to the west of the STP. It has an area of some 23.5ha with a capacity for some 150 dwellings. Stage 2 requires considerable investment in infrastructure including: (1) a new road access off Culburra Road (including the roundabout which is located in the catchment of Lake Wollumboola) and the first stage of the Collector Road; (2) the installation of a new sewage rising main connecting to the STP designed to have capacity to meet the demands of the current West Culburra Concept Plan, the existing Greenwell Point rising main (which it will replace) and the urban development foreshadowed in the Planning Proposal; and (3) the water quality management infrastructure, the principal elements of which will be located in the east crescent roadway, which defines the western boundary of Stage 2 and will also be the location of construction stage surface water drainage control devices; the alignment of the east crescent is designed to carry surface water drainage to the eastern side of Cans Point which will be the principal receiving water body for Stage 2. The roundabout and the first 200m of the collector road are located at the head of Wattle Creek which is in the catchment of Lake Wollumboola. The location of the roundabout has been agreed by the relevant authorities. A bio-retention basin is proposed on the alignment of the creek (there is no formed watercourse at this location) which will meet the NorBE standard for both the new roadworks and some 500m of the presently untreated Culburra Road drainage system. The bio-retention basin is located 1150m by direct drainage line from the lake. The WPL review makes no reference to the new intersection which generates the requirement for the bio-retention basin although the intersection is a necessary and integral part of the Concept Plan. The proponent considers Stage 2 to be too distant from the existing town facilities to be suitable for 'down-sizers' in the first instance; Stage 2 is considered to be initially more suited to family housing and holiday homes. **Stage 3** has an area of 18ha plus a playing field of 5.5ha. the latter being in the lake catchment. The residential component is approximately 660m x 275m with a capacity of about 170 dwellings. The residential area is bounded on the south by the collector road and on the north by the SEPP 14 wetlands - the mangrove forest (members of the Commission may recall viewing this forest on the site inspection). The west crescent, leading to Cactus Point, forms the western boundary of this stage. Stage 3 is ideally suited to residential development; it

has a gentle north facing slope with a pleasant outlook towards the SEPP 14 wetlands and Billys Island; it has a capacity for about 170 dwellings. At present the development is conceptualised as standard lots of 550 -700m<sup>2</sup> area. WRL make adverse comments about the potential impact of urban development, mostly assumed to be that in Stage 3, WRL also recommend playing field be deleted from the Concept Plan. Despite it being 1800m from the lake as the crow flies and in excess of 2000m by drainage line into Downs Creek. The drainage issues raised by WRL will be considered by Martens and Associates in their response to the WRL review. The reasons for the playing field being located here are several. In the first instance it is located on the flattest land in the Concept Plan area which is ideally suited to playing fields; second, it is directly accessible from the collector road (which will become part of the Culburra-Nowra bus route, thereby making it readily accessible to the whole Culburra community; and thirdly, it is in a relatively central position with respect to the long term urban development north of Culburra Road as represented by the urban footprint being investigated in the Planning Proposal. Stage 3 is unlikely to commence development until at least 5 years after commencement by which time it is estimated the Planning Proposal will have reached some conclusion. **Stage 4**, located mainly on open grassland at the western end of the Concept Plan area, is bounded on the south by the collector road, on the east by west crescent, on the north by the Crookhaven River and Cactus Point and on the west by more open grassland. It has an area of about 25 ha. with a capacity for about 230 dwellings and some tourist facilities. WRL make no comment on Stage 4. Each of these stages will be substantially completed prior to the next stage being commenced. Each stage will be monitored in accordance with the monitoring plan to ensure performance reaches the desired targets, principally the achievement of NorBE in each of the receiving waters.

5. Conclusion. The WRL review offers no substantive reason for The Concept Plan not being granted consent. The achievement of NorBE is the required standard and it is achieved with respect to every stage of the development. The proponent has constantly been mindful of the ecological sensitivity of both Lake Wollumboola and the Crookhaven River estuary with its important oyster leases. The proponent has a long standing concern to respect and protect this important ecology. This is demonstrated by the Trusts willingness to consider dedicating substantial areas of the estate to National Parks along with funding for on-going maintenance of the areas identified in the Planning Proposal for such purposes. At the same time the Trust is well aware that Culburra Beach is a community in dire need of rejuvenation. The evidence presented at the public meeting was testimony to that need. There were some who expressed concern for the ecology of the area. The Trust respects their views and has taken them into account. The writer was tasked with developing a plan for the whole community, a plan that respected what will always be widely held divergent views yet holds a promise for a better Culburra Beach and a better Jervis Bay National Park, including Lake Wollumboola, and a better, more active Crookhaven River estuary. The Trust and the majority of the Culburra

Beach community has faith in this plan. Shoalhaven City Council have faith in this plan The writer urges the Independent Planning Commission to also demonstrate faith in the West Culburra Mixed Use Concept Plan.

John Toon.

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