Re: Application to Amendment of Environmental Authorization (ROD) dated 06 June 2008 : Erf 1617(as advertised), Pennington (aka Umdoni Point) : Applicant – Zamori 129 (Pty) Ltd.

**1. Introduction.** It is understood the applicant wishes to change the original approval to construct 88 special residential units and instead construct 295 smaller single storey houses and various administration buildings; increase the hardened surface area, by 12,300 M2; increase the development land area by 4.7 ha (West of Minerva Road extension); and change the development mix to small typical retirement village cottages and administration buildings.

This response is based on copies of the following documents: [[1]](#footnote-1)

a) The Notice of Application of Environmental Authorization inviting comments and concerns as advertised by Environmental Solutions in the Mid-South Coast Mail dated March 28 2014. The deadline for submissions is stated as 16 April 2014;

b) A letter dated 10 April 2014 addressed to Mr H J van Hilten of the Pennington Ratepayers’ and Residents’ Association. Inter alia the deadline for submissions is extended to 31 [sic] April 2014 – amended by tacit acknowledgement to 30 April 2014

c) The Application for Amendment of Environmental Authorization published by The Department of Agriculture and Environmental Affairs (KZN) signed on 18 November 2013. Attachments are Annexure A – ‘diagram depicting the approved layout’; Annexure B – ‘diagram depicting the proposed new layout’; Annexure C – ‘Motivation for Amendment including letter from Hibiscus Retirement Villages as attachment’.

d) The Amended Record of Decision (ROD) dated 06 June 2008 published by KZN Agriculture and Environmental Affairs.

Whereas the economic growth of Pennington and expansion of the Rates base is supported no development amendment or otherwise, can be sanctioned that is in conflict with the biophysical, social and economic environmental relevance to this unique site that is one of Pennington’s main beach and nature attractions, i.e. Umdoni Point.

**2. General environmental concerns**

2.1 Up front it must be stated that there is serious concern with regard to any departure from the ROD (2008) associated with the Eastern Dune Node. The result of the already completed services and road construction is a visibly scarred terrain, together with damaged psammophilous vegetation, now partially replaced by seasonal grass and weeds. The dune in question is a primary part of the east coastal system and cannot environmentally or otherwise be subjected to any further road building or civil engineering activity. Given the highly intrusive and high density nature of the proposed development this by itself confirms that this amendment application should be rejected and that instead the developers should submit an entirely new application for what is a completely new and different development.

2.2 Other environment-related concerns include:

* The use of a non-matching ROD as a platform to apply for an Amendment based on a revised high density development of an entirely different character;
* The fact that already 120 high density buildings have been constructed under the existing ROD in the same area which means a total of 415 buildings vis-à-vis the originally approved 88 residential and 93 retirement units should the amendment application be approved;
* Marketing density developments such as this as ‘green or eco’ and making unproven statements and undertakings re the likely environmental impact thereof, whilst ignoring the impact of what may be as many as 600 people accessing the surrounding forest and bush;
* The derogation of single point duty through the transfer of responsibility - particularly to under resourced Municipal Authorities that lack the required environmental and technical capacity to assess and oversee projects of this magnitude;
* The changing and compromising of the original construction elements through the process of applying economic value engineered reductions so as to reduce development cost to meet viability and /or budget allowable;
* The failure to detail components that are intrinsic to a communal development of this nature by simply referring to ‘administrative buildings’ and not mentioning the recreation facilities common to complexes of this kind;

**3. Specific Comments and Concerns [[2]](#footnote-2)**

**3.1 Restricted Development Access.** In order to protect the existing physical and social environment of the established adjacent residential areas which currently offer alternative access routes to the development site; the pending Amendment to the ROD must be broader to include the restrictive access of, construction vehicles, mechanically driven construction plant/machinery and construction personal, to all alternative routes other than the direct route to the Main Entrance of the development site as a whole.

As a preventative assurance to compliance with the above; the Frontal Eastern Dune Node, most eastern boundary bordering the North /South dirt track extension to Botha Place, must be suitably high fenced in order to prevent any access or departure (what-so-ever) to and from the development site.

It is an assumption (to be addressed!) that the Applicant and the Umdoni Municipality will reach an agreement prior to commencement of any Works to be performed, with regard to the cost and timing of road upgrades, maintenance thereof during construction and final repair to all existing access roads, including Pennington Drive, used by the Applicant/Developer and their Contractors, and that enforceable guarantees, payable on demand, will be lodged in this respect.

**3.2 Road traffic.** This development will likely add at least 300 vehicle trips to Pennington’s daily traffic flows as no direct access to the R102 is provided whereas the original ROD did not condone a road link through the existing retirement village. Pennington’s road are narrow and in parts already congested but the application makes no reference to this whereas the increased traffic along the proposed secondary access roads will seriously impact the quality of life of the adjoining residents.

**3.3 Management plan.** The original ROD omitted to address the need for a management plan for the build-up and movement of construction personnel to and from Pennington. The environmental and social impact of such movement will hugely increase as the proposed development will be concentrated in a much shorter period than was the case for the previously approved 88 large residential units. There is no taxi rank in Pennington and the domestic demand currently saturates availability. Even if transportation demand attracts more taxi operators, an aggravation is likely to occur between current regular passengers and the construction personal.

The pending social environmental impact of there being no formal taxi rank nor like facility in Pennington therefore warrants a temporary on site taxi rank and parking for construction personnel; singly addressed where the Applicant/Developer is fully accountable for the management thereof. [[3]](#footnote-3)

**3.4 Sewage disposal**

This quotation from the original ROD: Clause 7.6.30: refers: “.......it is understood that sewage may be of concern. In this case the existing municipal sewage treatment works would need an upgrade.”

The first part of this clause regarding an existing concern still stands, but this concern has shifted from the capacity of the sewage treatment works ( now complete) to the current demise associated with Botha Place pump station and the existing flow-pipe reticulation thereto.

Currently Botha Place pump station and the flow-pipe reticulation thereto have a well-known history of intermittent failure. In both wet and dry weather conditions the pump station storage capacity is compromised and effluent overspills into the Children’s Way adjacent stream. Whereas, the flow-pipe reticulation manholes in different parts of Pennington often blow their covers in wet weather conditions and the resultant overflow effluent largely enters the Makamati stream.

As a result both streams regularly also pollute the lagoon area at the main beach despite the fact that sewage effluent overflow into once pristine streams is in contravention of the Water Act. Furthermore, the Botha Place pump station has become a ‘nanny’ facility which requires physical visitation by two different Ugu technical disciplines each day to minimise the spillages. The termination of the Botha Place pump station ‘nanny’ daily inspection process is apparently dependent upon the functionality of the installed Telemetry System (an IT on screed status monitoring system) which system currently has problems.

The alleviation of the current Botha Place sewage pump station failure is apparently conditional upon the construction of a new enlarged receiving pump station at Dolphin Drive, which is to replace an existing smaller station currently in use. The speculative operational completion date of this new pump station (Dolphin Drive) is at the end of year 2015, the project having suffered numerous delays whereas it remains to be seen whether the Ugu Municipality avails of the capacity to maintain what is stated to be a highly technical process. This point is made in the light of the experience with the much publicized and also highly technical ‘water pressure management system’ that was installed in Pennington but which has ceased to function in certain areas despite various attempts to address this.

Of further concern is the fact that the sewage system within Pennington proper and parts of Kelso remains incomplete in that many houses, possibly as many as two-thirds, remain to be connected once the entire reticulation system is installed. Presently there is no indication when this may be. As a result the 120 cottages already built under the original ROD have literally jumped the queue in this respect and the proposed additional 295 buildings would do so as well. But the real concern is that it is understood that the holding capacity of the new Dolphin Drive Pump Station will only be very limited once all of Pennington proper is connected. The de facto addition of already 120 and now a further 295 buildings respectively will greatly reduce this, making a return to regular overflows and pollution from both pump stations extremely likely if the same technical failures occur as has been the experience to date. There have been numerous spillages at the Dolphin Drive site that enter the Nkomba stream and have heavily polluted the Nkomba lagoon. Hence it is submitted that this aspect needs to be thoroughly studied and clarified so all concerned, including the residents of Pennington proper, may be enabled to understand the issues and comment on them.

Furthermore, according to drawing nr 1331/85/11 by Bosch Stemele of May 2011, the ultimate sewage flow from Erf 1617 (aka as Umdoni Point) has allowed for 140 sites of which, as we understand it, 120 have already been connected via the extension as part of the Umdoni Village Retirement Home. This suggests there is no provision for this further development. The proposal fails to address both this issue and the environmental challenges it presents.

**3.5 Storm Water Management. [[4]](#footnote-4)**

The following quotations from the original ROD refer:

Clause 1.13: “Storm water on site is to be controlled and connected to the municipal storm water system. Storm water discharge may not result in discharge of water into the existing wetlands at levels that would result in a negative change in the ecological state of the existing wetlands.”

Clause 7.5.4: “The report dated April 2005 concludes ‘all the wetlands on site have been impacted on in some way, and are by no means pristine’.”

Clause 7.5.4.2: “The small wetland on the eastern end of the property (Wetland 1) is excluded from the development footprint. The site must be managed in terms of the Environmental Management Plan.”

Clause 7.5.5: “The Engineering Report ------, addresses the issues of roads, storm water reticulation, sewer reticulation and water reticulation. The Engineers Report recommends that the storm water is piped to the closest drainage lines”

Clause 10.45: “A maximum area of 40% for each individual erf may be hard surfaced.”

**Comments:** In the absence of a full Municipal adjacent piped northern storm water reticulation system, the storm water drainage volume into wetlands becomes environmentally important. As volume metric estimates are founded on the area of storm water catchment, it seems that the figure of 63,600m2 may require review to be all inclusive of roads, motor linkages to cottages, aprons, paths, actual drain-off area of roofs, parking lots and on Node 1 retaining walls constructed between vertical and angle of repose.

It is not clear why the ROD separately makes a broad brushed statement regarding Wetland 1. It is of environmental concern that the consequences of over flooding this marsh, impacts on the overflow run-off through a small stream that runs down Children’s Way in Pennington on its way to the Main beach lagoon. In normal heavy rain the stream floods to capacity, which indicates that should Wetland 1 receive additional storm water catchment, Children’s Way will become a water course donga.

The discharge point of storm water off the Eastern Dune Node 1 is not visible and this must be established as seaward of the railway line but many small animals and reptiles live there that could be affected. Also the coastal rock formations adjacent the Eastern dune should not receive muddy flood water as they are totally unspoilt and form part of the greater celebrated Umdoni Point fishing spot and view point.

The ROD statement is ambiguous as it does not specifically state that storm water is to be piped to the closest storm water drainage line but simply says ‘the closest drainage lines’. National Building and Municipal Regulations prohibit the discharge of storm water into sewage drainage lines but it is believed there already are existing breaches of these regulations elsewhere in Pennington. The shedding of storm estimated volumes off site, into wetlands; onto adjacent properties; into streams and on to the sea shore is environmentally critical and each Node of the proposed development should have specific environmental plans approved accordingly. The detrimental impact consequences of offsite storm water disposal therefore warrants detailed addressing by the Applicant, including details of **how** **on site storm water is to be controlled** before entering the general system **before approval is given for this development to go ahead**. The main reason being that presently there are only few hard surfaces on site but this will change dramatically if this development goes ahead as presently proposed.[[5]](#footnote-5)

**3.6 The Frontal Eastern Dune**

The following quotations from the original ROD refer:

Clause 1.3: “The eastern-most development node will be situated along the frontal dune, an area that is considered to be sensitive and therefore requires strict environmental control and adherence to this amended ROD. The number of residential erven within this node will not exceed 32, with the minimum erf size being 1500m² .“

Clause 7.4.6: “ ---- Umdoni Municipality ------ Council would like to see a unique development on the site, and not a conventional layout or mere extension of Pennington Town. They considered the density of 2.3 units per hectare to be well below their low-density definition, low key and in compliance with their town planning scheme and special development framework.”

Clause 7.6.17: “Regarding the easternmost development node,-----reduction from the original 36 to 32 ------/ that the minimum erf size within this area must be 1500m², with which the applicant has complied. As such, this Department (AEA-KZN) sees no need for a further reduction of the units in this area.”

Clause 9.5: “The proposed development is adjacent to the residential area of Pennington and would therefore form a continuation and a combination of the existing residential area.”

Clause 10.8: “The applicant is responsible for compliance with the provisions for duty of care and remediation of environmental damage----.”

Clause 10.20: “Pedestal foundations must be used. Trench foundations are not allowed as these would negatively impact on tree roots along the edge of bush-clumps and the forest”

Clause 10.26: “the applicant must ensure that the roads will not affect the hydrology or the natural drainage of the site beyond existing and authorized impacts.”

Clause 10.48: “Erven along the easternmost development node must allow for a natural ‘perimeter indigenous bush servitude’ equating to at least 41% of the erf’s surface area.”

**Comments:** The current proposal totally disregards the express environmental considerations contained in the original ROD. There is no semblance of evidence to consider an alternative treatment of this cardinal dune as an amendment to very specific considerations recited in the ROD, as abbreviated below:

*‘- an area that is considered to be sensitive and therefore requires strict environmental control’;*

*‘- Council would like to see a unique development on the site, and not a conventional layout or mere extension of Pennington Town’;*

*‘- density definition, low key and in compliance with their own (Council’s) town planning scheme and special development framework’;*

*‘- the minimum erf size within this area must be 1500m2’;*

*‘- form a continuation and a combination of the existing residential area’;*

There is no evidence of biophysical applied ‘duty of care and remediation of environmental damage’ that followed the earlier road construction work’s topographic blemish to the site and damage to the psammophilous vegetation. It is not clear on the amendment diagram what part of the current established road and related earth works will be removed and reinstated.

It is axiomatic that load bearing structures founded on cut and fill sand sites cannot readily be supported on pedestal foundations. Also, construction of perimeter aprons to each cottage founded on sand is considered good building practice. Furthermore, on the accompanying small scale township diagrams as distributed by the applicant it is evident that identical cottages are intended to be in ribbon layout on sloping land. Particularly applicable to senior citizen occupation, pedestrian slopes must in fact be reduced to level terrain as far as possible. This suggests that the rows of cottages will sit on cut and fill interlinked level terraces with minimal integrated steps and sloping access ramps. Added to the cross sectional residential stepped level dune cuttings, the roads will need to sympathize in level to avoid excessive sloping access to the cottages. A sandy site that is largely step profiled, will lead to the establishment of retaining walls that form additional storm water catchment surfaces.

When adding together: sufficient visitors parking (not shown on the diagram); hard surfaces between road and 88 cottages (not shown on the diagram); aprons (not shown on the diagram); road surfaces; roof slope areas, all to the receiving extent of reduced level plateaus – there is undoubtedly seriously impact on the hydrology and natural drainage, beyond just the roads, particularly of a site of dune sand composition. Further, with regard to the natural drainage off the site: as part of a peninsular it is subjected to heavy rain storms off the sea. Often after such an occurrence, virtually the full length of the eastern base of the dune, adjacent the dirt track, bleeds seepage. Therefore it is not environmentally conducive to build structures along this eastern site border. Finally, the Western cause way access to this Node shown on the amendment layout intermediately crosses Wetland 1. This cannot be environmentally supported when there is already a constructed alternative road at the head of this wetland.

Lastly, there is no evidence on the site drawing of the *‘- natural ‘perimeter indigenous bush servitude’ equating to at least 41% of the erf’s surface area’.* This provision is deemed a stringent environmental requirement for the development of the Eastern Dune.

The proposed Frontal Eastern Dune amendment does not support any acceptable environmental attributes and must in consequence be rejected in its entirety.

**Closing Comment: The foregoing makes it clear that, in reality, only an entirely new Environmental Impact Assessment can properly examine and address the different issues and concerns surrounding this proposed development.**

1. Should any other documents or information arise during the process of application, it is deemed my reserved right to change, alter, add or omit any or all comments and concerns contained in this Response. In this regard it is noted that no information has been provided with regard to the Administration Buildings. [↑](#footnote-ref-1)
2. These are offered in case the final decision is to allow the original ROD to be amended in which case these concerns need to be addressed. [↑](#footnote-ref-2)
3. Letting the free-market dictate the solution or passing such an important issue onto the Local Authority or Contractors employed on site is not considered as a fail-safe solution. [↑](#footnote-ref-3)
4. Pennington regularly receives heavy rainfalls of 50 mm and higher. 50 mm equals 50 litres per m² meaning a 50 mm rain fall over just the 295 buildings, assuming an average roof size of 100M², would result in a total storm water flow of approx. 1.5 million litres, usually in a very short period of time. Other than a number of small streams there is no formal storm water drainage system in Pennington. [↑](#footnote-ref-4)
5. In recent years the amount of storm water flooding the low point of Dolphin Drive from the small streams running from higher areas has increased markedly, to the point where residents have had to construct raised drive ways to maintain access to their properties. [↑](#footnote-ref-5)