



## 12 PLACES FOR PEOPLE

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<b>Item</b>	12.1
<b>Subject</b>	Eco-village Pilot Project Feasibility Investigations
<b>Presented by</b>	Daniel Bennett, Senior Strategic Planner

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### EXECUTIVE SUMMARY

During the development of the Bellingen Shire Local Housing Strategy (LHS), a submission was received advocating the merits of a regenerative model of housing commonly referred to as an "eco-village" associated with designing a community from the outset in such a way to minimise energy and ecological footprints by maximising the re-use of energy and resources and integrating housing, food, waste and other systems into the basic design and operations of the village. Council resolved to support the development of a "Pilot Project" to test this concept via Action 8.4 of the final Action Plan in the LHS .

Following the adoption of the Strategy, PolisPlan Consultants approached Council around investigations into establishing an eco-village in the Shire. PolisPlan Consultants secured funding from "Sustainability Advantage" (an arm of the NSW Department of Planning & Environment (DPE)) to further investigate the potential merits of this model and how it could potentially be integrated into the NSW planning system. These investigations have been progressed upon the real life example of Bellingen Shire given that Council had indicated broad strategic support for investigating this potential model of housing in the Shire.

Council has previously received a presentation made by the Consultants in the earlier stages of the process at a Council workshop held on 11 May 2022. At this workshop the overall thinking behind the eco / circular / regenerative model was presented to Council and the opportunity was provided to express any significant concerns or otherwise with this model. Following this, the final Consultant report has been prepared for consideration by Council. This report provides commentary on some of the main recommendations and findings of the final Consultant report and associated documents to outline next steps and the degree to which this requires further action from Council.

### RECOMMENDATION

That Council:

1. Receives and note the *Proposed Planning Framework for Regenerative Village Pilot Project* (and associated documents) prepared for Bellingen Shire Council by PolisPlan Consultants dated 3 November 2022.
2. Acknowledge the general suitability of the proposed planning pathway identified for the establishment of a regenerative village pilot project.
3. Publish the findings of the investigations on its website to raise awareness of the potential issues and opportunities around this type of housing development in Bellingen Shire.
4. Notify the owners of properties that were investigated as part of this process of the existence of the Report, how to access its findings, and how to contact the authors should they wish to advance discussions around the potential suitability of their land for this type of development.
5. Thank PolisPlan Consultants and the NSW Government (Sustainability Advantage) for undertaking this body of work in pursuit of Action 8.4 of the Bellingen Shire Local Housing Strategy and advancing the level of understanding around ways in which an eco-village pilot project may be accommodated within the NSW Planning Framework.

## **ATTACHMENTS**

1. Draft Bellingen Local Environmental Plan 2010 Clause
2. Draft Bellingen Shire Development Control Plan 2017 Chapter
3. Draft Voluntary Planning Agreements Policy
4. Main Report - Bellingen Pilot CEV report
5. Sites investigated for Potential CEV Pilot

## **PURPOSE**

The purpose of this report is to present to Council a Report that investigates potential ways in which an "Eco-village" pilot project could be established in Bellingen Shire.

## **DISCUSSION**

### **Background**

When Council was undertaking public consultation in association with the development of the Bellingen Shire Local Housing Strategy (LHS) a submission was received advocating the merits of a regenerative model of housing commonly referred to as an "eco-village". The term "eco-village" can be generally interchangeable with the terms "Circular Economy" or "Regenerative Village" but at its essence, involves designing a community from the outset in such a way as to minimise energy and ecological footprints by maximising the re-use of energy and resources and integrating housing, food, waste and other systems into the basic design and operations of the village. Council ultimately resolved to support the development of a "Pilot Project" to test this concept via Action 8.4 of the final Action Plan in the LHS and this action is reprinted below.

Following the adoption of the Strategy, PolisPlan Consultants approached Council indicating their willingness to advance the investigations into establishing an eco-village in the Shire. PolisPlan Consultants subsequently liaised with the NSW Government to determine how this type of approach to housing might integrate with their aspirations and was fortunate to secure funding from "Sustainability Advantage" (an arm of the NSW Department of Planning & Environment (DPE)) to further investigate the potential merits of this model and how it could potentially be integrated into the NSW planning system. These investigations were to be built around upon the real life example of Bellingen Shire given that Council had indicated broad strategic support for investigating this potential model of housing in the Shire.

Both Council Officers, and the elected Council, have provided input into the development of the suite of documents that are now included as part of this report to Council. Council Officers from various sections of Council including Rates, Engineering & Planning met separately with the Consultants to review how such a system would potentially interact with their areas of interest and Council Officers have sought legal advice regarding a key area of policy interest which is the ability to levy rates for such a concept. Key NSW Government Agencies were also consulted including the Regional Planning Team from the DPE (concerning potential planning pathways) and the Natural Resources Access Regulator (NRAR) (concerning potential watercourse impacts). Additional high level input has been provided by Council Officers into the final report and associated documents.

The elected Council would also recall a presentation made by the Consultants in the earlier stages of the process at a Council workshop held on 11 May 2022. At this workshop the overall thinking behind the eco / circular / regenerative model was presented to Council and the opportunity was provided to express any significant concerns or otherwise with this model. A subsequent workshop was also held with Councillors on Wednesday 16 November 2022 to detail the recommended outcomes of the final Consultant report as well as the Officers recommendations included in this report.

Notwithstanding the level of input that has been provided by Council to date, it is important to recognise that this is ultimately not a Bellingen Shire Council document, Council is not the funding body that commissioned this work, and it has not been reviewed to the level of detail that would be necessary to support any immediate change to planning controls to facilitate a proposed development. The strategic significance of the document is that it has advanced the level of knowledge and thinking behind how the planning system could potentially facilitate such a development, should a proponent be able to find a potentially suitable site and is willing to invest their time and resources into progressing this to the next stages of the planning process. This report will accordingly provide a commentary on some of the main recommendations and findings of the report and associated documents, and will propose, and justify, the approach that has been recommended to Council in terms of any next steps and the degree to which this requires further Council action.

### **What has been presented to Council?**

The suite of documents that have been presented to Council, as the culmination of the feasibility investigations, include the following. These are included as Attachments to this report.

- Main Report - Bellingen Pilot CEV Report (the Report).
- Sites investigated for potential CEV Pilot.
- Draft Bellingen Local Environmental Plan 2010 Clause.
- Draft Bellingen Shire Development Control Plan 2017 Chapter.
- Draft Voluntary Planning Agreements Policy.

### **What are the essential defining features of an Eco-village as contemplated by this process?**

Prior to contemplating the main recommendations and findings it is useful to clarify what type of development the feasibility investigations are geared towards facilitating. This can be gleaned through reference to two proposed definitions to describe the essential attributes of such a village, the key scale attributes of such a village, and a series of nine design principles that have been suggested by the Consultants and that would need to be underlie any future proposal. These are outlined below:

#### PROPSOED DEFINITIONS

**Regenerative Village** is a settlement that has been designed:

- (a) in accordance with the principles of the Circular Economy, and
- (b) as a system that integrates food, water, energy, transport infrastructure and the built environment.

**Circular Economy** is an economic system based on the following three principles:

- (a) eliminate waste and pollution,
- (b) keep resources and products circulating within the system, and
- (c) regenerate natural systems.

#### Key Scale Attribute

The extract below shows a hypothetical Masterplan depiction of what a regenerative village

developed in accordance with these provisions might look like, in addition to a description of some of the key scale attributes.

# MASTERPLAN & SCALE



## Proposed Design Principles

### 1. One Planet Living

*Match the population of the village to the capacity of the land and its infrastructure. This ensures that the demand for food, water, energy, and housing does not exceed the capacity of the local infrastructure and ecosystems. Assume a fixed population and design the infrastructure at a scale that supports the pre-determined population, preferably so that supply of these basic necessities exceeds demand. An additional benefit of planning for a discrete population, and matching local*

supply with local demand, is that it allows waste and pollution to be designed out. Organic materials can be kept in circulation to improve soils and regenerate natural systems. The systems then satisfy the requirements for a circular economy.

## *2. Maximise diversity*

*Natural systems are more productive and more resilient as biodiversity increases. Mimic this diversity in all infrastructure systems. Food systems should include a wide range of fungi, plants, animals—including aquatic species in the reservoirs—not just to feed the humans but complement and support the ecosystem as a whole. With respect to energy, provide a wide range of generation and storage options. In the built environment, provide a diverse range of flexible, multipurpose spaces. Express diversity in respect of multiple users and multiple purposes for any space.*

## *3. Maximise energy harvesting, minimise energy losses*

*Maximise the amount of input energy that is harnessed, whether with solar panels, other technology or by plants. Also minimise the energy that is lost as waste. For inorganics explore the provision of waste-to-resource micro-factories.*

### *18.6.4. Enhance ecosystems*

*Natural systems are designed to convert waste into resources and to constantly regenerate. Aim to enhance the capacity of the environment to provide these ecosystem services. For example, a closed water cycle can mimic the natural water cycle and provide an endless supply of water. Create integrated ecosystems such that organic waste can improve soil health or increase soil volume to retain more water. Water could be used to generate and store energy, while passively designed buildings can minimise energy demand.*

## *5. Maximise Productive efficiency*

*Efficiency is the ratio of energy inputs to energy outputs. Minimise the energy needed to deliver the required outputs—particularly food, water, electricity, mobility services and shelter. Aim to eliminate fossil fuel energy and minimise the human labour needed to deliver these basic necessities for all in the village. Use of durable labour-saving devices and technologies. Enhance ecosystems so that they provide a wide range of ecosystem services.*

## *6. Maximise Distributive efficiency*

*Save energy by minimising the distance resources and goods are transported. That is, strive to maximise local production for local consumption. For goods not able to be produced within the village, collaborate firstly with neighbouring villages, then others within the bioregion before looking beyond. For fabricated goods, aim to minimise the mass of the object being transported. This can be done by transporting the 'blueprints' electronically and have the item produced locally with a 3D printer.*

### *18.6.7. Maximise durability*

*The longer things last, the less work is needed to fix or replace them. In contrast to the current disposable, consumer culture, greater durability means a longer lifecycle for all products and buildings. The most durable could be defined as sustainable—able to be sustained in a functioning form for a very long time or even indefinitely.*

*Building design and construction should consider each design element in terms of maximising durability.*

#### *18.6.8. Enable sharing and collaboration*

*Share spaces and utilise spare capacity. Online sharing economy platforms facilitate the transition from ownership to access by enabling the use of spare capacity, for example in buildings, cars, tools, or land. In addition to shared infrastructure, the regenerative village should incorporate assets, facilities and spaces that can be shared. Designs should create 'degrees of privacy' without resorting to exclusive ownership. Residents will have use of, access to, and be responsible for, various parts of the settlement. Rather than individual owners of land, residents should be offered the opportunity to collectively own and steward the ecosystem of infrastructure and natural assets.*

#### *18.6.9. Maximise connectivity*

*Regenerative villages should not be regarded as isolated places but as nodes within a broader network. Provide high quality internet access for virtual connectivity and create a network of shared electric vehicles and charging stations for physical connectivity. Also, whilst each village would produce the basic needs for its residents and guests, it would still rely on the broader network for the satisfaction of more complex needs or to share rarer skills. Design interdependence into each settlement, perhaps with each village providing some goods or services for the broader network. The complementarity of settlements, particularly within a bioregion, would guarantee a wide range of goods and services for all.*

### **What has been recommended to Council by the Report?**

The Main Report provides a series of recommendations to Council that indicate how these documents should be used to advance further investigations into establishing a Pilot Project. These are outlined below:

*In accordance with Action 8.4 of the Bellingen Shire Housing Strategy, and to continue towards the satisfaction of that action, it is recommended that:*

- 1. In calculating ordinary rates, levies and other charges, that Council adopts the principle that future residents of regenerative villages should contribute to Council services, facilities, and infrastructure on an equitable basis with other residents, taking into account any services, facilities, and infrastructure provided by the village to the broader community,*
- 2. That this report be referred to Council's Rates Section for their consideration in the establishment, at the relevant time, of a process and formula for calculating ordinary rates for regenerative villages,*
- 3. That Council adopt the following definitions:*

*Regenerative Village is a settlement that has been designed:*

- (a) in accordance with the principles of the Circular Economy, and*
- (b) as a system that integrates food, water, energy, transport infrastructure and the built environment.*

*Circular Economy is an economic system based on the following three principles:*

- (a) eliminate waste and pollution,*
- (b) keep resources and products circulating within the system, and*
- (c) regenerate natural systems.*

4. That Council acknowledge the challenges of identifying sites for regenerative villages given the many constraints in the LGA and adopts the locality planning process outlined in this report as an appropriate starting point for the identification of suitable sites,
5. That Council acknowledge that the framework developed in this report is the preferred approach for assessing a proposal for a regenerative village. This includes:
- (a) An additional clause in the LEP permitting regenerative villages only on land identified through an appropriate locality planning process
  - (b) Provisions in the Development Control Plan, preferably an additional chapter, that are as consistent as possible with existing provisions for other developments but acknowledge the unique qualities of regenerative villages and thus include development objectives such as those outlined in clause 18.6 of the draft DCP included in Appendix D,
  - (c) The requirement to prepare an infrastructure and services plan that outlines the nature, extent, and timing of delivery, as well as ongoing operation and management of all infrastructure, assets, services and facilities to be provided,
  - (d) The requirement for a proponent to undertake a planning proposal to resolve the detail of all of the above in relation to any regenerative village proposed for a particular site,
6. That Council adopt the draft Planning Agreements Policy (including draft legal template and explanatory note) to provide a framework for negotiating the provision of local infrastructure by developers of major projects, including any potential regenerative villages,
7. That Council draft a letter to land-owners within the identified precincts advising them of the action in the housing strategy and the steps taken to date, offering land-owners the opportunity to participate in the continued development of the pilot project on their land,
8. That Council explore the possibility of applying to the Living Future Institute of Australia (LFIA) for preliminary certification of the project as a Living Community Vision Plan. This would indicate community agreement around a common vision and will assist in the promotion of the project through the LFIA network.

## **Commentary on key recommendations from the report**

### Proposed Planning Framework

The planning process involves moving from high level strategic aspirations (ie: as encapsulated in the LHS) towards progressively finer levels of detail (eg: Development Application considerations). The Report has proposed a pathway through the planning process that is considered broadly workable and that involves the following key steps:

- Upon agreeing on suitable site - amendment of BLEP 2010 to incorporate additional local clause detailing key statutory controls, and map to depict where that clause applies.
- Inclusion of additional Chapter in Bellingen Shire DCP to prescribe overall provisions governing establishment of a regenerative village.
- Development of site-specific Development Control Plan.
- Development of Draft Planning Agreement.



- Submission of Development Application and assessment against relevant criteria.

There is a significant level of detail presented regarding these provisions. The precise review of the wording of environmental planning instruments and development control plans requires a significant allocation of time to ensure that these are correctly drafted. Should investigations proceed to the point where a potentially suitable site can be located then it is considered that this is the appropriate time to undertake a further fine grained analysis of proposed provisions. For the purposes of this stage of the planning process though it is recognised that the proposed planning pathway identified for the establishment of a regenerative village pilot project is generally suitable and it is recommended that Council resolves to provide this level of acknowledgement.

#### Rating and Cost Equity Considerations

As Councillors would be aware, permitting additional dwellings to be constructed on a single rural block of land (eg: Multiple Occupancy development) does not typically come with the ability to levy rates for those additional dwellings unless some form of subdivision is permitted. The ownership model favoured by the Report authors did not originally propose any form of subdivision. Council raised early concerns that approving 50 new dwellings in a rural area as part of an eco-village development without some ability to levy rates was not likely to be supportable given the additional likely impact on Council services and roads. Council accordingly sought legal advice on potential opportunities that may exist to ensure that the occupants of an eco-village were able to make appropriate ongoing financial contributions via an alternative rating scheme or some other mechanism such as a Voluntary Planning Agreement.

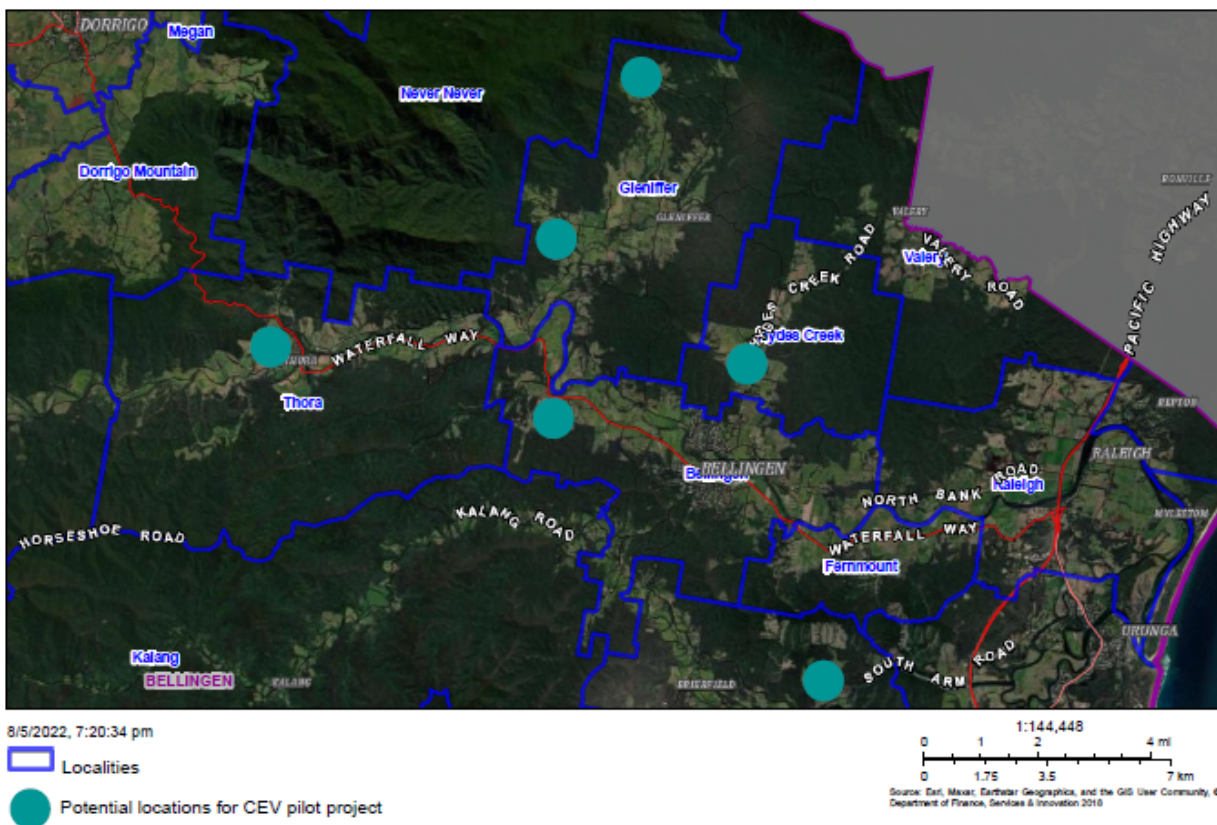
This is not a simple question to answer and the investigations regarding the ability to levy rates on a regenerative village development remain ongoing. The advice received to date confirms that the use of a Voluntary Planning Agreement to institute some form of de-facto rating outcome is not acceptable, and Councils Solicitors are currently awaiting advice from the NSW Valuer Generals Office as to whether dwellings approved as part of a regenerative village development could be defined as "separate parcels" for the purposes of the Valuation of Land Act, which would potentially enable them to be valued and rated accordingly. In view of the significant amount of time that it has taken to investigate this issue (and the need for this Report to be completed) the Report authors have instead proposed that a regenerative village could be subdivided by community title legislation. Whilst the potential to levy rates would be facilitated by permitting the community title subdivision of the development, this was not the originally desired outcome sought by the Report authors who favoured some other mechanism should one exist.

Preliminary inquiries made of the DPE regarding a community title subdivision model have indicated that there is a similar precedent in the North Coast Region and that this may therefore be capable of support if no alternative rating scenario can be developed. The principle espoused by the Report authors that future residents of regenerative villages should contribute to Council services, facilities, and infrastructure on an equitable basis with other residents, taking into account any services, facilities, and infrastructure provided by the village to the broader community is broadly supported, however at this stage of the planning process it is not possible to confirm the precise mechanism by which this would occur.

#### Site Investigations and Suitability

The Report includes discussion of a series of locations that may have some potential for a regenerative village based upon the criteria developed by the Consultants. These are shown at a high level below (refined locations shown in Attachment to this Report).

	Precinct	Approx. Area (ha)	Comment
1	Hydes Creek Road, Hydes Creek	280	Close proximity to Bellingen
2	Mahers Road, Boggy Creek	160	Close proximity to Bellingen
3	Darkwood Road, Thora	110	Road access may be an issue
4	South Arm Road, Brierfield	237	Solar orientation mostly south & east facing
5	Gordonville Road, Gordonville	75	Road capacity may be an issue
6	Promised Land Road, Promised Land	340	Road capacity may be an issue, solar access affected by mountains to north.



Source Data: Dept. Customer Services, Dept. Planning, Industry and  
 Disclaimer: Although much care has been taken in the creation of these maps, Bellingen Shire Council accepts no responsibility for any misprints, errors, omissions or inaccuracies.

The key criteria that were used to exclude land as unsuitable included bushfire prone land, flood prone land, regionally significant farmland and coastal land (as per North Coast Regional Plan). This exercise demonstrated once again the significant challenges associated with land use planning in a Shire that is profoundly impacted by land use constraints. For the limited areas of land remaining after exclusions were applied, a further filter was applied that identified individual land holdings or precincts capable of yielding 40ha of land towards a pilot project.

The level of investigation that has been undertaken to date (ie. desktop analysis and drive-by inspection of properties) is appropriate for this stage of the planning process, however is not to be construed as sufficient proof, in itself, of a sites suitability for a regenerative village pilot project. Similarly, the fact that a property is not identified by these investigation should not necessarily be construed as proof that it would not be suitable for such a project. In broad terms, the methodology that has been used to identify potential precincts is considered sound and it is proposed that Council notifies properties included in the Investigation Maps of the existence of the

Report should they wish to make further inquiries of the Report authors.

### **What should Council do with the report?**

The translation of the concept of an eco / regenerative village into the NSW / Regional / Local planning framework involves largely untested waters and the Report has made significant advancements in terms of nominating potential ways in which this could occur. The Report authors consequently recommend that Council makes a series of explicit resolutions regarding the proposed mechanisms that they have developed, and policy decisions / directions that they believe Council should make.

At this stage of the planning process, it is considered that rather than explicitly adopting or endorsing certain elements of the proposed approach, it is instead prudent for Council to instead receive and note the Report as a body of work that has advanced the level of understanding around how such a development might eventuate, recognise the general suitability of the proposed planning pathway, notify the owners of land who were investigated of the existence of the Report and provide access to the findings on Councils website in the interest of raising awareness around this potential form of housing. This option is favoured for the following reasons:

- It is considered that the adoption of definitive policy decisions of the nature recommended should not occur without community consultation.
- The relevant Action in the Housing Strategy provides that *"In the event that a proponent presents Council with a suitably detailed project .... Council will provide support for the alterations to planning controls that would be necessary to facilitate the pilot project"*. At this stage Council has still not been provide with an actual proposal on a designated site and it is therefore premature to endorse any one particular approach.
- The location of a suitable site, negotiation with potentially multiple landowners and securing investment funding to build the development in it's entirety as one project could take many years to organise. Endorsing one particular approach at this point in time may preclude consideration of more suitable options that may evolve within the planning or rating system in the intervening years. Furthermore, given the scale of investment required to build the proposal as a single concern it is not inconceivable that in order to be viable as an investment prospect certain specifications may need to be reflected in the eventual planning framework that not only serve the needs of the investor, but also protect the interests of Council and the community.
- As outlined previously, although the broad planning pathway is considered feasible the precise wording of the draft planning documents has not been reviewed by Council to a level of detail that would occur if they were to be formally placed upon public exhibition. Without knowing a particular site it is also not possible to know whether the wording will deliver the intended outcomes because in one zone it may not be necessary to make special provision for a particular use because it is already permissible, whilst it may be required in another zone.

## **STRATEGIC ALIGNMENT**

## (PP) PLACES FOR PEOPLE

(PP.2) We have a mixture of affordable sustainable housing options for all in our community

(PP.2.1) Manage Local Planning to encourage and support affordable and diverse housing options

(PP.2.1.1) Progress Local Housing Strategy Actions including Infill Infrastructure Investigations, nominated Planning Proposals, Community Land Trust and Eco-village project investigations.

## **RESOURCING STRATEGY IMPLICATIONS**

The main funding for the completion of this investigation by PolisPlan Consultants has been provided by the NSW Government (Sustainability Advantage). Council has provided resourcing support through the commissioning of legal advice on the potential rating options, as well as in kind support consisting of provision of advice from numerous sections in Council regarding issues of potential concern to them, as well as general advice and oversight from the Planning Services team.

Council has not allocated significant resources towards fine grained review of the recommendations and documents presented to Council and needs to be judicious in terms of how the limited strategic planning resources of Council are allocated towards pursuing particular projects. In this regard, it is not intended to allocate any resources towards actively pursuing landowners who may be interested in exploring this concept and it is not intended to contemplate any amendments to planning controls or policies until such time as a proponent has secured a potential site for the Pilot Project. This remains consistent with Action 8.4 of the LHS.

## **ENGAGEMENT**

Community engagement is a key priority for our community and for Council and is embedded in our Community vision as a Connected Sustainable Creative Community.

The Bellingen Shire Council Community Engagement Strategy was adopted by Council at its Ordinary Meeting 30 June 2021. This strategy is designed to outline the approach Bellingen Shire takes towards engaging with our community.

In accordance with the Environment Planning and Assessment Act 1979 Council's Community Participation Plan (CPP) sets out all of council's community participation requirements under land use planning legislation and should be referenced in accordance with the Community Engagement Strategy.

Having regard to the Community Engagement Strategy and or CPP it is considered that the recommended actions proposed by this report do not require an engagement process to be undertaken. This is because whilst the recommendation provided to Council acknowledges the general suitability of the proposed planning pathway identified for the establishment of a regenerative village pilot project, it does not commit it to any particular policy position. In these circumstances, it is considered that the appropriate Community Engagement Strategy is to "Inform" the community of the existence of this body of work by making it available for viewing on the Council website and to inform property owners that their properties were considered as part of this process. Should Council be inclined to make any more emphatic statement of support for

specific policy directions recommended by the Consultants, then it would be recommended that Council undertakes a process of prior engagement with the community and considers the outcomes of that engagement before making any further decision on the matter.

## **CONCLUSION**

The Report and associated documents that have been presented to Council represent a significant advancement in the level of understanding around what an "eco-village" development could or should look like, and how a planning framework could be developed to serve the interests of proponents, occupants, the community and Council. Council committed to exploring innovative and sustainable models for new housing in the Shire as part of the Local Housing Strategy and the partnership model that has underpinned the production of this report is a positive way in which these aspirations can be explored.

The planning pathway that has been developed is considered to be generally viable, however the time for explicit statements of support for policy changes and policy documents is not at this stage of the planning process. Should an actual site be identified for the development of a pilot project then the body of work that has been completed to date will serve as a valuable point of reference as to the breadth of matters that should be considered, and the commitment of further Council resources to advance this project can be better understood and allocated accordingly.