



Economic Development Update

February 2017

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Introduction

Our journey so far...

In the period running up to 2011 Council developed the 2031 Community Strategic Plan. This involved a deep community consultation process, which resulted in a 20-year framework for achieving a set of community-based goals. The document has since been blended into Council's operational plans.

The Plan sets up the overarching set of goals of the community for 2031 – including the goals in the economic development space through to 2031.

The 2031 Plan has big, broad based aspirations; it gives you a sense of what people are after.

To achieve our community goals, we need to develop strategies and manage projects, so we need targets that we can measure. Accordingly it was necessary to deconstruct the 2031 Plan into smaller, measurable components.

From the economic development perspective, sustainable new jobs are the overarching units of measure.

The reason for using sustainable jobs as a measure of success is simple.

The Committee for Economic Development Australia (CEDA) in its major research report for 2015, "Australia's Future Workforce?" states there is a high probability that 40% of Australia's workforce, more than five million people, could be replaced by automation within the next 10 to 20 years.

In the Southern Highlands that's a potential loss of 8,000-10,000 jobs.

If we cannot replace or maintain 8,000-10,000 jobs in the next 15 years, then it is unlikely many of the other community goals in the 2031 Plan will be achieved.

After analyzing the 2031 goals into an economic development framework, we identified 10 sectors within our local economy - Water, Food, Shelter, Energy, Transport, Technology, the Arts, Recreation, Business and Learning.

Each of the community goals for 2031 is clustered within one of those 10 sectors, which means our economic development is closely aligned with the 2031 Plan. Everything is congruent and we've got a feasible framework to work with.

While the unit of measure in terms of success and what we're trying to achieve with each sector is measured in jobs, the importance of maintaining our quality of life in the Southern Highlands is integral to the strategies we are developing for each sector – our quality of life in the Southern Highlands isn't found in many other places around the world.

Environmental sustainability and resilience are also cornerstones of the 2031 Plan, and these aspirations are captured in our economic development framework.

Accordingly the economic development projects identified for each economic sector by community members in the last two years don't include smokestack industries.

The strategies and projects being developed via the community align with who we are and where we are – and play to our strengths.

The overall economic development process is about community empowerment.

Accordingly the role of the economic development unit at Council is to facilitate the sector group strategies and projects.

The rest of this document outlines the Sector Group priorities.

Each section begins with the 2031 Goals and the estimated number of sustainable jobs associated with each Sector, followed by a high level summary of the projects identified for each Sector, and concludes with comments about the various projects within each sector, and where applicable, the linkages between sectors.

NOTE: <.....> some sections in the Community Feedback sections have been edited for the privacy of the author and/or the people named in the comments.



1. Water

2031 Goal:

- *Establish the Southern Highlands as a leading centre of industry, innovation and expertise, which provides tried and tested, cost effective solutions for the sustainable management and use of water.*

Objective: 300 jobs

Projects:

- Promotion of water related issues through websites, newsletters and schools.
- Examining water infrastructure such as bores, dams, aquifers, sewage treatment plants, and water supply security.
- Developing water conservation strategies for efficient showers and toilets, irrigation efficiency, groundwater monitoring, and waste-water recycling.
- Improving water quality through protection of creeks, improving fish habitats and litter control.
- Developing water related recreation at Wingecarribee and Fitzroy Falls Reservoirs and Medway Dam.

Commentary:

Without water, nothing else can happen. One of the goals on the 2031 Plan is about sustainable management of water in the region. Many people think there is more water here than you can shake a stick at.

We started to look into it a bit deeper and realized that with changing climate and potentially 2 degrees extra ongoing during summer, that straight away increases the

amount of water evaporation. By 2031 that equates to perhaps 15% less water going into our water catchment.

Then we started to look at Sydney because we're so linked with Sydney that if Sydney is in drought conditions, we are automatically put into drought conditions. Given that Sydney is going to go from 5 million people to 6 million people by 2031, then there is likely to be 20% more water usage, with 15% less water going into the catchment. How does that affect us?

We spoke with University of Technology in Sydney; they gave us a list of mitigation strategies. Mitigation strategies are things that kick in as a result of reduced water availability.

There are 14 water mitigation strategies; each one of them is potentially an economic development opportunity

One of the easiest strategies for the community to start with is shower efficiency. We believe there is an opportunity to be able to be engaged with the marketing and delivery of showerheads which are going to significantly reduce the amount of water used in showers.

Then, of course, there are toilets and general appliance efficiency. How much water does your washing machine use? What's the best time to use it? Can you reuse the gray water coming out of the washing machine?

Overall, while climate change is the arguably the biggest threat that we face in Australia, it is also the biggest opportunity for new jobs and new industries. Changing and adapting was an overarching theme in the 2031 Plan, along with moving towards a sustainable lifestyle.

We are also looking at water bores. There are over 2200 water bores in the Southern Highlands. But individual bores are not being monitored and the quality of the water coming out of those bores is not known. While we have a significant amount of water available to the shire from bores, given that the planet is drying out, how long can those bores last? By 2031, can we rely on bore water to get through the tough times during droughts?

There are also farm dams - a couple of thousand around the region. The dams are set to lose 15% more via evaporation by 2031 as well. So what mitigation strategies have we got for our farms? Can we reduce the amount of evaporation from large dams and reservoirs? There are a number of things we're looking at like smart water metering that is designed to provide us with a more manageable, sustainable water supply going forward. And at the same time, create economic development opportunities.

From another angle we know that there's an opportunity here for fishing and kayaking. There's also the opportunity to clean up car wrecks and litter from waterways, and ensure that the water going into agriculture and our food supply doesn't compromise our ability to provide high quality food, and so on.

NOTE: Mitigation strategies include:

- Shower Efficiency Products-Services
- Toilet Efficiency Products-Services

- Appliance Efficiency Products-Services
- Landscape / Irrigation Efficiency Products-Services
- Non-residential Efficiency Programs Products-Services
- Surface Water Loss Reduction Products-Services
- Groundwater Monitoring Products-Services
- Rainwater Harvesting Products-Services
- Stormwater Harvesting Products-Services
- Wastewater Recycling Products-Services
- Farm Dams Products-Services
- Large Dam Evaporation Products-Services
- Aquifers Products-Services
- Water Quality Products-Services

Community Feedback on Water

Person 1:

A lot of the water strategy for the shire is 'owned' by assets department, so it is imperative that you have alignment between all Council departments. You're quite right: without adequate water, growth will be difficult, so security of supply is essential.

Person 2:

Thank you for your email and opportunity to provide comments on your Draft Economic Development Framework.

- Sector Group Priorities - Which will hopefully align with Council and community priorities in due course ?
- Economic Development Goals - Effective communication between various sections of Council - operational/ planning/ environment/ infrastructure/ assets etc is essential to ensure consistency of goals and coordination & delivery of projects.

Water:

- Promotion of water related issues - Check activities/ tasks consistent with commentary in draft plan and that nominated program timelines are achievable.
- Sewage treatment plans harvesting - Wastewater and storm water treatment facilities. Suggest consult WSC's Water department re status of WSC's wastewater recycling schemes.
- Integrated water cycle management strategies - Suggest check with WSC's <names> re. status of WSC's IWCM Strategy -which includes storm water strategies as well (?)
- Water supply security - Suggest check with <names> re. WSC's Drought Management Strategy/ Plan
- Combine Tasks 18-20 into one item - Domestic Appliances Efficiency? Toilet efficiency + Appliance efficiency + Landscape irrigation efficiency. Supporting and promoting existing strategies - eg Federal/ State Govt/ WSC planning & development guidelines and requirements; AWA initiatives & plumbing suppliers ? Also refer - <http://yourenergysavings.gov.au/information>

- Creek protection - Catchment & Waterway Management?
- Improving fish habitats - Fish and other waterway ecology & flora/ fauna?
- Rehabilitation of watersheds - Catchment management?
- Using nanobubbles for decontamination - Reservoir management?
- Wingecarribee Reservoir - Not permitted by State Govt regulation - WNSW for more information. Wingecarribee Dam - recreational use prohibited by legislation (WNSW); Wingecarribee River - need to consult DPI Water/ WSC/ WNSW etc + consider access & public safety issues?
- Medway Dam - Include WSC's Bundanoon Dam? Land use practices; vegetation & irrigation practices can also have a significant impact on water sustainability/ availability for surface water storages and replenishment of groundwater reserves.
- Water Projects - Clarification of Group/ Committee's role in the development/ implementation of these projects? For example - liaison/ communication with relevant sections of Council/ relevant Government Agencies/ water & irrigation associations/ community & landholder groups ?
- Consider including an additional Project related to Flood Planning & Mitigation/ Management issues
- Schools - In conjunction with existing Education Department/ School programs - eg National Water Week in October and/ or similar educational material promoting water issues?
- Water infrastructure - Reviewing publicly (?) available data on private & public (?) water infrastructure in consultation with DPI Water/ WaterNSW/ WSC/ private landholders etc - logistics?
- Water supply security - Supporting and promoting existing strategies - eg Federal/ State Govt/ WSC planning & development guidelines and requirements; AWA initiatives & plumbing suppliers? Also refer - <http://yourenergysavings.gov.au/information>.
- Improving water quality - Ecosystems and habitats for fish and other fauna (frogs, crustaceans, birds etc) & flora (suitable vegetation for habitat & filtering/ removal of nutrients etc)?
- Litter control in creeks - Developing options for water related recreation strategies in consultation with relevant agencies - DPI Water/ WNSW/ NSW Health/ WSC etc?
- Protection of creeks - Land use practices; vegetation & irrigation practices can also have a significant impact on water sustainability/ availability for surface water storages and replenishment of groundwater reserves.
- Developing water related recreation - Developing options for water related recreation strategies in consultation with relevant agencies - DPI Water/ WNSW/ NSW Health/ WSC etc?

Commentary:

- Water quantity and quality are both important issues for water management - closely related to catchment management & land use activities
- Climate change & increasing temperatures can also affect rainfall patterns - which may affect rainfall patterns & intensities. Potential increase in evaporation more significant for surface water than groundwater reserves. WNSW & BOM have done some research on this issue.
- Land use practices; vegetation & irrigation practices can also have a significant impact on water sustainability/ availability for surface water storages and

- replenishment of groundwater reserves.
- Refer Metro Water Plan for details of future strategy for Sydney's water supply augmentation - <https://www.metrowater.nsw.gov.au/>
- WSC's Water Management Plan includes reference to drought management policies and protocols etc - refer WSC's <name> for more information.
- Water efficient showerheads and toilets are already widely used within our community - requirement for all new homes & readily available in local plumbing shops for retrofitting/ replacing these devices in existing homes. Local plumbing suppliers may have some views on the option of marketing and delivery of such appliances.
- Appliance efficiency - Ongoing community education on this issue - by ? - would be useful. Refer - <http://yourenergysavings.gov.au/>.
- Grey water generated by household washing machines and showers etc may be suitable for reuse subject to compliance with relevant Health/ Council requirements.
- 2200 bores - Confirm status with DPI Water - majority of licensed bores are required to be monitored + relevant landholders would have some water quality data depending on what they are used for. More information and research on bore/ groundwater sustainability in our local area would be useful.
- Consult WSC's <name> re details of Wingecarribee's drought management strategy - includes, dams/ Shoalhaven Transfer Scheme, groundwater & "water efficiency/ restriction measures".
- Consult landholders re contingency and business continuity plans for drought conditions?
- Recreations – fishing and kayaking - And other passive recreation activities such as sailing etc?
- Clean up waterways - Similar to Clean Up Australia Day activities?

Person 3:

- WSC newsletters – see the Wingecarribee Web newsletter for the Landcare/Bushcare groups – this could include a ‘water matters’ section. <name> is mainly responsible for this newsletter.
- Farm Dams – evaporation (also care and maintenance) – involvement of the Local Land Service in this aspect could be useful – <....> This might need extension to other considerations affecting water quality and food farming, particularly with lifestyle and hobby farms, where awareness of the need to care for water is low.
- Landscape / irrigation efficiency: also consider encouragement of water wise gardening in towns – this crosses over to FOOD
- Fitzroy Falls Reservoir continues to be a great RECREATION space.

Person 4:

While this section poses very pertinent questions, it does not answer/solve them. For example ‘promotion of water related issues’.... *Who* is doing the promotion, *who* is taking responsibility, *who* is paying for the time/print/delivery and *how* is the money being raised for the who to do it? You say there are 14 water mitigation strategies and each is potentially an ‘economic development opportunity’ but they remain in this document unidentified and their leadership unidentified and their funding source unidentified?

My view is this section does not give us meat on the bones. It confirms what we know but does not go further.

Now in relation to the WLEP/DCP and Developer Contribution Plans my thoughts:

- **Every new house** built whether rural or in town even units/apartments **must** have own water tank for rainwater
- For rural properties, rainwater must be used for sheds, stables, workshops etc.
- For industrial and commercial developments or new buildings, same must apply and where human consumption involved, the UV filtration must be incorporated.
- Rainwater for house use requires a UV filter
- Rainwater for garden does not require UV so less costly
- If new apartments being built – the developer **has** to incorporate into design rainwater capture for domestic with UV filtration system as well as rainwater for common/garden areas without UV = would be two separate systems.
- The above could be put into our DCP's in February as policy and could be implemented for new builds by July 1st 2017.

Person 5:

We had not talked about supply loss (i.e. mains pipe breakages, supply failures etc.) - you could read it into water supply security, but I think it needs to own line keep the Security line as the big deal about Wingecarribee Dam. Operational efficiency management? Items like this need to be able to be seen by the public, especially if WSC has an open and communicative type strategy in place.

User Demand management may need a line. I could see it included under the heading "water conservation". I am thinking here about varying usage by property size, and commercial users, and the possibility of excess water charges, tanks on properties over one acre etc. The promotion items could be seen as the carrot items, I am thinking of the stick items here.

If possible can you throw into the words a suggested water objective: By 2031, WSC aims to be a regional leader in water management. Any chance of a mention of resources? i.e. council will need to consider how it can best facilitate the process?

We have surface water loss reduction, and separately Farm and Large Dams evaporation, we also have storm water items. Is Surface Water loss a duplication?

Water quality reporting could be added. We need to get some of this stuff out to the wider public, who does it, where, what reports are there.

<...>

I have not seen the agreement council has with NSW water, but I understand that it is subject to annual review. The agreement stipulates the amount of drinking water available in the coming 12 months. I don't have the number to hand, but it is about 4 to 5 gegalitres p.a.

Can we ask Councils water strategist whether there should be, if not already, a clause in

there along the lines that they will provide this level for a rolling five year term, subject to annual review but which will not be reduced. This is to address the long term drought aspect.

Reason for the question: In the event of a long-term drought, Wingecarribee water is earmarked as an emergency supply for Sydney. We need clarity about how much and when they can take it. In the agreement it mentions that our water restrictions will be no better or worse than Sydney's. That means if we manage our water use well, and are on say level one restrictions, when Sydney is at say level 5 there is no local water management incentive.

Person 6:

Goals seem a little light on considering it's such a precious resource. It offers little guidance in regards to how this document can be referenced when there may be potential threats to water supply or distribution in the region.



2. Food

2031 Goals:

- *Encourage communities and residents to create a self-provisioning economy by growing their own food.*
- *Increase access to fresh local produce for all and build local food security through supporting local food production and consumption.*
- *Optimise our current agribusiness economy by developing closer and mutually beneficial relationships between producers and consumers in the Southern Highlands.*
- *Develop and implement programs to extend our agribusiness economy by pursuing new lines of business which best fit our climate and brand identity.*
- *Attract agricultural industries and research institutes to establish operations within the Shire, both to support local producers and to design products and services for export to other markets.*

Objective: 2,040 jobs

Projects:

- Validate the Sydney Food Security/Food Bowl opportunity identified by the University of Technology Sydney (UTS).
- Develop an overarching Southern Highlands brand/quality mark.
- Expand intensive production strategies e.g. leafy greens and fish via aquaponics and vertical farming.
- “On The Grow” – expand Southern Highlands Regional food hubs, food supply chain and processing, and introduce website sales (open food network). Look at opportunities for permaculture – root crops, trees/nuts, dairy, poultry/eggs, bees.
- Develop the local food hubs in towns/villages, include all weather venues.
- Continue the rollout of the nine Food & Wine Clusters – Joadja, Moss Vale, Robertson, Sutton Forest, Bowral, Berrima, Mittagong, Fitzroy Falls and Canyonleigh.

- Review local food industry training – hospitality courses; food certification and regulations; learning/education of immigrants.

Commentary:

The Southern Highlands has a reputation for fine cuisine and good wines. Talking to University of Technology Sydney about water, we learned that Sydney's food security is becoming compromised. Only 20% of Sydney's food is local. This is going to be reduced to 6% as a result of urbanisation. Less and less land will be available for food. UTS identified the Southern Highlands as the prime candidate to become the food bowl for Sydney.

When it comes to growing food and the soils that we've got, some of the soils are brilliant. For example, the soils out at Robertson are ideal for growing potatoes.

If we're to maintain leafy greens, then we need to look at intensive farming under shelter in order to mitigate the effects of climate change. This requires techniques like intensive vertical farming, smart glasshouses and/or aquaponics for greens and fish.

You start to bring methods like these together with, say permaculture approaches for root crops, and it becomes feasible to look at the Southern Highlands as a major source of food for Sydney. It takes collaboration between all of our communities to maximize the return to the people of the Southern Highlands while providing high quality, non-GMO food to people living in Sydney. Everybody wins.

Besides intensive agriculture, we've developed our food and wine clusters. There are nine in total. It looks like this strategy will help create 200-300 long-term, sustainable jobs in the next 3-5 years. Each cluster plays to the different strengths of each region, and to the different microclimates, delivering a unique experience for people coming into the region for food and wine. Again, this comes down to people working together, collaborating to create a bigger pie, as opposed to trying to slice up an existing pie into smaller pieces. That's one of the powers of working as a community when it comes to economic development.

The "On the Grow" strategy focuses on the local supply of food and came from the Bundanoon community garden. This group includes people who understand scaling up production and supply chain management. As part of that project the Moss Vale Railway Market came into being.

The food cluster in Robertson shows the different way that community is dealing with local food. In their case, rather than a community garden per se, every Saturday morning there's a truck parked down by Rockabella's café - it's a food swap scenario. If you've got too many carrots and somebody has too many tomatoes, you can swap. We've got the potential to do interesting things at a very low cost.

We're avoiding a cookie-cutter approach - one size does not fit all. We intend developing the ability within the villages to create and manage their own local food supplies.

There are many training opportunities and new jobs in food as we align our efforts with what is required to develop a world class fresh food strategy for ourselves and for Sydney.

The idea is that overall that the brand that we develop for the region, right through the local food, food for Sydney, and the wine and food clusters, forms a Southern Highlands brand. The branding of course links with other sectors like recreation and tourism.

Community Feedback on Food

Person 1:

Hi Noel,

Had a read over the weekend and you've done a great job! I really enjoyed reading it and it made me excited to be a part of the region. I thought your introduction set a good context within which the reader is to receive the following reports on each sector. Overall it reads well and the structure of goals, job objectives, projects and commentary is a useful way of organising the breadth of information in each sector. I take it that the 2031 Goals are taken from an existing document so I wasn't too sure if suggestions for additional goals here would be a helpful critique, but suffice to say I did anyways.

The goals use terms like "agribusiness economy" "agricultural industries" and I don't see the word "farming". I understand the language of the document, but there is not much said for small scale farmers and the need for available farm land. What is being done to support small scale farmers in the area? What kind of farming is best suited for our area. Etc. sorry if some of this will fall out of the scope of this document but I'm just gonna let rip with the ideas. :-) The commentary section would possibly be a good place to bring up these issues. If people are so enthused about keeping the "rural" aspect of the region then it's gotta be feasible for people to actually afford to farm here. This is a BIG issue and no one is talking about it. Wouldn't be a bad idea to sneak in the term "food sovereignty". "**Food sovereignty**", a term coined by members of [Via Campesina](#) in 1996,^[1] asserts that the people who produce, distribute, and consume food should control the mechanisms and policies of food production and distribution, rather than the corporations and market institutions they believe have come to dominate the global food system.

Council related Goals:

Wow! I really love these. <...> it is an interesting thing for an organisation to compare how they are perceived to what they are aiming for.

Ok That's my two cents worth. I know some of it falls outside the scope of the document, but just take what is useful. You'll hear me bang on a fair bit about farming and food production as to me there are so many benefits that flow from small scale farming as well as householder farming in terms of community, public health and nutrition. In 2031 I believe we all want to be doing more with less.

Overall, great job, thanks for letting me have a read.

Person 2:

Hi Noel

Please see my comments on the Food Sector aspects of our Economic Development Framework in red in the attached document.

Food 2031 Goals:

- Optimise our current agribusiness economy by developing closer and mutually beneficial relationships between producers and consumers in the Southern Highlands | 2031-EconDev-5.3.1 **Good idea. A good example is the Food and Wine Clusters.**

- Develop and implement programs to extend our agribusiness economy by pursuing **new lines of business** which best fit our climate and brand identity | 2031-EconDev-5.3.2 **Strawberries – previously grown successfully by <name> in the 1960s and again from 1990 – 1995.**

Kiwi fruit seem to grow well in this climate in domestic situations – possible prospect Vertical growing like Bare Greens and <name> before them.

Alpacas for meat may have a future. There is some around already.

- Attract agricultural industries and research institutes to establish operations within the Shire, both to support local producers and to design products and services for export to other markets | 2031-EconDev-5.3.3 **<name> had assistance like this when he was trying to sell the small aquaponics systems to China; and trying to set up aquaponics systems in China to provide vegetables and fish to villages.**

- Encourage communities and residents to create a self-provisioning economy by growing their own food | 2031-EconDev-5.3.4 **Encourage community gardens and allotment rental combined with workshops and support to help people get started. Encourage younger people (non home owners) to grow vegies in the gardens of older people for mutual benefit – such as sharing the crop. Creating a sense of community.**

- Increase access to fresh local produce for all and build local food security through supporting local food production and consumption | 2031-People-2.2.1 **Encourage and support farmers markets, crop swap. Educate the public about the benefits of local and fresh through schools (kitchen gardens, cooking classes). Encourage local businesses to sell local produce and local products.**

- Regional Food - A strong regional food network nourishes regional economies, tourism and health. It preserves fertile land and promotes regional resilience. | RDA Table-SH **Agree totally.**

- Southern NSW Harvest Association. We sponsor Southern Harvest and provide administrative support. | RDA Table-SH **Although I support what Southern NSW Harvest does <...> I feel it is outside our area. While it is great for southern NSW from say Goulburn down, I think our needs are different as we are more linked to Sydney.**

Projects:

- Validate the Sydney Food Security/Food Bowl opportunity identified by the University of Technology Sydney (UTS). **Sorry, I haven't had a chance to read this.**

- Develop an overarching Southern Highlands brand/quality mark. **Brilliant idea and very important. Things have always got a bit murky when we try to identify when a product is "local". I have wrestled with this in different roles over the year. I currently think that "Grown in the Southern Highlands", "Grown and Made in the Southern Highlands" and "Made in the Southern Highlands" could cover it. What do you think?**

You would have to have an explanation of the terms somewhere as a back up....
For example "Made in the SH" would mean that the main ingredient eg in raspberry jam was not grown in the SH, but the jam is made in the SH.
You cannot have a requirement that every ingredient is grown in the SH eg sugar in jam. Just the principle ingredient...

I saw a new product recently at Robertson. It was called <name>. The label read "handcrafted using local and imported ingredients including Australian lemons, organic coconut sugar and organic apple cider vinegar". I was told it was made by <name>! If it is made in Robertson then it could be labelled "Made in the SH".

- Expand intensive production strategies e.g. leafy greens and fish via aquaponics and vertical farming. I agree that expanding intensive production is a good idea especially as the cost of land is so high. As well as vertical farming like <name> other suggestions could be more vineyards, nut groves, orchards eg apples and maybe citrus, vegetable cropping (<name> has suggested a list of things that could grow in the Highlands), tunnel growing of tomatoes and other vegies to reduce the effects of cold weather. Olives grow well here but competition from imported oil and other factors seem to affect the viability. Lavender is another option and strawberries. Both of these have grown successfully before.

- "On The Grow" – expand Southern Highlands Regional food hubs, food supply chain and processing, and introduce website sales (open food network). Look at opportunities for permaculture – root crops, trees/nuts, dairy, poultry/eggs, bees. I have observed on line sales to struggle before when <name> tried to introduce a digital trading platform. I am not familiar enough with the Open Food Network to have an opinion on whether it would work better.

- Develop the local food hubs in towns/villages, include all weather venues.
Agree with this in principle but will be dependent on the communities – how prepared they are to get involved and to support such initiatives. All-weather venues are always a good idea in the Highlands.

- Continue the rollout of the nine Food & Wine Clusters – Joadja, Moss Vale, Robertson, Sutton Forest, Bowral, Berrima, Mittagong, Fitzroy Falls and Canyonleigh.
<...>. The clusters are good for local producers and food businesses as well as for tourists and visitors to the area. It is a "ground up" project and members need to be proactive and collaborative to get the most out their membership. The 6 monthly reviews are important to make sure they remain up to date.

- Review local food industry training – hospitality courses; food certification and regulations; learning/education of immigrants. Would be good to get Hospitality training back in the Southern Highlands eg at Moss Vale TAFE. The Scores on Doors is a great initiative and gives the public confidence in the standard of the cafes etc.

When it comes to growing food and the soils that we've got, some of the soils are brilliant. For example, the soils out at Robertson are ideal for growing potatoes. If we're to maintain leafy greens, then we actually start to need to look at intensive farming under shelter. This requires intensive vertical farming and aquaponics for greens and fish. Growing in poly tunnels provides another option for a controlled environment for leafy greens and other vegetables, like <name> is doing at High Range. I suggest having a look at his new and emerging set up. There is a lot of vegetable growing in poly tunnels in the

Wollondilly, especially tomatoes. Suggest having a chat to <name> who deals with a lot of farmers near Picton. Would be interesting to see what they do.

Besides intensive agriculture, we've developed our food and wine clusters. Encourages a proactive attitude too which is a good thing and can create opportunities that people have not thought of before.

<...>

The food cluster in Robertson shows the different way that community is dealing with local food. In their case, rather than a community garden per se, every Saturday morning there's a truck parked down by Rockabella's café - it's basically a food swap scenario. If you've got too many carrots and somebody has too many tomatoes, you can swap. We've got the potential to do interesting things at a very low cost. Another idea I have heard of recently is a suburb where if people have surplus in their vegie garden they leave it outside their front door in a box and people can help themselves.

We're avoiding a cookie-cutter approach - one size does not fit all. We intend developing the ability within the villages to create and manage their own local food supplies. Yes every village might be different. It takes having some natural leaders in the community to drive these initiatives.

Person 3:

Thanks for including me in the review process.

In brief the two standout areas for me:

- In the report there is a reference to "Permaculture", whilst this is a great system for sustainable farming there are a few more methods of sustainable farming that come to mind. These being "Biodynamics", "Certified Organic Farming", "Chemical Free Farming" and "Carbon Farming". I think it could confuse the reader by just calling in "Permaculture" as it could be confusing to your message and restrictive to "Productive Sustainable Agriculture". Some way of including all these methods would cast a wider net and be more inclusive of all genera.
- There is also mention of Vertical Farming which is a great concept but again, there are other opportunities to grow more with less by including the methods above. I recently attended a demonstration day put on by the Sydney LLS at Richmond. I will send you the link that gives growth and yield results of including recycled organics in their trials – the results are impressive.

In this shire, one on the biggest restrictions on intensive farming methods is that we are located in The Sydney Drinking Water Catchment. This presents a large economic commitment as anything that requires intensive practices could trigger Designated Development and in some zonings according to the LEP intensive farming is prohibited. In my recent experience with regional councils getting tipped into Designated Development means a much more expensive Environmental Impact Study in comparison with a Statement of Environmental Effects. The cost difference between the two can be upwards

of \$100,000 for each development and can be difficult to pay back by business activity in a reasonable period of time. Having said this we need to have a serious look at differentiating sustainable intensive farming from the system that uses synthetic fertilisers, herbicides and pesticides.

<...>

Let me know if you need any further expansion on the above I'd be happy to meet up for a chat.

Person 4:

This sector brings valid points to the table but currently the **WLEP is almost 100% in opposition to your needs, goals and aspirations.**

This sector is CRITICAL to future of shire and preservation of it's rural character and preservation of the shire as a 'lifestyle with work opportunities' region. If you don't get the WLEP changed to work with your goals, I can tell you we will be like Campbelltown within 20 years.

<...>



3. Shelter

2031 Goals:

- *Regulate and encourage the Community to maximise sustainable living through best building practice.*
- *Strengthen the connectivity, livability and vibrancy of towns and villages. Urban design in Wingecarribee creates inspiring places where people want to be.*
- *Provide for housing types that match projected demographic and household needs in appropriate locations.*
- *Existing buildings - Retain the rural landscape between towns and villages. Retain and make more distinctive the special qualities that make each town or village unique.*
- *Heritage buildings - Ensure that the unique heritage qualities of towns, villages and special areas are protected. Identify and promote buildings, places, trees, gardens, landscapes and other areas of significant cultural heritage value.*
- *Shelter for the elderly - Promote 'universal design' in housing to enable people of all ages and abilities to live independently.*

Objective: 250 jobs

Projects:

- Expand Affordable Housing options in the local area to include shared ownership, housing for the elderly and first home buyers, as well as developing mixed commercial/residential opportunities.
- Build Sustainable-Resilient Housing with low cost, prefab off-grid housing; energy positive villages, and develop a Livability Index. Retrofit existing homes for energy efficiency.

Commentary

Fortunately there are local people who are considering prefabricated, sustainable, affordable housing - one of the key goals from the 2031 Plan.

From the sustainable, resilient housing perspective, when we start taking account of energy and water and the infrastructure required to deal with a rapidly changing population, we're really starting to question our logic. A lot of houses that are still being built are popularly called "McMansions" – they no longer make sense. The average number of people per household is going down, but the size of our homes is going up.

How do we deal with that? We know we've got the technology to be able to locate a prefabricated house into any location and look after everything ... grey water, black water, solar power, and make the houses energy positive, which is a major issue, and delivery of energy positive houses into suburbs where communities are self-managed and sharing electricity that's being generated via solar and only using the grid for backup.

All future houses could conform to best practice in terms of resilience, energy efficiency and sustainability. We believe there is a real opportunity here. The issue seems to be demand via the developers and people who have the access to the land. We're working on ways to be able to turn up to a developer and say, "Hey, we've got a hundred people who want to have a sustainable suburb here. They know the difference between McMansions and sustainable houses. We want you to build the suburb their way."

Of course, retrofitting existing houses is another take on sustainability.

On the affordable housing side, we know that there are a lot of people who cannot afford the rent that the market wants. Affordable housing is a solution, housing which is sustainable, off grid, and creating more energy than it uses.

From a sustainability perspective, how can we encourage affordable housing for students, single person dwellings, and the elderly? How do we have the housing stock mirror the life cycle of a human being? Housing is becoming more and more important as we move forward, so there's a real opportunity to match our housing with the growing need for sustainable shelter of all kinds. And with the average Australian commuting more than 7 ½ hours a week between home and work, there's a huge need for change.

Community Feedback on Shelter

Person 1:

Must include Argyle Housing in this Sector – particularly in retrofitting existing homes for energy efficiency.

Person 2:

<.....>

Regarding the Shelter stuff...

The biggest problem I see is the one I've written about in the "Sustainable Subdivisions" document which I have reattached for your reading pleasure.

These "Greenfield" developments like Retford Park are being passed by council with covenants and "design guidelines" that not only ignore sustainability completely but

include ridiculous criteria that actually make it impossible to build an energy positive house. The layout of streets gives no thought to solar access or walking/biking options or mixed use development that would reduce the amount of driving that people need to do. I could go on and on. There is a BIG problem here. I have been told <.....> that our local council cannot set development or energy efficiency standards that are more stringent than the state mandates. If this is true we're probably <.....> because the state standards are total <.....>. The state government seems to be completely in the hands of the major developers and the regulations designed to generate the greatest possible profit (and the worst possible environmental outcome). Just look at BASIX for proof of this.

I'm not sure if there is anything that can be done in terms of your economic development framework. I would like to think that council could impose stricter reviews on potential subdivisions along the lines of the attached document but it's hard to see how this would create new jobs or stimulate economic development.

There's plenty of potential for new jobs in fixing up old houses to a higher energy efficiency standard but there seems to be little motivation from building owners to do this. Higher energy prices are probably the only thing that will change that. I'm not sure what could be done in an economic development framework to assist or encourage more activity in this space.

Person 3:

<...>

If a developer like Stocklands can do it, we can. In my view this sector needs considerable beefing up. See:

- <https://www.gbca.org.au/news/gbca-media-releases/stockland-strengthens-sustainability-focus-with-portfolio-commitment-to-green-star/>
- <http://new.gbca.org.au/>
- <http://www.builditbackgreen.org/bushfires/interactive-green-building-guide/building-materials.aspx>
- <http://www.ecospecifier.com.au/>
- <http://greenbuildingcentre.net.au/>
- <http://www.jameshardie.com.au/sustainability/>
- <http://www.yourhome.gov.au/materials>
- <https://www.greenbuilding.org.au/>
- <https://www.austrade.gov.au/greenbuildings/>

So this sector needs to be driven by the community saying very firmly 'this is what we want' in our new builds:

Every new build (residential, industrial, commercial – irrespective of town or rural location) could have / should have – via the DA/BA/DCP's regulations built in mandated inclusions such as :

- Minimum double glazing as standard compliance
- Tesla Powerwall 2 Home Battery – for when grid power fails – standard compliance

- Solar power (in conjunction with grid so people are using solar first, selling to grid and then grid supplies as top up etc plus the Powerwall 2 is a huge plus for this area where blackouts are frequent)
- Grey water / rainwater for gardens
- Rainwater with UV filtration for human use
- Restrict timber usage to 'green accredited/recycled/sustainable forests etc' plus the fire-ratings etc
- Trades must do training for 'green certificates' so they are accredited 'green tradesmen'

Now looking at the bullet points you have under FUTURE BUILDINGS:

- Sustainable living: covered by all the above I believe
- Mobile essential services: this is great / we need to engage with one of the leading car brands who are leading R&D of driverless transportation to be a 'trial site' <...>
- Connectivity: – the WLEP can play a part here as can urban design. <...> It should be a priority of Council to vote funds to a full-time highly innovative urban designer/planner <...>
- Respect character: – <...> saying the character has to be maintained is locking us into largely Depression era architecture in Mittagong and Moss Vale while Bowral has gone all over the place and the villages are more or less ok. Berrima main street needs strict controls but it should not be strangling housing outside a certain zone. <...> in a shire such as this it would be – from a community viewpoint – a very innovative step to convene a body of professionals on a monthly stipend for their services to review DA's 'of certain types'. These 'types' need defining such as:
 - In main streets of village or town
 - Any public place (eg park, sports field etc)
 - Along main recognised tourist routes
 - In heritage conservation zones
 - Involving a heritage listed or unlisted but significant property
 - The group of professionals should include: urban design and planning qualifications, architecture, heritage architecture (which is separate to just architecture), landscape architecture and design, master building, master building with heritage restoration credentials, greenstar building.
- Towns and villages as distinctive destinations: <.....> I agree with the goal but again the WLEP needs tweaking too.
- Responsible compact development: <...> WLEP needs adjusting or face continued heated debate and unhappy community. <...>I believe the 'convened body' of specialists could be engaged for a period to review the three main towns where this is happening <...> and have them look at the DCP's and come up with solutions. <...> Main Streets of towns like Moss Vale and Mittagong will resent their character being altered from 'rural towns' to five stories etc. Bowral is really the only town where this can conceivably happen and should happen in my view. Mittagong needs a set of 'design and build' guides, as does Moss Vale, which would be different from Mittagong, and so do all the villages main streets.
- Also what is critical in this section is 'usable community space' – <...>
- Also – VERY IMPORTANT POINT – you mention the 'current urban growth boundary' of each town. These are not really settled in the minds of either council or the community. They need to be because developments like Coomungie-Chelsea

Park, Sutherland Park, Retford Park, Farnborough, Throsby Views etc will all be hotly debated and contentious. This needs to be resolved and finalised for the next 25 year period. Again this 'convened body' should be engaged on this task.

- Diverse housing options: well yes, but again the infill policy and the 'character' come into play and usually they rub up against each other rather badly. We do need diversity, we need more apartments (especially in Mittagong), and we need innovative 'retirement' models that take one from active dynamic retirees to palliative.
- Project demographic housing types: answered in points above.
- Higher density Mitt/Bow/MV/Bund: answered in points above.
- Development with viability of public transport: <...> I think developer contributions could be improved in policy rewrite and regulations. <...>
- Walking infrastructure: <...> Many oldies walk on the roads in danger of cars – why – because there's no footpath only grass and trees and tree roots because others in the area say they don't want footpaths. <...>

- **COMMUNITY TITLE**: <.....> that we should 'mandate' that all new developments be done under 'community title' (there are several types). Why – because of the considerable budgetary advantages to council by taking off council books the cost of build/maintenance of roads, footpaths, open space/public spaces etc. <.....> I think it should actually become policy. It's a big bold step but Community Title projects in Sydney such as prestigious Raleigh Park and Breakfast Point have been incredibly successful. The outcomes/benefits are many:
 - The residents have control over everything (after built and move in) – how it looks, how it's maintained, any changes, etc.
 - The residents have responsibility, not reliant on council to 'maybe' come and fix
 - The maintained appearances usually far superior because residents pride factor in play
 - Values are held if not increased on each property
 - Council is relieved of cost, manpower, management, implementation etc etc

Now looking at the bullet points you have under EXISTING BUILDINGS:

- Council facilitates and supports existing public and private buildings access etc: <...> needs total overhaul and once again the WLEP comes into play. <...>
- The long and the short of it:
 - Council has no money to upgrade and maintain
 - Council has no interest
 - Council has no manpower
 - <...>
 - <...> no political will to remedy the situation as it needs to be remedied which is economic rationalisation (a dirty word to you maybe but a necessary one)
 - The volunteers <...> are literally a generational breed that have maybe 5 years of life <...> left in them for active service
 - Council has allowed certain 'groups' <...> to think they have 'embedded historical pre-existing usage rights' over the buildings they occupy <...>

- <...>
- <...>
- <...>
- Maintained distinct character of towns/villages: <...> the “no to everything” is really what’s preserved what there is. There is so much that could be done and needs to be done to really allow the villages to thrive and prosper with a unique character to each but if left to council to shape, drive and manage not much will eventuate. <...>
- Retain the green between: <...> while there’s a great deal to be said in praise of this and the green between needs to be maintained – I’m all for it – it needs to take into account future sustainability of the shire: housing needs, tourism, jobs, transportation. At the moment it’s a blinkered approach without real strategy. <...> <...> I believe the ‘convened body’ is needed here to really look innovatively at how we can preserve what we want to and supply what we need. <...> if we stifle acreage from being viable tourism destination businesses (weddings, restaurants or farmers markets etc.) we quarantine the land, it becomes unused and unsustainable and will eventually get rezoned for housing and the sprawl once started is virtually impossible to stop. <...>
- Recognised significant heritage: <...> I am thinking here a whole new approach is needed and I wonder if the Business Chambers could come into play <...>
- Ensure the unique heritage qualities etc: as above
- Recognise the shire’s cultural heritage etc: as above. <...>

Now looking at the bullet points you have under SHELTER FOR ELDERLY:

- Agree with both bullet points but again the WLEP, the DCP, council’s unused and unsustainable pockets of land and the ‘convened body’ and other practitioners in the real eg Harbison and medical people should all be harnessed to deliver this real need.
- <...>
- If Shelter for the Elderly was really on the books for the shire you’d be looking at a lot more than 250 jobs.

Projects for SHELTER:

- Affordable Housing – yes agree but the WLEP does not provide for it.
- Sustainable Housing – yes agree but as mentioned, the WLEP and the DCP’s do not provide or mandate or regulate for it.
- Take out references to “how do we encourage” and for goodness sake, make it council policy, <...>

Person 4:

Some really great goals here. Also probably one of the most fraught areas in terms of matching goals to reality and regulations.



4. Energy

2031 Goals:

- *Exploit fast emerging business opportunities in the field of alternative and decentralised energy generation. Wingecarribee community to have a carbon neutral economy.*
- *Promote the type of development that would reduce the use of fossil fuel. Promote local sources of renewable energy.*

Objective: 300 jobs

Projects:

- Develop community-owned multi megawatt systems (1MW+).
- Develop 100kW business systems.
- Promote home-based renewables (~10kW systems).
- Explore battery storage technologies.
- Grid related issues.
- Smart micro-grid technologies.
- Partnering with Council.

Commentary

The Highlands is more suited to solar power than wind power. The original energy sector group has formed a company to address solar power issues. They're looking at energy opportunities in conjunction with the community so that the community makes the investment and the group manages it on their behalf.

Overall we're tending towards is a three pronged attack on the opportunities that are available. At the top end, we've got a group that's working specifically on multi-megawatt systems, that's 1 megawatt and higher.

The second level is focused on 100-kilowatt systems for small-medium businesses, depending on what they're doing. Again this can be done via community partnerships.

A big opportunity is battery related technology. Once you get that, you can start using the solar to store energy so that while you still install and connect to the grid, the amount of energy that you need to sell to the grid is reduced.

We've still got to deal with the grid but there are things called micro-grids, which are small, localized grids with smart metering in them. These tend to be used where you've got a village and there are around 20 of them in the Shire. It's quite possible for each village to move across to a solar or renewable environment and have large batteries as a part of their solution.

A small micro-grid manages the power consumption so that the person who uses the most gets charged the most. Some people, for example, work from home and may use a lot of electricity during the day. Other people work outside of the village during the day, when they come home they use their energy. You've got the ability to charge different rates for different times. You've got the ability to shift the cost structure, even it out. Basically it comes down to the people in that village and how they want to do it.

Community Feedback on Energy

Person 1:

Dear Noel,

The energy part of the paper is good, it show the necessary information in an uncomplicated form.

Thanks

Person 2:

I recently obtained a copy of Council's "End of Term Report, 2012-2016". To my consternation, I discovered that Council has been misconstruing the community goal of "A carbon Neutral Wingecarribee by 2031" to mean " A carbon neutral Wingecarribee Council by 2031", which is definitely not what those Canwin members who participated in the discussions 10 years ago had in mind.

So much so; that Council's "End of Term Report, 2012-2016" proudly states as its response to that goal was that council has installed more than 100kW of solar electrical systems to its buildings, when the community would expect a response on the MW scale as CREW (Community Renewable Energy Wingecarribee) is striving to achieve.

The best way to achieve an appropriate MW renewable energy goal would be for Council and CREW to co-operate closely to that end, and that is what we would advocate to the Mayor.

Person 3:

Hi Noel

Your update and summary of the energy sector aspects is accurate and up to date.

Due mainly to the abysmally slow progress on a MW solar farm that we are encountering with both <name> and <name>, we have determined today that we will seek expressions of interest from private land holders in the shire and surrounding areas so that we can get a project underway.

We are also preparing a status report for <name> <...>

Person 4:

Hi Noel,

Here are some notes which may be of interest. And as indicated I would be interested in continuing in the group next year.

Here are a few comments that might be relevant for future development issues:

1. There is now a concerted effort by the group to obtain a suitable site independently rather than trying to go into a partnership with WSC, or <...>. This kind of approach is more in keeping with what has proved successful in Mulwarree Shire using a site that has been provided by a member of the community, and will be developed as a community project according to the specifications developed by various interested parties and specialist individuals. <...>
2. It has been helpful to have some connections with council to provide various plans and documents to follow up with previous approaches made by members of the group. <.....> There does appear to be a certain lack of transparency within the WSC about their involvement with another group. <...>
3. I wonder whether organising a meeting with another group interested in similar issues such as the Shelter Group to progress the smaller 100kW projects might encourage a more fertile approach.
4. It has also been suggested <...> that we engage with other councils such as Wollondilly to promote the development of Renewable Energy in a broader context.

Other entities:

I was interested to see that RDASI and SERREE had been involved with the development of the whole 2031 project. <.....> Maybe with development of the Moss Vale Enterprise Zone there will be an office made available similar to the one recently opened in Goulburn. If they are unable to provide the staff then maybe we could provide part-time volunteer staff to take part in development of the community issues which would help with circulation of ideas and maybe a list of job seeking individuals that we could correlate with other Job seeking sites. This would be similar to the Volunteer Offices site in the precinct developing around the MVCG, Farmers Market and Meals on Wheels.

After my meeting with <name> it became more apparent that the combination of several groups would be more like an incubator than everyone just sitting at home on the internet and Facebook, although they do play an important part collecting information and facilitating wider contacts.

<...>

It will be interesting to see what comes of the EOI for the group members to meet with Councillors.

I would certainly like to continue as a member of the group into 2017. Hoping these few ideas will be of interest. Thank you again for your request.

(Shareholder CREWingercaribbee)

Person 5:

- By the way wind power <...> is useless <...>

Person 6:

Great stuff. If you facilitate it the right way it could bring a lot of community building and sustainable energy education into the towns.

Person 7:

- Grid related issues - Include review of system reliability and provision for improving security of supply and ease of restoration following unplanned system outages.
- Solar - Revise LEP to allow for Solar Farms in Rural areas.



5. Transport

2031 Goals:

- *Prioritise improved, environmentally sensitive public and private transport both within and between villages and towns.*
- *Provide convenient, affordable, and high-speed public transport to major urban centres outside Wingecarribee Shire.*
- *Provide safe and efficient road, cycle, and where appropriate, walking paths between/within towns and villages, and convenient parking areas for cars and bicycles. Ideally, all road reserves to provide for safe walking and cycling.*
- *Maximise the efficiency of freight transport through and within the area to encourage activities which will use rail, provide local employment, and minimise impact on the Shire's roads and residents.*

Objective: 160 jobs

Projects:

- Upgrade road infrastructure – Kangaroo Valley route, Macquarie Pass route, Hume Highway entry and exit points; investigate Mittagong – Bowral – Moss Vale express route and bypasses.
- Promote electric vehicles and provide fast electric car chargers; ebikes; and solar powered Tuk-Tuks.
- Improve rail services Sydney to SH; promote park and ride clubs network; explore rail electrification, High Speed Rail, and Tesla Hyperloop Pilot.
- Improve air services – SH to Canberra, heliport service to Sydney.
- Improve frequency of local bus services.

Commentary

People in the Shire have issues getting from Mittagong to Bowral to Moss Vale - traffic is slow and there are lots of heavy trucks. There are road projects that are set up to reduce

that level of traffic. Bypasses for example, with Moss Vale, which would hook up the Illawarra Highway with Moss Vale and the Moss Vale Enterprise Zone. We have the ability to then link up directly to the Hume Highway. If we do that then the big trucks bypass Moss Vale.

As far as the Hume Highway is concerned, there is the possibility to make it easier for people to come out of one exit and go into another so that we take away the need for that kind of bypass infrastructure, simply by having more exits connected to the Hume Highway. If we did that then people wouldn't have to go another 10km inside the Shire. We would put the traffic straight onto the Hume Highway.

Electric vehicles are already here. At the Mittagong Welcome Centre we have a recharge station. There's every reason to believe that a combination of electric vehicles and rail would work nicely in this area. It may change how we look at transport. We've got two car families but most journeys are made within 50km of the home. If your second "family car" was a low cost electric vehicle that kept you out of the weather in winter, then you change road use.

On top of that we've got electric bikes. The combinations of these electric transport options are significant. From a commercial perspective, getting involved in either the design, development or the distribution of electric bikes is an opportunity that we could take advantage of.

Rail is another big one for this region. A group called "80 by 20" here in the Highlands have been doing great work monitoring the reliability of the Sydney train system and making recommendations for improvement.

Park and ride clubs are a useful option too. That's where people car pool to work or recreation. It does happen to a certain extent, but it's a small number of people relative to the population that commutes in and out of the area. Perhaps a "Park and Ride" web site is in order?

The big projects that have been talked about for years are High Speed Rail (HSR) and the electrification of rail. The decision is really a State/Federal issue. The proposed plan is high-speed rail linking Brisbane to Sydney, Sydney to Canberra, Canberra to Melbourne. The estimated finish date if we started today would be 2065. The cost would be \$114b. The journey from Brisbane to Sydney would be around three hours; the journey from Sydney to Melbourne also around three hours.

There's new technology out from the people involved with Tesla called Hyperloop. Hyperloop can shift things at 1,000 kilometers per hour, which is three times the speed of HSR at less than one third of the cost. It can be put into place by 2035. So, three times the speed at one third the cost, but people are hesitant because it's all too new. We are waiting to see the results of the Hyperloop work in the United States and see if there is some linkage with Australia because it would transform Australia, especially the Sydney-Melbourne corridor.

Air transport is important. There's talk of heliports so people who are working in the city can get to work in less than an hour instead of two hours. It's probably an expensive option so not everybody would want to use it, however there is interest. We've got an international airport at Canberra, so we could use small aircraft for commuters to get to Canberra.

Inside the Shire, the opportunity to fine-tune the bus frequency and routes seems popular, as does the idea of developing a phone application to let you know when the next bus will arrive.

Community Feedback on Transport

Person 1:

Must consider the need for transport to move people from the south of the Shire into the major towns and better services towards Goulburn. An all-stations loop from Moss Vale south through the villages to Goulburn and then to Yass would change the emphasis of having Sydney as the only destination. Likewise the suggested electrification of the rail to Canberra.

Person 2:

- I think you have this very well covered.
- I think the business chambers need to lobby govt on the VFT/HyperLoop <...>

Person 3:

Yes

Person 4:

2031 Goals:

· *Wingecarribee is linked by an integrated and efficient transport network -*

To me this should be #1 goal. Goals 2.3.3, 3.1.2, 3.1.3, 3.1.4 from the 2031 document are all CSFs to achieving this. We need to think 20+ years into future if possible. Perhaps to an autonomous vehicle / electrified rail / cycling focussed future for the Wingecarribee.

· *Provide convenient, affordable, reliable and high speed public transport to major urban centres outside Wingecarribee Shire*

Definitely the #2 goal for me. Focus should be on exceptional connection between Sydney and Canberra that is fast and includes the 3 SH villages. There is huge potential for Council to work with NSWTrainLink to timetable commuter services that get Canberra people to Sydney early, and service SH rail commuters via the same service.

· *Provide safe and efficient road, cycle and where appropriate, walking paths between/within towns and villages, and convenient parking areas for cars and bicycles. Ideally, all road reserves to provide for safe walking and cycling*

In my view cycle feeds clean feeds tourism feeds ED. There is a great lifestyle/tourism-based business case for a flagship continuous cycle path between the major towns, and possibly from Bundanoon to Mittagong.

· *Maximise the efficiency of freight transport through and within the area to encourage activities which will use rail, provide local employment and minimise impact on the Shire's roads and residents*

Enterprise Zone could have / be promoted as a regional container terminal if planning was done to locate near freeway, and utilise existing rail infrastructure (e.g. to Bowral). Freight movement currently has a role in preventing efficient passenger connections to Sydney, Goulburn and Canberra.

- High Speed Rail | Federal Govt Fantasy in the truest sense – more than 30+ years away. Average speeds over journeys to/from Southern Highlands (per 80by20 focus) and addressing rolling stock deficiency is key - feeds to electrification project.

- Electric Powered Vehicles

Electric Cars - Work With Main Brands - Tesla, Nissan, Toyota, etc

Person 5:

There are road projects that are set up to reduce that level of traffic. Bypasses for example, with Moss Vale, which would hook up the Illawarra Highway with Moss Vale and the Moss Vale Enterprise Zone.

I am not clear on the proposed route for the bypass. Without detail hard to see how trucks from Wollongong effectively by-pass Moss Vale town – where is the land?

We have the ability to then link up directly to the Hume Highway. If we do that then the big trucks bypass Moss Vale. From a commercial perspective, getting involved in either the design, development or the distribution of electric bikes is an opportunity that we could take advantage of.

Great idea! Bike paths linking 3 major towns required first though.

A group called “80 by 20” here in the Highlands have been doing great work monitoring the reliability of the Sydney train system and making recommendations for improvement. Latest response from Minister (which we will publish) is: No express services as there are no slots in Sydney network No through to Central services as electric trains take 4x the people No plans to electrify line No plans to replace rolling stock – will refurb over next 3 years.

Park and ride clubs are a useful option too.

Park & Ride is flawed. Picton can't handle it (and train is already full), Macarthur and Campbelltown both at capacity by 7am. Holsworthy close to full even after new 4-level car park. Even with park and ride journey is still 2 hrs plus. Need to get rail speeds up to get journey time down.

<...>

There's new technology out from the people involved with Tesla and it's called the Hyperloop.

This is closer than we think, and Australia is testing ground #2 after USA. Might be worth WSC proposing a test site? Otherwise a state/federal issue for a full Sydney-Melbourne connect. <...>

There's talk of heliports so people who are working in the city can get to work in less than an hour instead of two hours. It's probably an expensive option so not everybody would want to use it, however there is interest. We've got an international airport at Canberra, so we could use small aircraft for commuters to get to Canberra.

As above, business opportunity rather than something that should be a focus for Council IMO.

Inside the Shire, the opportunity to fine•tune the bus frequency and routes seems popular, as does the idea of developing a phone application to let you know when the next bus will arrive.

Great focus points for Council.

Person 6:

I've been approached by an electric vehicle enthusiast from Sydney for help establishing a fast charging station somewhere in the Highlands. Mittagong RSL is potentially interested. This guy owns a Leaf and can't get to the fast charger in Goulburn on a single charge from Sydney. So he has to stop at the Mittagong Welcome Centre and charge for three hours. Apparently there are many EV owners from Sydney who are very frustrated by this. I can put you in touch with him if you want.

I still like the idea of having a little solar-roofed "garage" at each of the main railway stations (Mittagong, Bowral, Moss Vale and possibly Bundanoon) with an electric share car inside. This would allow people to come here by train, step off the station and into an electric vehicle to tour the district in. This would also provide logical locations for fast charging stations with excellent access to the town centres for something to do while the car charges.



6. Technology

2031 Goals:

- *Build appropriate Information and Communications Technology (ICT) as an important industry in its own right and as an enabler for economic development generally.*
- *Invest in communication technology for direct interaction with the community.*

Objective: 400 jobs

Projects:

- Community-Owned High Speed Internet (1-Gbit+) to be established in Moss Vale Enterprise Zone, plus Moss Vale, Bowral and Mittagong.
- Establish community-focused technology support via local training and directory, coding in schools project, and U3A/retirees content development for web pages.

Commentary:

As most people are aware, we've got the NBN being rolled out here and we have some very talented technology people in the region.

Unfortunately when it comes to the NBN we're really in catch-up mode. All estimates are that the network could be compromised within the next five years so that the speeds go back to where they were - despite the fact that everything's meant to be bigger and better. There are other issues as well which mean we are less able to compete nationally and internationally.

So we've got a strategic problem and the solution is unlikely to come from the government. It's got to come from our local people. People have got to decide whether we are in the game or out of the game. People say they want it, but do they really want it? If

they want high-speed Internet services, there's a project we are looking at that could be community owned. There are about 50 places in the world with the technology we have in mind. It's at least ten times faster than NBN fibre, and a hundred times faster - if we want it.

It would mean is 1 Gigabit plus connections. We've got several options. One is to put a fibre network around the Moss Vale Enterprise Zone with limited wireless into the CBD. That would attract people who are information dependent in their business – they may be dealing with modeling or 3D printing or research or high-end media. It gives them an edge, it means that they can do their business here as opposed to Sydney.

The second option we've got is to progressively, using external contractors, develop networks for the major towns and then the villages. The cost of doing that and the time and the opportunity cost that it takes could be significant because there are going to be baby steps all the way, but the first place that gets it is going to be able to say "Hey, this town or region is on the leading edge, and if you have anything to do with technology, here's a good reason to visit and at least look at the place with the thought of moving some of your operation here, especially the information-intensive parts of your business."

A third option is to say "We're going to do it ourselves and we're going to take a big step here. We're going to start drilling the holes, laying the cables, doing all of that ourselves. We're going to hook into an existing network." We've got high-speed networks coming through this region, so it's potentially a major advantage. It's probably in the order of \$6m-\$7m to set up, whereas putting something around the Moss Vale Enterprise Zone is probably \$250,000. Connecting a town like Moss Vale with a serious network, maybe wireless in there as well, is probably \$1m.

Unless we take this step, we, along with the rest of Australia, are going to be slipping further and further behind the rest of the world when it comes to Internet speeds. And it doesn't matter how hard you want to beat that donkey to make it go faster, it's never going to be a thoroughbred. Our innovators are going to go overseas because that's where they can expand. Meanwhile we're going to lose out on a lot of intellectual property in an Information Age. But if we look after ourselves, we've got unlimited potential.

There are a number of ways to introduce technology into the community. Some of them are very similar in a lot of ways to what we've been doing with the economic development process so far, as we have been developing the framework. There are some particular projects which spring to mind, like business directories, getting the kids involved in schools, working with the University of the Third Age on projects. High-speed Internet makes it possible for people to earn a good living creating content for the internet from here in the Highlands. But even that's just scratching the surface. High speed Internet is a major circuit breaker for a lot of new industries and new jobs in our region.

Community Feedback on Technology

Person 1:

As far as I'm concerned it needs high speed broadband across the region as the ONLY priority. It is the basis for most future ED and if we can get ahead of the curve it will actually attract significant business operation to the region (which in turn gives WSC control over how the region grows other than simply by yet another housing estate).

Person 2:

I read the Technology sector part and something that immediately jumped out to me was the need to approach some of Sydney's tech companies and discuss relocating to the Highlands if the communication upgrades were made. It would be advisable to put together a branded and well-conceived package and then approach businesses to sell it to them. I realise it's tricky because you can't completely rely on intentions being carried through but if you could have some companies pencilled in to relocate a part of their operations to the Highlands then it would give the project substantial legitimacy. It would provide some very interesting conversations that's for sure.

Person 3:

- Again you are well across this sector.
- <...>

Person 4:

Great.



7. Art

2031 Goals:

- *Wingecarribee community has access to a variety of cultural, recreational and sporting opportunities.*
- *Services and facilities are provided locally to meet the needs of our community.*
- *Wingecarribee fosters a diverse, creative and vibrant community.*
- *Encourage and implement activities that strengthen community spirit.*

Objective: 300 jobs

Projects:

- Assist WSC Arts Coordinator as required
- Develop a Southern Highlands Fringe Festival, Jazz Festival in Robertson
- Music Agent for Change event
- Establish Creative Industries Association
- Find a suitable “A Grade” Performance Hall to attract Sydney, national and international performers.

Commentary:

Council has been supporting the arts for some time now, and rather than reinventing the wheel, it makes sense to support the activities that are already taking place. For example, there's nothing quite like going on the Southern Highlands Art Trail over two weekends in November and meeting the artists in their studios. It is a uniquely personal experience that allows locals and visitors to purchase art directly from the artists and hear the stories around their work.

And there is potential for additional events, for example, a Southern Highlands Fringe Festival, a jazz festival in Robertson. Key to the success of new cultural events seems to be finding or building a new performance hall or performing arts centre.

There may be an opportunity, especially for our design people, to get involved with businesses. If you get a good design into your product or your service, which is inspired by an artist, it can make a massive difference to your bottom line. Design is absolutely important. The talent of our artists and designers can overlap with business opportunities.

Community Feedback on Art

Person 1:

- I think we could add something about the Southern Highlands Arts Fund perhaps (it has a focus on supporting young people and the arts and helping them develop their careers in the arts) – more info at www.shaf.org.au
- A Winter Arts promotion is being planned for next year June/July, with a focus on the performing arts and literature/written word – <name> is pushing this one but it would be a partnership with Council.
- The Robertson Jazz Festival is still a twinkle in the eye.
- Is there anyone who is a champion for the Fringe Festival?
- Bowral Memorial Hall is just about ready for DA submission and will be a significant step forward in performance spaces in the Highlands, particularly for music.

Person 2:

- OK so being constructive in terms of Projects in this sector my answers are:
 - the Creative Industries Association should be something the Chambers look at <...> The Chambers need to become professional and once that happens, I think change will become facilitated more readily and something such as a Creative Assoc can become real and flourish
 - <.....>

Person 3:

From conversations with artists, studio space is vital for artists to develop and create, how are we supporting our artists to develop? The commentary could include a bit more about the various existing festivals we have here in the highlands. Tango BASH in Bundanoon, the apple festival in Yerrinbool, Brigadoon, Rug and a Mug in Glenquarry, Sturt Gallery that offers classes etc etc. <...>



8. Recreation

2031 Goals:

- *Wingecarribee community has access to a variety of cultural, recreational and sporting opportunities.*
- *Wingecarribee people have a healthy lifestyle and inclusive community.*
- *Foster preventative health systems and activities to promote physical, mental and social health.*
- *Provide structure in the Shire to encourage physical activities and enable access.*
- *Services and facilities are provided locally to meet the needs of our community.*
- *Encourage and implement activities that strengthen community spirit.*

Objective: 250 jobs

Projects:

- Koala Sanctuary.
- Golf - Incubation/Co-working.
- Upgrade Moss Vale Showground to improve it as a public venue.
- Community Native Plants nursery.
- Integrate Equestrian efforts with Equestrian Federation of Australia.
- Grow the “Tracks, Trails and Streams” support network.
- Develop Regional walking-cycling trails network, including: Sydney – Wollondilly – Southern Highlands; Southern Highlands – Goulburn – Canberra; Southern Highlands – Shoalhaven – Wollongong – Sydney.
- Develop Southern Highlands walking-cycling network and promote The Bowral Classic, Highland Fling, and Chevalier cycling complex. Also look at ebikes – both road and off road.
- Expand the use of existing and planned Southern Highlands waterways for fishing, boating, and recreation.

Commentary:

The Southern Highlands is blessed with great bushland and amazing landscapes. Preserving and enhancing these is fundamental as far as the 2031 Community Strategic Plan is concerned. Any recreational activities need to complement or enhance our ability to protect our environment.

The top three recreational activities for overseas tourists, are: a wilderness experience, a beach experience, and an aboriginal cultural experience. Overseas tourists are after authentic and real activities. We think we're in a position to be able to provide at least one of their top three via a wilderness experience.

As far as wilderness experiences are concerned, there are individual projects like a koala sanctuary. We have a very good environmental team. They've been tracking koalas. We know that if you go out at certain times of night with a torch, you can spot the koalas moving around. Now, that's a unique wilderness opportunity and people stay in the region another night.

We are sitting on the doorstep of Sydney. Chinese visitors are getting younger and they've been coming more and more what's called free independent travellers, (FITs). In their two-week Australian holiday, they could take three days and get on a bike to experience our beautiful bike tracks in the Southern Highlands, and then head down to the Illawarra to the beach as part of an outdoor recreational experience.

We have other, more traditional experiences to offer; golf, for example. We've got a number of excellent golf courses in the region, and great accommodation to match. People from Japan or Korea would love a week in the Highlands playing golf - they have a real problem getting access to golf courses in their countries.

A community group, which is interested in outdoor activities and looking after the environment, have termed the local attractions "Tracks, Trails and Streams."

If we look at it from say the tracks point of view, bikes are one component - push bikes, mountain bikes, and electric bikes. The other side is walkers, and they could share the cycling/walking tracks. The numbers, when you start looking at it, hold up. The potential is massive. Putting together, say 400km of cycling/walking tracks, our early estimates suggest that within five years, tourism as a result of these tracks could contribute \$5m more a year to the local economy than the ongoing cost of maintenance.

The Bowral Classic cycling event which was held recently attracted over 3000 registrations and thousands more spectators. Cyclists rode through our picturesque countryside, near wineries, farms and scenic spots.

At the other end of the biking spectrum we've got the Highland Fling held in Bundanoon each year, which is more about mountain bikes and mud, offering four different length tracks to compete on.

If we can turn the Southern Highlands into the "sanity space" for Sydney-siders as well as tourists, then we're on a roll. It's an ideal destination two hours south of Sydney and is far less crowded than the Blue Mountains. The more people who interact with our natural environment, the more important it our natural environment becomes, and the better we are able to manage our environment on behalf of future generations.

As part of our recreation sector opportunities, we really should be looking at making the most of our facilities, such as Moss Vale Showground. It's a good space that is used for Community events, Annual shows, and equestrian events.

And of course we've got our new Southern Highlands Botanical Gardens!

Community Feedback on Recreation

Person 1:

Tracks, Trails & Streams (TTS) – Southern Highlands is seen as an overarching framework that supports non structured recreational activity locally with links to neighbouring Shires. Building on the prior efforts of many the intention is to extend the existing walking / cycle trail network by hundreds of kilometres and replicating the best of what so many others are doing internationally.

To a large extent the focus is on our water assets and seeing trails built to link these along with our villages and towns. The quality of fishing locally has improved significantly over recent decades and it is time to accelerate progress in relation to improving recreational access to Welby, Berrima, Medway, Bundanoon Creek Dam, Fitzroy Falls, Sheepwash and the Wingecarribee.

All of these locations should be linked via a trail network which would capitalise on the popularity of cycling and should link with our neighbours.

eBikes are a game-changer as now you can fairly effortlessly tackle hills and therefore alighting the train at Kiama and cycling to Bundanoon or Burradoo in a day is feasible, if the trails get built.

Modelling suggests the trails will generate a significant return on investment, numerous business opportunities, along with encouraging a healthy lifestyle and adding to the fabric of why we love the Southern Highlands.

The vision of TTS is to create a play space for all users - be they disabled, children, extreme athletes, locals or visitors plus creating a transportation network that allows us and our children a car / bus free alternative to getting where we need to be.

<...>

Person 2:

I had a quick read. Apologies for my 11th-hour response! Apart from a few typos/word omissions, it reads/flows well. <...> For our Recreation Sector, most of the progress has been in engaging key stakeholders/asset owners regarding access to critical waterway links (Welby, Medway etc). I guess we're identifying and trying to secure important pieces of our overarching outdoor Rec Puzzle. Real and rapid progress will follow! :-) From a fishing and water perspective there's been and continues to be, real progress and improvement to our waterways, many of which will be ready to fire and impress as soon as we hit the go button! I hope WSC see and appreciate the time and effort you've put into Economic Development for the Region! :-)

Person 3:

- What is a standout gap in this section is anything for young people that is relevant to what young people want / are interested in / will go to eg:
 - A proper skate park/facility (indoors)
 - X-Factor sports
 - Gaming destination (not gambling but Xbox etc)
 - For the 12-25 year olds there is nothing here – they are not interested in koalas and bushwalking and cycling tracks
- Our tourism stuff (like koalas etc) is ok but we don't have tourism accommodation support.
- From October this year the big international cruise liners began docking at Port Kembla – we need to develop tourism 'day trip' activities and market to them (a long term project)
- Also Canberra Airport has begun it's International service and as we saw when the Destination NSW tourism guys came and spoke at Bradman <...>, the Indian market could be huge for us, and the Asian market. We are next door to Canberra but <...> we don't have anything in place fit for Indian or Asian tourism/recreation destination. It's quite specific and their requirements are defined and while odd to us its what they want. This is a whole sector needing attention and development <...>

Person 4:

Just some brief points:

- a) 'Upgrade Moss Vale Showground to improve it as a public venue': Moss Vale Showground is privately owned by the Moss Vale AH&I Society, so this cannot be done by Council except in partnership with the owners. I'm sure the AH&I society would be amenable to having improvements made in consultation; grants would have to be obtained to do anything beyond their normal program.
- b) 'Community Native Plants nursery': this has been further established at the Council depot with quite a lot of new investment leading to better facilities for the long-term supply of local natives for Bushcare and Landcare. The "dream" of a larger, more commercial set up fell by the wayside once <...> decided that wages would be too much. I think the DA that <Council> put together for the site at New Berrima is still current, but without any push from Council, it has been given up on.
- c) 'Expand the use of existing and planned Wingecarribee Shire waterways for fishing, boating and recreation'. This should be a goer: the Great Eastern Ranges Initiative – Southern Highlands BioLink has major money for improvements to the Wingecarribee River which include Community engagement goals regarding more access to the river for recreation. A barrier here is private property on the banks in some areas with titles continuing ownership to the centre of the stream.
- d) Also the multiple authorities with some interest in the river. <name> is the WSC officer with best knowledge about this project. A recent 'Threatened Species Day' and the Bong Bong to Burradoo Bike Ride were two events that highlighted the value of the river to recreation. There is the intention to put together a Rivercare group soon, which will see community members engaged in maintenance of the vegetation on the banks of the river. The river corridor also provides opportunities for people to see native animals including platypus, water rats (rakali) , and a

- range of birds from pelicans to red-rumped parrots (if they are lucky and observant). Bird Life Southern Highlands are able to assist with bird ID activities.
- e) Meanwhile, it would be good to see more seats for walkers along the river, as a lot of older people can take the walk on the high quality path; Council must consider a toilet facility in the area, perhaps at the carparks at each end. (The full distance is 9.5 kilometres return) – I must confess pushing for this <.....> but <.....> was very firm that no more toilets would be built by Council! However, some consideration / work was done to find information about composting and self-cleaning toilets – <.....> would be the Council Officer who would know what happened to this.
 - f) One item that seems to have fallen off the list of Recreation projects is the mapping of tracks. Maybe this needs to be done in conjunction with organisations that have some mapping of their areas, such as Forestry, NPW&S and some landmark areas such as the Gib. It might be good to have a searchable website to help people find their way onto the beautiful backroads and byways – with GPS etc, people are being directed to, and kept on the main roads and visitors probably find it quite hard to relax and explore.

Person 5:

Nice.



9. Business

2031 Goals:

- *Develop and implement a comprehensive Tourism Strategy for the Southern Highlands, based on the unique Southern Highlands brand of climate, horticulture, recreation, landscape and heritage.*
- *Develop and implement a compelling and competitive brand identity for the Southern Highlands, based on our distinctive lifestyle factors of climate, horticulture, recreation, landscape and heritage.*
- *Encourage residents and businesses to source goods locally.*
- *Create green jobs/careers for all economic segments (professionals and trades) by making the SH a leading centre of industry/innovation/expertise for the "greening" of residential built environment (existing/new).*
- *Optimise existing strengths in manufacturing and engineering clusters of enterprises, which cooperate to find new ways to attract similar industries to relocate to the Southern Highlands.*
- *Move full speed ahead with the development of Moss Vale Enterprise Zone.*
- *Wingecarribee achieves continuous reduction in waste generation and disposal to landfill.*
- *Minimise waste through education, promotion of alternatives, financial incentives, prosecution of dumpers and Council's own waste management program.*
- *Promote Product Stewardship (PS) and Extended Producer Responsibility (EPR) at a local level.*
- *Continue to reduce, reuse, recycle and return to maker.*
- *Promote alternatives to single use packaging and other disposables.*

Objective: 5,500 jobs

Projects:

- Exploring strategic business projects including the rebrand of Moss Vale Enterprise Zone to Southern Highlands Innovation Park; developing a relocation strategy to attract “Best of Breed” businesses; Rebranding Wingecarribee to Southern Highlands.
- Expand local business support for: Start Up Incubators; Business Accelerator Program; Business Mentors; and a Future Fund for business investment.
- Improve tourism potential by cleaning up streetscapes and fixing signage. Consider bringing national events to the area, such as equine industry events. Upgrade grey nomad infrastructure like overnight vans parks and dump stations.

Commentary:

Achieving the goals for 2031 will be much easier if we choose as a community to embrace change and make it our friend.

We are heading into a period of massive change due to technological advances where, if we do nothing, we can expect to lose 40%-50% of our current jobs by 2031, that’s 8,000-10,000 jobs. Shifting our thinking is paramount.

Best practice change management practice begins with a change in culture, i.e. the way we think about business. This changing culture leads to new strategies, and those new strategies generate new projects/businesses. This is a continuous process of improvement and adaptation which the Japanese call Kaizen.

Lean management of every business, is arguably the best way for any organisation, public or private, to adapt to rapid change. To embrace the approach requires a change in organisational culture.

Another important cultural change involves every organisation, private or public, taking a collaborative approach to business. Collaboration is key to successfully dealing with rapid change.

For large organizations collaboration involves getting out of departmental silos.

For communities it means working with your neighbours to develop win-win results.

For business owners and entrepreneurs, collaborating with business mentors is a proven way to double the success rates of individuals and firms.

The combination of lean management, collaboration and mentors are key ingredients to businesses successfully adapting to rapid change, becoming resilient and surviving longer. These things don’t take place in a vacuum, ongoing training and learning is an integral part of adapting to change.

The best way for all three types of business to survive and prosper is to embrace lean management, collaboration, mentoring, and ongoing learning.

Assuming this, our early estimates are that sources of new/replacement jobs to 2031 replace the jobs we expect to lose as our economy restructures are as follows:

- Start-ups Incubator 500
- Retained/existing firms 5000
- New jobs via Sectors 3000
- “Best of Breed” relocations 1500

Even so, these jobs are replacement jobs for the ones we have could lose lost as a result of the automation of “traditional” industries. So we are effectively treading water.

Community Feedback on Business

Person 1:

HUBs: These are happening elsewhere. Goulburn has set up a good innovation / business hub where people can meet and use items such as computers, printers, binding machine etc. We still cannot do something like this unless we can get premises. I sadly notice that the little house in Argyle Street that Council wouldn't let us have remains empty.

The bigger the premises, the more goals it could encapsulate including those put forward under learning, and more.

ZONING: another problem area, which we see quite often with people in some rural areas wanting to run businesses that are outside the rules.

Person 2:

I appreciate this opportunity to put my views.

I will start with big picture issues:

I would like to see more emphasis on the need for nurturing of the foundations of our economy - as put in the plan - climate, horticulture, recreation, landscape and heritage. Every sector opportunity relies on various combinations of these foundations. People visit here because we have villages set in farmland, because we don't have sprawling urban areas full of mac mansions nor coal mines. We need to outline what we need to do and in particular what do these foundations mean to the end consumer. The Southern Highlands are revered in the same way that Tasmania and parts of the Blue Mountains are, or were. We need to outline how we can make more of this across business sectors.

- Planning regulations and local environment plans need to be explained to the community in terms of their impact on the potential for jobs. For example, can a farmer set up a stall outside their property and sell produce, what are the limits and why? How many people benefit and how many are negatively impacted? Local planning laws need to be seen to support targeted businesses.

- Business rents Moss Vale retail is amazing at the moment. Together with some amazing personalities, this success is built upon climate, horticulture, recreation, landscape and heritage. However, a number report difficulty dealing with their landlords. How can we help with this? Can we tax empty shops? I think flooding is likely to an issue at some point, but I wouldn't support landlords that won't support the community. The best opportunity is premium advertising into Canberra, Wollongong and targeted communities in Sydney.

On the projects:

- Rebrand MVEZ to SHIP (why? will that make a difference?)
- Worldwide relocation strategy - (I would narrow this to businesses that match our plan and would do better here than where they are now. Business relocation is fraught as it is expensive and tends to be most attractive to the least successful

- businesses).
- Rebrand Wingecarribee? - this is not required and will result in not benefit. Just keep going as we are, it is working.
- Start-up businesses - OK
- Business mentors - where and who are they? a lot of time and effort could be lost on this only to find they came here to retire from business.
- Business accelerator program - OK
- Future fund - needs to be specific with clear goals.
- Climate change industries - yes
- Open for business promotion - sorry I think this is a waste of resources
- waste minimisation - yes I agree
- business directory - use an established one please that is used by consumers (Google?)
- Tourism
 - The Southern Highlands needs more venues and probably changed planning law. The food and wine clusters have been massively successful. This is a good example of where the more you put in as a business the more you will get out. Plus mid-week targeting of retired people. For example, our weekends are sold out, but not our weekdays - the people that visit us on the weekend are often retired - how do we find them and ask them to come during the week?
 - I think bed and breakfast is likely to be higher net benefit than campsite tourism.
- Learning <education> and learning tourism <residential short courses> is a massive opportunity for Moss Vale.
- Buy Local – let's get more people from elsewhere to buy southern highlands produce - if they do, the locals will too.

Person 3:

Hi Noel,

Have reviewed the attached documents. This is a great start and something that can be added to over time. I believe the biggest gap is that there is no strategy for making significant changes to the LEP which needs to happen for some of the proposed projects. The next comment is just that, I feel that there is too much focus on Climate Change, just a comment.

Person 4:

- Tourism:
 - We need the WLEP and DCP to incorporate AirBnBs.
 - We currently cannot provide enough tourism/visitor/event accommodation and we MUST allow this development through or cut our events and businesses off at the knees (eg wedding market as just one example).
 - Port Kembla cruise liner market.
 - Canberra International Airport – delivering a whole new market we could capture.
 - Brand Strategy <...>

- Waste minimisation – Council should not compete with others for specialised waste management eg Challenge with their ‘document destruction’ business – <...>
- Local Businesses Directory – this is the job of the Chamber and it **will** be done. It must NOT be council or yet another group. All of the sub bullet points you have under Local Business Directory must be taken on and delivered by the Chambers <...>.
- Buy Local Campaign:
 - Marketing strategy - should also be a task/responsibility of the Chamber and not council <...>
 - Encourage locals to buy local – well we are in danger - <...> if we won’t allow farmers markets and boutique businesses on farms we are back to the WLEP and the DCPs !! There’ll be no local for locals to buy if you’re not careful. <...>
- Business Rents:
 - You cannot regulate rents charged – they are the prerogative of the property owners, ie the landlords <...> I think the Chambers should come into play here, not council <...>.
 - Home based commercial business strategy – <...> yes you are right and it should be done.
 - Home industry business register – the domain of the Chambers, not council <...>
 - Mentors – so hard because it’s volunteering. <...>
- New Businesses:
 - Climate change industries – well, yes absolutely and again broadband is key to ENTICING ANY NEW BUSINESSES HERE especially those at forefront of design, technology, science, etc.
 - The monitoring and publishing of greenhouse performances could be something the Chambers should tap into and deliver – interesting and good.
 - MVEZ – get staff and council to revisit the WLEP/DCP’s and especially the prohibitive Developer Contributions which has hindered it enormously!!!! The land values there have plummeted. Also without broadband there, forget it.
 - Public Sector promotion – yes, but again without broadband (good reliable bb) forget it. They won’t come without it. At the moment there are huge blockers to attracting the public sector:
 - Ultra effective broadband
 - VFT or at base electric ‘metro service’ rail to Central as minimum
 - Housing which we don’t have, and getting expensive, and apartments and town houses
 - No use promoting and inviting when we cannot support
 - Open For Business – <...> we are NOT open for business, this shire is bypassed every single <.....> time and Goulburn or Bathurst or Shoalhaven or <.....> asking for a Prospectus. <...> it needs to be done by professionals who know how to do this <.....>.
- Under your Projects list:
 - <...>
 - By all means rebrand it but before you do think carefully – if you call it Innovation Park (which I like) then you are by definition limiting the type of businesses you are inviting, looking for etc.

- Equally how can you call it an Innovation Park when it has no high speed ultra-efficient broadband – <...>.
- Local business support – incubators and accelerators etc – <...>
- Improve tourism – <...> Who is going to clean up the streets and pay for it and when, and how often from maintenance perspective? Who’s going to ‘fix’ signage and pay for it or approve new signage or even allow signage? Where are you going to house the people who come here for a ‘national event’ and if that national event contained accessories such as horses in floats or cars or tractors, where are you putting them, and where are you going to ‘park the nomads’ grey or otherwise. A big case of cart before the horse here. Not to forget our good friend the WLEP.
- Rebrand the Wingecarribee Shire the Southern Highlands. ABSOLUTELY <.....> .
- <...> the WLEP and DCP are absolutely opposed to anything resembling being Open For Business... so before you go doing any such promotion you need to fix the wagon.
- <.....>

Person 5:

Attracting new business to the area - Suggest inclusion of reference to importance of transport & communication infrastructure and associated projects to attract new business/ industries/ organisations to say the Moss Vale Enterprise Zone.

Person 6:

Agriculture and farming should be included as a subheading here since Food security and sovereignty are issues that will be at the fore in 2031. Strategies to support the growth of farming in the area and support for older farmers to develop succession plans for their farms. When we lose a farmer the whole region loses. I’ve been following the thoughts of a guy Michael Bauwens, who speaks a lot about “the Commons”. I know that’s too rad for a council document but suffice to say there’s also some plain ol’ common sense in it too, in regards to what a region will import and what it chooses to make locally. The basic rule of thumb is to import the light stuff – tech, and small things and make the heavy stuff at locally so you don’t incur huge freight and transport costs. It may not be cheaper to make furniture locally, but at the end of the day not only do you have furniture but you have a furniture factory, possibly a timber mill, and locals who are employed there. Also like the Sirolli references.



10. Learning

2031 Goals:

- *Promote the Southern Highlands as a "Smart Shire" by establishing a Community Learning Initiative (CLI) that delivers benefits to the broadest spectrum of community members and meets our diverse, lifelong, learning needs.*
- *Encourage the networking of learning and teaching communities across the Highlands.*
- *Expand further education and training institutes and opportunities available locally and leverage these to attract related public and private sector research bodies.*
- *Encourage school leavers to remain in the Shire by developing effective 'Transition to Work' programs.*

Objective: 500 jobs

Projects:

- Maximise the use of the TAFE/University Moss Vale Campus by offering new and flexible programs that meet community needs, particularly in the aged care, health and hospitality sectors. This includes working collaboratively with TAFE and the University of Wollongong to explore:
 - offering more first year Bachelor degree University courses;
 - offering postgraduate programs by flexible delivery, e.g. blended online with intensives;
 - practical training and bridging programs through TAFE;
 - developing short-courses and Continuing Professional Development programs;
 - University support for the Southern Highlands business incubation group; and
 - improved means of utilizing TAFE/UoW land at Moss Vale.

- The proposed creation of a Centre of Excellence in Aged Care training, is in an opportunity to bring together a range of new programs in the vocational, tertiary and lifelong learning sectors, in response to requirements specified by aged care providers in the region.
- Optimise Lifelong Learning via bridging pathways between schools and tertiary/employers; ensure adequate mental and physical health services; link pre-natal through to old age ongoing learning.

Commentary:

Learning has to be at the centre of any economic development model involving sustainability and resilience.

From the wide range of options that we've been covering over the last two years, things have boiled down to two core issues: one is to maximize the use of our existing educational facilities; and the second issue is to broaden our concept of learning to include what is typically called "lifelong learning".

Demand for vocational training is going to increase as the economy changes. There will be more demand for short courses and practical training. We know that specific areas will experience growth, such as hospitality and aged care.

The existing system is being challenged by many different things, not the least of which is the privatization of the tertiary sector. We've got a way to go before the dust settles in terms of who's a good private sector provider and who's not a good private sector provider. In our case we already have the Moss Vale campus with the University of Wollongong and TAFE, so it makes sense to leverage this as much as possible. And that's been one of the ongoing tasks of the learning group.

Lifelong Learning is quite different to the common experience of 40 minutes sitting at desks listening to someone with chalk in their hand. Lifelong Learning is more of a community-based response. It embeds learning in everything. It makes learning as normal as breathing and is pursued as something enjoyable.

Lifelong Learning is about continuous improvement and continuous adaptation to change. The Lifelong Learning thread underpins the ability of businesses and communities to adapt to change, to retain jobs, and to saturate each of the 10 sectors in the economic development framework with new inspirational ideas.

So learning is at the core of it, it's the renewal process inside all industries in all sectors of our economic framework and throughout our community as we move forward to 2031 and beyond.

Community Feedback on Learning

Person 1:

The TAFE and Uni continue to be important but they are also hidebound by regulations, as I found when I wanted to get access for a <...> group to use TAFE computers for another TAFE's program. I don't know what happened with the Chev college proposal, but I understand it would go ahead with or without support. I continue to have personal

reservations about any program that will depend on the continued interest and goodwill of private owners.

Person 2:

- I think you have this covered essentially, but this is such a massive subject I'm exhausted thinking about it. <.....>
- My view is dynamic entrepreneurial thinking and potentially hooking up with international providers (ie campuses) is the way to go so we have dotted 'learning/doing' rather than a lumpy cluster at Moss Vale.

Person 3:

Not keen on "attracting more retirees to the Shire" since we're already making our own and I'll be joining those ranks in good time too, but anyways they might as well make themselves useful while they are taking up the space. But seriously, why put an active statement to attract one particular demographic? This was the section where I had the most "how?" questions and it also seemed that the projects part of it was pretty light on.



11. Council related 2031 Goals

This section is included for the sake of completeness. It provides guidelines about HOW Council goes about achieving the goals in the 2031 Community Strategic Plan, rather than WHAT Council does.

2031 Goals

- **Economic Development Strategy**
 - Review Economic Development Strategy | 2015 Operational Plan
- **Strategy Development Parameters**
 - Wingecarribee's distinct and diverse natural environment is protected and enhanced | 2031-Environ-4.1
 - Conserve the key natural resources of the Shire water catchments, arable land, key wildlife corridors, vegetation and scenic landscapes | 2031-Environ-4.1.1
 - Maintain and enhance biodiversity | 2031-Environ-4.1.2
 - Ensure no net loss of the natural resources of the Shire by replacement and/or offset of the unavoidable loss of trees, vegetation and other resources using an effective and transparent offset formula | 2031-Environ-4.1.3
 - Establish mitigation and adaptation plans and imagine a very different world in 2031. Take into consideration the realities of peak oil, climate change, steady state economy and population growth | 2031-Environ-4.2.1
 - Ensure that no development takes place in Wingecarribee that would threaten the underpinning natural resources of the area as a water catchment, food bowl, and tourist and recreational attraction | 2031-Environ-4.2.2
 - Encourage creativity in utilisation of our community assets | 2031-Leaders-1.2.2
 - Ensure all ideas and proposals are assessed on their life cycle impacts | 2031-Leaders-1.2.3
 - Identify good examples of leadership and map community assets (individuals, organisations and institutions) | 2031-Leaders-1.3.1
 - Ensure important decisions are made on the basis of how they meet our goals | 2031-Leaders-1.5.3

- Leverage and network what we have that is good and working well in a particular field to establish core working groups that, with Council collaboration and support, will provide leadership, coordinated planning and funding | 2031-People-2.1.1
- Proactively value, attract and hold a diverse population of young people, families, cultures and socio-economic backgrounds to the Shire to ensure a balanced community | 2031-People-2.4.1
- Living and Working Sustainably - Our current economic model, based on unlimited growth and the exploitation of finite resources, is unsustainable. Climate change is impacting the region – mitigation and adaption must occur. | RDA Table-SH
- **Leadership Style Considerations**
 - Our leadership is based on mutual trust to foster and embody values of respect, responsibility, integrity and ethical governance | 2031-Leaders-1.1
 - Ensure systems and processes are in place to achieve mutual trust and collaboration | 2031-Leaders-1.1.1
 - Foster respect through continuing engagement and communication activities using a variety of modes and mediums | 2031-Leaders-1.1.2
 - Change our paradigm from self-interest to mutual benefit | 2031-Leaders-1.1.3
 - Wingecarribee leadership is visionary through creative thinking and practical planning | 2031-Leaders-1.2
 - We act in an inclusive manner with open information, communication, views and participation | 2031-Leaders-1.4
- **Local Community Engagement**
 - Council to develop-implement a plan to give full support to social and economic flourishing in the Shire, both directly and in its own right, and indirectly through facilitating broad-based community actions to drive Social/EconDev | 2031-EconDev-5.5.2
 - Provide opportunities to participate in future(s) thinking and to nurture ideas | 2031-Leaders-1.2.1
 - The Wingecarribee community has strong networks that supports collaboration, partnerships and empowerment | 2031-Leaders-1.3
 - Stimulate networking in local communities and across areas of common interest | 2031-Leaders-1.3.2
 - Foster and support diverse interest groups to harness the skills, passion, time and commitment of community members and organisations, and to leverage effective participation | 2031-Leaders-1.3.3
 - Facilitate and support leadership within the community by removing barriers to participation | 2031-Leaders-1.3.4
 - Create a focus on community engagement | 2031-Leaders-1.4.1
 - Ensure the implementation and review of Wingecarribee 2031+, and plan by continuing engagement with the community | 2031-Leaders-1.4.3
 - We all work together in a flexible and responsive way utilising community values to achieve our vision for Wingecarribee 2031+ | 2031-Leaders-1.5
 - Create an inclusive process for measurement and celebration of our progress toward achieving the goals of W2031+ | 2031-Leaders-1.5.1
 - Solicit widespread public endorsement which directs and empowers action from 2010 to 2031 by the whole community | 2031-Leaders-1.5.2
 - Foster community participation | 2031-People-2.1.2

- Increase community inclusion, cohesion and social interaction | 2031-People-2.2.2
- Engage the under-represented in the life and decision making of the Shire | 2031-People-2.4.3
- **Regional-National Considerations**
 - Work with neighbouring local Councils, business, business groups and organisations, universities and TAFE to better integrate economic strategies to maximise the economic opportunities for whole region (i.e. the Sydney Canberra corridor | 2031-EconDev-5.5.8
 - Regional Development Planning - We ensure informed planning at all levels guides the strategic and sustainable development of the region. | RDA Table-SH
 - Greater Capital Region Initiative (GCRI). The GCRI incorporates a strong focus on regional sustainability. (See EEI) | RDA Table-SH
 - Greater Capital Region Initiative (GCRI). We are working with RDA ACT and RDA Far South Coast to deliver the GCRI. | RDA Table-SH
 - RDA Southern Inland Regional Plan 2013 -16. The Plan comprises a comprehensive regional profile and analysis. It is a valuable planning tool for government, business and community organisations. | RDA Table-SH

Appendix 1: Sustainable Subdivisions

How Can We Create a Housing Development that Encourages Energy Efficiency?

Climate Change is upon us. The evidence is overwhelming. Atmospheric CO2 and methane levels are the highest they've been for a million years. Global temperatures are spiralling out of control. Extreme weather events are multiplying. Coral reefs are dying. Sea levels are rising and islands are disappearing. We've known this was coming for over one hundred years. We've known that we are causing it. We've known that we need to act to reduce greenhouse gas emissions in order to avoid potentially disastrous results and yet we continue to do nothing. In fact, we are making matters worse when there is so much we could be doing to make things better. The following illustrates this point.

I recently had the opportunity to review the Master Plan and Design Guidelines for a new housing development near Bowral, NSW, and I have to say, *I was very disappointed*. There is not one thought given to energy efficiency or sustainability in the entire development. The Design Guidelines include nothing that might encourage a home builder to consider building an energy efficient house, on the contrary, they contain a number of criteria that make it extremely difficult for anyone to build energy efficiently, even if they want to. This constitutes an enormous missed opportunity on the part of the developers and local/state regulators given Australia's commitment to reducing carbon emissions.

My intention is not to single out any one subdivision for special criticism. There are hundreds of housing developments all over Australia that demonstrate the same disregard for energy efficiency, renewable energy and sustainability. This one just happens to be a good example to illustrate this point.

The following is a chart I have put together showing (on the left hand side) the elements of the Bowral development that hinder an owner from building a well-performing home. On the right hand side I have listed what those criteria COULD have been (and I would argue SHOULD have been) in order to not only encourage but REQUIRE developers and home- owners to build more sustainably. (Please note that some of the specific criteria are intended for homes in a cool climate like Bowral. Other climate zones may require different criteria).

"Buildings with good insulation and solar passive design can reduce the occupant's reliance on artificial heating and cooling. Heating and cooling is responsible for the majority of the average Australian household's energy use and greenhouse gas emissions." nathers.gov.au

ANTI-ENERGY-EFFICIENCY ELEMENTS IN THE BOWRAL SUBDIVISION MASTER PLAN AND DESIGN GUIDELINES	PRO-ENERGY-EFFICIENCY CRITERIA THAT SHOULD BE INCLUDED IN EVERY NEW DEVELOPMENT
Master Plan	
<p>The Master Plan shows no consideration for ensuring solar access to EVERY property. A scant few of the Lots accidentally have good northern exposure but most are simply aligned to a random and meandering street layout.</p>	<p>Streets and Lots should be laid out in such a way that every home has good solar access. This is key to ensuring that homes can use Passive Solar Design principles to help keep them warm in winter and cool in summer with minimal mechanical heating and cooling.</p>
Design Guidelines	
<p>Homes must address the street and have their living areas on the street side. This means that, if the street is to the west or south, the home has to face completely the wrong way. Facing south makes it difficult, if not impossible to get enough sun in the winter to warm the house. Facing west makes it extremely difficult to control hot afternoon sun in the summer. Living areas on the south side of the house do not get sufficient sun and natural light during the day when they are primarily used.</p>	<p>Every home should face the sun (north) and have its long axis running east-west. This provides maximum potential for solar gain in the winter PLUS maximum ability to use correctly sized eave overhangs to shade the north wall in summer. It also minimises the amount of west-facing exposure which helps keep the house cool in summer. Living areas should be on the north side of every home so that the occupants can enjoy the benefits of sun and natural light during the day, especially in the winter time. The natural light also helps to reduce the need for artificial lighting during the day.</p>
<p>At least 50% of facade side of the house (facing the street) has to incorporate a verandah at least two meters deep. This means that, if you are smart and lucky enough to purchase a lot where the street is to the north so you can face the sun, you have to put a verandah along half of it that is deep enough to ensure you will lose half of your solar gain in winter.</p>	<p>On every home the eave overhang on the north side should be properly sized to allow full sun into the house in winter (when the sun is low in the sky) and prevent any sun from entering in summer (when the sun is high in the sky). There is no one-size-fits-all eave size, it must be calculated based on the latitude of the site, the height of the wall, the height of the windows, and the height of the eave above the windows. Verandahs should be encouraged on the west side of homes where they can help to shade the western wall on summer afternoons.</p>

<p>All homes must have a “low-reflectance” roof colour. Effectively Retford Park is encouraging dark roofs with high solar absorptance that will get MUCH hotter in summer than light coloured roofs with low solar absorptance. This not only means that the air-conditioners in each individual house have to work much harder, it also adds to what is known as the “Urban Heat Island Effect” whereby entire towns are much hotter than the surrounding rural areas because of all the dark surfaces that absorb and radiate heat into the air. This means that ALL of the air-conditioners have to work harder to keep the interiors cool which puts even more heat into the exterior air.</p>	<p>All homes should have a light-coloured roof with low solar absorptance.</p> <p>All indoor air-conditioning units and ducting should be inside the insulated Thermal Boundary of the home where they don’t have to fight against high-air temperatures (such as found in attics).</p> <p>Furthermore, all roads, footpaths, parking areas and other hard surfaces should have light coloured surfaces to reduce their tendency to overheat and contribute to the Urban Heat Island Effect.</p>
<p>All homes must have at least one tree capable of growing to 8m tall in both the front and rear yards.</p>	<p>No tree should be planted where it could impede the winter solar access to the north-facing windows of any home or its roof (where solar panels and solar hot water systems are likely to be located).</p> <p>Evergreen trees must be avoided in locations where they will shade homes or roofs.</p> <p>Even deciduous trees with no leaves in winter can significantly limit solar access so their size and location must be carefully planned so as not to counteract energy efficient design.</p>
<p>Solar Panels (if installed) must face away from the street (i.e. hide them because we don’t like them).</p>	<p>All homes should have solar power systems that are “battery ready” and solar hot water systems. In San Fransisco it is now mandatory for all new buildings to incorporate solar panels on their roof... why not here?</p> <p>Better yet, why not require every new home to be energy positive, i.e. to make more energy than it uses.</p> <p>All homes should be equipped with smart meters capable of allowing homes to communicate with the national grid, to turn equipment on and off when necessary for load balancing and to buy and sell energy according to demand and price.</p> <p>All homes should be equipped with detailed energy monitoring equipment and a prominent energy display to encourage occupants to pay attention to their daily energy use.</p>

Other Considerations	
Water – no consideration beyond BASIX*	All homes should harvest rainwater from their roofs using leaf catchers and first-flush-diverters to enhance water quality. All homes should use rainwater wherever and whenever possible and reclaim greywater for treatment and reuse.
Roof Design for Solar – no consideration (most new homes designs these days broken up into far too many roof angles and segments that make installing large solar arrays difficult if not impossible. Chimneys, skylights, pipes, antennae and other obstructions are placed at random making clear, unshaded areas for solar panels hard to find)	All roofs should be designed so that there is enough clear and completely unshaded roof area to allow for a minimum of 1kW of solar panels per bedroom PLUS an additional 5kW of solar panels for future electricity requirements such as charging electric vehicles). All homes should be designed to allow an easy pathway for wiring between the solar panels and the meter box.
Battery and inverter location – no consideration	All homes should have an appropriate space set aside close to the meter box and out of direct sunlight to allow for the installation of solar inverters and home energy storage systems
Windows – no consideration beyond BASIX*	All homes should have a minimum of the equivalent of 12% of their floor area in north-facing glass. All windows should be double-glazed. North-facing windows (with correct eave overhang for summer shading) should be clear glass to enhance winter heat gain, all others should have Low-E coatings to limit summer heat gain. West-facing glass should be kept to a minimum to reduce summer heat gain.
Thermal Mass – no consideration	All homes should have sufficient thermal mass to store heat (and coolth) and regulate indoor air temperatures. Thermal mass MUST be located INSIDE the insulated Thermal Boundary otherwise it does no good. Phase Change Materials can be used as a substitute for Thermal Mass in light-weight structures.
Air-sealing – no consideration	All homes should be Blower Door Tested to ensure an air-tightness of less than 3.0 ACH50 .

<p>Ventilation – no consideration</p>	<p>All homes should have a true Heat Recovery Ventilation System to ensure a constant and balanced supply of fresh air with minimal heat loss.</p> <p>All attics must be adequately insulated and ventilated to ensure low summer attic air temperature.</p>
<p>Insulation – no consideration beyond BASIX* During construction the insulation is not even inspected to ensure proper insatallation.</p>	<p>All homes should be insulated and designed to achieve a minimum 8Star NatHERS rating. Insulation should be inspected during construction to ensure correct installation. (See appendix A for a recent example of “standard practice” in building insulation in this area).</p>
<p>Embodied Energy – no consideration</p>	<p>All homes should be designed to achieve highest possible energy efficiency with lowest possible embodied energy.</p>
<p>Equipment Efficiency and fuel type – no consideration beyond BASIX*.</p> <p>Burning natural gas, oil, LPG, kerosene, wood etc. on site creates carbon emissions that can be avoided by using electrical equipment powered by renewable energy.</p>	<p>All mechanical equipment and appliances should be powered by electricity (not gas, hydrocarbons or solid fuels) because electricity can be made on site from renewable and emission free sources such as solar photovoltaics.</p> <p>All equipment and appliances must be of the highest energy efficiency standard.</p>
<p>Low-maintenance and Durability – no consideration</p>	<p>All homes should be designed and built with durable materials that will last a long time with minimal maintenance. This can save a great deal of resources, cost, time and energy over the life of the building.</p>
<p>Recyclability – no consideration</p>	<p>At the end of its life, every building should be designed and built so that it can be dismantled and the materials salvaged for reuse elsewhere rather than demolished and sent to the landfill.</p>
<p>Transportation – no consideration</p>	<p>Developments should be located and planned in such a way that people can access everything they need with minimal car driving required.</p> <p>Walking, biking and public transport should be prioritised over car driving.</p> <p>Homes should be equipped with charging stations that are capable of “Vehicle-To-Grid” two-way exchange of energy both to and from car batteries.</p>

Food – no consideration	Developments should encourage the growing of local, organic, healthy food right where people live. Edible landscaping can look great AND be productive.
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* [BASIX](#) stands for Building Sustainability Index and is the standard method used by designers and builders in NSW to gauge energy efficiency and water conservation. According to the NSW Government website

“The Building Sustainability Index (BASIX) aims to deliver equitable, effective water and greenhouse gas reductions across the state. BASIX is one of the strongest sustainable planning measures to be undertaken in Australia.”

<https://www.basix.nsw.gov.au/basixcms/about-basix.html>

<...> BASIX is a feeble attempt at legislating sustainability. Its requirements are weak and ineffective and the policing of these requirements is almost non-existent. For example, builders across the state are encouraged to “self-certify” that insulation is installed correctly and to the right level to meet the BASIX requirements. (Please see Appendix A below for recent example of what passes for ‘Standard Practice’ in home insulation).

BASIX doesn’t work. The following quote is the conclusion of a report from the University of Wollongong published in 2013 that shows that there is no difference between Pre-BASIX and Post-BASIX development except that homes are now larger and building lots are smaller (emphasis mine).

*“We are concerned that **most NSW housing has not employed some key principles of energy efficient housing, but rather appears to have complied with building regulations in a manner that imposes minimalist disruption to ‘traditional’ Australian housing. In this project we take ‘solar orientation’ to be an indicator of concern and adoption of energy efficiency principles, using the introduction of NSW’s BASIX scheme as the point of comparison between older and recent housing. We have found that there is no difference between Pre- and Post-BASIX homes with respect to house orientation or roof colour and that contrary to energy efficiency goals house size is increasing. Post-BASIX houses must be employing other energy efficient strategies such as insulation and energy efficient appliances. Whilst these are undoubtedly improvements, a house that is not effectively oriented will not ‘self-heat’ with the winter sun, and may need to use additional cooling as a consequence of heating from the summer sun.***

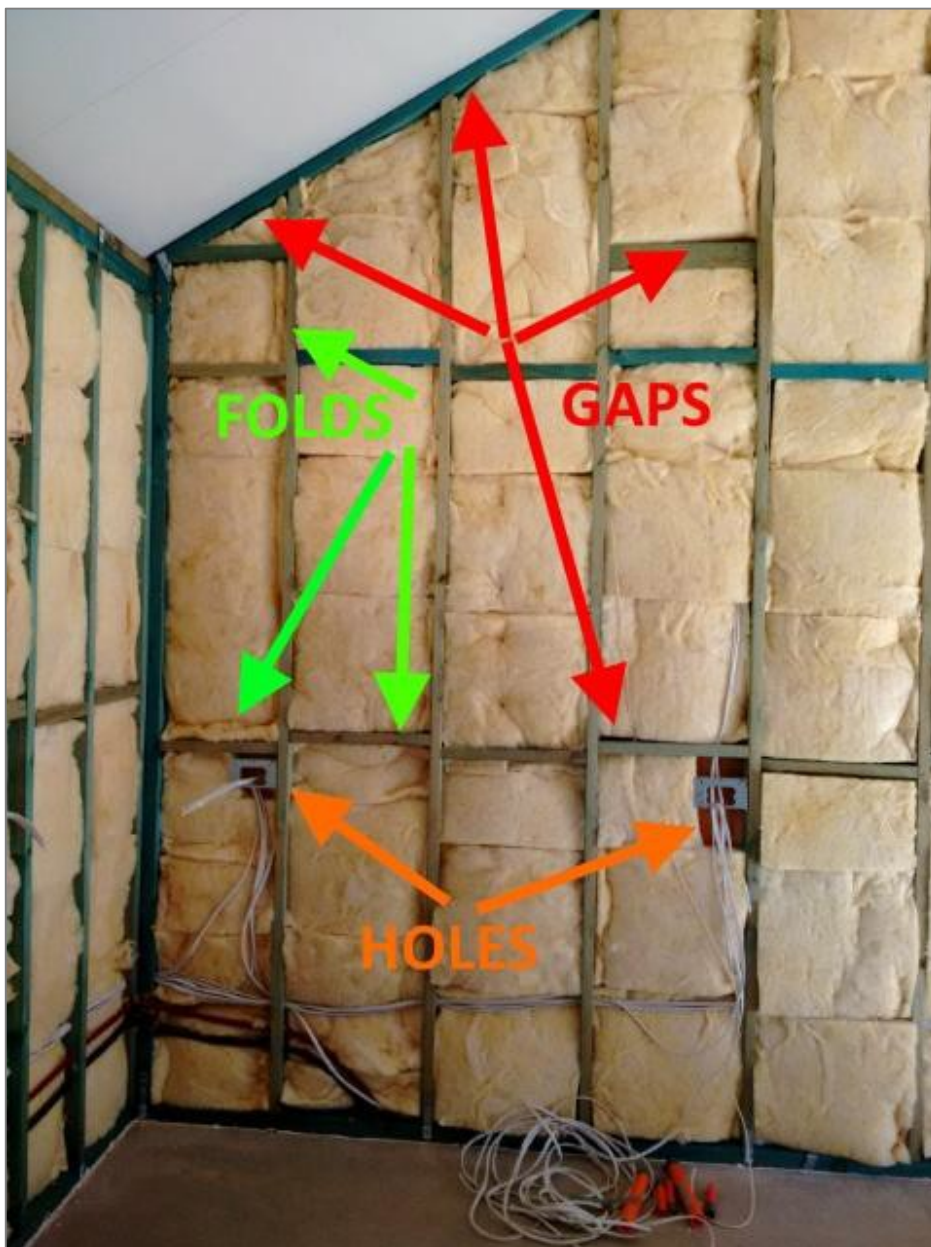
*Over and above energy efficiency **we have also noted the trend to building large houses on small lots, confirming the reduction in private open space ... We have a long way to go in understanding how to construct the most efficient housing form ...but existing knowledge is still not being incorporated into Australian homes to maximise their energy efficiency or future well-being of occupants. Ashe et al.’s (2003) report concludes that for sustainability to be regulated there must be a demonstrated case of market failure—this study suggests that both the market and regulations have failed in fostering sustainable housing.***

Link to this article: <http://dx.doi.org/10.1080/08111146.2013.830604>

In my mind there is no question that “both the market and regulations have failed in fostering sustainable housing”. The development near Bowral is a perfect example of “business as usual” by housing developers and regulators and serves to highlight the need for higher performance standards across the board. Climate Change is happening and we are doing nothing. In my opinion this is not only immoral but should be made illegal. The time to act is now!

Appendix 2: Recent example of “Standard Practice” in home insulation.

The installation instructions for Knauf ‘Earthwool’ batts contain the following requirements; *‘Make sure all areas are insulated, behind electrical outlets, plumbing and services’*. It also says, *‘When installing insulation between framing members, ensure that you achieve a snug fit avoiding any gaps, tucks and folds’*. Clearly the builder of the project shown below didn’t read those instructions (he has used some Knauf batts and some from another company) and simply followed ‘Standard Practices’ which leave a great deal to be desired. And this is better than most insulation installations.



Appendix 3: Draft List of Projects to February 2017