attachment 1 to item 54

Copy of Submissions – Draft
Net Zero Emissions and Water
Efficiency Strategy

date of meeting:30 March 2021 location: council chambers time: 6:30 p.m.

Your Hawkesbury Your Say <notifications@engagementhq.com>

Sent:

Wednesday, 3 February 2021 9:54 PM

To:

; Hawkesbury City Council; (

Subject:

Anonymous User completed Your Submission

Anonymous User just submitted the survey Your Submission with the responses below.

Your full name

Email Address

Your Submission

The council is moving in the right direction, I look forward to more environmentally good outcomes for the hawkesbury

Sent: Thursday, 4 February 2021 7:26 AM

To: Hawkesbury City Council;

Subject: Anonymous User completed Your Submission

Anonymous User just submitted the survey Your Submission with the responses below.

Your full name

Email Address

Your Submission

Wentworth Community Housing still has fluorescent lights in many of their properties. If these were replaced with LED lights it could make a big difference given the number of light fittings involved.

Sent: Monday, 1 February 2021 2:30 PM

To: Hawkesbury City Council;

Subject: Anonymous User completed Your Submission

Anonymous User just submitted the survey Your Submission with the responses below.

Your full name

Email Address

Your Submission

Council should take a strong lead to reduce cars on the road by providing safe cycleways and pedestrians paths with the aim to make Richmond and Windsor pedestrian and cycle access so safe and easy that we become the envy of all other Greater Sydney communities.

Your Hawkesbury Your Say <notifications@engagementhq.com>

Sent:

Thursday, 21 January 2021 3:36 PM

To:

Hawkesbury City Council;

Subject:

Anonymous User completed Your Submission

Anonymous User just submitted the survey Your Submission with the responses below.

Your full name

Email Address

Your Submission

All future development proposals should have energy efficiency plans To be approved by council. Council rates should be adjusted according to the carbon footprint of land and housing. All housing being put up for sale should have an environmental/ sustainability rating and sales tax Esshould be adjusted accordingly. Housing that is approved needs to be below a certain size. Trees and landscaping should be part of property proposals. Passive solar / orientation of dwellings should all be part of routine approvals.

Sent: Sunday, 3 January 2021 12:23 PM

To: Hawkesbury City Council;

Subject: Anonymous User completed Your Submission

Anonymous User just submitted the survey Your Submission with the responses below.

Your full name

Email Address

Your Submission

I fully support the Net Zero Emissions and Water efficiency strategy, however, I believe HCC should have a greater impact on the energy and water efficiency of all new developments and renovations in the Hawkesbury. Since HCC's contribution to greenhouse gas emissions are a small component of total emissions a greater impact on residential and business emissions is required. Blue Mountains Council has higher building standards, I would like to see similar standards adopted in the Hawkesbury.

Sent: Monday, 15 February 2021 2:11 PM

To: Hawkesbury City Council;

Subject: Anonymous User completed Your Submission

Anonymous User just submitted the survey Your Submission with the responses below.

Your full name

Email Address

Your Submission

Council has not been taking the issue of climate and sustainability seriously enough when it is an issue that is impacting our area so strongly. To prevent further climate change you should be: - mandating new homes/developments are fully solar powered and have water tanks/use grey water on gardens - encouraging community owned/managed renewable projects - greater community input and agency on energy use and emissions - electric vehicle charging stations in central places including any new retail developments - lobbying for better climate policy at a state and national level - avoid working with companies that support fossil fuel mining through capital or labour To help us become more climate resilient you should be: - mass tree-planting of natives to reduce heat - creating more community gardens and improving food security - creating opportunities for residents to connect - better flood awareness and mitigation, including stricter bans on low-lying developments - better bushfire awareness and communication networks

Sent: Monday, 15 February 2021 2:15 PM

To: Hawkesbury City Council; ©

Subject: Anonymous User completed Your Submission

Anonymous User just submitted the survey Your Submission with the responses below.

Your full name

Email Address

Your Submission

All new homes and developments should have solar panels, water tanks and recycled water systems. All parks should have toilet facilities. Multiple bins for dog waste in parks. Have green waste bins in more areas. Have disability markings on pathways and crossings. Lobby other levels of governments on climate change and sustainability as well as private enterprise.

Your Hawkesbury Your Say <notifications@engagementhq.com>

Sent:

Saturday, 6 February 2021 6:07 PM

To:

Hawkesbury City Council;

Subject:

Anonymous User completed Your Submission

Anonymous User just submitted the survey Your Submission with the responses below.

Your full name

Email Address

Your Submission

If Council is considering setting a target for emissions and water efficiency. What about setting a target to ensure that the water in the Hawkesbury is clear of contamination by the PFAS chemicals as well. Some councils are suing for funds to clear up the contamination But Hawkesbury Council has yet to acknowledge that we have a problem here in the Hawkesbury. The contamination around Bakers Lagoon is 300 parts per million and 10 parts per million is a trigger point for concern. Council must be aware that Defence had developed a management plan for PFAS clear up that only covers the defence base and not of the other land and waterways they have contaminated. I asked the previous Mayor Barry Calvert what was going to be done about it and he said "We are going to ask defence to clean it up." As far as I am aware nothing had been done about this tragedy for our lands and waterways.

Sent: Thursday, 4 February 2021 3:14 PM

To: Hawkesbury City Council;

Subject: Anonymous User completed Your Submission

Anonymous User just submitted the survey Your Submission with the responses below.

Your full name

Email Address

Your Submission

I think if we look around the world, putting a date on being net zero admissions is a poor absunreliable economic strategy, renewable energy sources despite improving are yet to be reliable and cost effective compared to cheaper alternatives (clean coal is much better way forward or nuclear). I think shorter targets of improving environment impact year after year in smaller time frames (5years) a better strategic policy.

Sent: Thursday, 21 January 2021 12:03 PM

To: Hawkesbury City Council;

Subject: Anonymous User completed Your Submission

Anonymous User just submitted the survey Your Submission with the responses below.

Your full name

Email Address

Your Submission

Put infrastructure into all residential areas so we don't have to use our own power to run water tanks and septic or help assist residents to install solar at reduced prices

Sent: Mon, 15 Feb 2021 11:48:07 +1100

To: Hawkesbury City Council

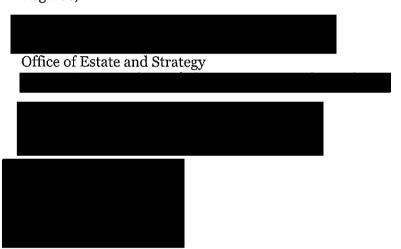
Subject: Submission: Achieving Net Zero Emissions and Water Efficiency

Attachments: WSU-Net-Zero-Emissions Submission.pdf

Attention:

Please find attached the University's submission to the Achieving Net Zero Emissions and Water Efficiency Strategy.

Regards,



We acknowledge and respect Traditional Owners (and Custodians) of the Lands, the Eora, Darug, D'harawal and Wiradjuri Peoples upon which our campuses now stand. We continue to value the generations of knowledge Aboriginal and Torres Strait Islander Peoples embed within our University.

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Document Set ID: 7458415 Version: 1, Version Date: 15/02/2021



- Use of electric and hybrid vehicles in our car fleet and enabling EV charging points for staff and students. The University is targeting EV/Hybrid in 75% of our vehicle fleet by 2025 and will prioritise connectivity to public/active transport in its new precincts.
- Management of waste sources resulting in 50% reduction in waste volumes with current waste compaction and recycling diverting approximately 90% of Western's total waste from landfill. A target of 100% green/organic waste diversion is sought by 2025.
- The University ranks third in the number of accredited Green Star buildings. Discussions are underway with the Green Building Council of Australia as to opportunities for Green Star Communities and how they can be leveraged at the Hawkesbury Campus.

Recognising the critical need for climate action, the University welcomes and supports the initiatives outlined in the draft Strategy, noting the strong alignment with our existing sustainability commitments. We welcome the opportunity to work with Hawkesbury City Council to improve education, awareness and action on climate change mitigation.

		ıg Manager, is avai	lable to discuss thi	s submission in mo	ore detail and
can be contacted b	y eman at				
Yours sincerely,					
	_				
Director,					

Your Hawkesbury Your Say <notifications@engagementhq.com>

Sent:

Wednesday, 10 February 2021 11:40 AM

To:

Hawkesbury City Council;

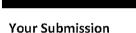
Subject:

Anonymous User completed Your Submission

Anonymous User just submitted the survey Your Submission with the responses below.

Your full name

Email Address



I have questions for you to answer: 1. What evidence is there that ANY reduced CO2 emissions will cause climate warming/change? 2. What is the COST of your envisaged proposals? 3. How can you set targets for Water usage: less or at reduced 'increases' over time when (to my knowledge) increases in population in the council area are 'malleable' at best? 4. Tell me HOW MUCH WILL ALL THIS COST? 5. What is the option if nothing is done; other than good 'housekeeping' and efficient use of council resources? (Instead of proselytizing the evil of CO2). 6. Please let me know how you've arrived at timelines and planned targets and what will be the effect on residents' rates? How do you propose to justify ANY increases; beyond the sometimes inordinate costs of council for what we get as

1

Sent: Sat, 13 Feb 2021 17:29:59 +1100

To: Hawkesbury City Council

Subject: Net Zero Emission

Attachments: Net Zero Emissions.docx

Please find attached our comments on the Net Zero Emissions & Water Strategy

Document Set ID: 7457426

Version: 1, Version Date: 15/02/2021

Sent: Fri, 12 Feb 2021 16:26:47 +1100

To: Hawkesbury City Council

Subject: COMMENTS on DRAFT NET ZERO EMISSIONS and WATER EFFICIENCY STRATEGY



WINDSOR NSW 2756

12 February 2021

Dear ,

Comments on Draft Net Zero Emissions and Water Efficiency Strategy

Thank you for the opportunity to comment on Council's Draft Net Zero Emissions and Water Efficiency Strategy.

Overall the Draft New Zero Emissions and Water Efficiency Strategy (hereafter the Strategy) is a welcome positive step forward to improving liveability in the Hawkesbury. It also will help make a small step forward to improving global emissions and reducing risk of the adverse impacts of Climate Change. The timing of the Strategy is apt given fundamental changes happening to the climate and liveability in Western Sydney as suggested in recent media;

https://www.abc.net.au/news/science/2021-01-24/heatwaves-sydney-uninhabitable-climate-change-urban-planning/12993580

The Strategy is supported. I make a few comments that Council may find helpful for inclusion in the final version for Council's approval.

Below are some comments from the International Energy Agency (IEA) World Energy Outlook 2020 which helps set the global picture for emissions. The suite of IEA 2020 World Energy Outlook documents and embedded graphics are essential reading for any Australian (including Councils) policy making.

These IEA comments are background information and Web Links are for consideration and inclusion in relevant parts of Council's strategy:

- The IEA "updated assessment of the immediate effects of the pandemic on the energy system shows expected falls in 2020 of 5% in global energy demand, 7% in energy-related CO2 emissions and 18% in energy investment. Oil consumption is anticipated to decline by 8% in 2020 and coal use by 7%. Renewables, especially those in the power sector, are less affected than other fuels by the pandemic and its aftermath."
 - Source: https://www.iea.org/reports/world-energy-outlook-2020/overview-and-key-finding
- "Despite a record drop in global emissions this year, the world is far from doing enough to put them into decisive decline." Dr Fatih Birol, IEA Executive Director Source: https://www.iea.org/reports/world-energy-outlook-2020

Document Set ID: 7457275 Version: 1, Version Date: 15/02/2021 community awareness / education strategy significantly helps deliver change and improve outcomes of the main (in this case 6) strategies.

Key components of the Community Awareness, Collaboration and Education Strategy could include identification of:

- Key Stakeholders- within and beyond the Hawkesbury;
- Channels of communication and feed back:
- Number, frequency and style of community workshops, meetings, shopping centre stalls to be undertaken etc;
- Working with other agencies to identify key issues for community engagement/ workshops;
- Need to be flexible, adaptive and agile over time in fulfilling the Strategy, as technology changes;
- reasons to update timelines and/ or standards in accord with National or International Agreements; and
- Media Engagement Plan for targeted community messaging.

Some other Issues to potentially consider in this Strategy

a) Likely Employment in a more Sustainable Hawkesbury

Whilst, employment in the Hawkesbury area is likely to be relatively stable, unlike the Hunter Valley and other coal mining areas around Australia that will have to make significant changes to their local economies as coal mining and coal fired power stations are closed. However, the Hawkesbury needs to build a more resilient local economy geared towards a clean energy future. Other Council's such as Muswellbrook are already making similar plans for their future, based around changing employment, regional development and diversification following the upcoming closure of Liddell Power Station and some coal mines.

A research paper, "Measures of Success for Coal Fired Power Station and Coal Mine Closures" was commissioned by Muswellbrook Shire Council and the University of SA undertook the work in association with Council - see link:

https://www.muswellbrook.nsw.gov.au/index.php/2015-05-29-01-29-46/3508-muswellbrook-shire-council-wins-the-2020-presidents-award

Whilst this style of work is not as imperative in the Hawkesbury it is essential that this Net Zero Strategy supports local employment in new and evolving industries and work places as a consequence of renewable energy. Employment growth is likely to be positive rather than negative from the transition to renewables and this needs to highlighted in the Strategy, with appropriate supportive data.

b) Clean and renewable Energy Systems Research and Development

Within the Hawkesbury there is already renewable energy and Climate Change Abatement research being undertaken on UWS Richmond Campus, including Solar Research and the EucFACE Experiment to understand the implications of rising CO2 on Australian native forests. See link https://www.westernsydney.edu.au/hie/EucFACE This group are seeking national collaborations and any local opportunities should be encouraged where possible by Council. The educational opportunities UWS could offer towards Net Zero should also be considered. If

Document Set ID: 7457275 Version: 1, Version Date: 15/02/2021 it is noted many of the Hawkesbury's recent largest, mostly rural residences do not have solar and would be significant above average energy consumers. These issues should have been addressed at DA stage.

Policies to retro fit existing residential, industrial, commercial roofs should include working collaboratively to ensure outcomes with clear performance targets over time. This should be considered in light of the comments above from the IEA indicating without retro fitting of existing global infrastructure (including buildings) a temperature rise of 1.65 Degrees C is already locked in. Most global Climate Change targets are either 1.5 or 2.0 Degrees C increase in temperature.

Food for thought ... Council for many years has not approved a building without roof guttering or down pipers etc. Therefore in 2021, as part of this Strategy should solar be mandatory as it is essential as roof gutters and downpipes?

2. Green public domain for resilience to urban heat

This section has no discussion and makes no recommendations to further minimise/ reduce clearing of natural or revegetated rural or urban lands. This needs to be rectified, in this Strategy. Rural greening also has positive outcomes for water and stream quality as well as for flora and fauna.

Whilst this section concentrates on urban heat and greening, BUT most of the Hawkesbury's area is rural. Therefore rural greening and resilience to heat should also be more actively considered in this Strategy. This should relate to Council road side trees and more strongly advocate, consistent with NSW Government guidelines, greening of privately owned rural land, including large government and other rural land owning, such as UWS. Council should consider working with NGO's like Greening Australia etc to help achieve these objectives.

Ongoing Council/ community maintenance and care of newly planted young trees, including watering, appears to be overlooked.

3. Low carbon & local transport

EV's are just around the corner.!!! The cost of EV's is approaching the tipping point of competitiveness and mass adoption, given whole of life costs better than conventional petrol/ diesel powered vehicles, as outlined in the following link:

https://www.theguardian.com/environment/2021/jan/22/electric-vehicles-close-to-tipping-point-of-mass-adoption

The travel patterns outlined on P17 of the draft Strategy, should more strongly suggest Hawkesbury vehicles travelling an average 90 kilometres per day is ideal for greater EV use, given the current range of EV's is over 400KM and with innovation this range will increase.

Council's role facilitating EV's is important and needs to be supported by creative use of Council, and through planning negotiation, private land assets. The following article from RenewEconomy examples how this is being approached in Broome WA, where car parks and buildings have been covered with solar PV's,

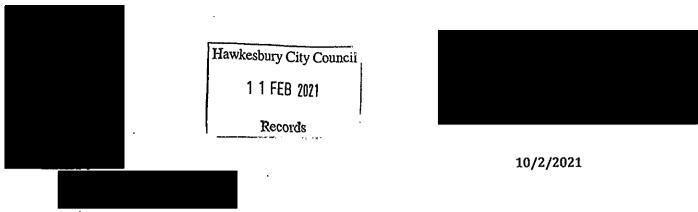
https://reneweconomy.com.au/broome shopping centre to host massive solar and battery system/

Document Set ID: 7457275 √ersion: 1, Version Date: 15/02/2021 I am happy to discuss as required.

Yours sincerely



Document Set ID: 7457275 √ersion: 1, Version Date: 15/02/2021



Hawkesbury City Council 366 George Street Windsor NSW 2756

Draft Net Zero Emissions and Water Efficiency Strategy

Dear Control

Hawkesbury Environment Network is a non-government, not-for-profit network of affiliated groups and individuals. We aim to conserve and restore the natural environment of the Hawkesbury region by advocating for sustainable development.

Hawkesbury Environment Network acknowledges the moral imperative for all levels of government and the wider community to take immediate action to achieve net zero emissions and water efficiency as early as possible to limit the impact of an increasingly hostile climate.

Hawkesbury Environment Network applauds Councils actions to date to reduce emissions and water use, however, it is of great concern that Hawkesbury's households generate nearly 60% more emissions than the average household in Greater Sydney. The leadership role of Hawkesbury City Council working with local partner organisations to reduce emissions from households and businesses cannot be underestimated. Given that 97% of all Hawkesbury emissions come from non-Council sources this is where the greatest overall savings can be made.

Council staff and elected Councilors are in a position to educate and influence residents and business owners in various forums. Funding must be allocated every year to ensure that the targets and actions listed in the strategy are achieved.

In addition to reducing emissions by switching to renewable energy, it will be imperative that existing stores of carbon are protected in the region and the capacity of new stores of carbon are maximized. Hawkesbury farmers should be encouraged to adopt regenerative farming practices to increase soil carbon.

Hawkesbury Environment Network seeks to work with Hawkesbury City Council to achieve its Net Zero Emissions and Water Efficiency Strategy.



www.hen.org.au

Sent: Mon, 15 Feb 2021 09:54:24 +1100

To:

Hawkesbury City Council

Subject:

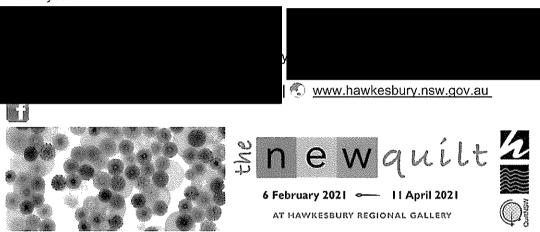
FW: Submission on the Draft Net Zero Emission and Water Efficiency Strategy Draft Net Zero Emission and Water Efficiency Strategy - Submission from HCAN -

Attachments: 150221.pdf

Records

Please register the below e-mail and attachment as a submission for the Public Exhibition of the Draft Net Zero Emissions and Water Efficiency Strategy.

Thank you.



From: Hawkesbury CAN <hawkesburycan@gmail.com>

Sent: Monday, 15 February 2021 8:21 AM

To: Hawkesbury City Council < Council. Main Email Account@hawkesbury.nsw.gov.au >;

Subject: Submission on the Draft Net Zero Emission and Water Efficiency Strategy

Dear Hawkesbury City Council,

Please find attached a submission from Hawkesbury Climate Action Network on the Draft Net Zero Emissions and Water Efficiency Strategy.

Sincerely

on behalf of Hawkesbury Climate Action Network

Document Set ID: 7458145 Version: 1, Version Date: 15/02/2021 We note that the recommended emission reduction targets are consistent with other NSW local government areas (LGA) emissions reduction targets as shown in the table below.

Government	Target Type	
Sydney City Council	Net zero emissions for the LGA by 2040 Reduce emissions by 70% for the LGA by 2030 50% electricity demand met by renewables by 2030	
Northern Beaches	Aspire to achieve net zero emissions in the community by 2030. We are committed to reducing carbon emissions in the community by more than half by 2040 and net zero emissions by 2050	
Inner West	Community emissions are 75% less in 2036 than in 2017 100% of schools have installed solar Community solar PV capacity is 20 times greater than in 2017	
Ku-ring-gai Council	Objective - To support the community in the goal of reaching net zero GHG emissions by 2040	

2. The strategy should outline short-term actions by Council to develop the detailed programs and policies to achieve the targets.

The document outlines broad strategies and potential actions to achieve the emission reduction targets in the section "our action plan to get there". There is a lack of detail in the action plan, including: measurable outcomes, timeframes, and funding source. The strategy should commit to delivering these details as soon as possible.

We recommend Council take the following immediate actions:

- Complete an abatement cost analysis and prioritise actions based on the outcome to ensure Council's limited resources and time are used for maximum benefit.
- Develop a detailed action plan for renewable energy including for example:
 - o Signing up to Solar my School,
 - Promoting NSW Government <u>interest free loans</u> for solar with batteries and other financing options for residential solar,
 - Developing and promoting a business case for commercial solar.
 - Meeting with senior management of large public institutions (Hawkesbury hospital, Richmond Tafe, RAAF, Richmond campus of Western Sydney University etc) to promote the emissions reduction target and to identify the opportunities, barriers and potential collaborations for renewable energy.
- Develop a detailed action plan for protecting and enhancing carbon sequestration including for example:
 - Identifying threats to existing carbon stores on public and private land and develop strategies to protect them,
 - Identifying the potential for sequestration from regeneration or revegetation of natural ecosystems and from agricultural land uses such as silviculture and regenerative agriculture using low emissions practices and adding carbon through compost and other carbon based soil conditioners; and

Sent: Mon, 15 Feb 2021 21:15:43 +1100

To: Hawkesbury City Council; Julie Ryland

Subject: Net Zero Emissions + Water Efficient Strategy

To The General Manager.

I would like to congratulate Hawkesbury City Council and the staff on the development of the Net Zero Emissions + Water Efficient Strategy. The document is well thought out and addresses a number of critical areas that relate to climate change.

The Hawkesbury area will be significantly impacted in the coming years as our climate continues to change and leadership from our local elected members is critical. The Hawkesbury area has been and will continue to be impacted by flood, fire, drought, storms, COVID-19 pandemic and increasingly urban heat. We need to mitigate our emissions immediately and start to respond and adapt to the changing climate to ensure a resilient and thriving community.

I encourage Council to adopt an ambitious target of net zero emissions for its own operations by 2030 and net zero emissions for the community by 2040. This needs to be clearly articulated in the document and communicated to the community.

Specific recommendations for the document include:

- Amend the Executive Summary and Section 6 'Council Leading by Example' to say Net Zero Emissions by 2030 or earlier if possible. At present the document outlines Council has set an aspirational target to achieve net zero emissions across its own operations by 2050 if not sooner, however you have a target of Net Zero Emissions by 2030 or earlier in the section 'Establishing Targets and Monitoring Our Success'.
- Inclusion of street trees in the 'Green Public Domain for Resilience to Urban Heat' section.
- Consideration of solar carports in Council owned car parks to provide shade / shelter, solar generation and electric vehicle charging
- Council to lobby TfNSW to increase the frequency of train services to the region as part of the facilitation of public transport and on-demand infrastructure
- Investigate car share services for the region to reduce the need for a second vehicle
- Inclusion of water sensitive urban design into the revitalisation of urban centres not just looking at recycled water

Document Set ID: 7459223 Version: 1, Version Date: 16/02/2021

Sent: Tue. 23 Feb 2021 09:52:09 +1100

To: Hawkesbury City Council

Subject: Sydney Water Submission for Hawkesbury City Council (attention: Andrew

Kearns)

Attachments: 8000356237 MD letter response re Hawkesbury Council Draft Strategies.pdf, SW Submission - Hawkesbury Net Zero Emissions and Water Efficiency Strategy.pdf, SW Submission -

Hawkesbury Rural Lands Strategy.pdf

Dear Sir/Madam,

Please find attached Sydney Water's submission to Hawkesbury Net Zero Emissions and Water Efficiency Strategy and Hawkesbury's Rural Lands Strategy.

Regards

Government Relations

Communications & Public Affairs





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virus, interception or interference.

Document Set ID: 7468267 Version: 1, Version Date: 23/02/2021

Sydney Water comments - <u>Draft Hawkesbury Net Zero Emissions and Water Efficiency Strategy</u>

Topic	Reference	Feedback/Comments from Sydney Water
Strategic Context	page 6	Sydney Water supports the strategy's strategic context setting in light of climate change impact, especially for extreme temperature caused by urban heat island and how that needs to be addressed in a sustainable way for the overall liveability and wellbeing of the local community.
		 Sydney Water believes Council's long-term strategy towards zero-emission and aims for a resilient future is a timely response to the current context of climate change and extreme events.
	page 7 - Framework	 The diagram showing the framework to deliver the outcomes of the Community Strategic Plan is a helpful reference to see the subject draft strategies in context.
		Linking the relevant strategies to each other as relevant on the diagram will also support a better understanding of interdependent strategies at level 3 tier of the diagram.
Community Engagement results	pages 8 to 11	 Sydney Water notes Council's draft strategy is driven and informed by community insights. The community baseline (page 9) is an insightful presentation of the current state and useful way towards informed decision making.
		 Sydney Water is committed to deliver high-quality customer centric service through the finest customer experience and collaborate with our current and future customers, communities, stakeholders and partners to deliver better outcomes.
		Sydney Water notes 94% of Council's survey respondents support continued community education on energy and water efficiency. Sydney Water would keen to support Council's water and energy efficiency strategies and action plans, based on various recent customer advocacy and customer experience surveys Sydney Water has performed.
Six Strategies to zero-carbon resilient Hawkesbury	page 12	Sydney Water believes that the six proposed strategies are well covered to support the Council's zero-emission and resilient Hawkesbury aspiration. The quantitative targets with timeline mentioned for the strategies are qualifying all 'SMART strategy' criteria.
		Sydney Water also notes that collaboration underpins a whole-of-government approach to strategic planning, streamline the planning process,

Topic	Reference	Feedback/Comments from Sydney Water	
		Recycled water from Sydney Water's Richmond WRP would also be a viable source of supply for Council's goals to connect new development and for irrigation of public green space and tree canopy for cool, resilient and green public and private domains (especially where located in the vicinity of the plant and mains). Sydney Water expects the Richmond WRP to be able to supply up to 6 MLD by 2046 subject to rates of growth.	
		 Sydney Water notes the draft strategy indicates in the water use pathway analysis (Appendix B - page 33), that with 5~10% increase of canopy cover may result in increased water demand by 19% in future. 	
		Sydney Water is also investigating the opportunity to leverage the use of recycled water use offset the drinking water use, in line with Council's strategy aspiration. Sydney Water is keen to collaborate with Hawkesbury Council on the development of recycled water schemes to improve local drought resilience and to support the greening demands.	
		In addition, Sydney Water recommends the strategy could identify opportunities to integrate stormwater harvesting and other water sensitive design features for an integrated water approach and enhance resilience by capturing as much rainfall as possible and help deliver improved amenity and liveability to the council area.	
		SW believes acknowledgement of the existing recycled water from the Richmond WRP will provide a fuller picture of the baseline condition.	
BASIX targets and BASIX Review	2. Greener Suburbs & Better design page 15 Action Plan	Sydney Water agrees there are possibilities and opportunities to review BASIX. A whole of water cycle approach may help achieve the key water and energy efficiency objectives of BASIX, with more benefits for the community.	
	page 26	The inclusion of stormwater and catchment management through water sensitive urban design will help to achieve higher BASIX targets and protect the health of waterways.	
		It is noted Rob Stokes (Minister for Planning and Public Spaces) stated in a media release on 8 th December 2020:	
		"The transformation of BASIX is underway, with a number of significant changes implemented to provide greater flexibility and enable more innovative and sustainable design solutions."	

Topic	Reference	Feedback/Comments from Sydney Water
		initiative, in the future to manage water demands for local non-residential users.
Urban Typologies - Sustainable growth - Greener Suburb - Urban Heat	2.Greener Suburbs & Better Design 2. Greener Public Domain for resilience to the urban heat page 16	 The Urban Heat Island Effect is a major challenge in the development of the Western Parkland City, which is currently one of the hottest and driest parts of Greater Sydney. Water is an essential building block for lowering the heat in the Parkland City, with Sydney Water's recent Urban Typologies work showing how smart water planning typologies (or urban templates) can be used to guide development across Western Sydney to maintain waterway health and help reduce the Urban Heat Island Effect at the same time. The report found implementing cooling actions such as permeable surfaces, tree planting, vegetation and irrigation will provide welcome relief to communities in Western Sydney. Further information is available at https://www.sydneywater.com.au/SW/water-the-environment/what-we-re-doing/current-projects/servicing-growth-areas/west/index.htm Sydney Water's modelling shows that compared to business as usual development, by 2055 these typologies will reduce the average temperature by 4.6°C on an extreme heat day at 4:30 pm. This approach could be highly beneficial to development and liveability in Western Sydney. Modelling showed the number of extreme, very strong heat stress days per summer decreases dramatically from 47 to 19 days and the number of days with no thermal stress more than doubles. Adopting the typologies and integrating water cycle management into the earliest stages of strategic land-use planning, promises fantastic benefits to workers and residents, improves the health of our waterways, and supports the economic vibrancy and competitiveness of NSW. Sydney Water would keen to collaborate with the Council to implement the typologies in the Hawkesbury LGA. If of interest to Council, Sydney Water's Climate Study report on a selected part of Western Sydney as a relevant reference

Topic	Reference	Feedback/Comments from Sydney Water
		Working with the WCAA (now the Western Parkland City Authority), Sydney Water has developed circular economy models for a world-leading Integrated Intensive Production Hub (IIPH) in Western Sydney, which will integrate food production, bioenergy, water, waste, research and development at a city scale.
}		 A regional organic waste to bioenergy hub could be catalytic in delivering a new and sustainable organic waste solution for Western Sydney.
		Strategic alignment across Local, State and Federal Government could see the following benefits delivered:
		 commercial viability delivering a \$50 million p.a. start-up revenue stream growing to \$100 million at full scale.
		 meeting all heat, CO2, energy and water demands of the Hub from local renewable production, with excess energy available for supply to neighbouring communities.
		 a new sustainable, resilient and internationally competitive industry and economic hub for Western Sydney delivering 6,500 new jobs.
		 establishment of a sustainable organic waste management solution for Western Sydney that will reduce pressure on landfills and make a substantial contribution to NSW net-zero carbon emission target by 2050.
		 a platform for collaboration between Local and NSW State Government with the private sector
		 Sydney Water has had preliminary discussions with Council and the Hawkesbury campus of Western Sydney University, to deliver a food, energy, waste and water (FEWW) pilot at a smaller scale. If Council is willing to implement waste separation and provide it to the pilot, it would demonstrate leadership, show this approach is possible at multiple scales, and has the potential to underpin the economics of the pilot.
Creating Circular Economy precinct	4. Towards a zero- waste community	With the Institute of Sustainable Futures, Sydney Water has recently developed a guiding document on Circular Economy concepts, which includes organics processing from wastewater and additional organics

Topic	Reference	Feedback/Comments from Sydney Water
Green Centres – Collaboration, Greening Demand, Connectivity and shared use of lands.	5. Drought Proof green centres – pages 21 – 22,	Sydney Water strongly supports the Council's targeted plan to increase tree canopy in alignment with Premier's priority, Governments' Greenspace Strategy and Western Parkland City vision.
		Sydney Water is keen to collaborate in green centres and green grid work as this will also help to better understand the water demand that may be needed to support healthy green spaces and opportunities for resilient water sources, such as recycled water and stormwater harvesting.
		Sydney Water has recently done some detailed analysis to understand the greening demand under various climate conditions. Sydney Water would be able to contribute knowledge, including existing open space irrigation guidance, and emerging research on stormwater retention performance and design. More specific details on Sydney Water's plans and possible opportunities to supply recycled water from Richmond WRP are mentioned above
		Sydney Water would also encourage consideration being given to appropriate tree species for planting and methods to ensure trees receive enough water to grow by designing for passive irrigation via stormwater.
		Sydney Water would like to mention about considering the connectivity of these green spaces to support the Government's plan to develop a green grid for the Western City. It will require a targeted plan for connected open space network and identification of options and priorities to improve and better connect spaces. Sydney Water may be able to assist community access and connectivity through shared use of any non-operational land and corridor.
Fit for purpose water for urban cooling	5. Drought Proof green centres – pages 21 – 22,	As mentioned earlier, Sydney Water is happy to engage with Council to investigate climate-independent recycled water infrastructure and integrated water management to improve drought and heat-wave resilience through supporting a green canopy improving urban-heat island effect (page 4, 5,16, 21 NZE&WES); investigate the delivery of drought-proof water infrastructure to support their vision for cool-green centres across Hawkesbury (page 5, NZE&WES); support the Council's leadership role to lead-community change around water re-use opportunities and drought-proof infrastructure.

Sydney Water comments - Draft <u>Hawkesbury Rural Lands Strategy</u>

Draft Strategy Key Recommendations	Reference	Sydney Water Feedback
Growth Management	Section 6.5	Sydney Water notes the strategy's proposed settlement hierarchy for guiding urban expansion which is consistent with the Hawkesbury Housing Strategy. The Hawkesbury is classed as a metropolitan rural area under the Greater Sydney Region Plan.
		Sydney Water requests the opportunity to collaborate further with Council on servicing growth in local settlements. This is because the strategy explores potential wastewater and recycled water services opportunities.
		Based on the information provided within Council's Local Strategic Planning Statement and the Local Housing Strategy, Sydney Water is aware of the growth projections for the LGA and is keen to continue to work with Council to provide timely and sustainable services.
		Proposals would need to be assessed by Sydney Water, in detail, with further information needed regarding proposed local development and associated timescales.
		Please note, in relation to table 6.1 Services and Facilities in Settlements, the existing urban settlement at Agnes Banks is serviced by reticulated wastewater. Sydney Water delivered wastewater services to the Agnes Banks settlement in 2010 in line with the NSW Government's Priority Sewerage Program.
Domestic Effluent Disposal	Section 6.5 p.207	In relation to appropriate methods and lot sizes for onsite sewage management, Sydney Water recommends the strategy refer to Office of Local Government's 'Environment and Health Protection Guidelines: On-site Sewage Management for Single Households' (1998) (see https://www.olg.nsw.gov.au/councils/council-infrastructure/services-to-communities/on-site-sewage-management/)
Rural Lands and Land Use Zoning	Section 6.7	In relation to servicing rural villages, rural residencies, and agricultural land-uses, Sydney Water is not required to provide water or wastewater services to these areas.
		Sydney Water can provide water servicing to rural areas but this is considered on a case-by-case basis and is determined by the type/scale of land-use proposed when it is submitted to Sydney Water for assessment.
		Sydney Water may choose to defer works to service a property should the site not be close to existing water services. This is also dependent on whether adjacent land is also being developed. There are no requirements that Sydney Water must service rural zoned properties beyond our limits of supply.