SUSTAINABLE TOWNSVILLE

TOWNSVILLE CITY COUNCIL

SUSTAINABILITY SUMMIT

AN ACTION PLAN TO TAKE A SUSTAINABLE TOWNSVILLE FORWARD

The collective actions that the corporate sector, Council and the community can take to progress a Sustainable Townsville

Workshop Proceedings and Participants' Output Draft Report

8 - 9 March 2007

Southbank Convention Centre

City of Townsville

Table of Contents

Executive Summary

A Sustainable Townsville took a great leap forward in March, 2007 when an active sustainable city program was developed by a collective voice of business, government and citizens. The program enhances and builds on existing council sustainability initiatives (Townsville Queensland Solar City (Citisolar), Greening Townsville/Green Tree Ants and Creek to Coral) to develop a community based collective action plan. The program included two Townsville Have Your Say interactive sessions with Professor Valerie Brown (45 people per session), a Townsville Enterprise Business leader forum breakfast and a display of school sustainability artworks ("Art in schools- Urban Nature Jigsaw").

In three days, March 7-9, over two hundred Townsville people from community, businesses and government gave their time to develop an "Action Plan to take a Sustainable Townsville forward". The outcome is a list of principle collective actions including the rationale, resources and responsibilities to implement. These priority actions have been developed with business support and include 46 practical programs (including 13 key and highlighted) that involve community, business, and government in collective contributions to the long-term sustainability of the City of Townsville. Examples include a local office of sustainability, solar projects, an Eco-City plan, a Sustainable Townsville Foundation, Eco-Fund, Year of Sustainability, walking school bus, and a support for Townsville/Thuringowa to be a centre for excellence in tropical sustainable design.

Background

Townsville City Council has embarked on the path towards developing a sustainable city ethos (Sustainable Townsville), and is committed to showing leadership, vision and working collectively with the corporate, government and community sector to achieve this vision. This Summit builds directly on the outcomes of the Futures Summit held in September 2006.

The Sustainability Summit was a key outcome (capstone agreement) of Council's mainstreaming of sustainability principles that commenced with the AtKisson Accelerated Sustainability (http://www.soe-townsville.org/atkisson/index.html) planning week in 2004.

Since the Accelerated Sustainability planning, Council has organised a series of sustainability events for the community, Townsville Have Your Say (THYS) and professional sector, including bringing to Townsville notable speakers such as Hunter Lovins (sustainable business), Peter Ellyard (futurist), Janine Benyus (biomimicry) and most recently, Dr David Suzuki.

This has been complemented by workshops for Engineers Visioning a Sustainable Future (EVSF), sustainable commercial buildings, the Ecotourism Design Charrette, and CBD Solar Cities building (green). Additionally Townsville City Council, through the Sustainable Townsville Plan, has been working with the Thuringowa City Council and Department of Public Works (Project Services) towards the vision of this City as a centre of excellence in sustainability and tropical design.

In developing a Sustainable Townsville Plan, council has already taken a wide range of practical steps towards sustainability, such as signing up to Clean Energy for the Administration Building, using ethanol-blended petrol in Fleet vehicles, trialling biodesiel, purchasing petrol-electric hybrid vehicles, and working with schools and the community in catchment management, the water cycle with Council Engineers and planners through initiatives, such as through Creek to Coral and Citischools.

Sustainability Summit

The Sustainability Summit held over one and a half days with up to 120 participants (see appendix 2 for list of participants), focused on the collective challenges and opportunities everyone faces in progressing Townsville as a Sustainable City.

Sustainability relies on the entire community (business, government and citizens) taking collective steps towards ensuring that the actions we take today do not harm the chances and opportunities of future generations. Townsville has a great environment, and the community is supported by a strong and vibrant economy, sound industrial-commercial base, that has access to world-class educational and scientific establishments consequently the time has now come to develop a plan for sustainability action.

The focus of the summit was to identify the often-hidden barriers towards sustainable change, both within Council, and between Council and the community and corporate sector. The summits focused on the fact as a city, collective efforts as well as partnerships are needed from the corporate, government and community sector. Only by involving all three aspects will enable Townsville to develop and become a model of sustainability.

Consequently the summit aim was to build a collective learning spiral with all resources focussed on answering the question:

"What collective actions can the corporate sector, Council and the community take to progress a Sustainable Townsville?"

By using this question as the Summits theme the Summit was able to scope some of the solutions and relationships that will be needed to overcome the hurdles to achieve a shared Action Plan for a Sustainable Townsville

The Action Plan outcomes developed by each of the 12 tables can be used to assist in finalising a Sustainable Townsville Plan by which Council, working in partnership with the private sector and community, can take the necessary steps towards transforming 'business as usual' into *sustainable business models* so that Council can better understand how it can become the delivery arm for sustainable practice for Townsville City.

The summit was independently co-facilitated and consisted of three keynote speakers, Malcolm Snow, Charlie Hargroves and Valerie Brown (see appendix 3 for Summits agenda). The speakers' topics were catalytic and were aimed at focussing the participants' minds on the key question to consider the challenges and opportunities which were to be discussed in the workshop section of the Summit.

The workshop used a learning spiral process and was facilitated by Valerie Brown and Julianne Bell. All participants were encouraged to share their views on the needs and constraints to progress a Sustainable Townsville following four stages of action learning in establishing the conditions for answering the question:

1. What should be? Sustainability for Townsville: principles.
2. What is? Scoping the parameters.
3. What could be? Innovative projects tapping into the potential.
4. What can be? Putting the projects into practice.

"What collective actions can the corporate sector, Council and the community take to progress a Sustainable Townsville?"

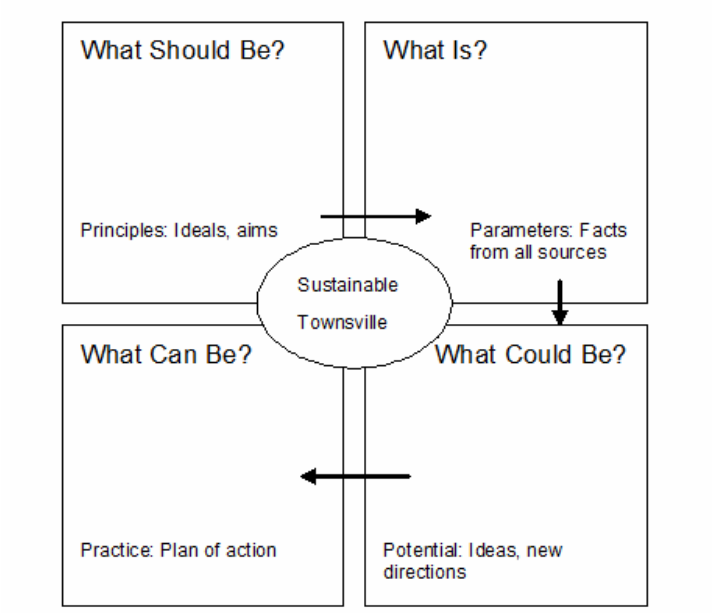

Figure 1. The Learning spiral process used for the Sustainability Summit (from Brown 2007)

The objectives of the workshop included informing each other on our own perspectives to the answer to the four questions relating to sustainability and progressing a Sustainable Townsville and developing our collective understanding and partnership. Each table consisted of participants from varied professional backgrounds (eg. Government, business, engineering, planning, science, community).

Each table developed an individual plan on how they could take a specific action from theory into practice in our community in a manner that required each of the participants to take responsibility for there own actions and impacts on the environment (see appendix 4 for Summit process).

Results

Information on the results for the entire Sustainability Summit will be detailed as follows:

1. Townsville Have Your Say (THYS) interactive Sustainability Forum

2. Townsville Enterprise Business Leader Forum Breakfast

3. Sustainability Summit Workshop

Townsville Have Your Say Sustainability Forum session with Professor Valerie Brown

On the 7th March Townsville City Council held two meetings (3.00 – 5.00pm and 6.00pm-8.00pm) with Townsville citizens drawn from participants from the Townsville Have Your Say. At both these sessions Valerie Brown gave a presentation about the challenges of sustainability. Following the presentation there was a forum where the THYS members where able to discuss with Valerie their views about sustainability for Townsville City. Participants also offered suggestions for consideration at the Summit. Five participants attended the Summit to carry these ideas forward.

The principal recommendations from the Townsville Have Your Say participants were to:

1. Publish a comprehensive Sustainability Plan or road map for Townsville 'joining up all the dots". that is, connecting past, existing and planned Sustainability Projects;

2. Establish a communication hub to provide up-to-date practical information on sustainability issues and actions for the whole community;

3. Set up collaborations between citizens and research institutions for two-way information flow;

4. Review designs of multiple unit buildings to meet sustainability criteria, and b. to encourage, not reduce, community self-support

5. Evaluate the siting and sustainability impact of all commercial and industrial developments (eg the proposed alumina plant).

Townsville Enterprise Business Leaders forum Breakfast

A breakfast meeting in the series hosted by Townsville Enterprise was sponsored by Ergon with support of Townsville City Council on 8th March. Two of the keynote speakers for the Sustainability Summit addressed the meeting. Malcolm Snow, urban designer and Chief Executive Officer of the South Bank Corporation, Brisbane, spoke of their sustainability process in managing the precinct. This included the goal of self-sufficiency on-site for water and power, and collaboration in management among the 42 different entities on site.

The second speaker, Professor Valerie A. Brown, Director of the Local Sustainability Project, Fenner School of Environment and Society, Australian National University, spoke to the status of business in regard to environmental and commercial sustainability in this place (Townsville) and at this time. She drew attention to:

1. Local and global environmental changes that have already changed the cost/benefit equation for business

2. There is a reversal from it being too expensive to incorporate sustainability strategies, to being too expensive not to use them

3. There is a short space in time left for effective changes to happen, changes that can be compared in importance with the invention of the wheel, or the use of fire.

Sustainability Summit - Workshop Practical Action Plans

The output from the first three questions (under the collective question of "What collective actions can the corporate sector, Council and the community take to progress a Sustainable Townsville?") is presented in Appendix 5.

The fourth question (What can be?) required each table to develop action plans. The following 46 recommended practical actions plans are as follows:

1. Office of Sustainability
2. Solar Thermal Commercial Trials (in Townsville)
3. Eco-City Plan (whole of community, urban sustainability and ecology)
4. Website (provides broad, practical information on sustainability)
5. Website (sustainability education tool)
6. Green Buildings Action Plan (providing sustainable design examples)
7. Year of Sustainability (nominate 2009 as Year Of Sustainability)
8. Sustainable Townsville Foundation
9. Tropical Design Residential Prototypes (develop sustainable building prototypes)
10. Ecofund for Sustainability (promote technology to aid sustainability)
11. Sustainable living year 12 service (education for students on sustainability)
12. Cardboard Recycling (promotion of complete paper recycling in Townsville)
13. Walking Schoolbus (in Townsville)
14. Support Townsville/Thuringowa as a Centre for Excellence for Tropical Sustainable Design
15. Action plan for Sustainable Awareness Program – creating a Centre of Excellence in Tropical Design and Education
16. Continuing support for Tropical Science Precinct, and for practical applications for sustainability practices
17. Support Townsville region as a part of a network of Australia tropical Cities exporting sustainable services/technology/knowledge
18. Enhance ongoing per capita funding for the Creek-to-Coral initiative
19. Ride to Work through Winter Program (in Townsville)
20. Promotion of bike riding to work through improved bike facilities (in Townsville)
21. Promotion of Solar Generators for new and existing buildings (in Townsville)
22. Celebrate a Sustainability Day (in Townsville)
23. Develop effective transparent environmental monitoring for Townsville

24. Incorporate Sustainability into Townsville's:
    - Building code
    - Interdepartmental planning, and working groups
    - Communicating and working with community, local government and industry
    - Per capita resourcing of sustainability initiatives
25. Work openly with Federal and State government to address the real issues associated with industrial development in accordance with the precautionary principle and ecological design principles
26. Support for Townsville's CBD redevelopment as a sustainability demonstration project
27. Support for convenient sustainable assessable public transport in Townsville
28. Enhance and support education initiatives to instil sustainability awareness
29. Develop and introduce "Quadruple Bottom Line" to underpin all new development and local government operations to integrate sustainability
30. Develop a process with Townsville's community citizens for capacity building and onground individual ownership of sustainable behaviours
31. Create a Townsville/Thuringowa accessible walking and riding urban area
32. Ensure all new urban developments in Townsville are to incorporate retail opportunities within a 10 minute walking radius (Village Concept)
33. Ensure public access to the views of Cape Cleveland from Benwell Road, Archer Street, and the Port access road.
34. Create more sustainable display houses, and aim for at least 10% of new display houses are sustainable by 2012
35. Plan and create new housing estates in Townsville that require less electricity by utilising new technology available
36. Retrofitting existing houses as retrofit display homes (in Townsville)
37. Increase planning requirements for sustainable residences (in Townville)
38. Create a vision and a plan for consolidation of the existing urban footprint including improved access to services; minimisation of transport dependence; provision of natural habitat within local areas (to enable experience of nature and maintain and enhance biodiversity); and a lively, safe and happy community life.
39. Development of incentive based planning scheme policy (in Townsville)
40. Twin Cities community learning to live more sustainably
41. Develop reward incentives for sustainable practice (in Townsville)
42. Promotion of education on sustainability.
43. Promotion of car-pooling and use of public transport for the citizens of Townsville.
44. Promotion of water-smart premises and devices (in Townsville)

45. To contact Malcolm Snow (CEO of the South Bank Corporation) to obtain a copy of the “South Bank Sustainability Challenge” document to be implemented in Townsville
46. Creation of an artificial wreck reef near to Townsville to encourage growth of sustainable diving ecotourism, and capitalise on the proximity of the Yongala shipwreck.

Highlighted Action Plans

The highlighted practical Action Plans for each of the twelve tables is provided below. This task required each table to choose one practical action plan to be presented to the whole group. Each group was required to break apart the Action Plan and allocate tasks to specific individuals and/or organisations, including ensuring that a role was allocated to government, industry, and citizens.

In addition to the twelve action plans, Valerie Brown (facilitator) also highlighted another 'action' from Table 1 that has been included as a thirteenth action plan as part of this report. A fourteenth action plan has also been added to the highlighted list as the topic was repeated in four individual practical action plans, and also links with many other of the listed practical action plans.

Title - *Townsville City Council local "Office of Sustainability"*

Table 1

Mission (What Should Be?) – Is to create a local office of sustainability to provide advice and support for practical sustainability

Project Scope (What is?)

> **Group involved –** Townsville City Council, external professional agencies, other governments and academic/research organisations, and community groups.
>
> **Resources –** Funding agencies, Townsville City Council
>
> **Timeframe –** Up to a year

Project Outcome/s (What could be?) **–** Will be a local office of sustainability supporting a Tropical Centre of Excellence to provide advice and support for practical sustainability

Task (What can be?)

> **Steps to be taken** – Initially there needs to be a holistic response developed through a partnership between local government, external professional agencies, other government, academic and research organisations as well as community groups. The next step will be to create the office within Townsville City Council with a manager, staff so to obtain the outflow of information to internal and external agencies. In the long term the office will also have a functional demonstration site including commercial/residential to be evidence for sustainability and to provide advice and support. (See appendix 5 for a diagram of the Sustainability Office)

Title *- Solar Thermal Commercial Trials*

Table 2

Mission (What Should Be?) – to identify a potential solar thermal technology in the early commercialisation stage, to install in the Townsville area.

Project Scope (What Is?)

Groups Involved – Energy providers, solar thermal providers developers, council, Townsville Enterprise

Resources – Energy providers, government grants, sponsorship

Timeframe – Immediate

Project Outcome/s (What could be?) - to identify a potential solar thermal technology in the early commercialisation stage, to install in Townsville to ensure Townsville has a renewable energy source on an industrial scale.

Task (What can be?)

Steps to be taken - Is to put a 1MW test facility in Townsville. The major task will be to identify an appropriate 15 hectare site for the facility. The site will need to be flat, large exposure to sun (i.e. no obstructions for the sun to hide behind) as well as treeless. The trial will also need to have a strategy developed so to support the task of industrial solar power for Townsville.

Title– *Eco-City Plan*

Table 3

Mission (What Should Be?) **–** Is to develop an Eco-City Plan on Urban Sustainability and Ecology principles, using a "whole of community approach" with the support of industry.

Project Scope (What Is?)

Resources – Community, local/state/federal government, and industry possibility for international grants (United Nations).

People – Mayor of Townsville City Council to drive the plan with support of Environmental Management Services department

Timeframe – 18 to 24 months

Project Outcome/s (What Could Be?) – Is to use this Eco-City Plan to create greater opportunities for Sustainability for Townsville / Thuringowga areas

Task (What Can Be?)

Steps to be taken - To develop an Eco-City plan below the current City Plan with the idea that this document will take the City Plans place. The task is to develop the plan using a whole of a community approach and should also incorporate both Townsville and Thuringowa areas.

Title - ***Website***

Table 4

Mission (What Should Be?) **–** To create a public document through a website for the promotion of best practice sustainability

Project Scope (What Is?)

Groups involved – University, Council, Community, educational people, businesses and sustainability champions

Resources – Local / State Government as well as industry grants, website, newspapers, community champions

Timeframe – less than 24 months

Project Outcome/s (What Could Be?) – A greater level of sustainability in Townsville through the promotion of best practice using the website as a communication and educational tool.

Task (What Can Be?)

Steps to be taken - To create a public document of best practices in sustainability using local examples, particularly that of energy and water conservation. The website will contain an audit database, bechmarking as well as a reward and recognition process, for example a voluntary "sustainability" rating; community, business and school awards; and will have quarterly recognition by the media. The website will be hosted by the council website, but link into other appropriate websites e.g. University. It will have a city diary of best practice with reference to innovation, e.g. building a new house, information will also establish business practice reference to resource efficiency, cost savings, and innovation. The website will also act as an education tool locally, and more broadly.

Title - *Website*

Table 5

Mission (What Should Be?) – To create a website that provides broad practical information to the public

Project Scope (What Is?) -

People – Townsville and Thuringowa Councils will act as convenor, committee of contributors, Centre for Excellence in Tropical Design (CETD), James Cook University, media, Housing industry of Australia (HIA), Urban Developers Industry Association, Royal Australian Institute of Architects, The Australian Institute of Building Surveyors, Real Estate Industry of Queensland, Ergon, NQ Water, State Government, and other professional associations.

Resources – Administrator, web developer

Timeframe – Immediate

Project Outcome/s (What Could Be?) - Achieve a higher level of sustainability for Townsville by providing information through a website to answers individuals questions on how they can live in a more sustainable way.

Task (What Can Be?)

Steps to be taken – To create a website that provides broad practical information to individuals regarding living sustainably. It will identify issues, i.e. H2O tapware, pools, gardens, home buildings (E.g. “I want to install a pool, what are the issues?”). It will provide examples of sustainable living, and will have inputs from many players in the sustainability industry. It will have links to other websites and organisations in regards to living sustainably. There will also be a question and answer section for contributions and commonly asked questions, as well as chat pages. This will be a “One Stop Shop” for sustainability. The greatest challenge will be in ensuring the accuracy of information.

Title– *Green Buildings Action Plan*

Table 6

Mission (What Should Be?) – Council is to lead by demonstrating commitment to Green Design principles in it's own properties, to provide sustainable design examples for others to follow.

Project Scope (What Is?) -

People – Housing Industry of Australia, developers, architects, engineers, LGAQ, Environmental Protection Agency, Townsville City Council, media, personal contacts.

Resources – Government programs; incentive schemes; sustainability, retrofit and new development expertise.

Timeframe – Up to 4 years

Project Outcome/s (What Could Be?) To achieve sustainability through showcasing sustainable design examples.

Task (What Can Be?)

Steps to be taken- Council is to lead in sustainability by demonstrating sustainability principles to it's own properties. These properties will become case studies for developers, commercial and residential. It will enable industry to share its knowledge and expertise on sustainability. The task will start with a workshop with council to create an industry awareness, and pilot program. Within industry there will also need to be a cost benefit analysis undertaken, monitoring standards developed, and a code of practice of development for compliance framework. There will also need to be an incentive and rating audit scheme developed with an implementation framework and guidelines. This will start with a workshop between industry and council to undertake a scoping analysis, benchmarking practices, and decide on pilot projects. The pilot programs will have a sustainability champion as a communicator for the transfer of knowledge. This will enable the community to share knowledge and expertise.

Title– ***Year of Sustainability***

Table 7

Mission (What Should Be?) – To encourage corporate, council and community to "think" sustainably in the lead up the year of sustainability in 2009

Project Scope (What Is?)-

People – Media, Environmental Protection Agency, Ergon, developers, retail, sustainability businesses, website, database consultants, local council departments, schools, local celebrities e.g. Steve Price, Rotary, Lions, Landcare, BDTNRM, schools, teachers, curriculum advisors.

Resources – Possible environmental levies, and grants from government and industry

Timeframe – Immediate

Project Outcome/s (What Could Be?) Lead corporate, council and the community to "think" as well as achieve a higher sustainability level and practices in the lead up the year of sustainability in 2009

Task (What Can Be?)

Steps to be taken– To define and explain sustainability, to community, council and industry. To develop appropriate sustainability awareness branding, showcase sustainability projects and initiatives, and use key industry sector champions to promote sustainability. A committee of sustainability champions from community, government and industry to lead this project.

Title– *Sustainable Townsville Foundation*

Table 8

Mission (What Should Be?) – To establish a sustainable Townsville foundation so as to create one sustainable ecosystem for across the Twin Cities

Project Scope (What Is?) -

People – The Mayor, Deputy Mayor, and councillors from Townsville City Council, Council of Thuringowa, a foundation board (board to be representative of all society sectors) and key industry and community partners from across the Twin Cities.

Resources – Smart State funding, Commonwealth funding, grants from industry and local businesses, Council funding.

Timeframe – 2 years

Project Outcome/s (What Could Be?) A greater level of sustainability for Townsville through education and advising residents on how to live sustainably**.**

Task (What Can Be?)

Steps to be taken– To establish a sustainable Townsville foundation by initially developing a proposal for the foundation, then seeking endorsement of key stakeholders and resources for the foundation. Develop and expand the action plan for implementation, establish review body for ongoing performance indicators. The foundation will involve clear partnerships in a wholistic structure, and will promote the engagement of people (10,000 residents) to advise how to live sustainably. A planning system will be developed to remove disincentives to sustainability.

Title– ***Tropical Design Residential Prototypes***.

Table 9

Mission (What Should Be?) – To change building design to suit the dry tropics, and develop attractive sustainable prototypes for people to see and feel.

Project Scope (What Is?)

People – Researchers within the building industry, architects, draftsmen, inventors, the building industry, developers, local, state and federal government, the community, and educational facilities.

Resources – Government grants for improved technology in regards to resource use; profits from residential prototypes.

Timeframe – Immediately, Townsville is in a period of growth therefore there is a need to capitalise on this.

Project Outcome/s (What Could Be?) Have more sustainable buildings with improved sustainable technology, within Townsville to decrease our demand on natural resources (i.e water) and become a showcase City for sustainability

Task (What can be?)

Steps to be taken - To change building design to suit the dry tropics, for example using renewable energy resources such as solar power, ventilation so as to reduce air conditioning use. Profits from residential prototypes to research new and improved technology and improving their impact on the environment. Need to develop long-term heavy industry management plan that considers resource use, waste disposal, and coastal impact. To change the mindset of potential buyers and to ensure that savings are measurable and quantify into both dollar and CO2 savings. Initiate a pilot project and create incentives for the use of improved technology and reduced impact on the environment. Also to involve school children and their community through an educational programme. Use this action plan to promote Townsville as a leader in tropical design, which will increase prosperity and create export opportunities

Title– ***Eco Fund for Sustainability***

Table 10

Mission (What Should Be?) – The development of an Eco Community Fund to promote technology to aid sustainability

Project Scope (What Is?)

People – Green champions, chamber of commerce, professionals, all levels of government, developers, Townsville enterprise, Queensland Airport Limited.

Resources – Industry contribution, an airport tax, government funding and returns on re-investment of the fund, social contributions from businesses.

Timeframe – Now and up to 15 years

Project Outcome/s (What Could Be Done?) Increase in sustainable technology in Townsville, which will lead to a more sustainable lifestyle for Townsville.

Task (What Can Be Done?)

Steps to be taken – To develop a non-partisan managed fund (through industry contributions, government funding, and perhaps an airport tax) for the promotion of new and existing technologies that will assist Townsville in striving towards a greater level of sustainability.

Title– ***Sustainable Living Year 12 Service***

Table 11

Mission (What Should Be?) – For a "Responsible Citizen" civil service with year 12 students to visit VISY, Creek-to-Coral Projects, Solar City and non-government groups involved in conservation projects.

Project Scope (What Is It?)

People – Townsville City Council (EMS and Citischools), parents, teachers, VISY, Ergon, GBRMPA, Townsville residents, ReefCheck Australia, Conservation Council of Australia.

Resources – Government funding in partnership with relevant industries such as Ergon.

Timeframe – Immediately

Project Outcome/s (What Could Be?) A greater level of knowledge for the Townsville community on sustainability issues.

Task (What Can Be?)

Steps to be taken – To create a responsible service for year 12 students. This will involve 1 or 2 days to learn about sustainable living (e.g. water-wise use, reducing environmental impact), and could also involve activities such as visiting VISY recycling centre, etc. The task is to implement a responsible service for year 12 students in Townsville city and expand the program nationally. Participants will receive a certificate upon completion.

Title– ***Cardboard Recycling***

Table 12

Mission (What Should Be?) – To stop all cardboard from going to landfill.

Project Scope (What Is?) -

People – Stephen Cameron from VISY to take the lead as sustainability champion; seek support from council, businesses and the community

Resources – VISY recycling, shops, supermarkets, industry, all businesses (offices, retail, etc), educational facilities, any body that uses cardboard.

Timeframe – Immediately

Project Outcome/s (What Could Be?) To reduce the amount of paper products from being deposited into landfill.

Task (What Can Be?)

Steps to be taken – To reduce and eventually stop the volume of paper waste being deposited in landfill, to divert all resource to recycling. Stephen Cameron will take the lead and initially lobby both Twin Cities councils to write letters of support to take to State government, to be used to persuade businesses, schools, and community members to participate in recycling of cardboard. Lobby local industries, businesses, schools etc directly to participate. To raise the profile of the program through the media, create an educational campaign for schools on the benefits of recycling, and how it can lead to more sustainable living.

Title– ***Walking School Bus***

Thirteenth Action Plan

Mission (What Should Be?) – To increase the health and fitness of children by participating in regular exercise, as well as promoting sustainable transport, encourage the development of community, and providing road education for children.

Project Scope (What Is?) -

People - The Walking School Bus Reference Group, The Heart Foundation, Qld Health organisations, Townsville Council, appropriate children organisations, local police, schools, community volunteers

Resources – Queensland Department of Health, QLD Department of Education and Training, the Environmental Protection Agency, the Qld Department of Main Roads, Townsville City Council and the Heart Foundation.

Timeframe – Immediately

Project Outcome/s (What Could Be?) Outcomes include increasing the health and fitness of children by participating in regular exercise, increasing the development of the community, providing road education for children, reducing the numbers of cars, and providing a more safe, non-polluting and convenient alternative for children travelling to and from school.

Task (What Can Be?)

Steps to be taken - Initially to establish a Walking School Bus Reference Group with representatives from appropriate QLD Health agencies, Urban Services, the Heart Foundation, the local Police, Townsville Council, Community and School groups. The next task will be to develop and test a pilot program that will be aimed at:

- increasing children's participation in regular physical activity by walking to school.
- influencing children's and families awareness of travel behaviour and reduce reliance upon car travel to and from school;
- reducing the number of cars on the roads around the school and therefore create a safer environment for children
- providing a more safe, non-polluting and convenient alternative for children travelling to and from school.
- encouraging the development of strong, safe, friendly and supportive communities
- increasing the public's awareness of children walking to school.
- providing a practical means of teaching road and pedestrian skills to children

Title– ***Centre for Excellence in Tropical Design***

Fourteenth Action Plan

Mission (What Should Be?) – create greater support for Townsville/Thuringowa to be a centre for excellence in tropical sustainable design to achieve greater sustainability and innovation in practical on ground outcomes

Project Scope (What Is?) -

People – Townsville and Thuringowa City Council, external professional agencies, other governments and academic/research organisations, and community groups

Resources – Townsville/Thuringowa City Council, Department of Public Works, Engineers Australia, James Cook University, and the Royal Australian Institute of Architects

Timeframe – up to a year

Project Outcome/s (What Could Be?) Will become a leader in tropical sustainable design, sustainability practices, services, technology and knowledge to support Townsville/Thuringowa`s citizens to achieve a greater level of sustainability and potentially export practical expertises (knowledge network cluster)

Task (What Can Be?)

Steps to be taken – Create a greater level of continuing support for the Centre for Excellence in Tropical Design so to continue and build on its recognition as a key partner in fostering sustainable knowledge, networking, education, practical learning and design about sustainable construction and buildings.

Conclusion

The Sustainability Summit proved a success in bringing together a wide variety of corporate, Council, Government and community stakeholders to answer "What collective actions can the corporate sector, Council and the community take to progress a Sustainable Townsville?". The summit concludes the final of the four outputs from the AtKisson Accelerated Sustainability Training held in 2004.

The workshop process that was used allowed stakeholders to share their views, provide input, and develop collectively owned action plans by which to progress a Sustainable Townsville. Participants demonstrated high levels of enthusiasm during the workshop process and the development of collectively owned action plans led to declarations by some participants to begin work on fulfilling their action plans immediately.

The Summit demonstrated the willingness of the Townsville corporate, Government, and community sectors to progress a Sustainable Townsville through achievable and incremental steps. The momentum from the Summit and the action plans continues the path of progressing Townsville as a national and international example of a model Sustainable City.

Appendix 1: Sustainability Office Action Plan Diagram

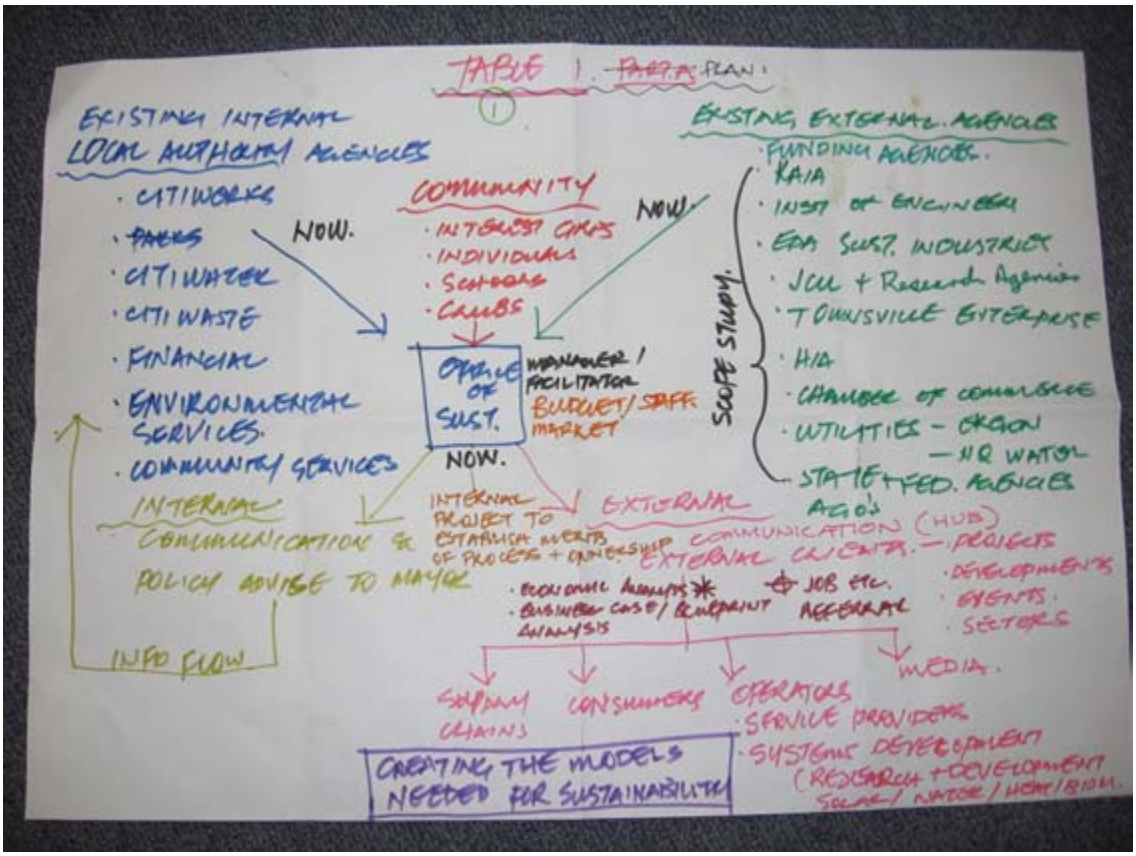

Figure 1: Flow chart of the “Sustainability Office” from Table One

Figure 2: The vision of the Sustainability Office from Table One

Appendix 2 : Sustainability Summit Workshop Attendees List

Frank Dallmeyer	Tropical Energy Systems
John Lay	BMD Consulting
Tim Brazier	Brazier Motti Pty Ltd
Bruce Barrett	Bruce Barrett Architects
Bill Spee	Cafalo
Sean Edwards	Cardno
Caroline McGann	CNR Consulting
Cecily Rasmussen	CNR Consulting
Tony McGuire	Department Housing QLD
Vicky Rains	Commerce QLD
Dylan Furnell	Community / Youth Representative
Daniel Dimascio	DelMando Property Group
Rachael Harcock	Dept of Communities
Tony McGuire	Department of Housing QLD
John Gunn	Earth Environmental
Sandy McCathie	ecoSAVY /AGDF
Stephanie Brown	EPA
Graham Poacher	EPA
Bob Harvey	Ergon
Dave Shephard	Ergon
Grahame Foulger	Ergon Energy
Peter Lawrence	Central Qld University
Felix Riedweg	Felix Riedweg Architects
Richard Ferry	Ferry Properties
Judy Hassall	GBRMPA
Paddy Macleod	Gough Plastics
Sue Koreman	Greenscope
Nigel Grier	Grier & Associates
John Futer	HIA Townsville
Grahame Stephens	HMA Consulting
Victor Goustavsky	Honeywell
Posa Skelton	IOI Australia
Peter Williams	Isothermal
Chris Cocklin	James Cook University
Leiza Hartley	Jims Bookkeeping Paradise
Peter Cairns	Jupiters Townsville
Michael Agapiou	Lancini Group of Companies
Angelo Licciardello	Lend Lease - Delfin
Michael Baker	m2 Marketing Matters
George Colbran	McDonalds Townsville Franchise Bus Owner
John Chalmers	Origin
Ross Harvey	Origin
Tony Hartley	Pen to Paper
Stewart Pentland	PMM
Blanche Danastas	North Queensland Conservation Council
John Howell	QLD Police
Brad Seymore	Queensland Country Credit Union Ltd

John Ahern	RAIA NQ Branch/Interiors Aust
James Read	Reana Developments
Adrian Turnbull	Reefcheck Australia
Terry Kelly	Regional Director Qld
Dean Dank	Remax
Clive Wilkinson	RRC/GCRMN
Guy Lane	Sea02
Andrew Chamberlin	Environmental Protection Agency
Karen Houser	Smith & Elliott
Malcolm Snow	Southbank Corporation
Laurie Bell	State Development
Rob Sellwood	Strand Constructions
Jon Shaw	Student James Cook University
Peter Brock	TAFE
Dawson Wilkie	TCS
Deanne Bell	Thuringowa Council
Andrew McEwen	Thuringowa Council
Andy Mead	Timbercorp
Arthur Schrock	Tippett & Schrock Architects
Peter Scott	Tippett & Schrock Architects
Charlie Hargroves	TNEP
Renee Stephens	TNEP
Neil Carter	Troppo Architects
Steven Cameron	Visy
Claudia Brassard	VRM Group
Candia Bruce	Working On it
Elizabeth Zanetti	Community Representative
Joanne Keune	Consultant
Evan Kruckow	Conservation Volunteers Australia
Mark Davis	Consultant
Ron Fairweather	
David Lynch	TCC - Corporate Services
Gavin Hammond	TCC - Health Services
Gemma Bauhman	James Cook University
Lauris Gaffney	Townsville Have Your Say
Shirley Hayles	Townsville Have Your Say
Kerry Waugh	Townsville Have Your Say
Ann Bunnell	TCC - Deputy Mayor
Greg Bruce	TCC - Environmental Management Services
DJ McKenzie	TCC - Environmental Management Services
Jackie Jakovljevic	TCC - Community and Cultural Services
Elizabeth Booth	TCC - Environmental Management Services
Anne Caillaud	TCC - Environmental Management Services
Sri Suryati	TCC - Environmental Management Services
Jim Cornall	TCC - Corporate Information & Support
Ray Collins	TCC - Park Services

Fred Sloots	TCC - Fleet Services
Carla Boehl	TCC - Citiwater
Darron Irwin	TCC - Planning and Development
David Jeanes	TCC - Planning and Assessment Unit
Ian Khul	TCC - Citiwaste
Todd Barr	TCC - Corporate Information and Support
Lindsay Groat	TCC - Engineering Services
Gavin Hammond	TCC - Health Services
Chris Manning	TCC - Environmental Management Services
Kylie Doyle	TCC - Financial Services
Andy Froggart	TCC - Parks Services
Kylie Grusning	TCC - Planning and Development Services
Nicola Doss	TCC - Planning and Development Services
Frances Thomson	TCC - Perc Tucker Gallery

Appendix 3: Sustainability Summit Agenda

Day 1 8th March

8:30am	Registration	
9:00am	Official welcome by Deputy Mayor Synergies and linkages for a Sustainable Townsville	Cr Ann Bunnell
9:20am	Changing the urban landscape and corporate governance to reflect sustainability	Malcolm Snow
10:00am	Engineering a sustainable future	Charlie Hargroves
10:15am	Collective thinking for a sustainable future.	Valerie Brown AO
10:30am	*Morning Tea*	
11.00am	Explanation of workshop format.	Julianne Bell, Facilitator
11:10am	**1st Session: What should be?**	Participants
12:30pm	*Lunch*	
1:30pm	Summary: where are we now?	Valerie Brown
1:45pm	**2nd Session: What is?**	Participants
3:15pm	*Afternoon tea*	
3:30pm	Summary: where are we now?	Valerie Brown
3:45pm	**3rd Session: What could be?**	Participants
4.30pm	Close of Day 1	Julianne Bell

Day 2 9th March

8:30am	Arrival tea/coffee.	
9.00am	**Continue 3rd Session: What could be?**	Participants
10:15am	*Morning tea*	
10:30am	Summary: where are we now?	Valerie Brown
10:45am	**4th Session: What can be?**	Participants
12 noon	Action Plan towards a Sustainable Townsville Summary: Where are we going?	Participants Valerie Brown
12.30	Action on Action Plan: - Response by Deputy-Mayor - Next steps	Cr Ann Bunnell
1:00pm	*Close of Summit followed by Lunch*	All welcome

Appendix 4: Sustainability Summit Workshop Process

The workshop used a learning spiral process (see Figure 1 below) and was facilitated by Valerie Brown and Julianne Bell. The aim of the workshop process was to build a collective learning spiral with all resources focussed on answering the question: **"What collective actions can the corporate sector, Council and the community take to progress a Sustainable Townsville?"**.

One of the key features of this type of workshop process is to encourage active participation in diverse, multi-stakeholder groups – so to achieve a consensus on a set of actions that everyone believes will actually result in progressing a sustainable Townsville.

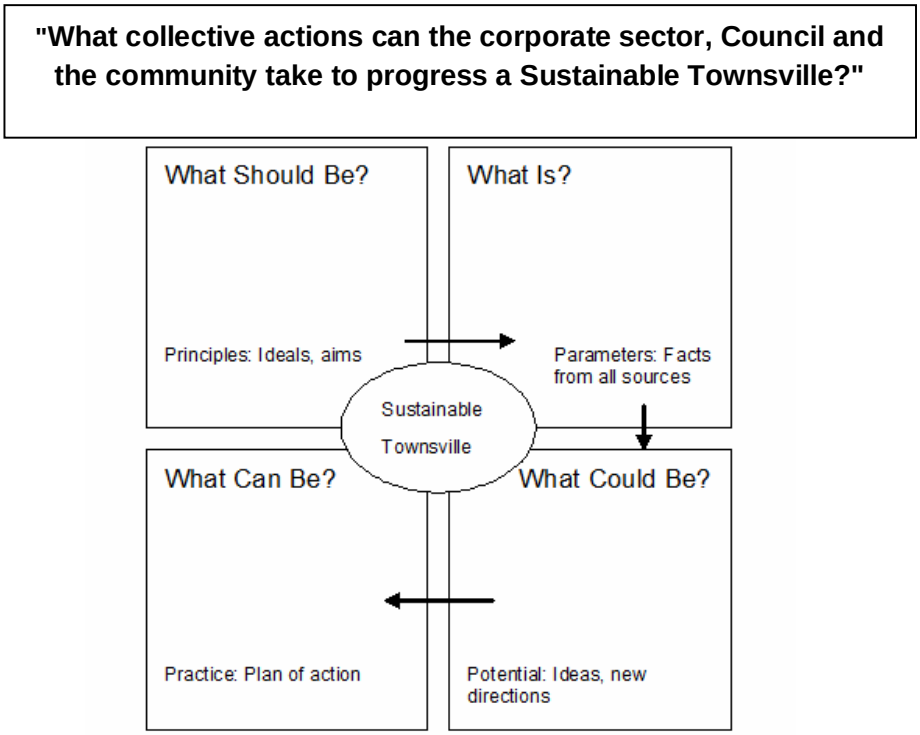

Figure 1. The Learning spiral process used for the Sustainability Summit (from Brown 2007)

Consequently the aim of the workshop was to establish a basis for the whole-of-community collective thinking and action on the issue of sustainability in Townsville. Therefore it was essential to ensure that key individuals from each of the community, corporate and council sectors were invited to attend the Summit.

The Southbank convention centre was used as a workshop site and the layout of the room allowed participants to sit on round tables, to promote a more open form of communication.

Participants were divided into groups, 8 – 10 people in each group for a total of 12 groups. An even mix of key individuals, from the community, corporate and council sectors made up each table. Each group attempted to have at least one or two representatives from each interest group. One person was also required to be the scribe for the table.

Each group was then asked to start to consider the needs and constraints to progress a Sustainable Townsville based on four specific questions relating to the theme question. The groups started with the question "What should be?" (What should happen in progressing towards A Sustainable Townsville?). Each table had approximately an hour to summarise their answers on a Summary Sheet (with the corresponding question) and then posted the Summary Sheet on the wall.

After each group had completed their summary sheet, Valerie then spent 10 minutes examining each of the groups summary sheets. Valerie then documented the main ideas/themes from each of the 12 groups and presented them back to the whole group to obtained their comments, and ensure all major themes were noted. This then created one document that summarised all 12 groups' collective answers.

This process was then repeated for the following two questions "What is?" (What is happening now that either supports and blocks progress towards A Sustainable Townsville?) and "What Could Be" (What could be done in innovative projects in Townsville now?). After each question, one document was created that summarises all 12 groups collective answers and for the third question a short list of the projects was created (See appendix 5).

The 12 groups used question four "What Can Be" (What can be done in Townsville now?) as a basis to develop their action plans. After each group completed the fourth questions, rather than putting the summary sheet on the wall they then took one of their ideas to develop an Action Plan. Each table then took one key outcome from the Action Plan and presented it to the whole group for comment.

Appendix 5: Sustainability Workshop Question Summaries from Each Table

Summary Sheet Question 1

What Should Be?

Table 1

1. People Centred City- proud, friendly and healthy in harmony with the natural environment.
2. An innovative city taking full advantage of academic, research, and technical capability for environmental sustainability.
3. Forward thinking local government and planning that supports sustainability and innovation concepts.
4. Commercially prosperous city of clean industries and services with egalitarian principles.
5. Activity where efficiency is welcome and rewarded.
6. A city with integration of industry and town to reduce and recycle waste.
7. Public transport, walking and cycling.

Table 2

1. The benefits over the life of the sustainable project are equitably distributed amongst stakeholders.
2. Remove regulatory barriers to incentivise positive action to reduce reliance on fossil fuels and promote sustainable development.
3. Improve the material quality of life through affordable and economically sustainable practices.
4. Flexibility in legislation to accommodate sustainable innovation.
5. Share and acquire innovative sustainable solutions and be adaptive to change.
6. Increase in scientific literacy/awareness of sustainability within the community involving schools.
7. Create opportunity for a positive and pleasurable experience living and moving around the city.

Table 3

1. Learning from and adopting best practice (locally relevant) methods.
2. Intergenerational equity- a better twin cities for future generations
3. Free flow of ideas/synergy/partnerships
4. Do more with less in relation to resource use, efficient use.
5. Design for liveable city:
    a. Walkable
    b. Rideable
    c. Accessible
    d. Safe
    e. Energy efficient
    f. Welcoming
    g. Socially equitable
6. Future proofing growth

Table 4

1. Planning with a conscience and succession in mind.
2. Play to the strengths of Townsville for culture, climate, and energy sources.
3. A paradigm shift to less consumerism by catering for needs rather than wants.
4. Industry with high value and low physical inputs.
5. Fairer, more equitable society
6. Resource (energy and water) independent and empowerment of community through resource distribution.
7. Planning with conscience, succession, and exit
8. Stabilise population growth and manage demographic change.

Table 5

1. Townsville is a place where people want to live.
2. We have and understood and embraced collective vision / culture embraces sustainability.
3. We have education that promotes innovative thought and commitment to sustainability.
4. Sustainable behaviours are rewarded and supported by regulation….. and sustainable behaviours become self-sustaining so that rewards and regulations are no longer needed.
5. We have cost-effective and energy-efficient design of:
    a. Buildings
    b. Environments
    c. Products
6. We have sustainable growth that is balanced, based on lessons learned elsewhere (eg. Gold Coast)
7. Sustainable behaviours are broad and intrinsic in nature
8. We do more with less

Table 6

1. Integrated knowledge and communication network
2. Educated Townsville/Thuringowa community on sustainability
3. Understanding of NO-ACTION impacts
4. Public transport incentive programme
5. Coordinated local distribution system
6. Packaging recycling station at shopping centres
7. Local government incentivising and championing sustainability initiatives.
8. Interactive information and adaptive forum
9. Representative leadership group
10. Locally trained leaders in sustainability.

Table 7

1. Inclusive regional approach
2. Education awareness and participation
3. Incentives, benchmarks and accountability
4. Proactive open communication
5. Goal setting, long and short-term solution
6. Forward development of best practice
7. Sending sustainable signals eg. Economic regulatory
8. Shared vision for sustainable development
9. Respect and recognition for rolls and expertise
10. Recognition and protection of biodiversity values (eg.wetlands, wildlife corridors, R&T habitat
11. Protection and management of natural resources and values

Table 8

1. Live within ecological footprint- limit resource consumption
2. Egalitarian and fair society
3. Culturally inclusive city, recognise indigenous people
4. Proactively planned city
5. Safe/engaged/cohesive and resilient community
6. Globally connected/exporting innovation
7. Strong cross sectoral communication and collaboration and leadership
8. Accessible and affordable transport alternatives

Accessible and affordable everything

Table 9

1. Consider effects of decision making on future generation
2. Footprint per person- same or lower
3. Water tanks residential, commercial and industrial
4. Residential development design- old fashion tropical design
5. Utilise grey water for gardens
6. Light rail service
7. Federal/State Governments should abide by local government building regulations
8. A single local council
9. Preserve cultural/heritage values of community
10. A catchment boundary that matches local government boundary
11. Retain nuclear free status.

Table 10

1. Greening – parks and trees
2. Lifestyle and safe family community
3. Protects/retain/enjoy the natural assets - reef and rainforest
4. Manageable city (10 minutes size); transport, accessible; carrying capacity, footprint
5. Everyone able to share resources
6. Availability of water
7. Self sufficiency
8. Ecologically sustainable tourism
9. Prosperity, education, jobs for our children
10. Housing choice- space
11. Better public transport- options
12. Future proof city- transport
13. Home-based business
14. Energy supply

Table 11

1. Efficient, light rail public transport
2. Only one council
3. Dual reticulation
4. Onsite water and energy collection
5. Compulsory compliance with coastal management plan
6. Appropriate, tropical building design
7. No net loss biodiversity (ecology/nature)
8. Mitigation of urban sprawl
9. Compulsory (use of) recycled water by industry
10. More sensible development of industry areas
11. No pollution to air and waterways

Table 12

1. Strong legislation and leadership
2. Zero waste and discharge
3. Media provide positive environmental stories
4. “Market the Twin Cities Vision”
5. Healthy and safe city
6. Commitment to resourcing action now
7. Beautiful, harmonious and fun
8. Prioritise the vision, instead of short term gain
9. More public transport (a 50yr plan)

Question 1 Synthesis - What Could Be?

City Vision:
- beautiful
- harmonius
- fun
- liveable
- egalitarian
- fair
- healthy
- safe
- future proof
- green

Leadership
- sharing
- learning
- strong
- engaged community

Planning
- with succession in mind

Communication
- positive
- open
- networked

Best practice
- furthering bp and recognising range of skills

Resources
- economic management
- environmental management

Transport

Energy

Innovation

Education

Economic development

Water
- Great Barrier Reef

Engaged community
- partnership
- participation

Status
- respect heritage
- nuclear free
- Twin councils
- single vision

Summary Sheet Question 2

What Is?

Table 1

1. Intermediate sized prosperous city with large natural resources (mineral based economy) and human capital that is multifaceted and has a diverse economy (buffering capability)
2. Established partnerships within a "healthy city" and a natural environment
3. Global destination- Gateway to Asia-Pacific can be developed further- technical, academic, scientific experience
4. More amusement/entertainment/challenge for young people required, and declining housing affordability and public housing, including the mall needs improvement.
5. Distance from markets/central government an issue
6. Complacency/apathy is a threat
7. Recycling/ "Solar Cities" already leading to a sustainability dialogue/ethos via strong leadership from local authority

Table 2

Pluses

1. Demonstrated (Greg Bruce and team)
2. Great place for (trialling and testing) solar technology/alternative technology (but we have begun it)
3. Can-do positive attitude and passion
4. Working vision and programme for Sustainable Townsville
5. Robust and diverse economy
6. City rapidly takes up new ideas, is egalitarian and brainy! (JCU, AIMS, GBRMPA, DoD, process engineering)
7. Lots of biodiversity (native) and natural environments

Negatives

1. High carbon intensity of transport and power in city
    - Coal-based mains power
    - Remote location- lots of travel
    - Low uptake of solar hot water
    - Un-reliable, expensive public transport = dependency on personal vehicles
2. Institutional barriers, vested interests and perverse incentives
3. Lack of community knowledge/education on individual sustainable practices
4. Lack of access to competitive gas threatens prosperity

Table 3

1. Good geographical/regional context- port, airport, rail, supporting centres
2. Unique/special physical/natural environment- dry tropics
3. Dry/sunny tropical environment (300 sunny days)
4. Drought proofed - at a cost
5. CBD has an opportunity to develop as a cultural/social and with integrated transport links- in a quality living environment.
6. Diverse balanced economy
7. No real knowledge of what real practical/affordable/definable regional tropical city is: social, economic, cultural, economical
8. Communication of sustainability/reporting has challenges
9. Non-integrated regional development

Table 4

1. Vision: (Positive)
    a. Balanced lifestyle
    b. Natural resources – climate, reef, biodiversity
    c. Solar cities
2. Vision: (Negative)
    a. Two Councils who could work better together (throughout)
3. Leadership: (Positive)
    a. Solar Cities
    b. Local government support for sustainability
    c. Townsville enterprise
    d. Size of Townsville facilities leadership across stakeholders
4. Leadership: (Negative)
    a. Lack of legislation e.g. H2O restrictions
    b. Lack of political will
    c. Political system not conducive to 'hard' decisions
5. Planning: (Positive)
    a. Play to our strengths: close to Asian Market (climate and time zone)
6. Planning: (Negative)
    a. Development geared towards developers
    b. Lack of population control
7. Communication: (Positive)
    a. Townsville is small enough that communication is facilitated
8. Communication: (Negative)
    a. Feel powerless, people do not have ownership over environment, energy, sustainability
    b. Power of lobby groups
9. Best Practice: (Positive)
    a. Strong specialized skills – mining, GBRMPA, metal processing
    b. Good public health
10. Best Practice: (Negative)
    a. Water usage, no need to control residential H2O use
    b. Poor public transport
11. Resource: (Positive)
    a. Educated workforce in certain areas e.g. Marine biology
    b. Strong biodiversity
    c. Good public health
12. Resource (Negative)
    a. Lack of trades people
    b. Lack of energy and transport inhibiting development – industry
    c. Poor public transport

Table 5

1. Vision:
    a. Government: story-shared between two Councils
    b. Public: Not yet strong
    c. Industry: Turned the corner
2. Leadership:
    a. Government: Strong – both Councils BUT redundant = wasteful
    b. Industry: Some strong actors
3. Planning:
    a. Emphasis on single family dwellings; limited emphasis on higher density for families but stronger emphasis on high density residential in town for younger and older demographics. Lack of infrastructure investment.
4. Communication:
    a. Faster; great quantity; question of quality; superficial; historical; does increased interconnection create stronger communities?
5. Energy:
    a. Consumption level not sustainable. Beginning public consciousness of this as a problem, little commitment to personal change. Industry leadership in tiered tariffs.
6. Water: Consumption level not sustainable. Public consciousness of this as a problem. New questions of "ownership".
7. Transport: Public transport pitiful; limited public demand. Lack of infrastructure and workplace support hinders greater use of bicycles.

Table 6

1. Vision is not developed at an overarching level – (fragments for sectors)
2. Leadership is short-term focused and lacking community aspirations
3. Planning – not holistic due in part to short term timeframes and sectorisation, reaction (not vision)
4. Some great networks and partnerships – but could be even better
5. Best practice is evolving for Townsville specifically
6. Lack of understanding of what “best practice” means in a sustainable sense
7. Science and technical base is “strong”, and could be used beneficially
8. Some good planning already undertaken
9. Public transport is unreliable, uncoordinated, and out of step with expansion of T / T and events
10. Water use inefficiency is at a premium – water not valued (economically or conceptually)
11. Biodiversity not valued highly enough

Table 7

Strengths

1. Geographical location, tropical regional centre
2. Diverse natural assets
3. Knowledge base – scientific, commercial and technical
4. Unique, high quality of life
5. Transient population / migration of new ideas
6. Diverse and dynamic economy

Weaknesses

1. Regional division and competition between them
2. Lack of communication or information flow between sectors
3. Lack of market drivers for sustainability
4. Sustainability is not embedded in planning and decision making
5. Ignorance, resistance to change and lack of education

Table 8

Impediments

1. Fear / apathy and misinformation / conflicting information / political timing
2. Fragmentation / institutional alignment / silos / rules
3. Lack of shared vision for a knowledge economies
4. Lack of appropriately trained human resources
5. Lack of incentive based regulatory tools
6. Growing polarisation of wealth

Positives

1. Very positive and diverse community with many positive champions
2. Demographics (44% of population between 10&24)
3. Young vibrant and rapidly growing community
4. Strong, diversified economy in the tropics
5. Research into innovative resource management (e.g. clean coal)
6. The Australian Technical College of NQ

Table 9

1. Genuine desire and commitment for change
2. Existing projects to follow as an example
3. What is existing council plan for sustainability? In lay terms?
4. Current commercial and residential buildings use too many resources
5. Land clearing and loss of biodiversity
6. Effect of increased material aspirations
7. Lack of proactive decision making for the future

Table 10

1. Education – uninformed community, lack of knowledge
2. Lack of sufficient deterrent to rogue developers
3. Sustainable natural resources? – environmental audit needed, limits to development
4. Good quality of life
5. Bureaucracy
6. Acquire natural assets for community
7. Tropical climate
8. We want ecological sustainability, but we don't know what that is?
9. Lack of forward thinking, costs more in long run
10. Community lack of educational resources
11. Lack of low cost housing
12. Strong sense of place
13. Poor public transport
14. Political will to achieve results

Table 11

1. Vision is "growth at all costs" – parochial mentality
2. Strong marine leadership in Townsville (AIMS, JCU, GBRMPA)
3. Not enough integration in planning processes
4. No appropriate tropical design guidelines existing
5. Good community engagement in Townsville, but should be improved in terms of development processes (local council representative).
6. Lack of efficient public transport
7. Not enough research and funding for renewable energies (wind, solar, alternative fuel, including industry investment)
8. Good existing water processes but consideration should be given to things like on-site water collection

Table 12

Advantage - Unique geography, climate, natural resources, and cultural history, therefore in a good position to plan for a sustainable future (including sustainable industries)

Disadvantage - Chaotic town planning, lack of cohesive vision

Advantage - Strong Community spirit, including Indigenous

Disadvantage - Lack of community direction / Action

Advantage - Available Media

Disadvantage - Media not providing positive info to the community

Advantage - Dry tropics specialists with the opportunity to be experts in our climate and appropriate technologies

Disadvantage - Townsville built environment doesn't yet reflect and appreciate the climate (e.g. not enough shade planting, reliance on aircon, and poor bicycle connections)

Advantage - Good government representation at all levels (local, state, nation)

Disadvantage - Lack of will for levels of govt to work together for the betterment of the community

Question 2 Synthesis - What Is?

Townsville as a Place:
- Intermediate size
- Established partnerships
- Global destination
- Airport
- Balanced lifestyle
- Strong specialised skills
- Public transport issues

Leadership:
- Council- what is council plan
- Strong leaderships- need stronger between two cities; reconciled; communication; regional

Educational:
- Under-utilised
- Scientific strength (Marine science- JCU)
- Integration

Communication on sustainability:
- Has challenges
- Difficult
- Miscommunication
- Conflicting information
- Political timing
- No real knowledge of sustainability
- No silver bullets
- Media negative
- Take small steps
- Precautionary principles

Development:
- Leadership/silo planning
- Use too many resources
- Non-integrated
- Global market/global destination and Pacific Rim
- Solar Cities- leading
- Short term solutions

Economy:
- Diverse, balanced, prosperous
- Housing affordability
- Sustainable growth (turn around)

Community:

- Positive, diverse
- Community champions already
- Young population (17-23 yrs)
- Challenge for young populations for entertainment
- Educated workforce
- Transient population
- Unit living sustainability
- Reconciliation issues as a whole

Environment:

- Unique- dry tropics, special, 300 sunny days
- Strong biodiversity
- Healthy City
- Special
- Use more resources than we should- water, energy, etc

Summary Sheet Question 3

What Could Be?

Table 1

"Blue Skies Proposition"

Townsville will become a global centre of excellence in:

1. Role of community, corporate sector and local government in sustainable development
2. Integrating industry, education, research, public sector and information technology, in developing an egalitarian, healthy, culturally aware and enjoyable environment for living into the future
3. All aspects of clean technologies with diversified industries excelling in water, energy and resource conservation and minimal waste generation

Table 2

1. Celebrate Sustainability Day
2. Renewable solutions for industry/industrial scale, including solar technology commercialisation
3. Establish and maintain leadership in sustainability in Asia/Pacific region
4. Walk to work bus for adults and children
5. Encourage investment in sustainable ability in education/scientific/literacy/learning, particularly in the current economic boom to take us through to the next phase of prosperity. Future proofing.
6. Townsville to become a global carbon centre to finance sustainable Townsville
7. Show leadership and social innovation to improve life style "slow living"
8. Showcase and centre of excellence for biodiversity
9. Transform Townsville into a city designed for pedestrians

Table 3

1. Restricted vehicle access to CBD
2. Low cost transportation system free and frequent – well costed
3. 100% water recycling
4. City 50% below energy benchmark 2015
5. Universal disability access- building and port
6. Become a carbon neutral community
7. Retain recognisable sense of place
8. Eliminate the “AJ” mentality
9. More urban ecology
10. Shaded city
11. Complementary/symbiotic relationship between Townsville and its neighbouring islands to better tourism options in the area
12. No urban squalor- future proof multi-unit developments

Table 4

1. Townsville to be a role model for our communities for a sustainable environment, industry in our chosen niche.
2. Focus our strengths
3. Carbon neutral
4. Nuclear
5. Large scale capture and storage of stormwater to sustain public parks and gardens and agriculture, plus productive planting in community space e.g. fruit plants
6. Water regulation to minimise waste and consumption e.g. water pricing, pressure regulation and incentives. Particularly residential
7. Second water reticulation for stormwater on site at home and industry
8. Education and leadership for climate sensitive plants
9. Promotion and incentives for dry gardens
10. Create an innovative environment that develops and rewards industry for sustainable practice (water and carbon neutral).
11. Industry led partnerships and alliance.
12. Greater community ownership and responsibility plus involvement in sustainable practise
13. Independent body to include industry, community, government, and indigenous community to provide information, education and leadership in sustainability.

Table 5

1. New holistic (beyond IPA) development process that involves government and developers and environmentalists and architects and builders and buyers and occupiers.
2. Information to buyers and occupiers of residences re: sustainability features and comparative running costs delivered by the real estate industry.
3. One-stop shop for environmental and sustainability information and resources
4. Industry helps to change consumer behaviour through monetary incentives and disincentives (e.g. higher costs of electricity, varied costs of electricity at different hours) plus information (e.g. electricity bills and meters that provide triple bottom line information).
5. We have better processes to move from awareness and good intentions of the community/individuals to different = sustainable behaviours
6. All houses/residential dwellings don't need air conditioning
7. All energy is renewable and we are a community without waste
8. Townsville is a role model for sustainability and a world leader in environmental issues and research
9. Society is harmonious and there is no racism.

Table 6

1. Masterplan (land use/ activity) for sustainable growth in consultation (ongoing) with the community
2. Integrated transport system based on solar/electric and non-fossil fuels
3. Tropical design principles in all new projects (and retrofits)
4. Carbon trading / offsets scheme using local projects
5. Reduce, reuse, recycle across all industry/commerce
6. Example "green" buildings, activities and households (guidelines)
7. An aware, empowered and willing community to undertake sustainability
8. A sustainable knowledge cluster centred on Townsville
9. Total water cycle management
10. Energy efficient city
11. Culturally diverse and harmonious society

Table 7

1. Development and planning symbiotic with natural environment
2. Sustainability aware community from birth to death
3. Consolidated, desirable, denser sustainable (re)development of the city (within existing urban area)
4. Corporate, Council and community "think" sustainable
5. Identify key project to deliver/showcase sustainability as fundamental goal/vision and communicate/share outcomes
6. Less car dependence through bringing services to where people are; i.e. mixed use, denser development
7. Shaded urban environments
8. Land set aside in urban areas in close proximity to where people live, where people can experience nature and be adventurous
9. Pilot programmes and a raft of small projects imagined up and owned by the collective and then implemented by individual organisations/businesses/communities- environmental levy/fund available to support
10. Sustainability talk-fest: people walk out and take action upon
11. Population control/growth managed

Table 8

1. Development of an integrated Regional Plan signed off by 2007 comprising agreed sustainability tariffs and indicators with six month reporting and review
2. Establish a sustainable Townsville Thuringowa Foundation involving the two Councils, government, business, education, and community to promote sustainability strategy and implementation.
3. Develop incentive based schemes in planning and building to achieve better sustainable outcomes.
4. An enterprising city with serious knowledge industry network clusters for tropical design, biodiversity, marine sciences, bio technology export knowledge services to tropical world
5. A city powered by renewable energy that accounts for a low ecololgical footprint
6. A city of sustainable urban villages connected by efficient affordable public transport. Interspersed by a regional open space footprint with remnant vegetation and wildlife corridors
7. Open democratic process of integrated planning that involves community, business, education and government in a genuine partnership and active local projects
8. Townsville community committed to living sustainability in their houses, streets, communities, workplaces and actively involved in sustainable projects and learning that may reduces the ecological footprint to self sufficiency.

Table 9

1. Zero wastewater discharge to ocean
2. No heavy industry near residential areas, particularly on coast
3. Sustainable solar energy for individual homes/office buildings
4. Industry use less water, recycling what they can
5. Return to generation of hydro-electric power eg. Tully-Barron Falls stations
6. Increase production/use of hybrid cars
7. Council increase current use of recycled water for parks/median strips
8. Regional project to reduce CO2 emissions
9. Divert storm water to large underground tanks to use in industry/commerce/parks
10. Unpopular with executives/shareholders in the short term- reduce astronomical salaries/bonuses to transfer funds to connecting to renewable energy- solar/wind
11. Increased use of rain water tanks
12. Financial incentives to encourage sustainability
13. Diversified after post-mining boom
14. Quantum leap in building design
15. Tropical city based on quality of life for our footprint
16. Cigarette butt-less city
17. Eradicate cane toads
18. Water-credit scheme similar to carbon credit scheme

Table 10

1. Clean, green, responsible industry
2. Responsible communities
3. Water/energy efficient building designs
4. Identification of alternative energies
5. Indentify the issues that can be made/or are considered sustainably possible
6. Prioritise our environmental/ecological values
7. Simple recipes for community involvement
8. Giving the community a feeling of involvement (education, forums/feedback)
9. Immediate feedback- eg. Turn off lights on TV- dial shows result immediately on TV

Table 11

1. Entire city powered by renewable/alternative energies
2. Public transport network that connects the whole of Townsville effectively
3. Smaller local facilities and services
4. Car pooling fast lane
5. Better facilities for household recycling e.g. paper and glass
6. Mandatory to visit VISY Recycling (every individual) part of civil service
7. Legislative sustainable mandates for industries/ commercial/public (e.g. recycled water, eco roofs, passive designs, materials…)
8. Mandatory environmental education in schools (gardens, recycling bins, animals)
9. Enforcement of existing and new policies
10. Enforcement of existing a new policy
11. Enforcement of water smart (no shortage of water)
12. Centre for ecotourism

Table 12

1. Twin Cities are a sustainable city which is a role model in:
2. Sustainable tourism
3. Sustainable renewable energy
4. Sustainable port development
5. Sustainable education/research
6. Sustainable festivals (music, sport, motors boating, fishing etc)
7. Sustainable marketing
8. Sustainable development
9. Sustainable waste management (solid and water)
10. Sustainable focused community direction through a central entity R&D centre (resources, tourism, and marketing)
11. Protection of key urban and natural assets

The region is to become the HUB for sustainable excellence globally the region becomes the cultural entity for all things relating to dry tropics. Corporate Giants will become sustainability champions.

Question 3 Synthesis - What Could Be?

Townsville as a place

- Role model city (sustainability, culturally)
- Egalitarian, Healthy, environment, reconciliation
- Centre for ecotourism/sustainable tourism
- Smaller local facilities
- Enterprising city, knowledge clusters
- Sustainability urban villages
- Open-Space footprint close to urban centres – reconnecting with nature.
- Consolidated, denser (re) development of city within existing urban areas

Leadership

- Community, Government, business working and thinking sustainability
- Enforcement of existing and new policies (inc. Water Smart)
- Applicable accurate city plan dealing with local environmental issues
- Legislated sustainability mandates for industries/commercial, public
- Integrated regional plan signed off with agreed sustainability targets with 6-month reviews
- Established Townsville & Thuringowa Sustainable foundation (government, business, community, education…)
- Open, democratic planning process
- Participants in sustainable summits take actions on deliberations.

Education

- Mandatory environmental education in schools
- Encourage investment education/scientific/literary to take to the next level
- Increase education for climate sensitive plants
- Create sustainable knowledge cluster

Communication

- Change community behaviour through improved communication
- Create innovated environment that rewards and develops industry for sustainability.
- More information for buyers occupiers and residences \Incentives to be created and communicated
- To show how we can do and where to go for sustainability

Development

- New holistic process that involves govt, developers, environmentalists, architects, builders and buyers
- Renewable solutions for industry/industrial scale including solar technology commercialisation
- Tropical Design principles
- Masterplan (land use/activity) for sustainable growth
- Transform Townsville into city designed for pedestrians
- Symbiotic with local environment
- Clean technologies
- Incentive based schemes in planning and building
- Population growth managed
- Sustainable development

Economy

- Encourage investment in sustainable capability
- Diversified economy
- Resource conservation and waste minimisation
- Sustainable marketing
- Corporate giants become sustainability champions
- Pilot programmes with funding

Community

- Committed to living "sustainability" (house, street, workplace….) & (birth to death)
- Create an aware and empowered and willing community
- Culturally diverse and harmonious

Environment

- Better facilities for household recycling
- Mandatory visit to Visy Recycling
- Shaded urban environment
- Sustainable waste management (solid and water)
- Protection of key urban natural assets
- Large scale water capture
- Carbon neutral
- Nuclear
- Townsville to become a global carbon centre to finance Sustainable Townsville
- Showcase for excellence in biodiversity

Transport

- Efficient public transport connecting all Townsville
- Car pooling fast lane
- Less car dependency
- Multi-use transport
- Integrated transport using sustainable technology
- Frequent and accessible