- Interviews with key tourist groups the local tourist office, camping ground, local representative group of bed and breakfast and real estate agents who let short stay accommodation to determine what activities might give the best outcomes. Again, these were undertaken by staff in her team
- A questionnaire for locals and tourists who smoke to understand what they do with their butt litter and if they do litter, what would change their habits. The questionnaire was administered, collated and analysed by the Media & Communications section.
- Focus groups with local businesses to workshop ideas on how to reduce butt littering outside restaurants, cafes and pubs. These were conducted by the Sustainability Manager herself.

Activities

Based on her research, the Sustainability Manager decided to undertake the following activities over the remaining four months of the program:

- Engage Council's interest in the issue to ban smoking on the beach and in beachfront parks
- Run a communications campaign with assistance from the Media & Communications section and with the following elements:
- Put littering posters at regular intervals along the beach
- Place a butt littering article and 'advert' in the local tourist guide
- Place butt littering posters on the side of existing rubbish bins on the coastal strip
- Hand out butt litter flyers with short stay rental agreements and tourist brochures from the tourist office
- Place no smoking signs in prominent places close to the beach with assistance from the Infrastructure section
- Use Council Rangers to enforce the smoking ban on the beach and issues fines.

During the program

In order to find out if the activities were making a difference, the Sustainability Manager followed up with a week-long waste audit to identify whether cigarette butt litter was reducing. She found that cigarette butt litter:

- On the beach soft sand had reduced by 50%
- Around the pubs, restaurants and cafes it had not reduced at all
- In stormwater it had reduced marginally.

In addition, although issuing fines was effective at reducing cigarette butt litter on the beach, the Council Rangers found it uncomfortable and confrontational to issue fines for people smoking on the beach. This activity seemed to cause stress and antagonism with beachgoers. Also, it did not seem to prevent people from smoking.

The Sustainability Manager reflected on the results with the Steering Committee. They decided to:

- Liaise with the local residents using the beach. This involved the local beach clean group and also the surf lifesaving group who had not previously been involved. The surf lifesaving group devised a solution. Patrol captains were specifically trained and a more 'softly, softly' approach was trialled – asking people not to smoke and explaining the impact cigarette butt litter had on the beach.
- Find a better way to engage with owners of pubs, restaurants and cafes to communicate the results of the audit and explore ways to stop the cigarette butt litter in these locations. This led to specific cigarette butt bins being mounted on the walls outside these establishments and small hand-held bins being provided at the doors for patrons who go outside to smoke
- Liaise with the Council Infrastructure section to explore solutions to cigarette butts entering the sea from the stormwater drains. This led to the Infrastructure group installing finer meshes and filters in the drains to catch the cigarette butts and scheduling a twice-weekly filter cleaning process.

The outcomes

At the end of the program, another week long waste audit was conducted which found that cigarette butt litter reduced by 90% (more than the expected 80%). A formal report was prepared for the stakeholder group. This group has now joined together to work on other environmental initiatives relating to waste, including an education program on reducing waste to land fill (especially waste from local businesses).

The Sustainability Manager presented a paper on the program and the research performed at the state-based environmental educators' forum. This increased her networking capacity and made valuable contacts for future programs. She also shared her outcomes and learnings with eight other councils with sea frontage, and this led to the creation of a working group that meets twice a year to discuss common issues related to beachside councils.

Table 7 – Sunny Coast Council hierarchy of outcomes

Table 7	Table 7 – Sunny Coast Council hierarchy of outcomes							
Program stage	Planned outcome hierarchy	Planned research conducted and results	Improving the program with additional research					
Review	 Ultimate outcomes (impacts) Decrease in butt littering towards 80% in all locations Evaluation shows program was effective and efficient Capacity building at Council level Program contributes to body of work on litter programs Increased community capacity for change for sustainability Increased support from Council for sustainability education programs 	 Waste audit eight months after previous audit – showed cigarette butt litter reduced by 90% (compared to 80% target) Questionnaire sent to stakeholders requesting feedback about the process of engagement and whether they felt the program had been well managed – showed high levels of engagement and satisfaction with program management Survey of 50 local residents undertaken to evaluate their perceptions of the program and of Council's running of the program – gave positive feedback 	 Formal program and evaluation report presented to Steering Committee Sustainability Manager presented paper at state-based environmental educators' forum to share learnings and outcomes. Led to the formation of a working group of eight councils with sea frontage to further explore shared issues on a range of topics. Group meets twice yearly Stakeholder group reformed the following year to investigate ways to further reduce take-away food container litter in the eating district 					
Implementation and review	Intermediate outcomes (changes) Substantial progress in butt littering towards 80% target in all locations 	 Waste audit four months into education program over one week to monitor whether butt litter had reduced – showed cigarette butt litter had reduced by 80% on soft sand. No change in cigarette butt litter around pubs, restaurants and cafes. Marginal reduction in litter in stormwater Focus group with Council Rangers – showed that although issuing fines was effective way to reduce butt litter on beach, it was highly confrontational and did not reduce smoking 	 Focus groups with local businesses to workshop ideas on how to reduce butt littering outside restaurants, cafes and pubs Focus groups with residents, local beach clean-up group and surf lifesaving group to investigate more effective approaches. This research led to: Patrol captains from surf lifesavers trained to ask people not to smoke on beach, explaining impact of cigarette butt litter – found to be less confronting for both beach goers and enforcement officers Butt bins mounted on walls in eating district and hand-held bins given to patrons by owners of pubs, restaurants and cafes to use outside Web search of effective mesh and filter mechanisms in conjunction with Council Infrastructure group to install in stormwater drains to trap cigarette butts 					
Implementation	 Immediate outcomes (participation) Council Rangers increased enforcement activities, fines issued double in first four months Tourism office and estate agents agreed to participate and butt litter flyers are included with all short stay rental agreements and all tourist brochures Funding from Council obtained 	 Fines issued by Rangers monitored – showed substantial increase in activity Assessment of effectiveness of program at Stakeholder Steering Committee after four months – found that that not all of the community was sufficiently involved in the program 	Stakeholder analysis by Steering Committee to confirm all key stakeholders, (influencers, decision makers, participants) are identified and their relevant roles understood – found Steering Committee did not represent all key stakeholders. Committee expanded to include representatives from local residents group and owners of pubs, restaurants and cafes					
Implementation	 Activities Communications campaign conducted: Littering posters placed at regular intervals along the beach Butt littering article and 'advert' in the local tourist guide Butt littering posters placed on the side of existing rubbish bins on the coastal strip No smoking signs placed in prominent places close to the beach Council Rangers requested to enforce smoking ban on the beach and issue fines Stakeholder Steering Committee formed and cooperation in anti-littering measures invited 	 Personal reflection by Sustainability Manager using diary to ensure activities meet the needs of the program Stakeholder analysis by Sustainability Manager identified key stakeholders Focus group held with Stakeholder Steering Committee to workshop the program design and agree on best approach and funding available 	Focus group with key stakeholders to debrief on the program and reflect on process undertaken and success of activities					
Planning	 Needs To reduce cigarette butt littering by 80% over six months To build community capacity to create solutions for sustainability issues To build support for sustainability education programs at Council level 	 Daily observations at key locations on beach and coastal strip over one month – including two weekends and one week school holiday period – on who litters, where and when Interviews with key tourist groups – local tourist office, camping ground, representative group of bed and breakfast owners and real estate agents for short stay accommodation to determine what activities might give the best outcomes Questionnaire of locals and tourists who smoke to understand what they do with their butt litter and what would change their habits if they do litter Desktop review of butt litter programs highlighted successful campaigns at state government level. Handouts and posters available on government websites 	Initial research supported planned activities					
Planning	 Issue and context Significant litter on coastal strip – on soft sand, streets close to the beach and in the sea. Survey of local people the previous year showed litter as key environmental concern. Locals believe litter caused by tourists Recent litter audit revealed 40% of litter is cigarette butts Little community engagement or involvement in sustainability planning 	 Literature review of litter research and education programs to reduce litter – confirmed that cigarette butt litter is key issue for many councils and identified various strategies to reduce it Analysis of visitor numbers over the past 5 years – indicated significant increase in population over weekends and holiday periods Litter volume data from waste management: contractor confirmed volume increased by 120% on weekends and holiday periods, 40% is butt litter 	Initial research had insufficient focus on the social aspects of littering					

Table 8 – Ngura Council hierarchy of outcomes

Program stage	Planned outcome hierarchy	Planned research conducted and results	Improving the program with additional researc
Review	 Ultimate outcomes (impacts) Reduction in water consumption by 30% at end of two years Program evaluation shows program was effective and made efficient use of resources Outcomes and learnings shared with four other councils Other forums formed for future programs Increase in Council capacity to run change programs and value research as an integral component of these programs 	 Quantitative data on household water use over the next two years obtained from water authority and analysed – showed 35% fall (compared to target of 40%) in household water use Program evaluated to assess efficiency and effectiveness – formal report presented to Council and water authority Environmental Manager program summary shared outcomes and learnings with four other councils 	 Reflective practice and evaluation review with concluded that time was lost at the start of the education programs or by talking to water user and by whom as well as various behavioural asp. Identifying landlords as stakeholders, conducting in the program has led to the landlord group nenergy consumption
Implementation and review	Intermediate outcomes (changes) . • Reduction in water consumption towards 30% over trial period of two quarters	 Quantitative data analysis – water use data from water authority reviewed after trial period (two quarters) to calculate change in use; showed only 5% fall in water consumption, mainly in single rather than multi-unit dwellings Quantitative analysis of number and households taking up water tank offer – showed only a few households had 	 Initial assessment of effectiveness of program s behaviour and motivations of residents to redu Decision made to conduct a more detailed sur water use and enable changes to the incentive Contracted research – phone interviews of 300 multi-unit dwellings – showed: Renters not motivated by price Need for education and incentives Most water used in common garden and in This led to a change in approach: Incentive program for renters to buy water-effic Home audit package offered by water authority educational material on water use Landlord group formed to identify residential brappropriate action More information on bills for body corporates Water tank incentive scrapped for single dwelling for common gardens
Implementation	 Immediate outcomes (participation) Water authority becomes a program partner Households received information about pricing and methods for saving water 	 Water authority complaints line and Council enquiries line monitored for feedback – found owners of multi-unit dwellings unhappy with stepped price 	
Implementation	 Activities Stepped pricing arrangement for water consumption for a trial period of two quarters Mail-out to households explained the issue and reasons for new pricing scheme. Mail-out included \$200 water tank rebate offer from Council 	 Focus group with water authority staff to explore approach to reducing domestic usage Stakeholder analysis identified households and water authority as key stakeholders Records kept of mail-out activities – which households received which information. 	 Further analysis showed landlords were a stake understand how they could work with Council to a state of the state of the
Planning	Needs Aim to decrease householder water usage by 30% over two years 	• Desk review of water authority's previous research on cultural values of water. Manager concludes that primary motivator for water use is price	 Reflective practice at end of project concluded to at this stage In addition, more contextual information was reflected at the stage
Planning	 Issue and context Lack of certainty over water supply in area experiencing reduced annual rainfall Decreasing dam levels from only source of water in catchment Increasing household water use Low Council capacity for research as a basis for sustainability education programs No partnerships for change between Council, other councils and resource providers e.g. water, waste, energy 	 Analysis of quantitative data on household water use over the past five years from water authority Analysis of spatial maps showing housing types in the Council area 	• Initial research had insufficient focus on the soc

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vith environmental group at council and water authority he program by not doing a literature review of other sers and more clearly researching how water was used aspects of water use

cting specific research with this group and involving them now working with the local energy authority to reduce

- m showed little success. **More knowledge required** about educe water use
- survey of renters to understand motivations for reducing ve scheme
- 300 renters to better understand how water is used in the

in clothes washing

- efficient washing machines
- rity to retrofit water-saving devices in units, including
- l blocks of high water usage and develop

lings and introduced at multi-dwelling level

akeholder group. **Focus group** of key landlords held to cil to reduce water use

d that a literature review should have been performed

s required to fully understand the program needs

social aspects of water use, e.g. behaviours, values etc.

B.3 Freshfield community groups: action for climate change

About Freshfield and the community groups

Freshfield is an older inner city suburb with a diverse housing mix, people from diverse cultural backgrounds and a range of household types. It has a number of community groups who are active in a range of different areas from women's groups to specific culturally based groups and environmental groups.

Three community groups in Freshfield became involved in a climate change project. They were:

- Freshfield Landwatch (Landwatch), an environmental group that operates two community gardens in Freshfield and runs monthly education sessions on gardening, composting and worm farming
- Freshfield Parents Group (Parents Group), which runs daily playgroup sessions for parents with preschool aged children, based in the local community hall
- Freshfield Migrant Centre (Migrant Centre), which runs programs for migrants to increase their literacy and help them find jobs in the local area.

The current issue

Landwatch identified an opportunity to partner with other community groups in order to build overall community capacity for changing towards sustainability. Landwatch had conducted a series of questionnaires over six months with participants from its composting sessions and found that that the issue of climate change and its impact was not well understood. It approached the other two community groups and collectively they applied for a state-based grant (\$60,000 over one year) to develop a partnership to produce tangible outcomes for climate change.

The program

The community groups formed a Steering Committee consisting of the Education Officers from each group and the Freshfield Council Sustainability Officer. The Sustainability Officer was seconded from the Council for one day per week during the project.

The purpose of the program was to:

- Build an increased sense of community by working collectively
- Build community capacity for change towards sustainability (with a focus on climate change issues)
- Reduce greenhouse gas emissions in Freshfield Council area
- Build the capacity of the partners to continue working together on other programs.

The research

The Steering Group used existing research from the Australian Greenhouse Office on household attitudes to climate change to better understand people's perception of what climate change means, how people relate to it, whether they see it as an issue and what actions, if any, they take to reduce their household impact. They also decided to undertake a broad community survey to better understand Freshfield residents' perceptions of climate change, the greenhouse effect and whether/how they took action at a householder level.

A phone survey of 200 residents was conducted by a specialist phone research agency which also provided a detailed report. The survey supported the Landwatch survey findings and showed that the residents had limited understanding of the links between climate change and their own actions.

The Steering Group decided to adopt a highly participative action-based approach and run a series of 4 x 3 hour workshops of each up to 15 participants with each community group over a six-month period. Each Community Education Officer ran their group workshop, which was scheduled at a time convenient for the participants. The aim of the workshops was to gradually increase the participants' capacity for change by

getting them to think critically about the barriers and drivers for change and empower them to work together to achieve their goals. At the start of the program, the Steering Committee developed a series of questions in order to frame the design of the workshops while ensuring the design could be adapted if required.

At the end of the first workshop, the participants decided to record the following as baseline data:

- Their car mileage each week
- Energy used in the home each guarter (gas and electricity)
- The number of light bulbs in their home (energy efficient and normal ones)
- How full their non-recyclable and recyclable waste bins were each week.

At the end of the second workshop each participant completed a 'Commitment to Climate Change' form detailing the specific actions they would undertake to reduce their greenhouse emissions based on the baseline data they had collected. At the end of the fourth workshop this data was collected again to evaluate the percentage reduction and calculate the greenhouse emissions saved.

At the end of each workshop the participants completed a workshop evaluation form to assess their changed levels of knowledge and understanding, and allow them to provide input into the next workshop.

In addition, the last activity in each workshop involved the group reflecting on how their activities, both during and in between the workshops, were contributing to their vision for sustainability for their community. The discussions involved reflecting on what had happened and why; what enabled change to happen and what prevented change from occurring; if, how and why their perceptions, thinking and behaviour as individuals and as a group were changing; and what they could share with others. These discussions were recorded as collages in poster form and were stuck up on the walls in their meeting place in order to record their 'journey' and their learning, and to communicate their project with their wider community group.

In addition, the Steering Committee members kept reflective journals throughout the program to record their thoughts, experiences and the learning process for both themselves and the participants. They summarised their individual journals at the end of the program and circulated these summaries within the Steering Committee.

Activities

The Community Education Officers attended a workshop facilitation course to better equip them with techniques for running participative learning workshops. This course was run by the state-based environmental educators' group, which enabled them to make connections with a wider network of educators.

The workshops were conducted for each group as follows:

- Workshop 1: What does sustainability mean to me? What is climate change? What part does climate change play in achieving sustainability? What is our vision for our community?
- Workshop 2: What can we do to address climate change? What can we commit to doing?
- Workshop 3: How are we going? What are the barriers and levers to change?
- Workshop 4: What changes have we made? What have we learnt? What can we share with others? What shall we do next?

The aim of the workshops was to create a highly participative environment where the participants could share their ideas and work together to achieve change. The facilitator's role was to maximise interaction and enable participants to develop their own conclusions and responses by working in both small and large group settings.

The Council Sustainability Officer sourced support materials for the workshops and also attended the workshops in a co-facilitator role. This allowed the Council Sustainability Officer to have a broader perspective on the process and outcomes and provide feedback on this basis.

The Steering Committee met in the week following each workshop. They discussed both the process and the outcomes of the workshops and reflected on what worked or did not work and why. Sharing experiences meant they could adapt future workshops if required and support each other through the program.

During the program

The participants at first struggled with defining 'sustainability' and understanding their role in climate change. The first workshop was very intense and they found this challenging. They thought they needed more opportunities to discuss the issues. Based on this, a secure web forum was created for the Landwatch and the Parents groups on the Council's website, which allowed the participants to post entries and discuss issues. This was moderated by the relevant Community Education Officer.

Such a forum was not considered appropriate by the Migrant Centre participants, primarily because they had lower literacy levels in English, spoke different languages and had limited access to the internet. As they also met on a more frequent basis, they decided to dedicate one morning per week for an informal focus group led by a participant with assistance where required from the Community Education Officer.

These discussion forums added significantly to the process and by the end of the second workshop each participant had completed a 'Commitment to Climate Change' form which detailed specific action to be undertaken at the household level. The commitments were under three headings of reducing car use, reducing energy consumption and reducing waste to landfill.

After the third workshop, one of the perceived barriers to change was the lack of incentives from Freshfield Council and lack of leadership on green energy by the Council. The Council Sustainability Officer reported back to colleagues and the Council decided to purchase 100% of its electricity from renewable sources and offer three free energy-saving light bulbs for each household to help them meet their commitment. These two actions were seen as critical to supporting the community groups.

The Steering Committee members believed their monthly meetings were vital for supporting each other through the program, especially in terms of working through barriers and levers to change.

The outcomes

At the end of the fourth workshop, the participants reported back on the outcomes they had achieved:

- Individual capacity for change was built throughout the program. This included skills around critical and systemic thinking and on working together to achieve a goal
- Community capacity for change was built via the workshops which provided a basis for ongoing discussions about sustainability, the realisation that collaboration and partnering was a key success factor in change and by better understanding the barriers to change
- Increased Council engagement with and leadership in sustainability and support for further partnership programs
- Specific measurable outcomes to reduce climate change impact.

In addition, the Steering Committee members reflected on the program outcomes and concluded that:

- Strong partnerships were built between the four partners in the program. In particular, the three community groups are now working collaboratively together to lobby the Council to increase the number of cycleways within the Council area to reduce car mileage and reduce greenhouse gases from this source
- The reflective journals helped build the Community Education Officers' capacity to engage their community groups in change programs (not just for climate change but on a wide range of issues). Two of the Steering Committee members have continued to keep journals and all members are using reflective practice in their education programs
- It was decided that the process and outcomes of the program should be shared more widely by writing it up as a case study and presenting at a range of sustainability forums. The writing up was done co-operatively by the Council Sustainability Officer in conjunction with the three groups' Community Education Officers. This case study was presented by the Council Sustainability Officer at a local government education forum and jointly by the Community Educators at the state-based environmental educators' conference (following from their introduction to this network in the facilitation course).

- extend this program further. Based on this, the Council developed a formal community consultation and engagement strategy and decided to fund another community group partnership to undertake a similar program in the following year
- Local media could have been included as a partner to communicate the program to the wider community and inspire others to take action.

There is now much broader community engagement with climate change and therefore an opportunity to

Table 9 – Freshfield community groups hierarchy of outcomes

Program stage	Planned outcome hierarchy	Planned research conducted and results	Improving the with addition
Review	 Ultimate outcomes (impacts) Reduction in greenhouse gas in the participating community groups Capacity building at individual (participants and Steering Committee) and community/partner level Program contributes to body of work on participative processes for change Increased community capacity for change for sustainability Formal community consultation and engagement strategy formed by Council Increased Council support for partnership programs 	 Data collected for greenhouse emissions and compared to baseline data to calculate reduction on greenhouse emissions Evaluation form after fourth workshop included questions on the process adopted during the program and on what basis the participants viewed the program as 'successful' Reflective journals were summarised by each Steering Committee member and circulated among the group to share learnings and reflections on the program Collage posters placed on public display documented the reflections of the group and their learnings during the workshop process 	• Additional s which could build broade
Implementation and review	 Intermediate outcomes (changes) Increased engagement by community groups in climate change discussions Increased empowerment to plan and implement change Identification of barriers (and levers) to change Engagement by the Council and changes in purchasing policy and initiatives to assist households 	 Workshop feedback forms showed high degree of engagement in climate change and willingness to contribute to group discussions. Feedback also showed people valued being in a supportive environment where they could create their own action plans and feel motivated to achieve them Workshop feedback forms from third workshop highlighted barriers to household change as being lack of Council leadership and incentives for change Group reflective practice during Steering Committee meetings confirmed workshop approach, activities and allowed learnings to be shared across the partners Group reflective practice at the end of each workshop to discuss what, if anything, was changing and how, why/why not. This deepened understanding of change processes at an individual and community level 	Data from fe Council renewak Council o househo
Implementation	 Immediate outcomes (participation) Workshop participants self selected for each community group Council agreed to fund Sustainability Officer for one day per week during the program Steering Committee formed and met in the week following each round of workshops 		No additional highlighted th effective way learnings
Implementation	 Activities Action based learning approach: 4 x 3 hour workshops planned over a six-month period for each group Participative learning activities in small groups building on experiences over time 'Commitment to Change' forms completed in second workshop 	 Facilitation course attended by the Community Education Officers increased knowledge about successful participative learning activities for change Baseline data collected for greenhouse emissions for individuals via 'Commitment to Change' form Critical and systemic thinking activities in workshops to broaden understanding of sustainability and climate change and develop action for change Reflective practice undertaken individually in journals and collectively in monthly meetings by Steering Committee members to monitor process and outcomes of the program 	Additional d participants
Planning	 Needs To build increased sense of community by working together To build community capacity for change towards sustainability (with a focus on climate change) Reduce greenhouse emissions in Freshfield Build capacity of partners to work together in future Increase Council commitment to engaging and consulting with community in change for sustainability 	 Community survey of 200 residents showed residents had limited understanding of the links between climate change and their own actions Stakeholder analysis identified key stakeholders i.e. the three community groups and the Council Sustainability Unit 	• Initial researd
Planning	 Issue and context Feedback from Landwatch composting session, participants identified climate change and its impact were not well understood Little community engagement or involvement in climate change action No Council-led programs with community groups With three active community groups, there were opportunities to create a partnership for this project which would endure in the long term 	• Desktop review of Australian Greenhouse Office reports on household attitudes to climate change	 Initial researce perceptions level and req knowledge

the program ional research

al stakeholder identified as a partner i.e. local media uld have been used to further 'spread the word' and ader community capacity for change

n feedback forms led to:

cil purchasing 100% electricity requirements from vable sources

cil offered three free energy-saving light bulbs per ehold

nal research undertaken although later reflections d that local media should have been identified as an ay to promote the project and share its outcomes and

al discussion forums set up after first workshop to allow nts to discuss issues more deeply

earch supported planned activities

earch had insufficient focus on the **community** ons and understanding of climate change at a broad required the community survey to provide local level ge