APPENDIX 5(a)

Cities for Climate Protection Programme,

"Targeting Greenhouse Gases" Public Consultation and Survey Results

City of Joondalup

Collated by Sustainable Development Officer
John Goldsmith, Strategic Planning, City of Joondalup

January 2002

Cities for Climate Protection Programme,

"Targeting Greenhouse Gases"
Public Consultation and Survey Results

CONTENTS

1. Background

The City of Joondalup is a member of the Cities for Climate Protection Programme, which assists local governments to reduce greenhouse gas emissions. The Cities for Climate Protection programme comprises of five milestones:

1. Conduct an inventory of current greenhouse gas emissions for Council and community activity and a forecast of emissions growth in the future (achieved 19 December 2000 *refer CJ362-12/00*).

2. Establish a greenhouse gas emissions reduction goal (for the Council and community sector).

3. Develop a local action plan.

4. Implement the local action plan.

5. Monitor and report on the implementation of the local action plan.

Milestone 2 involves the Council consulting with the community to establish a greenhouse gas emission reduction goal. This goal is the amount of greenhouse gases that the Council and the community are committed to reducing from the base year. Milestone 3 involves developing a Local Action Plan that documents the types of measures that the Community and Council will undertake to reduce the greenhouse gas emissions.

At the Council Meeting held on 26 June 2001, it was resolved that a community consultation programme be undertaken to assist the Council in determining and endorsing greenhouse gas emission reduction targets, for the City's corporate activities and also the community's activities *(Item CJ195-06/01 refers)*.

Council considered the proposed public consultation programme at its meeting on 14 August 2002 *(item CJ260-08/01 refers)* and resolved the following;

That Council endorses the proposed community consultation for the Cities for Climate Protection Programme, Milestone 2 and 3, including the following:

1. a 12 week public consultation period.

2. information sheets to be distributed that provide arguments for and against the existence of the greenhouse effect and arguments for and against Council adopting a policy with regards to the greenhouse effect.

3. that links be established to internet sites from the City of Joondalup site that provide arguments for and against the greenhouse effect.

2. Public Consultation Programme

A thee month community consultation programme was conducted to assess the community's view on the establishment of greenhouse gas emission reduction targets. The consultation programme commenced on 11 October 2001 and concluded 11 January 2002.

The community consultation programme commenced with a four-page Council News feature which was distributed in the Joondalup Community newspaper, 11 October 2001. This feature (attachment 1) discussed possible arguments for and against the existence of the greenhouse effect, and possible arguments for and against whether Council adopting a Greenhouse. The feature also included a community survey to assess community opinion regarding the setting of greenhouse gas targets for the community and Council and related matters.

A "Targeting Greenhouse Gases" web site was also established on the City's web site at living.joondalup.wa.gov.au. The web site included an online survey, link to the Council News feature, links to other web sites regarding global Warming and the Greenhouse Effect, and a presentation of Council's delegation to the 2nd Cities for Climate Protection National Conference, in August 2001 (attachment 2).

As part of the consultation programme, two community forums were held in October 2001 to discuss Global Warming and Greenhouse gas emission targets for the community and Council. The public meetings were held on 18 October (Sorrento Community Hall), and on 25 October (Joondalup library). The first public meeting was attended by approximately 20 people and the second by 15 people. Sustainable Development Officer Mr John Goldsmith gave presentations on the Cities for Climate Protection programme and answered question relating to the programme and survey.

3. "Targeting Greenhouse Gases" Survey Results

Question 1

Name and suburb of respondent.

	Number of responses	% of responses
Respondents who live or work within City of Joondalup	146	87%
Total	168	100%

Responses according to Suburbs

Suburb	Number of responses	% of responses
Beldon	4	2%
Burns Beach	1	<1%
Craigie	5	3%
Currumbine	1	<1%
Duncraig	8	5%
Edgewater	4	2%
Greenwood	8	5%
Heathridge	4	2%
Hillarys	2	1%
Iluka	1	<1%
Joondalup	27	16%
Kallaroo	5	3%
Kingsley	20	12%
Marmion	3	2%
Merriwa	1	<1%
Mindarie	1	<1%
Mullaloo	10	6%
Ocean Reef	6	4%
Padbury	8	5%
Quinns Rocks	6	4%
Sorrento	6	4%
Warwick	2	1%
Woodvale	20	12%
City of Joondalup suburb not specified	1	<1%
Other Suburbs	13	8%
Suburb not specified	1	<1%
Total from City of Joondalup suburbs	146	87%
Total	168	100%

Question 2a.

Do You think there is a Greenhouse Effect?

	Yes	No	Nil response	Total
Number of responses	164	2	2	168
% of responses	98%	1%	1%	100%

Question 2b.

Should Council adopt a strategy on the Greenhouse Effect?

	Yes	No	Nil response	Total
Number of responses	162	3	3	168
% of responses	96%	2%	2%	100%

Question 3.

Community Greenhouse gas emissions are predicted to increase from 1,317,104 equivalent tonnes CO2 (1996) to 1,499,694 equivalent tonnes CO2 (2010), if no action is taken to reduce emissions What community emission reduction target on 1996 levels by 2010 do you support?

Reduction Target %	CO2 reduction target in tonnes by 2010	Number of responses	% of responses
15	197,566	14	8%
20	263,421	42	25%
30	395,131	29	17%
35	460,986	58	35%
>35	>460,986	22	13%
Not specified		3	2%
Total		168	100%

22 responses specified a target greater than 35 % (itemised below);

% Target	Number of responses
35-45	4
>45-50	9

>50-75	3
>75-80	2
>80-90	1
>90-100	2
"Other" (amount not specified)	1
Total	22

Question 4.

Council Greenhouse gas emissions are predicted to increase from 20,827 equivalent tonnes CO2 (2000) to 24,784 equivalent tonnes CO2 (2010), if no action is taken to reduce emissions What Council emission reduction target on 2000 levels by 2010 do you support?

Reduction Target %	CO2 reduction target in tonnes by 2010	Number of responses	% of responses
15	3,124	16	9%
20	4,165	37	22%
30	6,248	29	17%
35	7,289	60	36%
>35	>7,289	20	12%
Not specified		6	4%
Total		168	100%

20 responses specified a target greater than 35 % (itemised below);

% Target	Number of responses
35-45	1
>45-50	7
>50-75	3
>75-80	2
>80-90	2
>90-100	2
"Other" (amount not specified)	3
Total	20

Question 5.

What do you believe that Greenhouse gas emission reduction should focus on:

Topic	Strong support	Support	No Support	Nil response	Total
Promoting efficient use of energy.	146 (87%)	20 (12%)	0 (0%)	2 (1%)	168 (100%)
Improve air quality (eg. by reducing smoky fires and vehicle emissions).	128 (76%)	34 (20%)	4 (2%)	2 (1%)	168 (100%)
More use of environmentally friendly transport (Cycling, public transport and walking).	124 (74%)	40 (24%)	3 (2%)	1 (1%)	168 (100%)
Promoting local employment for local people (to minimise the need for long commuting trips).	85 (51%)	68 (41%)	13 (8%)	2 (1%)	168 (100%)
Saving money by reducing energy costs.	90 (53%)	62 (37%)	14 (7%)	2 (1%)	168 (100%)
Streetlighting and other public lighting.	55 (33%)	92 (55%)	17 (10%)	4 (2%)	168 (100%)
Community education regarding Greenhouse and energy usage.	107 (64%)	52 (31%)	7 (4%)	2 (1%)	168 (100%)
Promotion and use of renewable energy.	135 (80%)	30 (18%)	1 (1%)	2 (1%)	168 (100%)
Energy efficiency in the household.	133 (79%)	31 (18%)	1 (1%)	3 (2%)	168 (100%)
Business practices that reduce energy usage and waste.	138 (82%)	26 (15%)	1 (1%)	3 (2%)	168 (100%)
Promote businesses which market energy efficient products.	115 (68%)	43 (26%)	4 (2%)	6 (4%)	168 (100%)
Government initiatives focussing on greenhouse gas emission reductions.	128 (76%)	33 (20%)	3 (2%)	4 (2%)	168 (100%)
Other	32 (19%)	-	-	136 (81%)	168 (100%)

Question 5 "Other" category. Responses are provided below;

A total of 32 responses were received in response to this question and have been categorised for ease of readability.

Vegetation management as a method to manage Greenhouse gas emissions.

- More trees and less wholesale land clearing.
- Revegetation as CO2 sink.
- Ribbon of Green Policy, Australian bush revegetation on street verges and developments.
- Creating natural bushland areas as wildlife safe havens in as many suburbs as possible.
- Reduction in clearing of local native vegetation.

- Stop clearing mature trees & bushland eg Wild Garden Nursery Landsdale.

Transportation, energy usage and Greenhouse gas emissions.

- Free public transport to discourage commuters from driving to work.
- Cheap public transport.
- Gas cars being produced.
- Support for hybrid fuel cells in vehicles.

Education, publicity and information about the Greenhouse Effect.

- Education on energy usage and promotion of renewable energy should start at school level. This will have greater impact and long term effects.
- Education in schools.
- Forms of environmental resource should be produced and encouraged.

Energy production and management to reduce Greenhouse Gas emissions.

- Improve coal burning Power Station efficiency.
- Making electricity from liquid petroleum instead of coal.
- Phase out wood fires.

Renewable energy.

- Promoting more Solar Power eg Solar Hot Water systems, solar cells on roofs.
- More use of solar power.
- Encourage R & D into Renewable Energy & Energy Efficiency.
- Using wind energy.
- Promote solar hot water.
- Walk places.

Recycling, waste minimisation and waste management.

- Recycling.
- Reduce plastic bags.
- Recycling, revegetation of Australian plants.
- Heavy Fines for litter.

Financial and other incentives to assist Greenhouse gas emission reduction actions.

- Financial support for businesses and schools who adopt energy efficient practise-set up support not ongoing operational costs.

- Financial Incentives to Households.
- Financial incentives would help.
- Tax incentives to insulated houses or insulation obligation in constructions.

Urban design which promotes low Greenhouse gas emissions.

- Promote energy efficient housing designs.
- Energy efficient architecture.

Question 6.

Please list the activities in which you, your household, community group or business are involved in that may help reduce Greenhouse gas emissions?

Responses to this question are sumarised below;

- Personal and household action (137 responses).
- Schools and community groups (51 responses).
- Business and office activities (48 responses).

Responses have been categorised for ease of readability.

(Personal/Household action)

Vegetation management as a method to manage Greenhouse gas emissions.

- Plant native flora, mulch.
- Tree planting with the friends of yellagonga .
- Grow seedlings.

Recycling, waste minimisation and waste management.

- Recycling; careful use of electricity; cycling & walking instead of using car.
- Separate recycling bin, compost bin, worm farm, changing from electricity to gas.
- Recycling, public transport.
- Recycling waste products (sorting, composting). Using public transport & cycling instead of driving. Avoiding CFC emitting products. Purchasing products that have limited packaging/processing.
- Composting, environmentally friendly transport, recycling.
- Waste recycling.
- Recycling, car pooling, reuse shopping bags.
- Recycling. Composting. Energy efficiency. Walking, Cycling.
- Recycling, purchasing energy efficient appliances, conservation of energy in home.

- Recycling.
- Recycle rubbish & compost own vegetable/fruit waste, reverse cycle air-conditioning – reduced smoke emission.
- Recycling, energy efficient lighting, low energy cooling.
- Re-cycling. Public transport use.
- Recycling, reverse cycle air-conditioning, woodland retention.
- Paper recycling. Other recycling. Natural Gas fixtures
- Recycling waste. Using bikes or walking to the local shops. Low wattage globes. Wash clothes in cold water, Keep car serviced.
- Recycling.
- Recycle household wastes, reduce lighting – use lower voltage & wattage globes.
- Recycling, riding to work, using energy efficient products.
- Recycling glass/paper, insulation, convection heating, energy rating on appliances.
- Recycling, walk/cycle on short journeys, compost, wash clothes in cold water, minimum use of chemicals in home/garden, planted native trees in garden, maintain car.
- Recycle all plastics and bottles.
- Recycling, water reduction, used dish to wash up etc. Work in Health Industry (using natural products).
- Recycle as much as possible. Avoid use of aerosols. Use unleaded petrol & keep car well-serviced. Walk wherever possible. Careful disposal of litter.
- Recycling household rubbish, limiting water use.
- Recycle, don't use much electricity, catch the bus or walk.
- I compost kitchen wastes. Recycle as much as I can - which is not much!!!
- Recycling - cans, old newspapers, etc.
- Recycling. Walking to shops. Using the bus as far as possible. Buying appliances with 5-star rating.
- Recycling, local pickup, turning off electric appliances when not used.
- Recycling, composting, switch to gas from wood heater, turn off lights when not using them.
- Recycle, don't have a wood heater, use products with a high efficiency rating sticker, catch bus/train, walk.
- Recycling household rubbish.
- Recycling, service motor vehicle regularly, turn off unused lights, water saving.
- Recycle, ride bike/walk, shred paper, 'no junk mail', plant trees, support environment organisations (Greenpeace) & local groups ie 'Friends of the Bush' etc.
- Recycling, reducing car trips, not supporting companies with bad environmental records.
- Recycling.
- Recycling, reduction in energy usage.

- Recycling.
- Recycling.

Transportation, energy usage and Greenhouse gas emissions.

- Take public transport regularly. Share lifts when possible.
- Walk to school & walk home.
- Use of public transport, walking.
- Walk to school and home again.
- Walking, riding bikes, taking public transport.
- Regular car tune & servicing, walk not car use for journeys less than 2km, low energy compact tube lighting, recycling, low water usage.
- Car-pooling
- Use public transport/ bike, be energy conscious in the home.
- Conserve electricity; limit No. of car trips and try to use friendly transport (bikes and walking); maintain healthy garden :)
- Car-pooling to university.
- Reducing car use, using bicycles, increasing insulation in the home.
- Catch public transport o Joondalup ECU, maximising energy efficiency in the household.
- Use public transport where possible, car-pooling, minimising energy use in the home.
- Being energy efficient, using energy friendly transport.
- Use public transport, reduce energy usage in the home, attend rallies & demonstrations supporting renewable energy sources, compost organic waste, plant trees.
- Walk instead of taking car to school.
- Less lights, walk rather than drive.
- Smaller cars, use alternative transport, reducing household energy by simple means, ie. energy efficient lighting, insulation etc.
- Car-pooling.
- One car household. Efficient Car. Recycling. Select low waste goods.
- Cycle to work, use of public transport, recycling of greenwaste
- I have chosen to live within walking distance of my workplace, to minimise my commuting costs, energy usage and greenhouse gas emissions. I walk, cycle and use public transport on a regular basis.
- I catch the bus & walk to school and back.
- Car-pooling.
- Walk to school and home again.
- Car-pooling, minimise energy usage.
- Use public transport.
- Ride bikes, walk locally, grow own vegetables, compost organic matter. Built a solar passive house.

- Alternative transport. Energy conservation. Use energy efficient products.
- Walk most places.
- Ride my bike to work when possible. Switch off lights if no one in room. Tree planting the verge behind my house.
- Walking/public transport, solar energy, using energy efficient light globes, recycling where possible.
- Cycling and energy conservation.
- Reducing driving children to school.
- Promote greener transport options, lobby to retain bushland.
- Walk to local areas.
- Walk, public transport.

Household energy management; lighting, hot water systems etc.

- Low energy lights, turn off power when not in use, recycle.
- Efficiency in use of lighting in watering.
- Using lights only when necessary, jumper rather than heater, walk for local trips, use public transport where possible, participate in kerbside recycling.
- Purchase Compact Fluoro Lamps.
- Promoting efficient use of energy. Support businesses that do the same. Educate my family and those around me about greenhouse gasses and renewable energy. Recycle as much as possible.
- Installed solar water heater. Care in turning off appliances when not in use. Discontinued use of pot bellied stove. Use products that minimise wrappings. Reduces size of car to more efficient model.
- Saving electricity ie turning off lights when out of the room, public transport.
- Energy Efficient Lighting.
- Stopped wood burning heating – gone to gas. More efficient appliances. Smaller Car.
- Turn off lights.
- Turn TV off at powerpoint, use recycled shopping bags, use water & fibre based cleaning products.
- Electrical application, households should have a government grant for solar panels, maybe just for house lighting etc.
- Solar water heating.
- Gas hotplates, steamer cooking, Evaporative air coolers, extra blankets in winter.
- Using gas heating instead of wood fires, committed to recycling household waste.
- Use cold water for washing. Compost vegetable scraps and have a worm farm. Recycle cuttings where possible. Use only gas and electric. Minimise the use of heating and cooling. Recycle computer paper using at least twice where possible.

- Solar hot water system. Looking at purchase of solarvoltic system for energy creation. Cycle to work, shopping etc.
- Turn off lights, recycle rather than landfill (& burn).
- More efficient use of power.
- Reducing lighting. Buying energy efficient products. Purchasing only renewable timber products.
- Don't leave lights on.
- Double wall & ceiling insulation in house, electrical heating (?) recycle household waste in garden (& grey watering).
- Turning lights off when not in room, recycling as much as possible.
- Using less electricity-turning off appliances when not in use.
- Efficient energy usage. Basic awareness.
- Energy efficient lighting.
- Turning off lights, fixing fridge seal, energy efficient globes, open curtains, use candles.
- Using Solar Water Heater. Walking short distances instead of driving.
- Solar heating.
- Put a jumper on before turning on any heater.
- Reducing energy use to minimum possible levels, try to use cars less.
- Use as little electricity as possible. Don't buy anything that is packaged, if possible. If so, packaging that can be recycled. Compost. No air-conditioning. Have trees & shrubs in garden. No pesticides of any kind.

Household appliances and energy usage

- Energy efficient appliances. Reduced use of motor vehicle.
- Turn off electrical equipment that is on stand by. Installing solar panels to new home.
- All energy efficient appliances, use power during off peak times, worm farm (reduce waste), car pool.
- Low energy usage light bulbs, energy efficient fridge & washing machine.

Solar designed housing.

- Solar passive living accommodation using minimum of lighting and heating, composting, energy efficient appliances.
- Architecture. Gardening with native plants.
- Efficient house heating & cooling systems.
- Passive solar house design.

Other comments.

- If it was easier and cheaper I would do more.
- Maintain vegetation. Dispensed wood fire. Solar Hot Water. Recycle where possible. Use energy efficient products. Cycle/walk where possible. Regular vehicle maintenance.
- Minimal energy use – lighting etc.

  Cycle and walk to nearby facilities.

  Teach conservation of resources as part of Society and Environmental studies at primary school, as I am a teacher.

  Plant native trees etc. in own garden to assist air quality and native animals.

  Insulate home to maintain ambient temperature with minimal energy use.
- No solid fuel fires, recycle, packages, etc.
- Becoming more aware of the effect of waste etc.
- Alternative transport (cycling, use of shade for cooling, composting, water efficiency, prefer locally made produce especially fresh foods, gas heating, solar hot water, no wood fires, recycling.
- Efficient use of clean power /recycling / worm farm composting /walk instead of drive when possible.
- Energy friendly machines, cans, no woodfires, daylight saving!
- Gas heating (natural), recycling.
- Cease woodburning heater use -BAN THEM. When purchasing an electrical item eg dishwasher, check it's energy & water consumption rating before deciding which brand you want to buy.
- Recycling, energy efficient appliances, recycled and reduced packaging products, public transport, family education.
- Mimimise use of cars in the family. We are using public transport, bicycles and car pooling wherever possible.

  Installation of low energy globes in the most used lights.

  Recycling of all glass, steel and aluminum, which saves energy.
- Consumption less high consumption products ie air conditioning, heating, lighting.
- Use gas heating, don't burn waste, plant native plants.
- They should turn the gas off in the summer.
- Tree planting, recycling of materials through council collection, composting kitchen scraps.
- No more open fires. Reduced power usage. Solar power. Public transport if practical (mostly isn't). Fuel efficient vehicles.

Question 6. Please list the activities in which you, your household, community group or business are involved in that may help reduce Greenhouse gas emissions?

(School/Community Group action)

Education about Greenhouse gas emission reduction.

- Teach school children I come in contact with.
- Member of Edith Cowan Conservation Organisation.
- I am a primary teacher in the Wanneroo district and always include conservation topics in my society and environment topics.
- A colleague and myself are in the process of initiating a greenhouse response strategy within the School of Natural Sciences at Edith Cowan University and will be in contact with your office shortly.
- Class investigations analysing the effects over 100 years.
- Educate at early stage.
- Public education – integrated into catchment issues, revegetation activities.
- Have encouraged students to be more energy conscious.
- Involved in community awareness activities infrequently.
- Awareness of the problems and projects such as recycling.

Recycling, waste minimisation and waste management.

- Recycling, local pickup, turning off electric appliances when not used.
- Recycling paper/cans. Lighting.
- Recycling.
- Recycling.
- Recycling.
- Recycling.
- Litter-duty pick up rubbish, recycle.
- "scab duty" pick up rubbish, recycle, Keep Australia Clean Day.
- Promote composting and recycling of garden wastes - Organic Growers Association of WA Inc. Promote dune revegetation – Joondalup Community Coast Care Forum.

Energy efficient buildings.

- The new building is designed in energy efficiency ways, also education.
- Lighting which dims when ambient light increases, the use of passive solar heating, replanting bushland.
- Efficient air conditioning.
- University building is energy efficient, windows face north & south.

- University - energy efficient buildings, environmentally friendly heating.
- Turn off lights when not needed, general education on energy efficiency activities, share transport.
- Turn off lights, use solar wind energy, plant trees, use public transport.
- Turn light off as much as possible, teach environmentally friendly strategies, worm farms, recycling as much as possible.
- Lighting etc.

Vegetation management as a method to manage Greenhouse gas emissions.

- Planting trees via community group Edith Cowan Conservation Organisation (ECCO).
- Revegetation of remnant bush, to act as carbon sink.
- Conservation organisation - planting trees, etc.
- Mullaloo Beach School needs more trees planted and security to protect them.
- Woodland retention.
- Plant more trees.
- Encourages preservation of bushland.
- Planting trees.
- Plant natives.
- Bushland "Friends Groups".
- Plant indigenous shrubs & trees.
- Active in natural area regeneration & preservation. Keep vehicle travel to a minimum.

Transportation, energy usage and Greenhouse gas emissions.

- Car-pooling.
- Use public transport.
- Recycling, ride to school.

Other comments

- As being part of the Youth Advisory Council we ourselves, are creating initiatives to come up with and promote ideas.
- Joondalup Youth Advisory Council South: we reduce use of nonrenewable resources, ie electricity petrol (doubling up on lifts) and riding train etc; School turns lights out after class and middle of day:)
- City of Joondalup Environmental and Sustainability Advisory Committee.
- The youth advisory council (north).
- They should reduce greenhouse gas emissions in schools.
- Turn gas off in summer (heaters).
- No daylight saving.

- Belong to Friends of Yellagonga.

Question 6. Please list the activities in which you, your household, community group or business are involved in that may help reduce Greenhouse gas emissions?

(Business/Office activities)

Recycling, waste minimisation and waste management.

- Establishment of a recycling & energy monitoring committee.
- Waste minimisation programmes, recycling, fluorescent lights, push bikes for use on site.
- Recycle in a huge way.
- Recycling, local pickup, turning off electric appliances when not used.
- Our business – recycle cans & bottles, reuse paper.
- Recycling, encouraging others to recycle, encourage businesses with good environmental records.
- Recycling.
- Recycling.
- Paper recycling.
- Paper recycling.
- Recycling paper (less trees cut to provide paper).
- Recycle.
- Recycling papers.
- Recycling paper.
- Use recycled paper (save trees), use half the lights.
- Recycling paper, no paper cups, recycled toilet paper.
- Re-use cardboard boxes.
- Paper recycling.
- Recycling paper and drink cans.
- DECREASE WASTE!
- Recycle paper (use back & front).
- Paper recycling. Minimal opportunity for environmental activities provided within the City of Joondalup building.

Transportation, energy usage and Greenhouse gas emissions.

- More public transport for workers, more efficient bus system ie to Uni from station.
- Using less electricity, car-pooling.

- Environmentally friendly vehicles, less waste.
- Green transport plans, walk and use bus/train for work trips, avoid unnecessary use of lights/equipment.
- Riding to work.
- Share lifts to work.
- Energy conservation. Alternative transport.
- Initially focus will be on transport and energy efficiency.

Energy efficient buildings.

- Solar lighting.
- Energy efficient lighting. Energy efficient equipment & vehicles.
- Sensor lights which switch off automatically when no-one is in the room.
- Labeling of the floor switch bank to enable areas of the office to be switched on and off selectively, and promoting its use.

Office recycling program.

- N/A to us. But planners, architects & builders could do far more to promote energy efficient homes & businesses. No eaves, verandahs, incorrect orientation etc make homes & offices unliveable except when air-conditioned.
- Architecture.
- Energy efficient practices.
- Turn off lights, plant trees, public transport.
- Energy Efficient Lighting/Public transport initiatives.

Energy efficient office equipment and office energy management.

- Turn off lights, computers, heaters and other equipment when not required.
- Improving energy efficiency of all equipment via replacement.
- Encourage energy awareness, turn off power to unnecessary equipment.

Other comments

- They should reduce greenhouse gas emissions in office activities and businesses.
- SAVE ENERGY.
- Work in hospital, recycle paper where possible, turn off unwanted lights otherwise minimal at personal level.
- I work at an ENVIRONMENT CENTRE which focuses on renewable & sustainable practices.
- City of Joondalup, very poor.

- None – money orientated.
- Using acrylic pant instead of enamel because of off gassing.

Question 7.

What overall comments do you have regarding the Greenhouse Effect, Global Warming and the community's actions seeking to reduce Greenhouse gas emissions?

Approximately 115 responses were received in response to this question and have been categorised for ease of readability.

Statements of support for Greenhouse gas reduction actions.

- I support all reasonable efforts to reduce energy usage.
- I strongly support the City of Joondalup taking such a proactive approach to making it part of everyone's activities.
- This (Global Warming) is a problem for all of us and it is pleasing to see the city responding to citizens concerns in such a positive manner.
- Its a very serious problem in our world that may threaten our very survival. At the very least we should be willing to reduce use and pollution by 75% in 20 years. Clean energy should be sought and a 100% reduction in coal, diesel and Gas use
- I think it is THE most important issue facing all levels of government and we all need to be prepared to pay whatever it costs to prevent further environmental damage.
- Sounds like a solid Community Plan.
- BE A LEADER!
- The reduction of Greenhouse Gases has to be tackled and will give benefits to any community that is involved. The benefits will be environmental, social and economic.
- Critical issue facing society, but not taken seriously enough. An ambitious target is important, we need to work towards lower atmospheric concentration of greenhouse gases not merely a reduction in the rate of their generation. Joondalup can set an example by reducing its corporate and community emissions, and realise financial and other environmental benefits in the process. Community education, taking practical action and encouraging state and federal government to do more are all important ways Joondalup can do this.
- I believe Australia is culpable for its attitude to such matters as clearing of forests, use of fossil fuels etc and that such behaviour makes us a legitimate target for third world country anger.

- The City of Joondalup should place a great degree of focus on the high usage of automobile transport within the City which is the major source of greenhouse gas emissions - alternative modes of transport are available within the City of joondalup and with younger people composing a lot of the population it is an avenue that could be easily implemented and encouraged, "the alternative Green travel modes". Global Warming and climate change due to the Greenhouse effect is a major cause for concern for todays society and the City of Joondalup has such a high use (at least 85%) of private trips via cars and hence needs to take responsibility for such and become involved in the Cities for Climate Protection program, like other councils within Western Australia.

- The changes for the shores of Perth its environment along with the changes for the entire state would be drastic and shameful if scientific predictions are correct. I am sure our community would mourn the loss of our landscape if these changes are correct.
- As a part of your 5 year Strategic Plan the City of Joondalup has a responsibility to include environmental strategies to assist a worldwide reduction in greenhouse emissions. No one and no group or body should be exempt from taking effective actions – such as is largely is in the City of Joondalup presently.

- I believe the dangers are real . For good or bad the world will change, with rising sea levels, decreases in annual rain fall in some places and an increase elsewhere , more frequent flooding, fiercer storms and land clearing. Than again , these things may not occur at all . But I think we should err on the side of caution, and work towards a cleaner way of living .
- We need to take ownership of the problem, so that we can tackle this global problem on a local scale. We may not be able to single handedly solve the greenhouse effect, but we'd be dammed if we did not do our fair share of saving the environment.

- I feel the whole World Community should be involved in reducing the Global Warming/Greenhouse Effect at all levels of human kind from individuals through to country governments.
- The City of Joondalup should be a leader, not a follower, on the issue of Greenhouse gas reductions. This will, however, require significant investment. Council must resolve to allocate significant funds to enable the transfer to environmentally friendly/efficient technologies for COJ buildings and streetlights (the largest source of greenhouse gasses from COJ Council operations).

  Council should also seek to contribute to solar subsidies already offered through the Commonwealth Office of Energy, providing further incentives to households to install PV systems (as households are the largest source of greenhouse gasses from community sources). This would likely be in the form of a cash subsidy based on the size of the system to be installed.
- We all should do our bit towards reducing the greenhouse effect.
- Cut down on pollution, treat the world like you want to be treated, plant more trees, HELP SAVE THE WORLD!

- Unconstrained use of atmospheric oxygen, I believe, will have considerable impacts on future generations. Some impacts may not yet be fully appreciated, but all impacts will not be immediately reversible once they become fully apparent. Government and the community should act more seriously now to change the rate at which we consume energy, which I believe can be achieved without a significant negative impact on lifestyle, and with potentially positive impacts on the economy and health.
- If the so called "Experts" are correct we should do all that we can to help future generations'.
- We are facing a disaster if we don't act now.
- It is for a good cause because if we help the environment all people in the future will benefit.
- This century needs to have a mind of its 'own' to support the cut in gas emissions. Let Australia show the world we can use wind power, solar power to a greater percentage as we do at present.

Comments regarding the existence of the Greenhouse Effect.

- There is an enhanced greenhouse effect, immediate and strong action is required.
- I believe that any action that is undertaken to help reduce the greenhouse effect is very worthwhile and a lot of importance should be placed on reducing gas emissions. It's great to see that people are taking time to think about the environment and are actually taking steps to help save the environment. Keep it up!!
- People who dispute the existence of the Greenhouse Effect are rapidly losing credibility, given the substantial scientific understanding of the greenhouse effect and global warming. Given our very high per capita usage of non-renewable fossil fuels, we have a correspondingly high obligation to actively develop and implement global warming solutions. Everyone has a role to play, including political leadership at all levels of government, and community action from all parts of society including individuals, families, businesses etc. The City of Joondalup should be congratulated for participating in the Cities for Climate Protection Programme and should provide strong leadership for Greenhouse emission reduction actions.

  There are opportunities for Edith Cowan University, and other organisations to export their expertise in activities which reduce greenhouse gas emissions, and energy efficiency, to other major developing countries such as China.
- Greenhouse effect is very scary! VERY REAL. Do something now and aim big because the consequences are huge, at least if you have over the top goals you're more likely to do more good.
- This is a problem (Global Warming) for everyone. Although we will always get the selfish minority that don't care, it is up to those who do care to do twice as much if possible. It is only through setting a good example can we model for others how easy it is to make changes to our lifestyle that can help the environment.
- I think, regardless of whether there is a greenhouse effect or not, actions taken to decrease gas emissions can only have a positive effect on our environment.

- We are in an interglacial period with warming occurring as part of this cycle. There is no doubt lots of CO2 goes into the atmosphere. There is no doubt the earth has been wetter and hotter before. Where is King Canute? Things will evolve.
- It is the biggest threat to the survival of many species on this earth, including human beings.
- The pollution and decimation of trees contributes to global warming through the greenhouse effect and if serious action is not taken in the short term the problem will become insurmountable. United community action is required to solve the problem.
- It is real. People need to reduce consumption of all resources. Government incentives to implement energy efficient housing designs!

Statements regarding community action

- The effects of global warming can only be reduced by an overall effort to reduce CO2, which begins at a grassroots level. Community action brings together individual effort.
- I would like to see a more community based effort to help reduce greenhouse gases. Rather than just some individuals doing the right thing.
- Not enough community actions.
- I think individuals are making more of an effort to reduce the greenhouse effect than some corporate businesses (who are probably responsible for a large portion of the emissions in the first place).

  I think that education & awareness campaigns need to continue (there seems to be a lull in the awareness since the concept of Greenhouse Effect was announced a decade or more ago).

  The City of Joondalup could encourage more effective use of resources EG: paper use (double sided printing) and more recycling - even in the kitchen area. EG: have a worm farm for composting, recycle milk cartons and DON'T supply any polystyrene cups or popsticks.
- Not enough is being done. People may be aware of the Greenhouse Effect but definitely do not take it seriously enough.
- Save energy and instead of driving to School walk or ride. I think the Community needs to think alot more about pollution.
- They should try harder.
- I feel communities are not doing as much as they could to contribute to harsh environmental effects. The amount of precious water wasted on gardens alone in our street is sickening whilst on water restrictions.
- If the community does not respond, then the future generations will battle to survive.
- Not enough is done, businesses and residents alike do not feel it's their responsibility.
- Imperative that Government, Local Government and Community Leaders guide public, support alternative technologies and revise planning & development strategies.

Community participation and Greenhouse gas reduction actions.

- It is really important that everyone becomes involved. Not a matter of local community being too small. I think it would definitely be a good idea to become involved in this.
- Needs attention immediately. Not wise to postpone.
- Individuals must be made aware of problem and what can be done at a personal level to reduce energy usage and waste production – particularly in packaging of consumables.
- It is all of our responsibilities to address this issue, not just government. Though government should lead by example for the community to follow.
- People can always do more - there is still some irresponsible habits people need to change & also people need to take advantage of environmental services offered to them.
- Should emphasize everyone has to be involved not just greenies. Emphasis cost savings where applicable.
- All sectors of the community including local government need to be addressing this issue.
- Not enough being done. Committees, groups etc need more public access. An organisation set up of some sort for us Uni Students doing Environmental Management.
- It seems that only lip service is being paid to the Greenhouse Effect by most levels of Government.

Community partnerships for Greenhouse gas reduction.

- Schools in the area have expressed an interest in converting to solar power - a program Western Power subsidises. I believe the City of Joondalup should give financial support to those schools who seriously want their schools to be more efficient and environmentally friendly. This would support reducing green house effects but would also be a great platform for education for students (lifelong learning for their future behaviour)and for the community. With more than 30,000 students and their parents we could reach more than half the population with a highly visible and active schools campaign.

Education about Greenhouse gas emission reduction.

- People need to be educated about the real threat that their lifestyle choices pose to life on earth.
- We need to do more to educate people on these issues and encourage more action.
- We are ignorant of the effect. We need to become more aware of simple things to reduce the amount of emissions from a household that can be reduced.
- It is extremely important for people to be educated to preserve non-renewable resources eg fossil fuels, and use less damaging methods to create energy eg wind power, solar power, etc. Provide subsidies for solar power cells/hot water systems etc. Awareness & resolutions are a Council responsibility.
- Please see more information on our web site http://www.informaction.org/cgi-bin/gPage.pl?menu=menua.dat&main=gre.dat&s=Greenhouse%20effect and http://www.informaction.org/cgibin/gPage.pl?menu=menua.dat&main=gre_prob.dat&s=Greenhouse%20effect
- Very little public awareness on what is occurring other than we (Australia) is becoming warmer, and limited knowledge on how to reduce greenhouse gas emissions.

- Very low awareness of population who contribute to this problem. Government and Companies should provide more opportunities to stimulate recycling of plastic bags, beer bottles, cans, batteries, chemicals (wash), glass, tin, etc.
- Community doesn't know much - all too scientific.
- Attitudes need to be inculcated in adults and indoctrination of youth.

Public bodies to employ every means to encourage clean sources of energy - via subsidies, availability, information etc.

- Everyone should have an understanding, especially young children who can about it through their school.
- Education and providing incentives for industry to change practices are the keys.
- People need to be more aware of what they're doing to the environment.
- Alarmist information deters people from being environmentally pro-active. Advertisements encourage a highly consumptive lifestyle - more emissions.
- It's important to educate the younger generation about Global Warming & the Greenhouse Effect. They should have more involvement in the community to help the environment.
- Council need to take positive action to educate the community of the current effects of global warming. Look at subsiding certain energy efficient products such as fluro light globes and recycling bins. Clamp down on excessive vehicle and pot belly fire emissions.
- Advertise through all media outlets. Educate HIGH school students (not only the primary schools). Encourage businesses to have recycle or waste strategies at all levels.
- Most people think its a problem that won't affect them! Public awareness must be increased starting with school children who are our future.
- There needs to be more environmentally aware advertisement and educational ads to make people more aware of what they can do to reduce Greenhouse Gas Emissions.
- Public education is very important to the success of these kinds of actions. Many people are far too ignorant of the issues. Tougher penalties should also be in place for those individuals & businesses/industries that ignore greenhouse emission regulations.
- Not enough information at school to understand it fully, but I don't think people take it seriously enough.
- I think the most important aspect is government initiatives and community education in reducing greenhouse effect.
- Appalled by the general public's disinterest into this, to me, scary effect. I don't want to live in a hot brown desert.

Specific Greenhouse gas reduction actions

- Appoint a council officer to oversee this area- for projects.
- Develop new business premises and residential housing standards to ensure low building energy consumption. The City appears to be filling up with energy guzzlers ie no roof overhang and large areas of glass.

- Go to the following link if everyone did this, we would have less of a problem.

  http://www.greenhouse.gov.au/energyefficiency/appliances/standby/

  If governments used solar power for lighting the demand for solar power would increase and the price of the equipment though mass production would decrease.

- Most CO2 emissions come from the home. Within the home heating hot water by gas or electricity is the single largest source of CO2.

  Why not actively promote solar hot water systems as a way of reducing these emissions by 80% year? Better still, go even further by not approving any development that does not include solar water heating.

  This may sound radical, but solar hot water pays for itself within 5 years and after this period the owner is actually making money!

  Solar water heating is the only greenhouse gas strategy that makes a substantial contribution to lower emissions, saves the owner money and (crucially) does not involve compromising ones lifestyle. It's a WIN, WIN, WIN strategy.

- Encourage greater use of Public Transport & walking - beneficial to the individual & the earth.

  Use of more wind, solar & tidal power.

  Ask bottle manufacturers to introduce 5c refunds on all returns - in all states!

- Offer rate reductions for efficient use of equipment. Rate breaks for purchase of say a toyota prius. Garbage reduction.

- Action against old cars. Wasteful home heating and cooling. Public and school education. Incentives money etc to promote message.

- We have an abundance of sun & wind in WA. Let us use it. Make manufacturers reduce packaging &/or make it recyclable eg marge containers. Have recycling bins for green waste. As well as stopping the clearing of so much bushland, stop people cutting down trees in gardens just because they make a mess. Public transport should be environmentally friendly & perhaps reduce fares.

- Put a ban on the use of lawn and non native plants. Ban the use of garden sprinklers.

- Reduce the population.

- Stop the waste of so much council money on concrete kerbing and bitumen carparks etc. Plant trees, native bush should be retained wherever possible. Non-renewable resources should be expensive and used more carefully.

- I believe the Government needs to provide incentives of money, etc to companies who use recycled materials, reduce CO2 emissions, etc. Public transport needs to be improved.

- Cut down on pollution, grow more trees. Make a law that every house must have at least one tree on their property.

- Fines imposed for owners of vehicles emitting heavily polluted exhaust fumes & those residents burning smokey fires. Assistance for lower income households to insulate their homes. Free provision of Council recycling rubbish bins & compost bins to assist in reducing litter.

  Income from fines could go directly into implementation of strategies for reduction of Greenhouse gas emissions.

- We need to lead by example, make parking expensive so more people use public transport, have awards for individuals & companies that do the right thing, encourage renewable energy sources.

Comments relating to City of Joondalup and Council support and actions for greenhouse gas emission reduction.

- The minimum the Council could do is stop the burning of wood on fire in the community. This would improve air quality in winter and the lives of people who suffer with respirator problems.
- The City of Joondalup must act now on all possible ways to reduce Greenhouse Gases.
- Council should lead by improving air quality directives. Council should press for inclusion of subject in every school year.
- There is not enough emphasis in the present school curriculum.

  City of Joondalup should be devising plans for more dual pathways to reduce the dependency on cars. All bus routes should have paths on both sides of road.

  Planting of indigenous plants on all verges by City of Joondalup.

- I'm concerned about lack of support from Council for not having available more facilities for household recycling.
- Start designing energy efficient housing eg double glazing. Government subsidies for household renewable installations. Compulsory roof insulation. Council to convert to petrol/electric or diesel/electric cars (eg PRIUS).
- Necessity! Council needs to show the way by developing alternative energy/energy efficiency methods at the office, providing means of recycling, eg. cans, worm farms, greater use of native plants, reduced water and fertiliser use.
- Joondalup City Council should adapt all street lighting and park lighting to retrofit & use "DIO" path & park light head as used by City of Port Phillip as referred to by Councillor Hollywood. Joondalup should provide free of charge recycling bins as other councils do for green & plastic wastes.

- All suburban areas should have reserved bushland areas that are never available for clearing as a safe haven for wildlife and to be open to the community as nature walks. This is why Hepburn Heights in Padbury should never have been cleared. Councils and Governments need to stop making short sighted decisions based on greed. These areas should employ Council Rangers to maintain them. They can be a nature/wildlife reserve for the community to enjoy, and it will increase natural vegetation to reduce CO2 emissions and create an area of natural beauty & peace to be enjoyed, and a safe have for wildlife. Also all fire wood burners should be banned to improve air quality for the majority.

Comments relating to International Greenhouse Agreements.

- It's not good (Global Warming) and the Kyoto Protocol should be updated and more countries should be more enthusiastic towards it like America.
- It is a shame that Australia has not ratified the Kyoto treaty. If we do not join in, it will have disastrous consequences. We do not have to "ape" the US in everything that they do.
- Australia needs to do more and come into standing on the Kyoto findings.

Wood burning heaters.

- Cut out the wood burning stoves, all council vehicles to be LPG. Regulations on cutting or clearing any native bush.

Comments relating to consumption.

- Need to reduce consumptive practices.
- There needs to be a drastic change in consumption practice, starting with grass roots changes such as walking and riding a bike. Consumer habits should change by stopping overshopping of 'needs' and not 'wants'.

Other comments.

- For people to want to reduce CO2 emissions, it must become more economically viable. For example more public transport at cheaper rates, cheaper low energy use appliances.
- Where is ECCO's $800 from the Joondalup Council. We need the money to save our greenhouse.
- Should be cheaper to use environmentally friendly products & processes.
- I believe the key is to minimise energy usage and look towards renewable energy sources and energy efficient technologies. The second thing is to discourage personal automobile usage and encourage new technologies such as hydrogen fuel cells for cars.
- Is it true that Openfill ips produce a huge % of Greenhouse Gases? According to a course I did at Murdoch University, one of the greatest contributors to greenhouse gas is openfill rubbish tips. We need to promote composting, recycling etc to minimize rubbish & to provide education.

- More urgent research is needed into alternative energy sources as they relate to installation in individual households, businesses etc.
- Reducing air pollution is a priority. Do we want to have smog ridden air like other big cities where visibility is low & you get a headache from fumes.
- Transport must change radically from a car-based society away to alternative modes of transport. This also has serious implications to urban planning as conducted for the last 50 odd years (if any planning was involved).

Question 8.

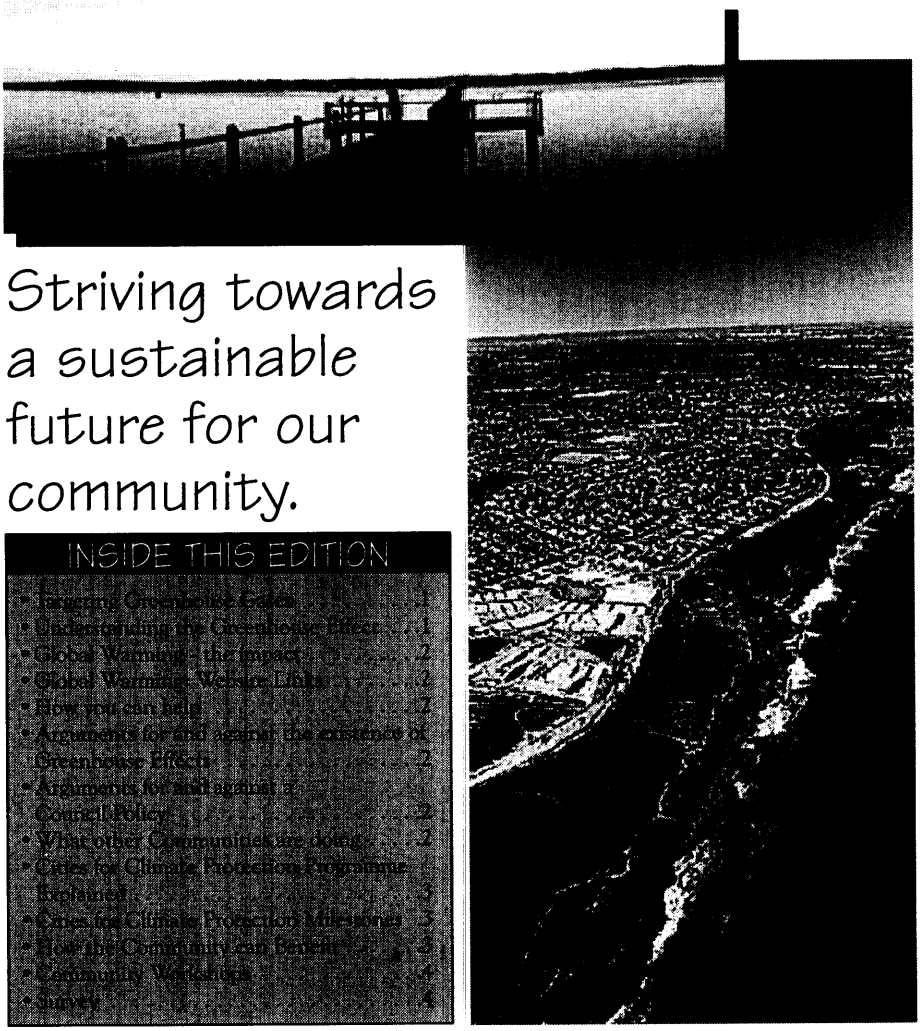
If you would like to attend a forum to help develop the Greenhouse gas emission reduction strategy, please provide your name and address. (The City of Joondalup will notify you via correspondence).

75 responses were received indicating interest to attend a forum to help develop the Greenhouse gas emission reduction strategy.

COUNCIL NEWS

Have your say by completing the survey on the back of this flyout or online at living.joondalup.wa.gov.au

Targeting Greenhouse Gases 'your say'



Striving towards a sustainable future for our community.

INSIDE THIS EDITION

Global Warming is one of the most significant challenges facing society today. Communities throughout the world are "Thinking Globally and Acting Locally", in response to the challenge of Global Warming. The City of Joondalup is seeking community comment on the issue of Global Warming.

Within this article we will look at arguments for and against the existence of the Greenhouse Effect, and whether there needs to be Council policy relating to the Greenhouse Effect.

Global Warming is caused by the unnatural acceleration of the Greenhouse Effect, which warms the Earth's atmosphere. This acceleration is occurring because more "Greenhouse gases" are being released into the atmosphere. Greenhouse gases are released when petroleum and fossil fuels are burnt, and also when vegetation and forests are cleared.

Climate change and Global Warming is very relevant to our community. This information sheet provides an introduction to Global Warming and our community's response to this important issue. The Greenhouse Effect and Global Warming is explained, together with an update of some of the latest scientific evidence. The role of the City of Joondalup in the "Cities for Climate Protection" programme is discussed, and a selection of some of the best internet sites on Global Warming and the Greenhouse Effect is provided.

The City of Joondalup seeks your input to help set Greenhouse gas emission targets for our community and council. This will contribute towards the development of a Greenhouse gas emission reduction strategy to make our community more sustainable.

During the next 3 months, Council invites your input and thoughts on the setting of Greenhouse gas reduction targets for the City of Joondalup community, and for Council operations. Your comments will help Council in determining the community's views on the Global Warming and the setting of Greenhouse gas emission reduction targets.

Please submit your completed survey form (page 4) by no later than 11 January 2002, and send it to;

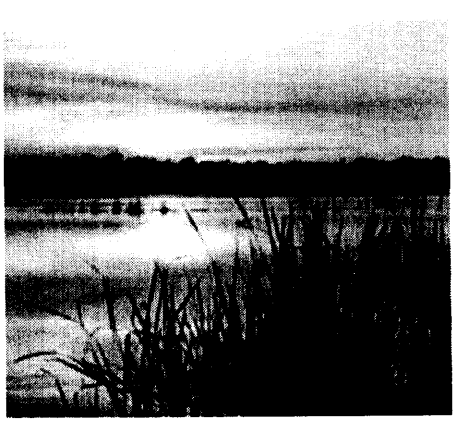
Reply Paid 81779
Cities for Climate Protection
Targeting Greenhouse Gases, Community Survey.
City of Joondalup
PO Box 21
JOONDALUP WA 6919

The survey can also be completed online at living.joondalup.wa.gov.au. Copies of the survey are also available from City libraries.

Understanding the Greenhouse Effect

What is the Greenhouse effect?

The Greenhouse Effect is a natural process that warms the Earth. It is caused by Greenhouse gases in the atmosphere absorbing energy from the sun's rays. This process results in the planet being considerably warmer than it otherwise would be, thereby allowing life on our planet to flourish.



What is Global Warming?

The Greenhouse Effect is accelerated when human activity causes the release of additional Greenhouse gases into the atmosphere. The additional Greenhouse gases in the atmosphere trap more heat, resulting in warming of the planet. This is termed "Global Warming".

The main Greenhouse gases that are influenced by human activities are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). Over the last 200 years (and particularly since the industrial revolution), human activity has caused massive amounts of carbon to be released to the atmosphere and increases in greenhouse gases.

Greenhouse gases are produced from various sources, including;

- The burning of fossil fuels at power stations to generate electricity, causing emissions of CO_2.
- The burning of fossil fuels for transport and industry, causing emissions of CO_2 and various other greenhouse gases.
- The reduction of tree cover and vegetation, which means less CO_2 is absorbed by vegetation and trees.
- The breaking down of organic and green wastes in landfills, which can produce methane gas.

Over the last 200 years, the concentration of Greenhouse gases in the atmosphere has increased significantly, mainly due to the burning of fossil fuels. Today, the CO_2 concentration is higher than at any time in the last 420,000 years.

The Inter-governmental Panel on Climate Change (IPCC) provides a detailed scientific assessment of climate change and Global Warming. For further information, see the IPCC website at www.unep.ch/ipcc

Targeting Greenhouse Gases 'your say'

How will Global Warming impact on our community?

The actual impacts of Global Warming will vary around the planet. The Commonwealth Scientific & Industrial Research Organisation (CSIRO) has made an assessment of likely impacts in Australia, which are discussed below.

Temperature Rise. The global average temperature has increased 0.6 °C over the past 100 years. The CSIRO division of Atmospheric Research has estimated that annual average temperatures for Australia will increase between 0.4 to 2.0 °C by 2030, and 1 to 6 °C by 2070.

Sea level rise. Sea levels are projected to rise globally by 9 to 88 cm from 1990 to 2100. The observed sea level rise during the 20th century is between 1 and 2 cm per decade.

Rainfall changes. The south west of Western Australia is expected to experience drier autumns, winters and spring seasons. A reduction in rainfall would adversely affect water supplies for both agriculture and urban communities.

Disruption to food production. Climate change will have various effects on food production areas through Australia. Dryland wheat in south-western Australia is likely to be at particular risk because of the projected decreases in winter and spring rainfall are potentially large.

Threats to Human Health. Human health will be impacted due to the intensity and duration of heatwaves, which is likely to particularly affect the elderly and other susceptible people. Other health impacts will arise due to the increase in the geographic range of insects that carry diseases such as Ross River Virus and Malaria.

More information on the effects of Global Warming is available from the CSIRO web site at:

www.dar.csiro.au/publications/projections2001.pdf

Global Warming: Website links

The following websites provide some of the most comprehensive, balanced and up to date analysis regarding the Greenhouse Effect, Global Warming and community actions directed towards reducing Greenhouse gas emissions. For further information, refer to;

Union of Concerned Scientists (Global Warming)
www.ucsusa.org/environment/0warming.html
www.ucsusa.org/environment/skeptics.html
www.ucsusa.org/environment/gw.skeptorgs.html

Cities for Climate Protection programme (ICLEI's web site): www.iclei.org/ccp-au/
Australian Greenhouse Office: www.greenhouse.gov.au
CSIRO Atmospheric Research: www.dar.csiro.au/
Greenhouse Effect: www.dar.csiro.au/cc/default.htm
Climate change projections for Australia: www.dar.csiro.au/publications/projections2001.pdf
International Panel on Climate Change: www.unep.ch/ipcc/
"Your Home, Design for Lifestyle and the Future": www.yourhome.gov.au

Or contact City of Joondalup Sustainable Development Officer Mr John Goldsmith, (Phone 9400 4219, e-mail John.Goldsmith@joondalup.wa.gov.au).

How you can help

Everyone's day to day actions all have an effect on how much Greenhouse gases are released into the atmosphere. The amount of energy you use and the source of that energy directly relates to Greenhouse gas emissions. Everyone can contribute to reducing Greenhouse gases. Here are ten simple and highly practical ways in which you can reduce Greenhouse gas emissions;

1 Walk, cycle or use public transport.
2 Use lower wattage light globes, or very efficient compact fluorescent lights when you replace light bulbs.
3 Purchase the highest energy-efficiency star rating appliances.
4 Insulate your home and save on heating and cooling costs. Add insulation to electric hot water units.
5 Cut hot water consumption by washing clothes in cold water and by fitting a water-efficient shower head.
6 Replace an electric hot water service with solar or high-efficiency gas.
7 Reduce waste. Recycle and avoid excessive packaging. Compost non-meat food scraps (using a regularly turned compost).
8 Service your car regularly and, when buying a new car, choose one that is fuel-efficient.
9 Keep your car tyres at the maximum recommended air pressure. This reduces fuel consumption and helps to extend the life of your tyres.
10 Plant, protect and conserve existing trees and shrubs.

Source www.greenhouse.gov.au/pubs/gwci/teneasy.html

Is there a 'Greenhouse Effect'?

There have been many discussions on whether the 'Greenhouse Effect' actually exists. The following details the arguments for and against. What do you think?

Arguments For the Existence of the Greenhouse Effect

- The Greenhouse Effect is a natural process that has existed for millions of years.
- The burning of fossil fuels and de-forestation caused by human activity has directly accelerated the Greenhouse Effect, resulting in Global Warming.
- There is a body of scientific evidence which shows that global climate change is occuring, and is largely due to human activity (not natural variation).
- Scientific predictions of global warming are increasing in accuracy and certainty. The models and predictions vary according to the underlying assumptions.

Arguments Against the Existence of the Greenhouse Effect

- There are views that changes to global climate are due to natural climatic variation and is not primarily due to human activities.
- There is debate about whether evidence shows that global warming is occuring.
- Scientific predictions have a wide range of outcomes.

Should your Council adopt a strategy on the Greenhouse Effect?

At a local level, there have been additional discussions as to whether Council should adopt a policy with regards to the Greenhouse Effect. We have listed the arguments for and against and would like to know what you, our community, think.

Possible Arguments For Council Adopting a Policy

- The City of Joondalup's vision is to be a major regional community for the 21st century that is a sustainable community (Strategic Plan 2000-2005). A Greenhouse policy will help achieve this vision.
- By adopting a policy, Council demonstrates its commitment to the Strategic Plan vision which seeks to "create a place where people choose to live".
- Council endorsed participation in the Cities for Climate Protection programme (which seeks to reduce community and Council greenhouse gas emissions) in 1999.
- A Greenhouse policy can result in $ cost savings to organisations and the community (due to improved energy and transport management).
- Council accepts the scientific evidence, sound theoretical basis and predictions relating to Global Warming.
- The Joondalup community wants the Council to adopt a policy.
- A policy with a specific but flexible (non-mandatory) target for Greenhouse gas reduction provides a clear direction to work towards.
- A policy provides an opportunity to introduce proactive initiatives such as relating to energy use and management to reduce Greenhouse gas emissions.
- The City of Joondalup community will be directly impacted by Global Warming during the coming decades, including the impact on our coastal environment.
- Global Warming/Greenhouse Effect policies and action plans have already been adopted by many Local Government Authorities and are providing benefits to their communities. Over half (137) of the Councils in Australia are participating in the Cities for Climate Protection programme which aims to reduce Greenhouse gas emissions.
- A policy will demonstrate Council's leadership and commitment to act in locally appropriate ways in relation to global issues.

Possible Arguments Against Council Adopting a Policy

- Council does not accept the scientific evidence regarding Global Warming.
- The Joondalup community does not want the Council to adopt a policy.
- No policy means that Council has adopted (by default) a reactive approach with little or no forward planning in this matter.
- Council has already taken sufficient action which has resulted in Greenhouse gas reductions.
- Council should only address the functions of "Roads, Rates and Rubbish".
- Some energy efficiency and Greenhouse gas reduction actions require investment to implement.
- The community wishes the Council to withdraw its involvement in the Cities for Climate Protection programme.
- It may cost money to implement a Greenhouse policy.
- The community does not wish to provide leadership on Greenhouse matters.

What are other Communities doing?

Currently, 28 Western Australian councils have made political declarations of support to reduce greenhouse gas emission via the CCP programme, and are presently engaged in various measures to achieve the CCP milestones. 27 councils have completed the Greenhouse gas emission inventory and forecast (Milestone 1). 13 community and 2 council Greenhouse targets have been set. 11 community and 2 Council Greenhouse gas emission reduction strategies have been developed and adopted. One West Australian Council, the City of Melville, has achieved Milestone 5 of the CCP programme, (implementation, monitoring and review of the Greenhouse gas reduction strategy). For more information, see ICLEI's web site at www.iclei.org/ccp-au/currentfolder/wa.htm.

Think Global Act Local

What is the Cities for Climate Protection Programme?

The Cities for Climate Protection™ Australia programme is a world-wide campaign. The programme has been developed through a collaboration between International Council for Local Environmental Initiatives (ICLEI) and the Australian Greenhouse Office.

The City of Joondalup joined the programme in 1999, and is now one of 136 local governments in Australia participating in the programme.

The main aims of the programme are to slow the earth's warming trend, improve local air quality, reduce Greenhouse gas emissions and improve environmental performance. The programme is based on five stages or "Milestones". The City of Joondalup has resolved to complete the five key milestones listed below.

Cr John Hollywood JP and Cr Mike O'Brien JP at the Cities for Climate Protection Conference in Adelaide (August 2001).

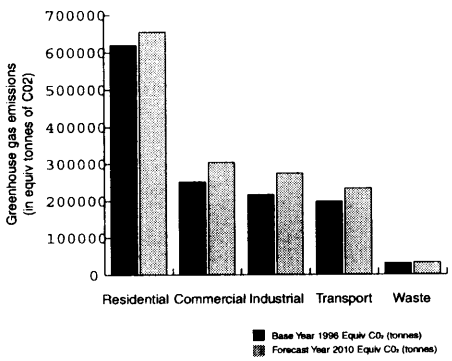
Milestone 1:

Greenhouse Gas Inventory and Forecast

The City of Joondalup has prepared an inventory and forecast of Greenhouse gas emissions generated from both the City of Joondalup community as a whole and also Council's operation. The inventory and forecast was completed by the City of Joondalup in October 2000. Refer to Figures 1 and 2. Forecasts of future energy consumption and Greenhouse gas emissions have been calculated using projected growth figures, to indicate Greenhouse gas emission levels if nothing is done to reduce them.

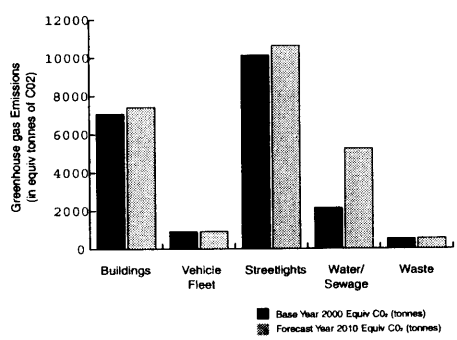
Greenhouse Gas Emissions;
Joondalup Community (Figure 1)

Greenhouse emissions are forecasted to increase from 1,317,104 equivalent tonnes CO_2 in 1996, to 1,499,694 equivalent tonnes CO_2 in 2010. The highest producer of Greenhouse gas emissions in the community sector is the residential area, followed by the commercial and then industrial sector.



Greenhouse Gas Emissions;
City of Joondalup Council operations (Figure 2)

In 1999-2000, Council activities resulted in the emission of 20,827 tonnes of CO_2 which is forecasted to increase to 24,784 tonnes CO_2 in 2010. The main emission sources are street lighting (49%), buildings (34%), water/sewage (10%), vehicle fleet (4%) and waste (3%).



Milestone 2:

Emission Reduction Target

Council is seeking your input to set a Greenhouse gas emission reduction target for the City of Joondalup community and Council operations. **It is important that a realistic target is set so that it presents an achievable target for the community and Council. Please complete the survey on page 4.**

The CCP Greenhouse gas emission reduction target is a flexible goal. It is not a mandatory target. The goal can be adjusted by the community as the Greenhouse gas emission reduction strategy is progressively implemented.

Of the 35 Australian councils that have set a community reduction goal, 29 councils have endorsed a 20% (or greater) community reduction goal. Over 150 local authorities and municipal organisations from 50 countries worldwide support a 20% Greenhouse reduction goal.

The reference year for the setting of Greenhouse gas emission reduction targets for the community sector is 1996/97. The reference year for City of Joondalup Council activities and operation is 1999/2000. The reference years differ between the community and Council sector, due to the need to use more recent Council records, following the separation of the Cities of Wanneroo and Joondalup in July 1998.

Milestone 3:

The City of Joondalup will host community forums to help develop a Greenhouse gas emissions reduction strategy in early 2002 that will outline how the City and community will reach (and preferably exceed!) the emission reduction target. The strategy is expected to be based on two sectors; the community and Council. The focus on the community sector will include residential, commercial and industrial business, transport and access, waste minimisation and other strategies. The Council sector will focus on buildings and facilities, plant and vehicle fleet, public lighting (including street and car park lighting), water pumping and irrigation and waste management and recycling. The Greenhouse gas emissions reduction strategy will address priorities, responsibilities, implementation schedule, budget implications and monitoring and evaluation procedures. The survey on page 4 seeks your preliminary comments and suggestions on Greenhouse gas reduction actions, which will help in the development of the strategy.

Milestone 4:

Implement the Emission Reduction Strategy. This will occur following endorsement of the strategy by Council, following the finalisation of the emission reduction strategy (including priorities, responsibilities, implementation schedule, budget implications and monitoring and evaluation procedures).

Milestone 5:

Monitor and report on the implementation of the Greenhouse gas emission reduction strategy. This is an ongoing process based on the project and budget management processes by the City.

What are the benefits to me and the community?

The Greenhouse gas reduction programme has many direct benefits to our local community, as well as its contribution to solving the global problem of the enhanced Greenhouse Effect.

The benefits fall into three main categories; economic, social and environmental.

Environmental benefits include;

- Better air quality, reduced haze (particularly from wood fired heaters);
- Decreased reliance on non-renewable fuels;
- Increased demand for sustainable technologies and goods;
- Greater reuse and recycling of waste products; and
- Reduced need for landfill space due to less generation of waste and increased recycling.

Economic benefits include;

- The promotion of local employment opportunities for local people, resulting in reduced commuting distances, fuel costs and Greenhouse gas emissions;
- Reduced energy costs for residents and businesses;
- Job creation in manufacturing energy efficient technologies and equipment;
- Increased national and international competitiveness of local business;
- Increased self sufficiency of energy sources; and
- A reduced need for more power stations.

Social benefits include;

- Better health due to reduced air pollution, particularly helping asthma and hay fever sufferers;
- Less traffic congestion;
- Better looking suburbs due to increased tree plantings; and
- Better walking and cycling facilities.

City of Joondalup

Please submit your completed survey form by no later than 11 January 2002, and send it to;

Reply Paid 81779
Cities for Climate Protection
Greenhouse Gas Reduction Target Survey
City of Joondalup
PO Box 21
JOONDALUP WA 6919

The survey can also be completed online at: living.joondalup.wa.gov.au

Community Forums

Two community forums will also be held in October to consider greenhouse gas targets as part of the public consultation.

Meeting 1
Time/Date: 7.00 pm, Thursday 18th October 2001
Venue: Sorrento Community Hall
2 Padbury Circle Sorrento

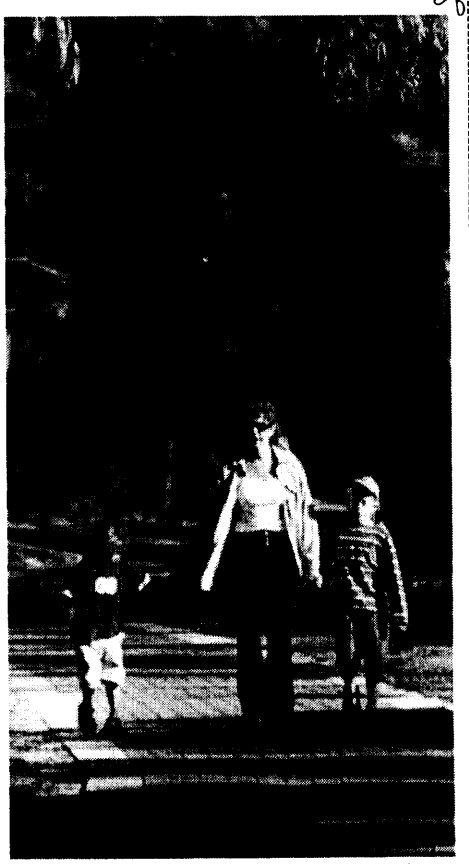
Meeting 2
Time/Date: 7.00 pm, Thursday 25th October 2001
Venue: City of Joondalup Library
(Meeting Room First Floor)
Cr Boas Avenue and Lakeside Drive

Your comments provided in the survey on this page will help in developing a Greenhouse gas emission reduction action plan for our community. A community forum is planned in early 2002, to develop the action plan.

To secure your place at either of the forums or for further information please contact the Sustainable Development Officer, John Goldsmith by no later than 16 October, 2001 on 9400 4219 or email:
john.goldsmith@joondalup.wa.gov.au

Information Credits

City of Perth Draft for Consultation Greenhouse Gas Emissions Reduction Strategy. Northern Adelaide Greenhouse Management Community Action Plan- Protecting Our World From Climate Change (2001). City of Joondalup Council reports CJ362-12/00, CJ195-06/01, CJ221-07/01, CJ259-08/01.



Community Survey

0077

1. **Your Name** _____ **Suburb** _____

2a. **Do you think there is a Greenhouse Effect?**

☐ Yes ☐ No

2b. **Should Council adopt a strategy on the Greenhouse Effect?**

☐ Yes ☐ No

3. **Community** Greenhouse gas emissions are predicted to increase from 1,317,104 equivalent tonnes CO_2 (1996) to 1,499,694 equivalent tonnes CO_2 (2010), if no action is taken to reduce emissions. What community emission reduction target on 1996 levels by 2010 do you support?

Tick One Box	Reduction target %	Reduction target in equivalent tonnes CO_2 on 1996 levels by 2010
	15%	197,566
	20%	263,421
	30%	395,131
	35%	460,986
	Other (please specify) _____	

4. **Council** Greenhouse gas emissions are predicted to increase from 20,827 equivalent tonnes CO_2 (2000) to 24,784 equivalent tonnes CO_2 (2010), if no action is taken to reduce emissions. What Council emission reduction target on 2000 levels by 2010 do you support?

Tick One Box	Reduction target %	Reduction target in equivalent tonnes CO_2 on 2000 levels by 2010
	15%	3,124
	20%	4,165
	30%	6,248
	35%	7,289
	Other (please specify) _____	

5. **Do you believe that Greenhouse gas emission reduction should focus on** (tick relevant boxes).

TOPIC	STRONGLY SUPPORT	SUPPORT	DON'T SUPPORT
Promoting efficient use of energy			
Improve air quality (eg. by reducing smokey fires and vehicle emissions).			
More use of environmentally friendly transport (cycling, public transport and walking)			
Promoting local employment for local people (to minimise the need for long commuting trips)			
Saving money by reducing energy costs			
Streetlighting and other public lighting			
Community education regarding Greenhouse and energy usage			
Promotion and use of renewable energy			
Energy efficiency in the household			
Business practices that reduce energy usage and waste			
Promote businesses which market energy efficient products.			
Government initiatives focussing on Greenhouse gas emission reductions.			
Other (please specify) _____			

6. **Please list the activities in which you, your household, community group or business are involved in that may help reduce greenhouse gas emissions?**

Personal and household actions; _____

_____

School/community group actions; _____

_____

Business and office activities; _____

_____

7. **What overall comments do you have regarding the Greenhouse Effect, Global Warming and the community's actions seeking to reduce Greenhouse gas emissions?**

_____

_____

_____

_____

8. **If you would like to attend a forum (proposed in early 2002) to help develop the Greenhouse gas emission reduction strategy, please provide your name and address. (The City of Joondalup will notify you via correspondence).**

NAME _____

POSTAL ADDRESS _____

E-mail _____

Phone _____

City of Joondalup