

AGENDA

Sustainability Advisory Committee

MEETING OF THE SUSTAINABILITY ADVISORY COMMITTEE

TO BE HELD ON

MEETING DATE



THURSDAY 24 MAY 2007

commencing at 6 pm

in Conference Room 3

JOONDALUP CIVIC CENTRE,
BOAS AVENUE, JOONDALUP



GARRY HUNT
Chief Executive Officer
18 May 2007

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City of
Joondalup

CITY OF JOONDALUP

Notice is hereby given that a meeting of the **SUSTAINABILITY ADVISORY COMMITTEE** will be held in Conference Room 3, Joondalup Civic Centre, Boas Avenue, Joondalup on **Thursday 24 May 2007** commencing at **6 pm**.

GARRY HUNT
Chief Executive Officer
18 May 2007

Joondalup
Western Australia

AGENDA

Committee Members

Cr Michele John	Presiding Person
Cr Sue Hart	
Cr Steve Magyar	
Cr Russ Fishwick	
Mr Will Carstairs	Community Rep
Ms Melanie Barter	Edith Cowan University
Ms Ute Goeft	PhD Candidate, Edith Cowan University
Mr John Willett	Community Rep
Mr Brett Dorney	West Coast TAFE
Ms Wendy Herbert	Community Rep
Vacant	Community Rep

Terms of Reference

- *To recommend to the City of Joondalup Council on policy, advice and appropriate courses of action that promote sustainability, which is (1) environmentally responsible, (2) socially sound and (3) economically viable*
- *To provide advice to Council on items referred to the Committee from the City of Joondalup administration*

DECLARATION OF OPENING

APOLOGIES/LEAVE OF ABSENCE

CONFIRMATION OF MINUTES**MINUTES OF THE SUSTAINABILITY ADVISORY COMMITTEE HELD 29 MARCH 2007****RECOMMENDATION**

That the minutes of the meeting of the Sustainability Advisory Committee held on Thursday 29 March 2007 be confirmed as a true and correct record.

ANNOUNCEMENTS BY THE PRESIDING PERSON WITHOUT DISCUSSION**DECLARATIONS OF INTEREST****IDENTIFICATION OF MATTERS FOR WHICH THE MEETING MAY SIT BEHIND CLOSED DOORS****PETITIONS AND DEPUTATIONS**

Presentation by Elizabeth Karol, Senior Lecturer, Curtin University on ‘Sustainability and the Built Form’

REPORTS

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MOTIONS OF WHICH PREVIOUS NOTICE HAS BEEN GIVEN**REQUESTS FOR REPORTS FOR FUTURE CONSIDERATION****CLOSURE**

ITEM 1 RESIGNATION FROM THE SUSTAINABILITY ADVISORY COMMITTEE - [00906]

WARD: All

RESPONSIBLE DIRECTOR: Mr Ian Cowie
Governance and Strategy

PURPOSE

To advise of the recent resignation of a member of the Sustainability Advisory Committee (SAC).

EXECUTIVE SUMMARY

Council at its meeting held on 24 May 2006 appointed elected members and community representatives with local knowledge, expertise with respect to sustainable development and connections within the community to serve on the SAC.

A resignation has recently been received from Mr Denis Godley. This report recommends that the resignation be accepted with a vote of thanks for his commitment and contribution to the work of the Committee.

BACKGROUND

With the resignation of Mr Denis Godley from the Committee, membership of the SAC comprises of the following individuals:

1. Cr Michele John, Presiding Person
2. Cr Russ Fishwick, Deputy Presiding Person
3. Cr Sue Hart
4. Cr Steve Magyar
5. Ms Melanie Barter, Edith Cowan University
6. Mr Will Carstairs, Community Representative
7. Mr Brett Dorney, West Coast TAFE
8. Ms Ute Goeft, Community Representative
9. Ms Wendy Herbert, Community Representative
10. Mr John Willett, Community Representative
11. Vacant

Quorum: 6

DETAILS**Issues and options considered:**

A resignation from the Committee has been received from Mr Godley.

Link to Strategic Plan:

Not applicable.

Legislation – Statutory Provisions:

The Local Government Act 1995 includes provisions in relation to the membership of committees and quorums.

Risk Management Considerations:

Not applicable.

Financial/Budget Implications:

Not applicable.

Policy Implications:

Not applicable.

Regional Significance:

Not applicable.

Sustainability Implications:

Not applicable.

Consultation:

Nil.

COMMENT

Nil.

ATTACHMENTS

Nil.

VOTING REQUIREMENTS

Simple Majority

RECOMMENDATION

That the Sustainability Advisory Committee recommends to Council that it:

- 1 ACCEPTS the resignation of Mr Denis Godley;**
- 2 THANKS Mr Godley for his commitment and contribution to the work of the Committee.**

ITEM 2 INTRODUCTION OF BASIX [00906]

WARD: All

RESPONSIBLE DIRECTOR: Mr Ian Cowie
Governance and Strategy

PURPOSE

To provide information on the BASIX (Building Sustainability Index) tool.

EXECUTIVE SUMMARY

The BASIX tool can be used to achieve more environmentally responsive housing to help reduce energy and water consumption by assessing the design of each new residential building to achieve specific energy and water reduction targets.

The WA State Government has led a coordinated effort to evaluate the economic impacts related to the introduction and use of the BASIX tool in Western Australia.

Under the BASIX concept Local Government would have the power to withhold building permission for dwellings that do not meet the efficiency targets.

In May 2007 the State Government announced that the BASIX proposal would be set aside and a new set of water and energy codes will be released.

BACKGROUND

In 2004 the then NSW Department of Infrastructure, Planning and Natural Resources deployed an integrated sustainable building tool called BASIX. The purpose of BASIX is to enable key players involved in new residential development (architects, builders, developers, government agencies) to implement better design and construction practices in water and energy use.

The State Sustainability Strategy released by the WA State Government in 2003 recommended that it look at introducing a version of BASIX in WA. Despite being developed in NSW, BASIX is readily applicable to WA conditions and has been adapted by integrating climate data specific to Perth.

In considering the introduction of BASIX to WA, the WA State Government engaged an economic consultant to conduct a triple-bottom line cost benefit analysis. This report was released in May 2006.

DETAILS

BASIX is a web-based planning tool that calculates energy, water and thermal comfort levels based on dwelling design. It is used to compare the predicted water and energy consumption for a new house design against benchmarks that represent current consumption in similar-sized existing dwellings. The aim is to ensure that

new house designs make it easier for occupants to reduce their water and energy consumption.

BASIX is a flexible tool in that allows the dwelling designer or owner the flexibility to decide how the water and energy targets will be met. For example an owner can trade off some lawn area and put in a swimming pool with a cover and still meet the water reduction target. The process of meeting the BASIX water and energy score will be one of assessing each element, deciding if each could be done better, and/or trading off one aspect of the design for another in order to allow lifestyle expectations, such as a swimming pool, to be retained through the installation of some mitigating hardware such as rainwater tank.

Design options include:

- Light coloured roofing material
- Insulation
- Skylights
- Double window glazing
- Eaves and window shading
- Water wise landscaping
- Passive solar design
- Rainwater tanks to supply the toilets or washing machine.

Gas or solar hot water systems and AAA rated taps and cisterns and shower-heads are also encouraged under BASIX.

It is envisaged that the WA BASIX would apply to every new house, villa, townhouse and unit in WA. The proposed BASIX model is designed as an education tool to facilitate social change.

WA BASIX : Triple Bottom Line Cost Benefit Analysis

The primary aim of the Triple Bottom Line Cost Benefit Analysis was to determine the overall costs and benefits to the WA community and affected stakeholders of applying BASIX targets to all new residential developments in WA.

The study found positive results for the householder (based on the improvements required to meet the assessed targets) with minimal additional building costs and cumulative annual savings.

The main findings were:

- Additional building costs for BASIX compliance are minimal (representing in most cases less than 1% of the price of a typical project home).

The State Government estimates that for the majority of new home buyers the extra cost will range from \$175 to \$3,000 depending on which sustainability options were adopted. Though it is predicted that better housing design and green technologies will mean cheaper running costs, potentially saving home owners hundreds of dollars a year.

- BASIX compliance costs are higher only where the buyer chooses a less efficient home design or energy/water intensive features such as a large garden, pool or air conditioning. In these cases, devices such as a rainwater

tank or solar gas hot water system may be necessary to achieve compliance. Typically this would represent no more than 3% of dwelling construction cost.

- Savings in running expenses equalled or exceeded compliance expenses (ie principal and interest costs over a typical 30 years 7% loan).

It should be noted that the residential sector in WA accounts for 7% of all energy use (Office of Energy, 2003) and household water consumption accounts for 8% of all water use (ABS 4610.0). Despite this, the cost benefit analysis report found that the residential sector is not an insignificant user of energy and water, and that since long-term energy use will continue to rise, progress is needed across the board. It is not valid for one industry to hide behind another (ie the housing industry behind other industry sectors).

Link to Strategic Plan:

Outcome : The City of Joondalup is environmentally responsible in its activities.

Objective : 2.1 To plan and manage our natural resources to ensure environmental sustainability.

Strategies : 3.1.2 Further develop environmentally effective energy-efficient programs.

Outcome : The City of Joondalup has well-maintained assets and built environment.

Objective : 3.1 To develop and maintain the City of Joondalup's assets and built environment.

Strategy : 3.1.2 Facilitate the safe design, construction and approval of all buildings and facilities within the City of Joondalup.

Legislation – Statutory Provisions:

Not applicable.

Risk Management Considerations:

Not applicable.

Financial/Budget Implications:

Not applicable.

Policy Implications:

WA BASIX would require for all new housing applications to be lodged with a WA BASIX Certificate.

Regional Significance:

WA BASIX would apply to the whole of Western Australia.

Sustainability Implications:

As water and energy are two of our most precious resources, good management of both can achieve improved future sustainability.

Consultation:

Not applicable.

COMMENT

It should be noted that on 6 May 2007, the State Government Cabinet set aside the BASIX proposal as a result on extensive lobbying against BASIX from industry groups. Further to this the Premier announced the introduction of new 'energy and water codes: which are to be implemented in September 2007 for stage one and stage 2 in 2008 (refer attachment 1 to this report).

In light of the recent change it is proposed that upon release of these new codes a further report will be submitted to the committee.

ATTACHMENTS

Attachment 1: Climate action plan to list new building rules

VOTING REQUIREMENTS

Simple majority

RECOMMENDATION

That the Sustainability Advisory Committee NOTES the status of the BASIX proposal and NOTES that a further report on the new energy and water codes will be presented at a future meeting.

ITEM 3 OIL DEPLETION PROTOCOL [00906]

WARD: All

RESPONSIBLE Mr Ian Cowie
DIRECTOR: Governance and Strategy

PURPOSE

To provide information to the Sustainability Advisory Committee (SAC) about the Oil Depletion Protocol.

BACKGROUND

At its meeting of 29 March 2007 the Sustainability Advisory Committee requested that a report be presented outlining details of the Oil Depletion Protocol and whether or not the City of Joondalup should adopt the protocol.

The Oil Depletion Protocol arises from the concept of Peak Oil which was first proposed in the 1950s. It refers to the fact that global oil production will reach a maximum level of production (i.e. its peak) at some point in the future, after which a steady decline will occur and the world will need to adapt its lifestyles in line with declining annual oil supplies.

Forecasts for the timing of Peak Oil range from now until 2030. Research suggests that currently one barrel of oil is discovered for every five extracted.

The world will not run out of oil upon reaching Peak Oil as there are still many billions of barrels of petroleum available for extraction. However some Peak Oil groups and scientists predict there is the potential that, upon reaching Peak Oil, a domino effect of negative economic, societal and geopolitical consequences could occur, unless adequate mitigation measures are adopted.

Compounding the issue of Peak Oil is the impact of climate change and the imperative not to increase the use of coal to replace depleting oil where substitution is possible.

DETAILS

The Oil Depletion Protocol commits countries or organisations to reduce oil consumption by the world oil depletion rate. This equates to at least 3% per year. By reducing oil consumption it is hoped that the impacts of reaching Peak Oil will be softened and the increasing volatility in world oil prices will be reduced.

It is up to each signatory nation, region or organisation to develop alternative forms of energy to replace the amount of oil energy that has been reduced. As each signatory is unique, different combinations of alternative energy sources or savings will be

necessary and conservation measures will vary across nations, regions and organisations.

The concept is for oil extracting countries to progressively reduce their extraction rates in line with their rates of depletion and for oil importing countries to progressively reduce oil imports in line with the world-wide depletion rate. New oil discoveries, if they are proven, would boost the available quota of oil available for use.

The Protocol will have the effect of creating a strong impetus to develop and market more fuel-efficient cars and enhance public transport systems. Technological advances to make large increases in fuel efficiency continue to be made, but at present there is little pressure for the market to take up this technology.

Issues and Options

The City of Joondalup has been a strong proponent of the sustainable use of resources and many actions have been undertaken to change the way the City does business. The City has already begun to seek fuel efficiencies and consequently, achieve reduced fuel consumption. The main vehicle the City has used to achieve progress in this area is International Council for Local Environment Initiatives (ICLEI's) Cities for Climate Protection program. Through this globally renowned program, the City is achieving progress in reducing not only its energy consumption but also its dependence upon oil.

Cities for Climate Protection Program

The City has been participating in the Cities for Climate Protection (CCP) program for over six years. The program is administered by the ICLEI in collaboration with the Australian Greenhouse Office and results in measurable and practical actions to reduce energy consumption (including fuel efficiencies).

The City recognises that in order to meet its target of a 20% reduction in greenhouse gas emissions by 2010, an ongoing commitment to energy reduction measures is required across its corporate operations, as well as the ongoing facilitation of community sector actions. Engagement with the community sector is an integral part of CCP.

Milestone 5 of the CCP program has recently been achieved by the City. This provided the opportunity to monitor, analyse and review the City's progress towards its 20% greenhouse gas emissions reduction target by the year 2010. It was found that emissions had reduced by 8% from the base year.

Council has resolved to continue the City's participation in the CCP program through CCP Plus. It is expected that continued participation will enable further substantial greenhouse gas emission reductions to be achieved by the City.

Some of the initiatives that the City of Joondalup has undertaken include:

- Adoption of the TravelSmart Program to encourage increased use of public transport, walking and cycling.
- Active encouragement of sustainable transport options for the community, for example the introduction of the CAT bus for inner City travel.

- Reduction in the size of the vehicle fleet
- Purchase of two hybrid cars
- Purchase of bicycles which are available for staff to use for travel to and from inner City business meetings
- Creation and ongoing revision and of a Bike Plan
- Geothermal heating for the swimming pool at Craigie Leisure Centre
- Participation in the Carbon Neutral program. (This program means that the City will provide an annual donation to the Western Australian not for profit group – Men of the Trees through its Carbon Neutral program and in return will have an average of 17 trees per vehicle planted across Western Australia. These trees will offset all the carbon emissions being produced by the City of Joondalup vehicle fleet).

The CCP program is based on setting targets and involves regular measuring of the City's progress against those targets. It should be noted that in administering this program there is a significant cost to set up, maintain, collect and analyse data required to meet targets.

The City has the following options:

1. Adopt the Oil Depletion Protocol and allocate resources, establish plans and implement systems and processes for implementing the Protocol and measuring progress. Discontinue the CCP program as there would be duplications in undertaking both initiatives.
2. Continue to support the ICLEI CCP program to reduce greenhouse gas emissions and not adopt the Oil Depletion Protocol.
3. Continue with the ICLEI CCP program but also adopt the Oil Depletion Protocol.

Link to Strategic Plan:

Outcome : The City of Joondalup is environmentally responsible in its activities.

Objective : 2.1 To plan and manage our natural resources to ensure environmental sustainability.

Strategies : 3.1.2 Further develop environmentally effective energy-efficient programs.

Legislation – Statutory Provisions:

Not applicable.

Risk Management Considerations:

The risk with introducing programs that establish targets is obtaining the resources required to achieve them.

Financial/Budget Implications:

There will be administrative costs in adopting the Protocol and monitoring consumption to achieve targets.

Policy Implications:

Not applicable.

Regional Significance:

Not applicable.

Sustainability Implications:

As energy is one of our most precious resources, good management can achieve improved future sustainability.

Consultation:

Not applicable.

COMMENT

Based on what the City is actively doing and achieving in regards to reducing its greenhouse gas emissions and oil consumption and in educating its staff and residents on such matters through the CCP program, it is believed that the City should continue to focus and develop these initiatives.

Given the population growth and subsequent infrastructure development that has occurred between 2000 and 2004, it is encouraging that the 2006 CCP Measures report indicated that the City has achieved a reduction in greenhouse gas emissions of 8%. The City's recycling of plant debris was a major contributor to the 2004 corporate greenhouse gas abatement, highlighting the importance of this initiative.

ATTACHMENTS

Not applicable.

VOTING REQUIREMENTS

Simple majority

RECOMMENDATION

That the Sustainability Advisory Committee NOTES this report on the Oil Depletion Protocol and RECOMMENDS to Council that the City continues with its participation in the ICLEI CCP Plus program.

**APPENDICES FOR AGENDA OF
SUSTAINABILITY ADVISORY COMMITTEE**

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Climate action plan to list new building rules

AMANDA BANKS

New mandatory building standards which will increase energy efficiency and reduce water consumption are expected to be announced tomorrow as part of the State Government's long-awaited climate change statement.

But conservation and sustainability groups will be disappointed unless the statement also commits to ambitious targets for slashing greenhouse gas emissions and increasing the amount of electricity derived from renewable energy sources.

The WA Conservation Council and WA Sustainable Energy Association also say that the building code changes should not be used as an alternative to the proposed version of the NSW Building Sustainability Index (BASIX) scheme, which would impose broader compulsory standards for energy and water efficiency but has been delayed because of concerns the building industry says it has.

Premier Alan Carpenter refused to comment on the climate change statement yesterday, but *The West Australian* understands that the initiative will be released tomorrow at a LandCorp housing estate which has been designed to minimise environmental impact.

The new building codes will set mandatory minimum standards for energy-efficient hot water systems



Greenhouse gas battle: The State Government has said its climate change plan will push for more renewable and low emission power technologies such as wind farms.

and impose a range of measures to reduce water consumption.

The measures will be phased in between September this year and next year, starting with minimum standards for water-efficient fittings, compulsory covers for swimming pools and requirements that hot water systems be put near outlets.

The climate change statement was scheduled to be released by the end of March but has been delayed due to Cabinet reshuffles in the wake of the corruption scandal and shifts in the direction of the evolving national debate on carbon emissions trading.

The statement is expected to incorporate a response to the Green-

house and Energy Taskforce report, which made 14 recommendations when delivered to the Government three months ago.

Among the main recommendations of that report were a 66 per cent reduction in greenhouse gas emissions on 2004 levels by 2050 and a 20 per cent renewable energy target for electricity in Perth and the South-West.

The Government has promised previously that its climate change plan would include significant new measures to mitigate greenhouse gas emissions and strategies to increase the use of renewable and low emission power technologies.

"Our action plan will set out how the community, business and Government can prepare for climate change and how we can all contribute to lower emissions," Mr Carpenter said in November last year.

WA Sustainable Energy Association chairman Ray Willis said the Government needed to take steps to seriously bolster the use of gas as a transitional fuel while low-emission technologies were developed and set up strong renewable energy targets.

WA Conservation Council director Chris Tallentire said the changes to the building code were a "poor cousin" of the BASIX system and called for the Government to commit to reducing greenhouse gas emissions by 30 per cent by 2020 and 80 per cent by 2050.