



MEETING OF THE SUSTAINABILITY ADVISORY COMMITTEE

to be held on

THURSDAY, 7 December 2006

**in Conference Room 2,
Joondalup Civic Centre, Boas Avenue, Joondalup
commencing at 6.00 pm**

**GARRY HUNT
Chief Executive Officer
24 November 2006**

CITY OF JOONDALUP

Notice is hereby given that a meeting of the **SUSTAINABILITY ADVISORY COMMITTEE** will be held in Conference Room 2, Joondalup Civic Centre, Boas Avenue, Joondalup on **THURSDAY 7 DECEMBER 2006** commencing at **6.00pm**

GARRY HUNT
Chief Executive Officer
24 November 2006

Joondalup
Western Australia

AGENDA

Committee Members

Cr Michele John – Presiding Person
Cr Russ Fishwick – Deputy Presiding Person
Cr Sue Hart
Cr Steve Magyar
Ms Melanie Barter, Edith Cowan University Representative
Mr Will Carstairs, Community Representative
Dr V Vincent Cusack, Community Representative
Mr B Brett Dorney, West Coast TAFE Representative
Mr D Denis Godley, Community Representative
Ms U Ute Goeft, Community Representative
Ms W Wendy Herbert, Community Representative
Mr J John Willett, Community Representative

Officers

<i>Director Governance & Strategy</i>	<i>Mr Ian Cowie</i>
<i>Manager Strategic Development</i>	<i>Ms Rhonda Hardy</i>
<i>Senior Project Officer</i>	<i>Ms Catherine Thompson</i>

Terms of Reference – Objectives

- (a) *To recommend to the City of Joondalup Council on policy, advice and appropriate courses of action which promote sustainability, which is (1) environmentally responsible, (2) socially sound and (3) economically viable.*
- (b) *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 19 OCTOBER 2006****RECOMMENDATION**

That the minutes of the Sustainability Advisory Committee held on 19 October 2006 be confirmed as a true and accurate record of proceedings.

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**

1 Presentation by Mr Brian Fleay of the Sustainable Transport Coalition on Peak Oil

REPORTS

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

Statistics on the City of Joondalup's Water Use
Grants available for Water

CLOSURE

ITEM 1 RESIGNATION FROM THE SUSTAINABILITY ADVISORY COMMITTEE [00906]

WARD: All

**RESPONSIBLE
DIRECTOR:** Mr Ian Cowie
 Governance and Strategy

PURPOSE

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

EXECUTIVE SUMMARY

The 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 Keiron D'Arcy. This report recommends that the resignation from Mr D'Arcy be accepted with a vote of thanks for his commitment and significant contribution to the work of the Committee.

BACKGROUND

With the resignation of Mr D'Arcy from the Committee membership of the Committee comprises 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. Dr Martin Brueckner, Community Representative
7. Mr Will Carstairs, Community Representative
8. Dr Vincent Cusack, Community Representative
9. Mr Brett Dorney, West Coast TAFE
10. Mr Denis Godley, Community Representative
11. Ms Ute Goeft, Community Representative
12. Ms Wendy Herbert, Community Representative
13. Mr John Willett, Community Representative

Quorum: 7

DETAILS

Issues and options considered:

A resignation from the Committee has been received from Mr D'Arcy.

It is recommended that the resignation be accepted.

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

It should be noted that resulting from the resignation of Mr D’Arcy the quorum for the Committee will be 7.

ATTACHMENTS

Nil.

VOTING REQUIREMENTS

Simple Majority

RECOMMENDATION

That the Sustainability Advisory Committee recommends to the Council that it:

- 1 ACCEPTS the resignation of Mr Kieron D’Arcy;**
- 2 THANKS Mr D’Arcy for his commitment and significant contribution to the work of the Committee.**

ITEM 2 RESPONSE TO REVIEW OF ADVISORY COMMITTEES OF COUNCIL – [15058]

WARD: All

RESPONSIBLE DIRECTOR: Mr Ian Cowie
Governance and Strategy

PURPOSE

To request that the Sustainability Advisory Committee considers Council report CJ174-10/06 'Review of Advisory Committees of Council' as referred to the Sustainability Advisory Committee (SAC) by Council at its meeting of 10 October 2006.

EXECUTIVE SUMMARY

Council has referred its report 'Review of Advisory Committees of Council' to the relevant Committees for their information and comment. The report identifies four options in relation to the operation of Advisory Committees:

- Tailoring approaches to meet different objectives;
- Establishing a different Advisory Committee structure format;
- Induction and training for Advisory Committee members; and
- Developing a protocol for referrals between Council and its Advisory Committees.

BACKGROUND

At the meeting of Council on 10 October 2006, it was agreed that the Council report regarding the Review of Advisory Committees of Council be referred to the next available meeting of each of the City's Advisory Committees. Specifically, the resolution stated:

REFERS Report CJ174–10/06 – to the Committees for their information and comment.

DETAILS

Issues and options considered:

Attachment 1 provides a copy of the above report.

Link to Strategic Plan:

Outcome : The City of Joondalup is an interactive community.
Objective : 4.3: To ensure the City responds to and communicates with the community.
Strategies : 4.3.2: Provide fair and transparent decision making processes.

Legislation – Statutory Provisions:

The Advisory Committees have been established in accordance with provisions of the Local Government Act 1995 relating to Committees.

Risk Management Considerations:

Not applicable.

Financial/Budget Implications:

Not applicable.

Policy Implications:

Not applicable.

Regional Significance:

Not applicable.

Sustainability Implications:

Consideration of the report by the SAC will ensure the Council receives the most appropriate advice in this area.

Consultation:

The attached report considers the most appropriate ways for Council to engage with and consult the community.

COMMENT

Nil.

ATTACHMENTS

Attachment 1 Council Report CJ174 – 10/06

VOTING REQUIREMENTS

Simple majority

RECOMMENDATION**That the Sustainability Advisory Committee:**

- 1 NOTES Council report CJ174-10/06 Review of Advisory Committees of the Council;**
- 2 DETERMINES which of the report's options it supports.**

ITEM 3 EXXONMOBIL – AUSTRALIA’S ENERGY FUTURE – [59091]

WARD: All

RESPONSIBLE Mr Ian Cowie

DIRECTOR: Director Governance and Strategy

PURPOSE AND EXECUTIVE SUMMARY

To provide an overview of a presentation made by Mr Mark Nolan, Chairman of ExxonMobil Australia on Australia’s Energy Future to the Committee for Economic Development of Australia (CEDA).

The Sustainability Advisory Committee (SAC) has recently been examining the issue of energy and in particular the issue of Peak Oil.

This report presents a view of Australia’s energy future as seen by one of the largest oil producing companies in the world. The intent of the report is to provide further information so that the SAC, in its deliberations about this issue, receives the perspective of the oil industry.

BACKGROUND

At its meeting of the 19 October the SAC received a report about Peak Oil from the Sustainable Transport Coalition (STC). The SAC resolved to invite a speaker from the STC, Mr Brian Fleay to give a presentation on Peak Oil to the committee at its November meeting.

DETAILS

ExxonMobil is one of the largest oil producing companies in the world today. ExxonMobil believe that industry plays an active role in the ongoing dialogue about the future of energy and that dialogue should be grounded in reality, focused on the long term with the intent of finding viable solutions.

The key points raised by the Chairman of ExxonMobil in his keynote address are as follows:

- Australia has no current ability to extract itself from the global marketplace and become self reliant for its future energy needs. Australia’s demand for energy currently exceeds its ability to supply that demand.
- In considering wind and solar and other energy options it should be noted that these technologies have only started to be developed in any large scale over the past few years. Even though supply from these sources will grow it is projected that these resources will only be producing 12 -13% of Australia’s energy needs by 2030.
- Likewise with nuclear power, it is projected that this energy supply will only be producing 1.4% by 2030.
- Overall Australia will be largely reliant on gas and oil production through to 2030.

- The greatest increase of emissions will come from the development of non-OECD countries (eg China, India and African nations). As these countries develop and increase their demand for energy supplies it is predicted that average growth in total demand will grow by 1.7% per year. Non-OECD countries will consume the bulk of this growth with OECD countries maintaining their current demand level or decreasing it through advanced technology solutions.
- Global investment in energy resources will require US\$17 trillion by 2030 which includes US\$200 billion per year in oil and gas investment alone.
- The focus for Australia will be to maximise its value through attracting investment for production and for research in technology development and application.
- Government will need to play a pivotal role in providing access to acreage, opening up markets, reducing barriers to trade and avoiding harmful policies such as subsidies and regulations that can weaken or distort energy markets.
- Government need to ensure that potential investors have market confidence of sanctity of contracts and the recognition of intellectual property and support for the rule of law.
- A key point of focus will be advances in technology, which will be the key to addressing supply-and-demand challenges. ExxonMobil claim to be the industry leader in research and technology. They currently invest over \$US600 million per year in research and development, balancing this investment between technology extensions and breakthrough research.
- ExxonMobil in 2002 launched the Global Climate and Energy project (GCEP) at Stanford University. In 2005 GCEP announced new research grants totalling \$US20 million to Stanford University and other collaborating researchers at several US universities and international institutions. Details of GCEP projects can be viewed at <http://gcep.stanford.edu>. These projects are targeting hydrogen power, advanced combustion, solar energy, Co2 storage, Co2 capture and separation, biomass and advanced materials and catalysts.

In summary the oil industry has a strategic focus on global energy production through to 2030. The view of the industry is that Australia has abundant untapped resources and that advanced technologies will be the answer to future global energy supply.

Link to Strategic Plan:

Key Focus Area 2: Caring for the Environment objectives of the City of Joondalup Strategic Plan 2003 – 2008:

2.1: *“To plan and manage our natural resources to ensure environmental sustainability”* and

2.2: *“To manage waste effectively and efficiently in alignment with environmentally sustainable principles”*.

Legislation – Statutory Provisions:

Section 1.3 (3):

In carrying out its functions a Local Government is to use its best endeavours to meet the needs of current and future generations through an integration of environmental protection, social advancement and economic prosperity”.

Risk Management Considerations:

Not applicable.

Financial/Budget Implications:

Not applicable.

Policy Implications:

Not applicable

Regional Significance:

Not applicable.

Sustainability Implications:

The report indicates the views of ExxonMobil in relation to the oil industry.

Consultation:

Not applicable.

COMMENT

No applicable.

ATTACHMENTS

Attachment 1 Presentation by Mark Nolan Chairman ExxonMobil

Attachment 2 ExxonMobil report – Tomorrow's Energy: A Perspective on Energy Trends, Greenhouse Gas Emissions and Future Energy Options

VOTING REQUIREMENTS

Simple majority

RECOMMENDATION

The Sustainability Advisory Committee NOTES the report from ExxonMobil on Australia's Energy Future.

ITEM 4 RESPONSE TO WALGA'S SYSTEMIC SUSTAINABILITY STUDY – [00906] [12542]

WARD: All

RESPONSIBLE Mr Ian Cowie
DIRECTOR: Governance and Strategy

PURPOSE

For the Sustainability Advisory Committee (SAC) to note the amendments made to Council report 'Response to WALGA's Systemic Sustainability Study'.

EXECUTIVE SUMMARY

WALGA is seeking feedback on an interim report titled "In Your Hands; Shaping the Future of Local Government in Western Australia". The report poses a range of questions for local governments to answer and provides a framework against which individual local governments can assess their financial sustainability.

BACKGROUND

At the meeting of Council on 19 September 2006, it was agreed that the City's proposed submission to WALGA on the Systemic Sustainability Study be referred to the Sustainability Advisory Committee. Specifically, the resolution stated:

REFERRED Report CJ155-09/06 – Response to WALGA's Systemic Sustainability Study to the Sustainability Advisory Committee for advice regarding the sustainability of local government prior to endorsing a submission being forwarded to WALGA.

At its meeting on 19 October 2006 the SAC moved the following motion:

That the Sustainability Advisory Committee thanks Mr Cowie for his explanation of the suggested responses to the questions posed in the Systemic Sustainability Study and NOTES that Mr Cowie will be resubmitting the report to Council to reflect the Committee's comments.

DETAILS

Issues and Options Considered:

Answers to questions that have been amended to reflect SAC's comments are 1, 22, 23 and 24, as shown in attachment 1 to this report.

Link to Strategic Plan:

Not applicable.

Legislation – Statutory Provisions:

The interim report of the Systemic Sustainability Study panel makes reference to a range of provisions in the Local Government Act and these are commented on in the attached report.

Risk Management Considerations:

Not applicable.

Financial/Budget Implications:

Not applicable.

Policy Implications:

Not applicable

Regional Significance:

The Systemic Sustainability Study has state wide implications.

Sustainability Implications:

The Systemic Sustainability Study addresses local government sustainability.

Consultation:

Not applicable.

COMMENT

Nil.

ATTACHMENTS

1 Response to WALGA's Systemic Sustainability Study

VOTING REQUIREMENTS

Simple majority.

RECOMMENDATION

That the Sustainability Advisory Committee NOTES the contents of the report to Council with respect to WALGA's Systemic Sustainability Study as shown in Attachment 1 to this report.

ITEM 5 CITY OF JOONDALUP BICYCLE PLAN – [00906]

WARD: All

RESPONSIBLE Mr Ian Cowie
DIRECTOR: Governance and Strategy

PURPOSE/EXECUTIVE SUMMARY

To present an overview on the City of Joondalup Bicycle Plan and status of works being carried out to date.

BACKGROUND

At its meeting on the 19 January 2006 the Sustainability Advisory Committee requested a report on the status of the City's Bicycle Plan.

DETAILS

The City of Joondalup Bike Plan was prepared by Transplan Pty Ltd in 1999.

In 2002 the City undertook a review of its Bike Plan. The review process was undertaken by Bikesafe Bicycle Planning Consultants and resulted in the City of Joondalup Bike Plan Review 2002-2003 being endorsed as a blueprint for the City's bicycle network and infrastructure future development program (refer Attachment 1 to this report).

Issues and Options Considered:

To date works have been undertaken that enhance bicycle facilities throughout the City, which are listed below. Some of the works emanated from the Bike Plan, others were in addition to these works.

2002/2003

Bicycle Facilities	\$65,000	Perth Bike Network NW3 <i>(Various improvements to bicycle facilities jointly funded with Bikewest/DPI)</i>
	\$44,000	Perth Bike Network NW5 Stage 1 <i>(Various improvements to bicycle facilities jointly funded with Bikewest/DPI)</i>
	\$7,000	End of Trip Facilities
	\$30,000	Joondalup Bike Plan
Shared Paths	\$36,000	Tom Simpson Park, Mullaloo
	\$18,000	Hodges Drive, Ocean Reef
	\$41,000	Burns Beach Road, Joondalup Stage 1

\$14,000	Goollelal Drive, Kingsley – Hocking Road to Whitfords Avenue
\$29,000	Whitfords Avenue, Padbury – Alexander Road to McArthur Avenue

2003/2004

Bicycle Facilities	Joondalup Bike Plan
	\$60,000 Shared Path Whitfords Avenue – Marmion Avenue to Endeavour Road <i>(Improve access to Whitfords City Shopping Centre)</i>
	\$52,000 Perth Bike Network NW5 Stage 2 <i>(Various improvements to bicycle facilities jointly funded with Bikewest/DPI)</i>
	\$100,000 Perth Bike Network NW27 Stage 1 <i>(Various improvements to bicycle facilities jointly funded with Bikewest/DPI)</i>
Shared Paths	\$30,000 John Wilkie Tarn – Whitfords Avenue to Pinnaroo Point
	\$68,000 Freeway Principal Shared Path – Warwick Road to Hepburn Avenue <i>(Provide missing links to Freeway Principal Shared Path)</i>
	\$24,000 Oceanside Promenade, Mullaloo – Ocean Reef Road to northern car park <i>(Improve connectivity between Ocean Reef Road and foreshore recreational path)</i>
	\$50,000 Shenton Avenue <i>(Various shared path improvements undertaken as part of Shenton Avenue duplication)</i>

2004/2005

Bicycle Facilities	Joondalup Bike Plan
	\$44,000 Perth Bike Network NW27 Stage 2
	\$90,000 Perth Bike Network Stage 1 Enhancements
Shared Paths	\$42,000 Chichester Park, Woodvale Stage 2
	\$10,000 Landor Gardens, Woodvale
	\$10,000 Whitfords Avenue to Dog Beach <i>(Improve access to the coastal recreational path)</i>

2005/2006

Bicycle Facilities	\$105,000 Joondalup Bike Plan (Funds carried forward to 2006/2007)
Shared Paths	\$55,000 Hepburn Avenue, Greenwood – Barridale Drive to Kingsley Drive <i>(Improve access to the Greenwood Train Station)</i>
	\$55,000 Whitfords Avenue, Padbury - Alexander Road to McArthur Avenue Stage 2 <i>(Improve access to Whitfords City Shopping Centre)</i>

\$17,000 Marmion Avenue, Currambine – Delamare Avenue to underpass
(*Improve access to underpass from Delamare Avenue*)

2006/2007

Bicycle Facilities Joondalup Bike Plan

Ocean Reef Road – Admiral Grove to Dolium Court
(*Complete shared path link*)

Marmion Avenue – Moore Drive to Miami Beach Promenade
(*Improve access to underpass from Moore Drive*)

Marmion Avenue Moore Drive to Delamere Avenue
(*Complete shared path link*)

Wedgewood Drive to Yellagonga Regional Park
(*Improve access to Edgewater Train Station*)

Whitfords Avenue, Padbury
(*Complete shared path link*)

Shared Paths \$45,000 Hepburn Avenue, Greenwood – Kingsley Drive to Freeway
(*Improve access to the Greenwood Train Station*)

\$21,000 Gloriana View, Ocean Reef
(*Complete path link along Ocean Reef Road between Shenton Avenue & Marmion Avenue*)

Link to Strategic Plan:

Outcome : The City of Joondalup has an effective integrated transport system.
Objective : 3.4: To provide integrated transport to meet regional and local needs.
Strategies : 3.4.1: Advocate and facilitate the creation of transport linkages.
3.4.2: Align use of land and modes of transport.

Legislation – Statutory Provisions:

Not applicable.

Risk Management Considerations:

Not applicable.

Financial/Budget Implications:

Not applicable.

Policy Implications:

Not applicable.

Regional Significance:

The City's bicycle network is used by visitors and is intrinsic for tourism development.

Sustainability Implications:

The City's bicycle network is intrinsic to community health and wellbeing and provides an alternative mode of transport.

Consultation:

Not applicable.

COMMENT

It should be noted that bicycle transport is an increasing mode of transport for both passive and recreational purposes as well as providing an alternative mode of transport for those residents who live and work in the local community.

The City will endeavour to promote and increase bicycle use through two new initiatives during 2007.

1. Greenhouse Action Plan (GAP) – the City's Greenhouse Action Plan is currently under review and increasing bicycle use as a means for reducing greenhouse gas is a key action that will be pursued and monitored under the GAP.
2. TravelSmart – The City will commence the TravelSmart program in 2007. This program will provide a City wide education campaign that seeks to raise awareness of the benefits of bicycle use as an alternative transport mode and also as an effective health management tool.

Both these programs will promote the City's bicycle infrastructure and complement the work the City has done on delivering to the community an extensive and well maintaining community asset.

ATTACHMENTS

1. Bicycle Plan Maps

VOTING REQUIREMENTS

Simple majority

RECOMMENDATION

The Sustainability Advisory Committee NOTES the report and progress made in relation to the City's Bike Plan.

ITEM 6 GREYWATER - [62536] [00906]**WARD:** All**RESPONSIBLE** Mr Ian Cowie
DIRECTOR: Governance and Strategy

PURPOSE/EXECUTIVE SUMMARY

To provide the Sustainability Advisory Committee (SAC) with an overview on greywater, the initiatives being undertaken by the City of Joondalup in relation to greywater and to consider options for the promotion of the use of greywater as a water saving measure.

BACKGROUND

At its meeting on 19 October 2006, the SAC requested a report on greywater.

DETAILS

Greywater is the wastewater generated from bathrooms, kitchens and laundries. There is the opportunity for greywater to be reused to irrigate gardens, which will assist in reducing the demand on quality ground and surface water supplies. This reuse of greywater is supported and encouraged by the State Government and the City of Joondalup to conserve water. From a State Government perspective community members can access rebates of up to \$500 for approved greywater reuse systems through the Water Corporation's Waterwise Rebate Scheme. From a City of Joondalup perspective, fees for system installation approval have been reduced.

Greywater must be reused in a manner which does not compromise public health or cause unacceptable environmental impact. Consequently, only greywater systems that comply with the Code of Practice for the Reuse of Greywater in Western Australia and have been approved by the Executive Director, Public Health for use in Western Australia may be installed (refer Attachments 1 and 2 to this report).

As well, the Health Regulations 1974 require any person installing a greywater reuse system to apply to their local government. Following installation, provided that the local government is satisfied that the system conforms to the Regulations and any conditions of approval, the local government will grant a permit to use the system.

Greywater was an issue that Council dealt with in April 2006. The report to this meeting, which outlines the proposal to promote the use of greywater within the City is found at Attachment 3.

The Council resolved to:

1. *The reduction of the fees associated with the installation of approved grey water reuse systems by 50% for residents of the City of Joondalup.*
2. *Raising community awareness and use of these systems by the production of brochures, fact sheets and media promotion campaigns.*

The report outlined how the Council could contribute to supporting greywater usage through waiving the building application fees required for householders to install a greywater system. A fee of \$184 is prescribed under the Health Regulations for application and approval of these systems. As a result of Council's resolution, the fee for application and approval for City of Joondalup residents is now \$92.

An article appeared in the Wanneroo Community Times on 25 April advising that City of Joondalup residents and businesses were being encouraged to use greywater to irrigate gardens and of the reduced building approval fee being applied for new installations.

The City at the Great Garden's workshop to be held on 7 November 2006 will further promote greywater reuse and the fee reduction available to residents. Fact sheets on the subject are also being developed to be included on the City's website.

Possible Options to Consider in Relation to Support for Greywater

1. Further Fee Reduction.

The Committee could recommend to Council a further reduction in application and approval fees be offered to residents who choose to install an approved greywater system. It should be noted however, that as promotion of the fee reduction incentive currently in place is in its early stages, it is difficult to predict whether a further reduction in fees will have a significant impact on the number of residents who participate in greywater reuse.

2. Promotion and Education through Seminars

The Committee could recommend Council consider new ways in which the City can best promote and educate the community about greywater reuse. For example, the City of Belmont does this through seminars to disseminate information to their community regarding information on the best greywater system for their residents. A recent seminar held by Belmont included a speaker from the City of Belmont who discussed Council and Health Department requirements and Dr Ross Mars from Greywater Reuse Systems.

3. Subsidisation

The Committee could recommend Council consider subsidising the cost of purchasing approved greywater systems for residents in conjunction with the one offered by the Water Corporation. The implications of such subsidisation would require further consideration if the Committee were to support this option in principle.

4. Legislation

The Committee could recommend that Council implement mechanisms to enforce developers to install a greywater system in their new housing developments.

It should be noted that if this option is recommended, Council would need to take into account flood potential, exposure to slope, landform, potential runoff and upslope seepage, site drainage, fill, buffer distances and geology. Council would need to assess these features and determine if any would make the land unsuitable for greywater irrigation. Further, Joondalup has limited new subdivisional areas left which would limit the advantages of this option when compared to fringe metropolitan Councils.

5. Development of a Greywater Reuse Policy

An option for the Committee could be to recommend to Council the development of a Greywater Reuse Policy.

The City of Manly (NSW) has developed a Greywater Reuse Policy (see Attachment 4). The policy details advantages, risks, public health, environmental and maintenance issues associated with greywater as well as development requirements and uses of recycled/treated greywater.

Many of the options identified above would require further scoping if the Committee was interested in implementing them. However, with the recent decision to reduce the approval fee, it is recommended that greywater be promoted through community seminars in the first instance.

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:

Not applicable.

Financial/Budget Implications:

Not applicable.

Policy Implications:

Not applicable.

Regional Significance:

Not applicable.

Sustainability Implications:

As water is one of our most precious resources, better management of water use and reuse can achieve improved future sustainability.

Consultation:

Not applicable.

COMMENT

Given that greywater use will be launched and promoted at the Great Gardens Workshop in November, it is considered necessary that ongoing promotion is maintained during 2007 onwards.

ATTACHMENTS

1. Code of Practice for the Reuse of Greywater in Western Australia

2. Greywater Reuse Systems Approved by the Department of Health
3. Council Report CJ074-04/06 'Proposal to Promote the Use of Greywater within the City.
4. Manly Council Greywater Reuse Policy

VOTING REQUIREMENTS

Simple majority.

RECOMMENDATION

That the Sustainability Advisory Committee:

- 1 NOTES the City's recent initiative of introducing a discount on fees for greywater systems and the options to support greywater usage identified in this report;**
- 2 SUPPORTS the concept of community seminars on greywater/rainwater tank opportunities. (Note: Rainwater tank issues are covered in the next report).**

ITEM 7 RAINWATER TANKS – [00906]

WARD: All

RESPONSIBLE Mr Ian Cowie

DIRECTOR: Governance and Strategy

PURPOSE/EXECUTIVE SUMMARY

To provide the Sustainability Advisory Committee (SAC) with an overview on rainwater tanks and initiatives being undertaken by the State Government and to consider options for encouraging greater use of rainwater tanks within the City of Joondalup.

BACKGROUND

At its meeting on 19 October 2006, the SAC requested a report on rainwater tanks.

DETAILS

Rainwater is a valuable natural resource that can be collected for household use. The use of domestic rainwater tanks is an established and relatively common practice within rural and remote areas of Australia. Within Western Australia, 11% of all households have a rainwater tank. However there has only been a 5% uptake within Perth metropolitan households (ABS).

Rainwater tanks now come in all shapes and sizes to suit the suburban home and watering the garden and washing the car with rainwater makes good environmental sense and minimises use of mains water. Greater water savings can occur if the tanks are connected to the cistern, washing machines and hot water systems.

The Health Department advises that the microbiological quality of rainwater collected in domestic tanks may be lower than that of many mains water supplies. The National Public Health Partnership also recommends that rainwater be used as a source for hot water services, bathing, laundry, toilet flushing, or gardening as these uses represent lower risks to public health than drinking water. Unless adequately treated, rainwater is not reliably safe to drink.

Irrespective of how tank rainwater is used, water quality is dependant on implementing a sensible maintenance program.

Attachment 1 and 2 provide greater detail about urban rainwater collection and rainwater tanks.

Issues Considered:

Advantages of Rainwater Tanks:

The Water Corporation advises the greatest advantage to suburban rain water tanks is that they raise constant awareness within the suburban community that water is a precious commodity and it also makes individuals feel that they are making a small contribution in their own right to sustainability of water in the future. Further, the Water Corporation advises that the most effective tanks to install are large capacity tanks that are connected to the plumbing for use in toilets, showers and washing machines. On average a single household toilet uses

about 6 litres of water per flush and watering the garden for 15 minutes will consume about 500 litres of water.

Disadvantages

In areas with access to mains water supply the main disadvantage of installing a rainwater tank is the financial cost associated with capital installation and ongoing maintenance. Further, the effectiveness of tanks is reliant on a large roof area that can collect recharge water effectively. Around 55,000 litres of water can be collected from a 100 square meter roof area dependent on rainfall recharge.

The Water Corporation advises that it is for these reasons that they do not widely promote the use of rainwater tanks.

A local WA supplier 'Bushy Products' provides a range of tanks with cost as follows:

Tank Type	Capacity in Litres	Cost
Small Slimline	510 – 620	\$470 - \$475
Small Round	1500 - 5000	\$540 - \$915
Medium Round	11000 - 16500	\$1,175 - \$2,215
Large Round	23000 - 48000	\$2,495 - \$5,975

With respect to cost savings in water consumption, the Water Corporation advises that this is a negligible saving as mains water is such a cheap commodity. For example if a householder invested in a small slimline tank of 600 litres the tank would be consumed by approximately 15 minutes of watering the garden. The actual cost of using 600 litres of mains water would be about 60 cents. After one garden water, the tank would be empty until a summer storm recharged the tank. Therefore there is a minimal return on investment that can be made from installing small tanks. If a large tank is installed of 50,000 litres this would equate to about a \$50 cost saving to the water bill for each time the tank was consumed and recharged. Over the course of a year if this water supply is connected to the plumbing there would be a more attractive dollars saving for the average householder.

Incentives Offered by the State Government

The Water Corporation offers a rebate scheme as follows:

Tank Capacity	Rebate
600 litres or greater unplumbed	\$50
2000 litres or greater and plumbed in by a licenced plumber for cistern/washing machine use	\$500 up to 50%

Building Approval Requirements

The City of Joondalup does not require a building or planning application for the installation of a rainwater tank, unless there are planning implications such as one being installed too close to the property's boundary. There is a building approval requirement to supply potable water (scheme) to houses but if an owner/occupier wishes to use a rainwater tank to re-supply their cistern, they can do this without the City's approval.

What Other Councils are doing?

Wungong Urban Waters

It was announced during October 2006 that a new housing development – the Wungong Urban Waters project, near Armadale will require all new dwellings to install rainwater tanks as part of

the building/planning approval process. The Armadale Redevelopment Authority will manage the development and State Government expects the homes will use 75% less scheme water than a normal Perth household.

Huon Valley Council

The Huon Valley Council in Tasmania introduced in July 2006, a policy approach which will mandate the installation of a rainwater tank for each new dwelling constructed on a building lot within a water district. The 'Urban Rainwater Tank - New Development Policy' requires installation of a minimum 2,000-litre size rainwater tank and will now form part of any building permit authorising construction of new dwellings in the Huon Valley. It also requires developers to provide a site-specific analysis, identifying optimum tank size to meet both internal and external demands (refer attachment 3 to this report).

Options to Consider

A number of options exist for the Committee to consider which include:

1. Legislative or Policy Approach

The City of Joondalup could apply legislative directives through its Town Planning Scheme for new developments to install rainwater tanks, as is the case in the City of Armadale. The City could also develop a policy for the purpose of encouraging rainwater tanks in new all new development, somewhat similar to Huon Valley.

2. Subsidies or Rebate Approach

- The City of Joondalup could specifically subsidise the cost of installing rainwater tanks for City residents.
- The City could work with local suppliers to negotiate a special discount from specific suppliers on behalf of residents. In effect, the City would be acting as a broker to reduce retail prices to City residents.
- The City could grant rebates on the rates of City residents who install rainwater tanks.

3. Awareness Raising and Promotional Activities

- Ongoing advertising of the importance of conserving water in Council related publications such as Community News and Council News.
- Information on rainwater tanks included in community education packs that are sent to new residents to the City.
- Provide community seminars/workshops held in conjunction with information on greywater, to disseminate information to the community on improved water usage ideas.
- Information and fact sheets on rainwater tanks and improved water usage ideas be placed on the City's website.

Should the Committee wish to pursue options which fall within the legislative policy approach and the subsidies rebate approach, further work will be required to scope up the options. However awareness raising and promotional activities can be undertaken fairly easily and it is

recommended that the City look to implement community seminars on greywater/rainwater tanks and advertise the importance of conserving water in a forthcoming community publication.

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:

Ensuring good water quality depends on correct design, installation and sensible maintenance of the rainwater tank and catchment area. Regular maintenance such as checking and cleaning gutters is required. Health risks can arise such as the tank becoming a breeding site for mosquitoes that may carry serious diseases if regular maintenance is not carried out.

Financial/Budget Implications:

Not applicable.

Policy Implications:

Not applicable.

Regional Significance:

Not applicable.

Sustainability Implications:

As water is one of our most precious resources, better management of water use and reuse can achieve improved future sustainability.

Consultation:

Not applicable.

COMMENT

Not applicable.

ATTACHMENTS

1. Department of Health 'Urban Rainwater Collection' brochure
2. National Public Health Partnership 'Guidance on Use of Rainwater Tanks' brochure
3. Huon Valley Council Rainwater Tanks Council Policy

VOTING REQUIREMENTS

Simple majority.

RECOMMENDATION

That the Sustainability Advisory Committee:

- 1 NOTES the Water Corporation's comments on rainwater tanks and the options identified in this report;**
- 2 SUPPORTS the concept of community seminars on greywater/rainwater opportunities and the advertising of the importance of conserving water in a forthcoming community publication.**