

# Urban Planning for Community Gardens: What has been done overseas, and what can we do in South Australia?

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## Abstract

Community gardens have been shown to have positive social, nutritional and educational benefits for their users, and improve the amenity, safety and patronage of the surrounding area. They also tie into wider themes of sustainability and food security. Despite these benefits, urban planners, as the keepers of land and determiners of land use, have had little to do with community gardens. This thesis will explain the benefits of community gardens and detail planning policies throughout the world that support community gardens. Lastly, recommendations will be made on how the South Australian planning system can better support community gardens.

## Executive Summary of Recommendations

### State Government:

1. Premier: Make the links between targets in the Strategic Plan and the food system, to make clear the importance of food, and to help food-related programs get government funding. (Specifically, the targets to decrease overweight, increase sport and physical activity, increase healthy life expectancy and reduce SA's ecological footprint - T2.2, T2.3, T2.4 and T3.7)
2. Department of Health/Planning SA/Zero Waste SA/Office of Sustainability/Premier: Consider setting up a food policy council for South Australia
3. Planning SA: Use land in the Metropolitan Open Space System for community gardens
4. Planning SA: Allocate responsibility for the *Planning Strategy for Metropolitan Adelaide's* policy to "Consider the establishment and development of community gardens, particularly in areas with minimal open space."
5. Planning SA: Recognise community gardens as a desirable land use in the *Planning Strategy for Metropolitan Adelaide*
6. Planning SA: Create a policy to encourage local food production and purchasing under the section on energy efficiency in the *Planning Strategy for Metropolitan Adelaide*
7. Planning SA: Include policies for community gardens in the Better Development Plans project policy library
8. Planning SA: Investigate using land that is being protected for future use for community gardens
9. Housing SA: Investigate the possibility of creating community gardens in areas of high-density public housing
10. Land Management Corporation: Investigate the possibility of new 'green' developments having their own planning strategies, so that stricter environmental controls can be implemented
11. Land Management Corporation: Continue to include community gardens in new developments
12. Department of Health: Restart the Community Gardening in SA project, or collaborate with other departments to restart it

### Local Government

13. Recognise community gardens as a desirable land use in Development Plans
14. Ensure that Development Plans encourage and support the development of community gardens
15. Ensure that open space plans encourage and support the development of community gardens
16. Consider creating community garden policies
17. The Adelaide City Council should consider giving incentives for rooftop gardens
18. The Adelaide City Council should allow the development of a community garden in the parklands

### Other Recommendations

19. All community gardens should have modified water restrictions

20. Investigate if the grants given through the Planning and Development Fund are adequate for getting water tanks for community gardens
21. Universities: Teach about the links between planning and food, and the importance and benefits of planning for food (including community gardens)
22. Planning Institute of Australia: help to raise awareness on planning for food by holding seminars and creating a food planning chapter of the Institute.

# 1. Introduction

Community gardens create the types of social and environmental benefits that planners often strive to achieve in their work. They break down barriers between people, increase socialisation, provide exercise, improve nutrition and create safer spaces. Why then, have community gardens been overlooked by planners? A lack of interest and lack of knowledge has meant that planners have been ignoring community gardens in planning policy and literature, and inadvertently creating barriers to the creation of community gardens. This thesis argues that planners should become involved in creating, protecting and promoting community gardens, because of the multiple benefits that they offer. To aid them in this task, plans from around the world have been searched for planning policies that relate to community gardens. These plans have then been used to guide recommendations on how the South Australian planning system can aid community gardens.

This thesis will seek to promote the promotion, protection and creation of community gardens in the South Australian planning system. Firstly, a case will be made for the promotion of community gardens by urban planners, by explaining the benefits of community gardens. The literature on urban planning for community gardens will be discussed to give understanding and context to the issue, and then the state of planning for community gardens in South Australia and Australia will be ascertained by searching for planning policies that relate to community gardens. International planning policies will be examined to find the types of policies that could be used in South Australia to promote community gardens. Lastly, recommendations will be made for how South Australia can better plan for community gardens.

This introductory section will explain the broad global factors affecting the food supply, the implications for Australia and the role that planners can play in increasing food security.

## Global context

A range of factors are converging to create a global food shortage, which has begun already, and will increase in the future. Food shortages or supply interruptions are called food insecurity, which is the opposite of food security. This is defined as:

*“Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy lifestyle.” (FAO 1996)*

This section will explore the factors which are contributing to global food insecurity and their future impacts.

### *Climate Change*

Climate change is predicted to change rainfall patterns, increase droughts and floods and increase the risk of natural disasters and extreme weather events (Cribb 2007; IPCC 2007a). The severity of effects vary, but in general, conservative estimates are given by the Intergovernmental Panel on Climate Change (IPCC), and more drastic estimates are given by the US climate scientist Dr. James Hansen, who criticises the IPCC (ABC 2007; Hansen 2005;



Hansen 2007). The IPCC estimates that by 2050, stream flow in the Murray-Darling Basin, which supplies around 70% of Australia's irrigated farmland, is likely to fall by 10-25% (IPCC 2007b). Dr. James Hansen reports that atmospheric carbon dioxide is already above the safe level of 350ppm, and if it is not lowered soon, irreversible catastrophic effects will occur, including a sea level rise of several metres (Hansen 2005; Hansen et. al. 2008). Both of these scenarios will cause a global decline in agricultural productivity which will lead to increased food insecurity. The Australian government's response to climate change will be shaped by the recommendations of the Garnaut Climate Change Review, which acknowledges that catastrophic climate change is likely if emissions reductions are not made, but also recognises that nations have been slow to reduce emissions, and suggests that the government work towards limiting atmospheric carbon at 550ppm, and aim for 450ppm (Garnaut 2008).

### *Peak Oil*

Australia's farming system is heavily dependent on fertilisers, mechanised farming and long distance transport (Robinson et. al. 2005), so rising oil costs will threaten food availability in Australia (Heinberg 2005; Victorian Eco Innovation Lab 2008), because oil is required to make fertilisers, run farming machines and transport food.

### *Other Factors*

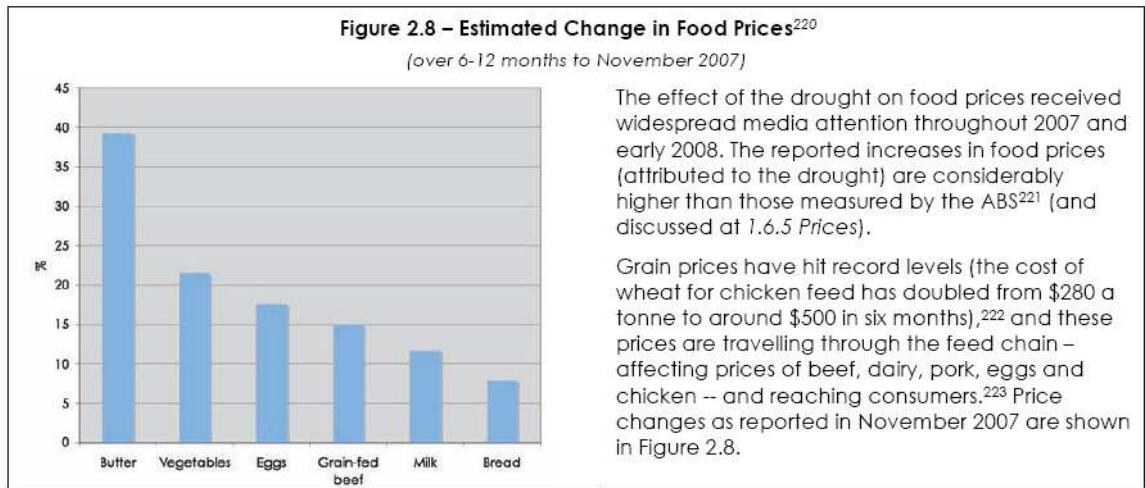
Additional factors will also decrease global food production:

- Growth in biofuel production is taking up more agricultural land (Doornbosch & Steenblik 2007; Tenenbaum 2008)
- Peri-urban development is reducing the agricultural land around cities (Victorian Eco Innovation Lab 2008)
- Increased meat consumption by the newly rich in Asia is causing more food to be fed to animals instead of people (Tenenbaum 2008)
- Destruction of farmland by erosion, salinity and topsoil loss
- Global population growth is reducing the amount of food available per person (United Nations 2006)

The combination of all these factors will work to increase global food prices now and in the future, and increase the proportion of the population living in food insecurity (Victorian Eco Innovation Lab 2008).

## **What Does This Mean for Australia?**

Many Australians are already struggling to afford enough food, although data is hard to find. A South Australian study found that 7.5% of South Australians are food insecure, gauged by asking the question "*have you run out of food in the last 12 months, and didn't have enough money to buy more?*" (Kenny et. al. 2004). This percentage increases in lower socioeconomic areas. 40% of residents in the Peachy Belt area of northern metropolitan Adelaide are food insecure, and 15% of residents had gone hungry in the last year because they couldn't afford to eat (Barnard 2005). Since these studies were conducted, food prices have risen dramatically. In 2007, the price of vegetables rose by 20%, eggs rose 17%, beef rose 15% and bread rose 7% (See Figure 1). These higher prices will increase the number of people living in food insecurity in Australia.



**Figure 1: Estimated Change in Food Prices (Victorian Eco Innovation Lab 2008)**

### Won't the market fix it?

The market solution to rising food prices is to put more land into agricultural production. However, 37% of the earth's land surface is used for agriculture (FAO 2003), and expansion of this could threaten biodiversity or ecosystem services. Additionally, the free market operates on the principle that those who can pay the most will get the products. By definition, this excludes the poor. From this we can conclude that the market's ability to decrease food insecurity is limited.

### What does planning have to do with this?

Urban planning seeks to ensure that the public has access to basic facilities, such as roads, housing and open space. Food is also a basic need, but one that has not been recognised as a planning issue until very recently. Planning affects the food system in a variety of ways. Planners decide whether peri-urban land will be preserved or turned into suburbs. Planners decide whether to refuse the development of a fast-food restaurant or approve it. Importantly, planners decide whether spare open public space can be used for growing food, or if it will stay as underutilised grassy plains.

### Why are community gardens important?

Community gardens are one way of increasing people's food security, by allowing them to grow their own food. Community gardens also allow people to increase their intake of fruit and vegetables, which can improve their health. However, community gardens have many more benefits apart from this. They are a practical and easy-to-implement part of relocalising food systems, and an environmentally sustainable way to produce food. They allow the poor to increase their intake of nutritious food, and help to build communities. They break down societal barriers, reduce crime, and teach people how to work as a group.

Community gardens are not just about people growing food. They tie into broader societal debates about environmental sustainability, health, community and justice (Ferris 2001). The political context of community gardening is explained by Naimark:

*“Community gardening is a small but serious challenge to many current policies and practices. It challenges the economically and ecologically destructive policies of agribusiness and local politics, which put profit before human needs—greenery, open space, fresh food. Community gardening challenges the social and economic structures that keep a vast number of urban and rural people from owning land and from gaining a small measure of control over their own lives” (Naimark 1982, cited in Wang 2006).*

The benefits of community gardens are explained in greater detail in section 2.1.

### **Why are community gardens important to planning?**

Too often, community groups come into conflict with councils over community gardens. Many gardens have had to close down due to conflicts with local government. These problems would be reduced if planners and local governments understood and appreciated the importance of community gardens, and their many benefits. Planners are in the best position to foster understanding about community gardens, as they serve as an intermediary between government, politics and the community.

### **What can planners do? How can they do that?**

This thesis focuses on one way that planners can improve food security – by supporting, promoting and creating community gardens. The thesis includes a range of planning policies from around the world that have been used to promote community gardens, and discusses how the South Australian planning system can better plan for community gardens.

## **1.1 Research Methodology**

This section will detail the research objectives, research questions, conceptual framework, intended audience, methods, limitations, delimitations and ethical considerations.

### **Research Objective**

The research objective is to:

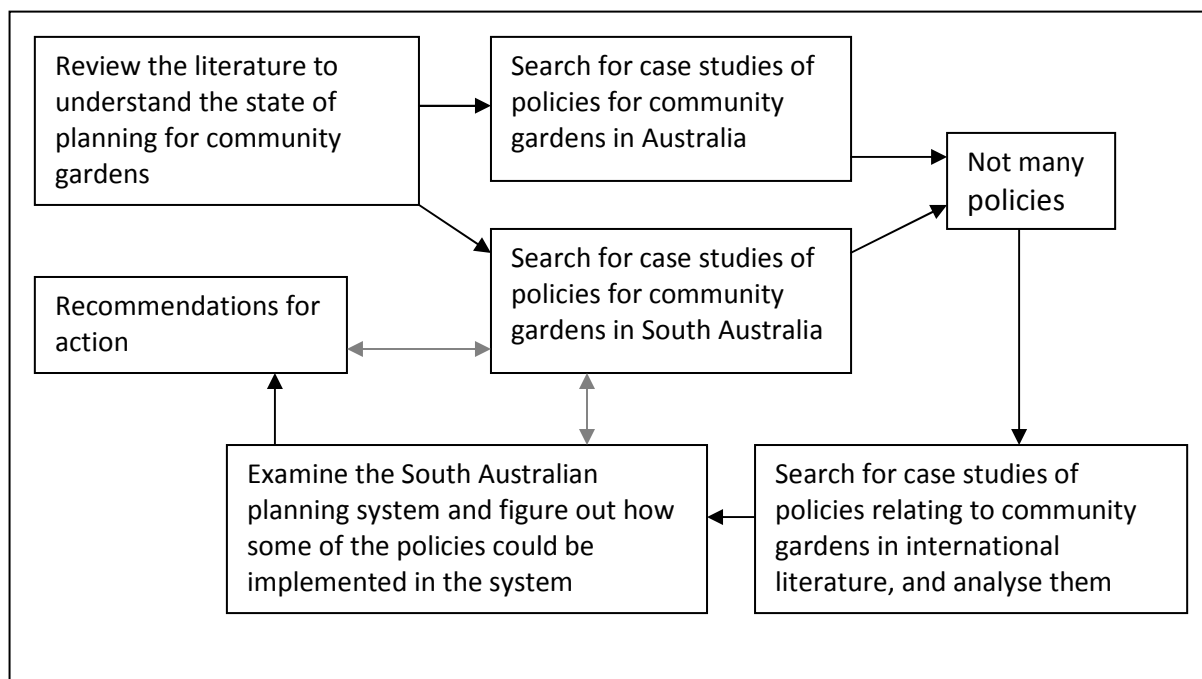
- Make a case for the promotion, protection and creation of community gardens by urban planners
- Compile a list of policies for community gardens that planners can reference
- Using international case studies, formulate a set of strategies and recommendations that planners in South Australia can use to support community gardens

### **Research Questions**

The questions that drive the research are:

- Why should planners support community gardens?
- What policies have been used by planners to support community gardens, in Australia and overseas?
- How can these policies be used in the South Australian planning system?
- What action should be taken by state and local government?

## Conceptual Framework



The thesis firstly aims to explain the benefits of community gardens, to make a case that planners should implement policies to promote community gardens. Secondly, the literature on urban planning for community gardens will be examined to ascertain the amount of literature on the subject, and what has been said. This will give context to the research – mainly that it is a new, small field of planning with little literature and few policies in use. The number of policies on the subject is limited, and analysis of them is limited because there is no documentation on how effective the policies are. Because of this, the thesis will assume that all of the chosen policies will aid the creation, promotion and protection of community gardens, because the wording of the policies suggests this. The context of the policies will not be (and would be extremely difficult to be) examined. Lastly, suggestions will be made on how these policies can be integrated into the South Australian Planning system. The aim of this is to spell out to policy makers and community groups how community gardens can be promoted in South Australia. The policies discussed can also be used as a reference by planners who want to implement policies to promote community gardens. The ultimate aim of the thesis is that action will be taken, either by policy makers reading the recommendations and implementing them, or by community groups pushing for the recommendations to be put into policy.

## **Intended Audience**

This research is to be used by:

- Planners to plan for community gardens
- Planners to use the policies in section 4 as a reference when developing policies for community gardens
- Community groups to try to get community garden policies into planning strategies
- People to explain to councils, governments or planners the importance of community gardens.

## **Methodology**

A literature search will be conducted to find urban planning literature relating to community gardens. A search will be conducted to find urban planning policies relating to community gardens in Australia and South Australia. A search of international policies will be conducted to find more planning policies that relate to community gardens. Finally, the case studies and research will be used to formulate recommendations for how community gardens can be better planned for in South Australia.

## **Limitations and Delimitations**

There are many strategies that can be used to protect, support and develop community gardens. However, this thesis will only look at strategies that are related to urban planning. The research will also focus on the treatment of community gardens in developed countries, to make the recommendations more relevant for application in Australia.

## **Ethical Considerations**

No primary research will be undertaken in this study. No interviews or surveys will be conducted. The sources of information will be published documents, including local government documents, newsletters, articles and state planning documents. These are published documents that are freely available. Therefore, there will be no ethical problems in analysing these documents.

## 2. What Are Community Gardens?

The Auckland City Council (2002) defines a community garden as:

*“A small scale low-investment neighbourhood communal gardening venture, growing vegetables, fruit and/or flowers. It uses vacant or unspecified open space – either in the public domain, or owned by another organisation or business (for example by a church or through a public housing body). Community gardens may have an explicit gardening philosophy such as organic growing, permaculture or biodynamic gardening, or they may allow participants with individual plots to manage them as they see fit. They may also establish nurseries to propagate and raise seedlings for their gardeners.”*

Put simply, community gardens are small areas of land (usually less than one hectare) that are managed by a community group for the purpose of growing food (Crabtree 1999). Gardens may be farmed communally, or divided into individual plots that can be rented out for a nominal fee. Most gardens also feature a communal area (FindLaw 2008)

A powerful description of the link between urban planning and community gardens, and the benefits of gardens, is given by Hynes:

*“Community gardens...an innovative kind of urban renewal, one undertaken with the cheapest of resources: seeds, soil, and the sweat equity of inner-city people. This low-cost, low-tech urban renewal relies on intangibles like beauty and a sense of place, as well as tangibles like food and neighbourhood security. Phrases such as open space, green space and urban amenity – the professional argot of urban planners – fail to convey the potency of these garden movements. Urban renaissance comes closer to capturing the complex effect of these community gardens which nourish the body and also the soul.”* (Hynes 1996, p. viii)

Community gardens can be used to further a number of planning aims, the most obvious being community building – community workers now use them in their work. Community gardens are also used as part of community renewal strategies, which focus on improving the built environment, building capacity among residents and strengthening community (UKY 2004).

### Setup

Community gardens are either started by a group of interested individuals or by a community organisation. Individuals can come together to form a group, and scout out possible locations for the garden, or approach the council and ask to lease council or government land. Once a location has been secured, the group can apply to the council for grants for fencing, building materials and water tanks (Grayson & Campbell 2002a). Sometimes the group has to apply for development approval for the garden, and go through the planning assessment process (Auckland City Council 2002). Alternatively, a

community organisation, community worker or local government employee can start a community garden by consulting with the community to gauge their interest, and forming a group of interested people. This group then leads the process to establish a community garden. The community organisation supports the group using their skills and contacts, by helping them find a location, obtain council approvals, leases and grants, and creating a management structure for running the garden. Councils may also employ a coordinator for their community gardens, who can give constant support to the gardeners and liaise with Council (Grayson & Campbell 2002a).

Local Government, State Government housing departments and community centres are the three main organisations involved in community gardening, as well as various community groups and non-government organisations. The support of local governments is instrumental to many community gardens because they grant development approval for gardens. They can also provide funding, give building materials, loan landscaping workers, give advice and support the gardeners (GOSA 2004).

### **Operation**

Community gardens come in two types: communal or allotment systems, or a combination of both. Communal systems are gardened by one group, with the costs and harvests being shared between them. Allotment systems are divided into plots of land which are each gardened by an individual. It has been found that allotment systems create more of a sense of ownership and commitment (UKY 2004). Each type of system has varying arrangements concerning rent, settlement of disputes, membership, tools, water and communal events (Crabtree 1999). Some gardens have to set out all these provisions in a detailed proposal before they can gain Council Development Approval (Auckland City Council 2002). The management of a community garden typically relies on a dedicated individual or small group of individuals, including community workers and Council employees (UKY 2004).

### **Link to Urban Agriculture**

Urban agriculture is any type of farming practised in urban areas, and in many countries is subsistence farming. Community gardening is a type of urban agriculture that is practised mainly in developed countries.



## 2.1 Benefits of Community Gardens

Community gardens have been shown to have a range of benefits for the users of the garden and for the wider community. Community gardens typically have a wide range of people using them, especially migrants and the elderly. There are many barriers separating the types of people in the garden – linguistic, social and cultural, but these can be overcome through the activity of gardening by allowing the users to engage with each other in a ‘language of doing’, a shared activity that they can help each other with. Bringing diverse groups of people together in this way fosters understanding between groups that ordinarily would not interact: young and old, the disabled and people of diverse ethnic and linguistic backgrounds. By bringing people together, the gardens foster a sense of community – this sentiment is shared by gardeners, who report increased feelings of being connected to the community. Community gardens can be of extra benefit to some migrants by allowing them to undertake agricultural activities which they may have done in their home country, making the transition to living in a new country easier. For public housing residents, community gardens are a way to improve the public’s perceptions of public housing estates and combat the stigma experienced by residents. They have also been shown to strengthen networks between public housing residents, and between the residents and support services. Lastly, community gardens aid the creation of links outside of the garden, between schools, businesses and governments (Armstrong 2004; UKY 2004).

Community gardeners have many positive things to say about the gardens:

*“It’s about taking back the ability to produce food for ourselves. At the supermarket, you not only don’t connect to the food system, but the money goes out of the region. People are looking for a sense of community, and they find it in their local community garden.” (GOSA 2006)*

Another community gardener says:

*“Urban community gardeners are bringing life and liveability, seed by seed, back to their neighbourhoods. The gardens nourish the body and also the soul.” (GOSA 2006)*

The range of benefits of community gardens are illustrated in Figure 2:

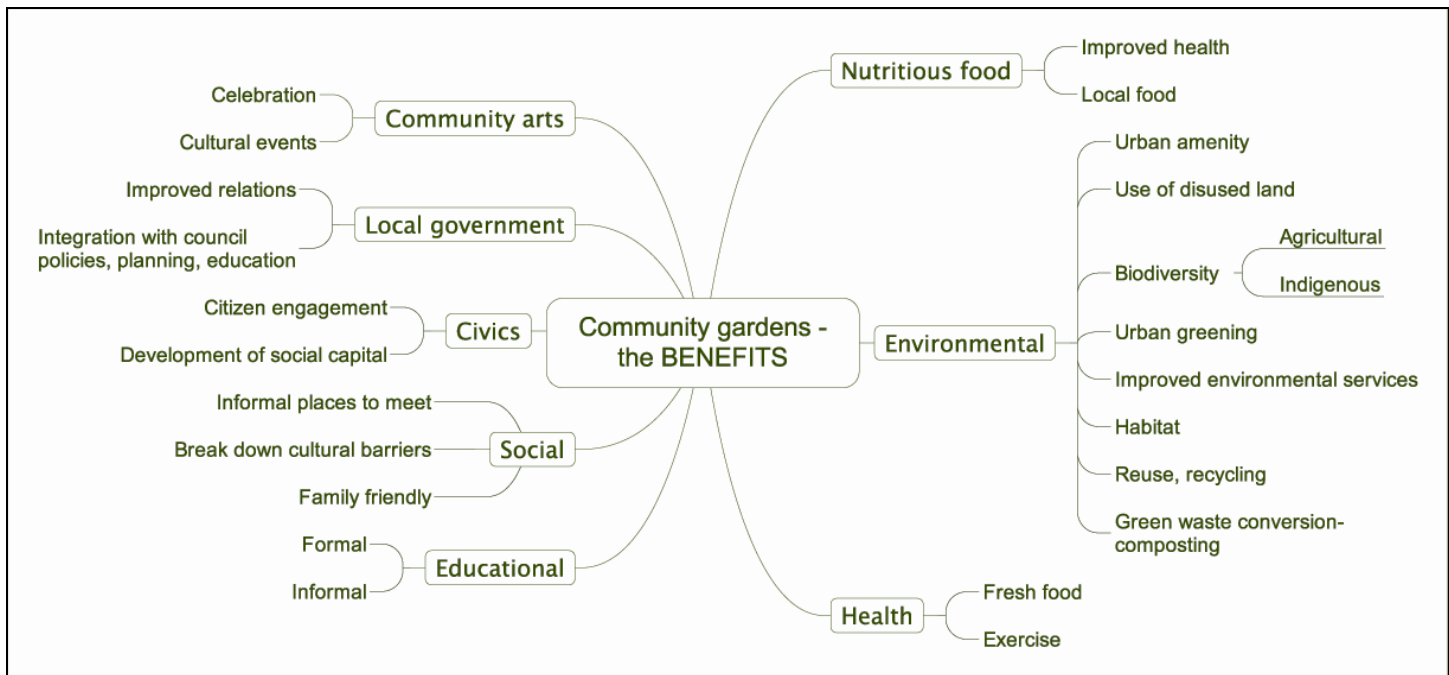


Figure 2: The benefits of community gardens (Grayson 2008)

### Positive Effects on Users

Community gardens have multiple positive physical and psychological effects on the users. Physically, community gardeners have been shown to have a higher intake of fresh vegetables compared to non-gardeners (Blair et. al.1991), and report that their health has improved from gardening because they get more exercise. Psychologically, gardening has been shown to improve peoples’ social wellbeing (White & Lake 1973) and psychological wellbeing (Francis et al. 1994; Kaplan 1973). Gardeners report that their community garden gives them a sense of purpose and place, and a sense of achievement when they grow food. A sense of achievement is especially important for the mental wellbeing of people who don’t engage in other activities that give them a sense of achievement, like employment or sport, so the unemployed, stay at home mothers and the disabled benefit especially from gardening. Gardeners also say that the garden allows them to make friends, and gives them a constructive and productive recreational activity. In addition to this, community gardens may be seen as teaching social skills, as gardens are run communally, with all members being involved in decisions and projects in the garden (Armstrong 2004; Crabtree 1999; UKY 2004). Additional benefits can arise from saving money – community gardening can reduce a person’s grocery costs, freeing up money for other uses (Herbach 1998; Hynes 1996).

### Education

Community gardens are educational sites: horticultural skills are learnt by the gardeners, and garden open days are used to educate the public. Permaculture, composting, worm farming and sustainable technologies can be taught at workshops in the gardens (Crabtree 1999). The management of community gardens involves negotiation, cooperation, communication, leadership, decision making and conflict resolution, which are all useful skills that members learn. Community gardens are also a place to learn social skills by interacting with others (UKY 2004).

## Crime Reduction

A study of nine public housing estates in NSW found that community gardening is effective in reducing crime (Samuels et al 2004). Another report on community gardens in NSW stated that the community gardens reduced vandalism and other opportunistic crime, reduced fear of crime and made people feel safer when using the area near the gardens (UKY 2004).

Community gardens can reduce crime by doing the following:

- Increasing surveillance by the presence of gardeners in an area
- Creating a sense of place and identity, making people feel like they 'own' the space, and therefore taking more responsibility for the space
- Increasing the sense of community
- Improving the likelihood of people reporting crime
- Giving people who are at risk of offending something useful to do
- Connecting younger and older people, providing positive role models and combating negative stereotypes
- Encouraging respect towards public spaces, which can reduce vandalism
- Improving the amenity of the area which increases pride in the space (UKY 2004).

The principles of community gardens align with the design tools used in Crime Prevention Through Environmental Design (CPTED), an urban design and urban planning tool which aims to reduce crime through a range of measures, including increasing surveillance, encouraging community ownership of shared spaces and ensuring these spaces are well-maintained (NSW Department of Urban Affairs and Planning 2001).

## Contribution to Food Security

Community gardens have been shown to increase the food security and nutrition of residents, by providing them with healthy food at a minimal cost (UKY 2004). They also give people the skills required to grow food for themselves, which they may use in the future. Open days of community gardens, and workshops, educate the broader public about growing food, which has the potential to increase their food security as well.

## Environmental Benefits

Community gardens provide food close to where it will be eaten, reducing the need for food to be transported from elsewhere. The local production of food is believed to be better for the environment in a number of ways. It takes a lot of energy to import food from overseas, especially if it is air freighted. This produces carbon dioxide (CO<sub>2</sub>) and contributes to climate change, as well as producing airborne pollutants. Locally-produced food does not have to be transported as far, so the CO<sub>2</sub> emissions are reduced (Pothukuchi & Kaufman 2000; VicHealth 2006). With fossil fuel prices increasing, imported food will become more expensive, and locally-produced food will become more important (Capon & Blakely 2007).

A benefit to municipal authorities is the possible use of community gardens to compost organic waste. Community gardens in Cagayan de Oro City in the Southern Phillipines compost the organic waste from the surrounding area (Holmer et al 2003).

## Psychological Benefits

It has been said that our society suffers from ‘gastro-anomie’:

*“A condition that afflicts societies which lose connection to their agricultural and culinary systems through embracing corporatist food systems. Discontent and anxiety arise when eating is reduced to individual health and nutrients rather than being about shared enjoyment and social cohesion.”*  
(Dixon & Capon 2007)

One of the causes of gastro-anomie is the demise of the local food system in Australia – 50 years ago local food was the norm: people grew fruit, vegetables and chickens at home, delivery vans sold milk, fish and bread, and there were more small shops around. This has diminished with the rise of the supermarket oligopoly and the centralisation of shops into large retail centres (Capon & Blakely 2007).

The solution to this problem is to reconnect people with food again – strengthening the connection between local food producers and consumers brings the community together, allows city dwellers to learn about food production and brings them into contact with nature (VicHealth 2006). Community gardens are another tool for connecting people through food production (Capon & Blakely 2007).

The role for urban planners in reducing gastro-anomie is to intervene in the market to create opportunities for positive experiences surrounding food (Dixon & Capon 2007) – one of these interventions could be to support community gardens.

## **2.2 Problems Faced By Community Gardens**

Community garden organisers face a number of challenges:

- Finding a suitable site
- Convincing the landholder (private or government) that they will manage the land in a responsible manner
- Raising start-up and ongoing funds (especially important for community gardens operated by non-government organisations)
- Organising and paying for public liability insurance
- Managing the site
- Organising training for the gardeners
- Maintaining the interest of the gardeners (Grayson & Campbell 2002b)
- Lack of understanding in councils: one example was the rejection of a community composting scheme on the grounds that it was an 'industrial activity' and needed to be in an industrial area (Howe 2002)
- Contamination of sites by past uses (Howe 2002)
- Competition over land (Howe 2002)
- Conflicting policies concerning agriculture in urban areas (Foeken 2006)

Quon (1999) implicates urban planners in the problems facing urban agriculture (which includes community gardening), through a lack of formal recognition of urban agriculture in planning policy, a lack of awareness of the social and environmental benefits of urban agriculture, resistant attitudes or cultural norms around urban agriculture and a lack of support for urban farmers. Additional problems can come from residents, who may not appreciate the benefits of community gardens.

The management of a community garden typically relies on a dedicated individual or small group of individuals, including community workers and Council employees. This is a risk if these people lose interest or cannot be involved in the garden any more. The management of community gardens needs to be transferable to new people for the garden to be sustainable; otherwise it may falter. The tendency for gardens to be run by a core group also creates problems with trying to spread the benefits of the garden beyond that group to the other gardeners, and to the wider public (UKY 2004).

An important issue in community gardening stems from the fact that the garden is reliant on another party lending their land for it. One of the most famous community gardens in NSW was shut down after 12 years of operation because the landholder, the University of NSW, decided to use the buildings associated with the garden for childcare instead of childcare and community gardening (Grayson 2007). That such a famous and long-running garden was shut down so easily is an important reminder of the dependence of these organisations on the beneficence of others.

Issues with local councils are also a problem. A community garden in Waverly, NSW did not have its lease renewed by the local council. A member of the garden group stated that the lease was not renewed because the gardeners refused to reinstate an ex-member that had strong connections with the staff and councillors. This is an example of the hijacking of council operations for private ends, which could affect all kinds of projects, but

demonstrates how the tenancy of community gardens depends on the disposition of local councils (Grayson 2007).

Another conflict with a local council occurred at the Blackheath community garden in the Blue Mountains, a derelict site that had been worked on for 12 months by community gardeners. The current Development Consent needed to be renewed and the council had been recommended not to renew it. The only official reason given to the gardeners was that "*the site is unsuitable*" for gardening, although the gardeners state that they can improve the soil and conserve water to make the site useable for gardening. The gardeners believe that the actual reason behind the possible closure is that complaints have been made about the garden looking 'untidy' and not keeping with the aesthetics of the area (Selke 2007). This is another example of the failure of democratic methods in council leading to the (possible) closure of a community garden. No documents could be located that detailed the outcome of the garden.

The ability to critically analyse the literature on community gardening was limited by the lack of dissenting viewpoints on community gardens. The literature suggests that community gardens are benign land uses that have no disadvantages, and that a wide range of stakeholders see them as beneficial, and something that should be promoted. There may be people who have negative views on community gardens, and incidences of problems caused by community gardens, but the literature search could not find any documented evidence of it.

The following chapter reviews the literature on urban planning and community gardens, to find the different views and ideas on how to plan for community gardens. The literature has also been searched for policies relating to Australia and South Australia.

## 3. Literature Review

### 3.1 Urban planning and Community Gardens

The recognition of food as a planning issue has only occurred recently, with one of the first articles appearing in the year 2000. In the article Pothukuchi & Kaufman (2000) make the case for food system issues to be recognised as urban planning issues, and conduct a survey that demonstrates the current low awareness of food system issues by urban planners. Another study on urban planning strategies for regulating urban food production showed that agriculture is not well integrated with urban planning (Mbiba & Van Veenhuizen 2001). Other studies in Canada and Russia have shown that many planners recognise the potential of urban agriculture, but are constrained by insufficient budgets (Barr 1997; Moldokov 2001; Wekerle 2001). The overall low awareness of urban agriculture by academics (which includes community gardens) explains why the literature on the subject is slim. Additionally, the literature on food and urban planning in Australia is fairly slim.

However, articles have been written urging planners to get involved with food issues and community gardening, and these articles recommend actions for planners to take. This section will examine planning policies that have been suggested in the literature, and the next chapter will detail policies that have been enacted.

#### Suggestions from the Literature

A literature search came up with the following suggestions for how urban planners can encourage community gardens:

- Protecting existing community gardens (Howe 2002; PIA Victoria Division 2003)
- Mapping vacant land suitable for agriculture (De Zeeuw et. al. 2006)
- Supplying information to interested groups on the location of vacant land, data on site contamination and information on site ownership (Howe 2002)
- Designing community gardens into new housing estates (Howe 2002)
- Setting up funding projects for community gardens (Howe 2002)
- Integrating community gardens into sustainable development criteria, such as the LEED ratings (Brisbin 2002) - this has already occurred with Australia's Green Star ratings (Green Building Council of Australia 2008)
- Reviewing current policies on urban agriculture to remove any excessive and unsubstantiated legal restrictions (De Zeeuw et. al. 2006)
- Recognising community gardening as a desirable land use, with many benefits (Quon 1999)
- Participating in multi-disciplinary institutions for urban agriculture, such as food policy councils (Quon 1999)
- Overcoming ingrained attitudes towards urban agriculture (Quon 1999)
- Allocating specific responsibility for urban agriculture (Quon 1999)
- Integrating land banking programs and community gardens, so land can be used for gardens or urban agriculture until it is needed for development (ACGA 2000)
- Incorporating agriculture into urban design and landscaping projects, e.g. planting fruit trees in parks (Quon 1999)
- Encouraging the use of food producing plants on private land (Quon 1999)

- Reserving a percentage of municipal parklands or neighbourhood land for community gardening
- Giving longer leases to community gardens to allow investment in the garden (e.g. a lease of 8-10 years will make the planting of fruit trees viable)
- Making a case for the reduction or elimination of property taxes on land that is being used for community gardening
- Creating urban agriculture zoning in development plans, and creating norms and regulations for these zones

Of these, one of the most important actions is to recognise community gardening as a desirable land use, and to recognise the benefits of it. This gives a starting point for other policies for community gardens, as they can refer back to the policy stating that they are to be encouraged. Community gardeners can also refer to this policy when they are lobbying for programs or support.

Land use zoning is an area where planners have a large impact. Changing zoning regulations to allow community gardening in open spaces (Greenhow 1994; Guberman 1995), or creating community garden zones, can both legitimise community gardening. Allowing agriculture in mixed-use zoning regulations could integrate agriculture with residential, commercial and institutional zones (Quon 1999).

Embracing sustainability and environmentally-focused planning is a strategy that will encourage support for urban agriculture (Brock 1998; Dahlberg 1994; Quon 1999), because it entails reducing carbon emissions and energy use, and protecting open space (Quon 1999).

Planners are also well-placed to change how people think about urban areas, and present alternate visions of cities. They can promote urban agriculture by clarifying the role of it in the community and by promoting its potential benefits. They can also assist gardeners by providing them with information on land use and zoning, impending development, and helping them use the planning system to protect and promote community gardens. Planners are well placed for this role, being at the nexus of government, politicians and the public, and having an understanding of the concerns of all these players (Quon 1999). This position also allows planners to effectively encourage and support community-led projects, and act as a mediator in land-use conflicts (MacGregor 1995).

Planners can help to set up seed grants for community gardens and implement programs to provide tools, technical advice and resources to gardeners (Guberman 1995). The use of leases for community gardens is also important. Planners involved in land management can issue licences for temporary farming, such as in Kenya (Lado 1990). GIS systems have been used to identify parcels of land that could be used for urban agriculture in Portland, USA, Santiago, in the Dominican Republic, and in Gweru, Zimbabwe (Quon 1999).

### **Strategic Planning for Community Gardens**

Strategic planning can also play a role in the promotion of community gardens. Although these policies are broader than those concerning community gardens, it is clear that community gardens could play a role in supporting the aims of the policies.

These are some strategies suggested in the literature:



- Including policies for sustainable food production and healthy food access in urban plans (Capon 2007)
- Promoting urban agriculture (Capon & Blakely 2007)
- Creating local food policies at the local, regional and state level (Capon & Blakely 2007)
- Foster collaboration among diverse food system stakeholders (Hammer 2004)
- Participating in multi-stakeholder panels like Food Policy Councils

### **Community Gardens in New Developments**

Brisbin (2002) recommends that community gardens be designed into new housing developments and urban regeneration projects. This is especially important in high density projects, as residents may not have access to private open space. Community gardens have been included in the Christie Walk housing development in the Adelaide CBD (Downton & Fulton 2001) and the Lochiel Park development the north-eastern suburbs of Adelaide (Blaess et al 2007). The Village Homes development in Davis, California is a best-practice example of integrating food production into a new residential development. The site uses edible fruit and nut trees for landscaping, and includes vineyards, orchards and community gardening areas (Village Home Owners Association 2008).

### **The Limits to Planning**

The literature shows that planning is limited in its ability to create, promote and protect community gardens, because:

- Most of the policies and programs for community gardens are administered by local government, not by planners.
- Planners need community support to create community gardens, otherwise they will not survive
- Planning policies are insubstantial on their own. Support from other local government departments, and between agencies, is needed to promote community gardens
- The creation and promotion of community gardens is limited by the reactionary and negative nature of planning (Howe 2002)
- Higher levels of government and external forces (such as grants or subsidies) can influence land use policy and impact on planning aims
- If other departments or stakeholders do not value community gardens, then planning policies to protect them may fail, as the policies will not be supported or enforced (Quon 1999).

## **3.2 Community Gardens in South Australia**

South Australia has the most community gardens per capita of the Australian states, with over 30 established gardens (Fulton 2003; GOSA 2006). However, a review of South Australian planning documents<sup>1</sup> revealed only one reference to community gardens.

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<sup>1</sup> The author searched for the word "garden" in the: Strategic Infrastructure Plan for South Australia, Adelaide Metropolitan Coast Park Concept Plan, Strategic Infrastructure Plan for South Australia – Regional Overview, Planning Strategy for Metropolitan Adelaide, Planning Strategy for Regional South Australia, Planning Strategy for the Outer Metropolitan Adelaide Region, South Australian Food Plan 2007-2010, Yorke Peninsula Regional Land Use Framework 2007, Eyre peninsula Coastal

The *Planning Strategy for Metropolitan Adelaide* contains a policy to “*Consider the establishment and development of community gardens, particularly in areas with minimal open space*” (Planning SA 2007a; p40). It also mentions that land in the Metropolitan Open Space System could be used for low scale uses, such as non-intensive agriculture. This could include community gardens.

The only other mention of community gardens was for one of the State Government’s Places for People Scheme grants, which are made through the Planning and Development Fund. The grant gave \$170,000 to the District Council of Yorke Peninsula to develop a community centre and community garden (Planning SA 2007b).

At the local government level, the City of Norwood, Payneham and St. Peters has released a draft community gardens policy for public consultation. The policy defines community gardens, explains their benefits, states that the council recognises these benefits and explains how the council will support community gardens. The draft policy also explains how community gardens in the council area will be managed, which includes a user agreement, leasing arrangements, funding, staffing and implementation arrangements (City of Norwood, Payneham and St. Peters 2008). A search of inner and outer metropolitan Adelaide Council websites found that only this one has a community garden strategy.

In short, there is not much planning for community gardens in South Australia.

It is worth noting that The South Australian Government has been briefly involved in community gardening, when the Department of Health sponsored a project to promote and sustain community gardening. The project was called Community Gardening in SA, and operated in two stages during the years 2003-2006 (Hunter 2006).

### ***3.3 Planning and Community Gardens in Australia***

A literature search was conducted to find policies for community gardens in Australia.

The *Bellarine Peninsula Strategic Plan 2006 – 2016* aims to reduce the ecological footprint of the area through a range of measures, one of them being to develop community gardens (City of Greater Geelong 2006).

The Heart Foundation has created a guide for urban planners on how to create environments that promote activity. One of the strategies is to include community gardens in parks, to encourage active recreation. The guide acknowledges that community gardens “*provide a sense of community spirit and local ownership, particularly in areas of higher density housing*” (National Heart Foundation of Australia Victorian Division 2004).

A group of five local councils in the Geelong area have banded together to form the G21 Alliance, and have created a policy on planning for healthy communities. The policy, which

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Development Strategy, Greater Mount Gambier Master Plan, South Coast Draft Master Plan – Draft for Public Consultation, Metropolitan Adelaide Industrial Land Strategy and South Australia’s Strategic Plan 2007. All of the Metropolitan and Outer Metropolitan Development Plans for Adelaide were searched for the phrase “community garden”.

provides a framework for health planning in the region, discusses the benefits of community gardens (G21 Partnership Project 2006).

The *Bundaberg Region Social Plan* suggests community gardens, along with neighbourhood discussions, as a way to improve community cohesion. The city will also continue to develop an 'Adopt a Park' community garden program (Bundaberg City Council 2006).

From the evidence seen here, it can be concluded that in Australia, policy for community gardens is not well-developed. A search of international policies will need to be conducted to find planning policies relating to community gardens.

## **Conclusion**

Research into community gardens and urban planning is scarce. Even so, a range of strategies exist that could be used by planners. Along with formal strategies, planners are well-placed to change behaviors and attitudes towards community gardens, being at the nexus of government, politics and the community. Changing the views of politicians may be a powerful tool when more formal means of support are restricted. These informal networks can also be used to protect and promote community gardens and aid in their development (Quon 1999).

## 4. Planning Strategies to Support Community Gardens

### Introduction

There are few policies for community gardens in Australian planning strategies. To find policies that could be used in South Australia, it is necessary to look at overseas policies. Most of these policies are from the US and Canada, two countries that are progressive in their support for community gardens.

### Recognising the Benefits of Community Gardens

Quon (1999) suggested that recognising the benefits of community gardening is important for their promotion. The *City of Boston Open Space Plan 2008-2012* explains the benefits of the city's community gardens, and outlines goals for promoting them (City of Boston 2008a). The City of Berkeley's (2000) *General Plan* aims to: "*Encourage and support community gardens as important open space resources that build communities and provide a local food source.*" The City of Toronto Environmental Task Force's (2000) *Plan for an Environmentally Sustainable Toronto* was written to inform policy decisions by the city council. The plan uses community gardens as an example of green economic development, stating that they "*provide fresh and nutritious food at a low cost, reduce the pollution and congestion from longhaul trucking of imported foods, and create oases of cooperation and eye-pleasers across the city.*" The District of Columbia's *Comprehensive Plan* (2006) quickly explains the broad-ranging benefits of community gardens, saying that they "*not only provide a place to grow fruits, vegetables, and flowers, they also provide an environmental, recreational, cultural, and educational asset in the neighborhoods they serve*". Finally, Vancouver's Southeast False Creek Urban Agriculture Strategy puts it simply, stating that: "*Food is of paramount importance because of its primary contribution to survival, health, culture and impact on the environment*" (City of Vancouver 2002). All of these documents recognise that community gardens have benefits to the wider community and environment – this could be in the form of economic benefits, reduction of pollution, provision of open space or other benefits.

### City Strategic Plans

US and Canadian cities have comprehensive plans, which are long-term strategic plans for the city. Including provisions to support community gardens in this kind of plan can greatly influence policy because it is high in the policy hierarchy, and will influence plans at lower levels.

The weakest support from a comprehensive plan is in Vancouver's *Comprehensive Plan*, which has no strategies for community gardens. The plan mentions community gardens once, as a possible use for urban open space (City of Vancouver 2004).

Seattle's *Comprehensive Plan* has more policies on community gardens, and views them as an open space facility, along with village commons and indoor recreation sites, and supports the use of open space for uses "*such as strolling, sitting, viewing, picnicking, public gathering, and community gardening.*" Community gardens are seen as part of

the city's *"long tradition of providing a rich variety of public open spaces, community gardens, and public facilities to provide residents with recreational and cultural opportunities, promote environmental stewardship and attract desirable economic development."* The city supports the use of community gardens, as well as other uses, in the creation of an open space system that links urban areas. The plan also aims to *"promote inter-agency and intergovernmental cooperation to expand community gardening opportunities."* Land use is dealt with briefly, with a goal to *"Include P-Patch community gardening among priorities for use of City surplus property."* The *Comprehensive Plan* has a goal to provide one community garden for each 2,500 households in its Village zones, and at least one dedicated garden site in each Urban Centre Village (City of Seattle 2005).

The City of Berkeley (2000) *General Plan* gives priority to open space community gardens for an undeveloped area of the city:

*"Convene a community planning process to determine the final use of the remaining 14 blocks of City-owned land on the Santa Fe Right-of-Way. The community planning process shall consider public open space use (i.e., neighborhood parks, community gardens, and/or bicycle and pedestrian paths) as the highest priority use for the remaining vacant land and new affordable housing development as the next highest priority use."*

The city has outlined the following actions:

*"Policy OS-8 Community Gardens*

*Encourage and support community gardens as important open space resources that build communities and provide a local food source.*

*Actions:*

- A. Encourage neighborhood groups to organize, design, and manage community gardens particularly where space is available that is not suitable for housing, parks, pathways, or recreation facilities. Ensure that garden plots are allocated according to a fair and equitable formula.*
- B. Require all publicly subsidized community gardens to maintain regular "open to the public" hours.*
- C. Include community gardens in the planning for the Santa Fe Right-of-Way.*
- D. Pursue community gardens in high-density areas with little private open space suitable for gardening.*
- E. Increase support for community gardens through partnerships with other government agencies, particularly the Berkeley Unified School District, neighbourhood groups, businesses, and civic and gardening organizations.*
- F. Support school-based gardens and the involvement of youth in growing and preparing their own food."*

*"Policy EM-34 Local Food Systems*

*Increase access to healthy, affordable, and culturally appropriate foods for the people of Berkeley by supporting efforts to build more complete and sustainable local food production and distribution systems.*

Actions:

*D. Continue to make the City's composted waste available to community and school gardens.*

*E. Promote seed distribution, lead testing, and composting programs for community gardens*

*F. Provide sites for local farmers' markets and community gardens.*

*G. Encourage buildings that incorporate rooftop gardens that may be used for gardening."*

Toronto's *Official Plan* states that the city's Green Space System offers "*opportunities for passive and active recreation, community gardens and environmental education.*"

New parks and open spaces will be designed and located to "*provide appropriate space and layout for recreational needs, including forms of productive recreation such as community gardening.*" Community gardens are also seen as a community facility, along with public libraries and health clinics (City of Toronto 2007).

The District of Columbia is a small administrative area encompassing the capital city of the USA, Washington, and its surroundings. For planning purposes the district functions more like a city than a state, due to its small size. The District's Comprehensive Plan includes the following provisions for community gardening in the section on environmental protection:

*"Policy E-3.3.1: Promotion of Community Gardens*

*Continue to encourage and support the development of community gardens on public and private land across the city.*

*Policy E-3.3.2: Capacity Building for Community Gardening and Garden Club Groups*

*Enhance the capacity of private and non-profit community gardening organizations to develop and operate community gardens. This should include working with the private sector and local foundations to mobilize financial support.*

*Policy E-3.3.3: Domestic Gardening*

*Provide technical and educational support to District residents who wish to plant backyard and rooftop gardens. This could include measures such as partnerships with local gardening groups; education through conferences, websites, and publications; tool lending programs; integrated pest management; and information on composting and best practices in gardening.*

*Policy E-3.3.4: Schoolyard Greening*

*Work with DC Public and Charter Schools to make appropriate portions of buildings and grounds available for community gardens, and to use buildings and grounds for instructional programs in environmental science and gardening classes. Encourage private schools to do likewise."*

A later section states that:

*"Action E-3.3.A: Community Gardens East of the Anacostia River*

*Recognizing that only two of the city's 31 community gardens are located east of the Anacostia River, work with community leaders and gardening advocates to establish new gardens in this area. The District should assist in this effort by providing an inventory of publicly and privately owned tracts of land that are suitable for community gardens, and then working with local advocacy groups to make such sites available." (District of Columbia 2006)*

The City of Baltimore's Comprehensive Master Plan aims to offer vacant blocks of land to community organisations, to convert them into community gardens, parks, or other recreation areas (City of Baltimore 2006). It can be seen that there are a range of strategies that can be used in strategic plans to promote community gardens.

### **Community Garden Strategic Plans**

Community garden strategic plans are long-term plans for the development of community gardens in an area. The only plan of this type that could be found is Seattle's *P-Patch Program Five-Year Strategic Plan*, which outlines the expansion for the city's community gardening program, "P-Patch":

- *"The Department of Neighborhoods (different to the Department of Planning and Development) will develop at least four additional community gardens per year with emphasis given to the City's higher density areas*
- *The Executive Services Department will work with the P-Patch program to identify surplus City land holdings suitable for community gardens in present and projected high-density areas*
- *Community gardens are to be added as one of the City's priorities for surplus property disposition*
- *The appropriate City agencies, including Executive Services Department, Department of Parks and Recreation, SEATRAN, Seattle Public Utilities, and Seattle City Light will work with the P-Patch program to identify non-surplus City owned lands or lands owned by other public entities in areas suitable for potential co-location of garden sites*
- *The Council encourages the Mayor to suggest adding one new staff person in 2001 and one additional staff person for each ten to twelve new community gardens as they are created in order to provide the Patch program with adequate staff for managing the program effectively*
- *The Department of Neighborhoods will provide an annual status report to City Council on meeting the recommendations of the 2001-2005 P-Patch Strategic plan. The report shall identify the sites that have been secured during the calendar year and shall make recommendations for the development of future community gardens." (City of Seattle Legislative Information Service 2008)*

Another way that local government can plan for community gardens is to have a community garden policy. This is not a strategic plan, but a document stating the benefits of community gardens, and outlining the requirements, restrictions and guidelines for community gardens in an area, and the local government's role in regard to supporting them. The US cities of Chicago, Boise and San Francisco and the Canadian cities of Saanich

and the City of Victoria all have community garden policies. In South Australia, the City of Norwood, Payneham and St. Peters is developing a community garden policy.

## Zoning Strategies

Four zoning strategies are used to support community gardens. The first, and weakest form of zoning support, is to allow community gardening in open space areas. Vancouver's zoning regulations include community gardens in the definition for a 'Community Park' or 'Regional Park' zone. This states clearly that community gardening is an acceptable activity in these parks (City of Vancouver 2008). Similarly, the District of Columbia uses an Open Space Zone to protect parks and community gardens (District of Columbia 2006).

Stronger protection is created by creating community gardening zones. In Cleveland this is called an "Urban Garden District" (City of Cleveland 2007). In Boston it is called a "Community Garden Open Space Subdistrict" (City of Boston 2008b). This zoning protects gardens by making community gardening the only acceptable use of the land.

Another strategy is to make community gardening an allowed activity in other zones. Portland's zoning code changes the definition of an open area to "*uses of land focusing on natural areas, large areas consisting mostly of vegetative landscaping or outdoor recreation, community gardens, or public squares.*" This makes community gardening an approved activity in all open spaces and parks. Their zoning code also makes provisions to allow community gardening within all commercial, residential and open space zones of the city. Ottawa's Community Garden Program Action Plan has the strongest provisions, aiming to make community gardens a permitted use in all zones (Portland State University 2005).

Allowing community gardening in zones means that gardeners do not need to make the effort to change the zoning of land before using it. It also gives certainty to gardeners that the council or city will not shut down their activities (Portland-Multnomah Food Policy Council 2004). Private landowners may be more willing to let their land be used for gardens if they know that they can use/develop it without having to change the zoning back to its original use. However, this does not give any protection to community gardens.

The fourth strategy is to permit retail activities as an 'accessory use' in community garden zones to allow gardeners to sell their produce (Portland State University 2005). This strategy also allows gardeners to set up small nurseries on the site, and to host farmer's markets.

## Open Space Plans

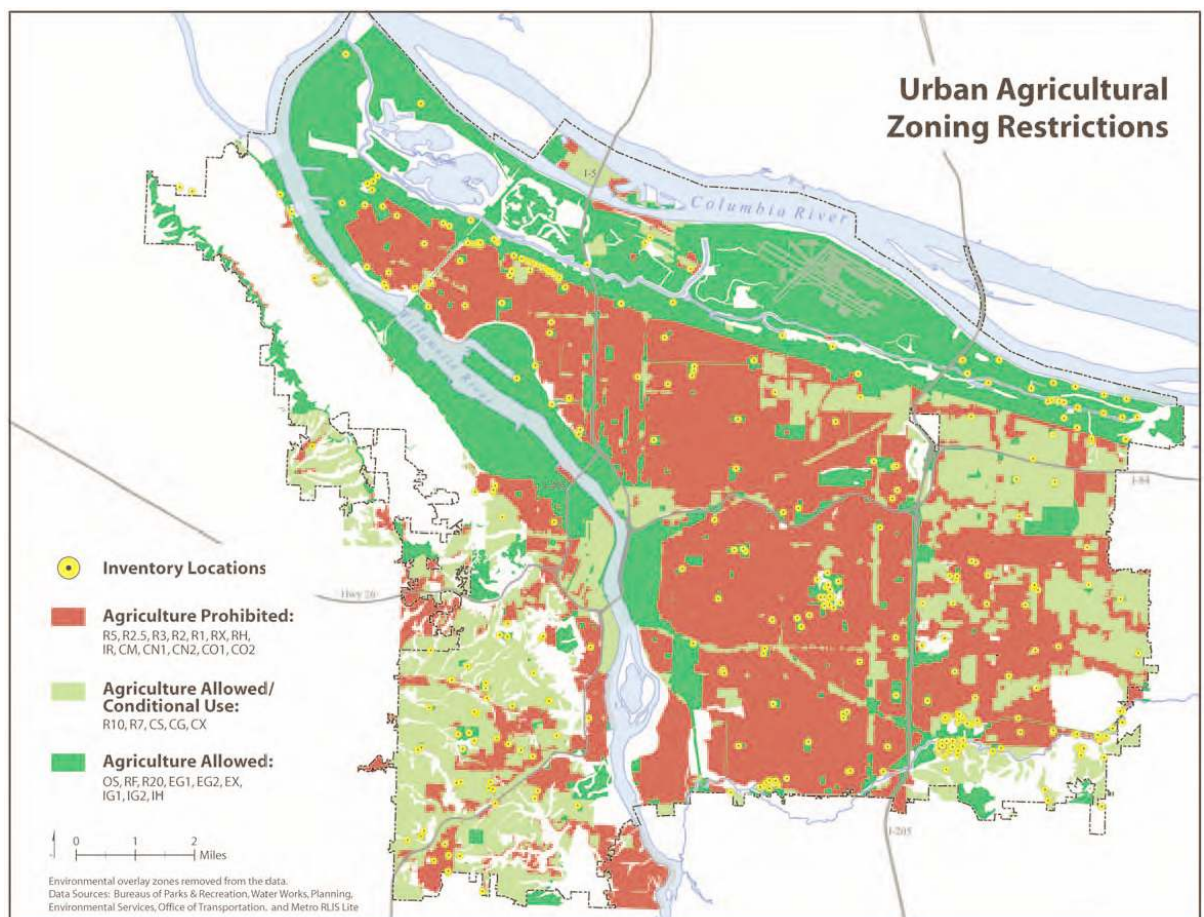
City open space plans can also contain policies to support community gardens. The strongest policy found was from Chicago's 1998 Plan *Cityspace: An Open Space Plan for Chicago*, which aimed to develop community gardens in every neighbourhood, with a goal of having 1000 community gardens by 2005 (Portland State University 2005). Open space plans can have more general provisions as well. Boston's *Open Space Plan 2008-2012* has the aim of continuing "*the integration of cemeteries, urban wilds, streetscapes, community gardens, public housing open spaces, and major public school campuses into mainstream parks operations and programming*" (City of Boston 2008c). This is an aspirational statement. Along these lines are the community garden provisions in the



Burlington *Open Space Protection Plan*, a generalised statement that the city “*may concentrate on securing community garden space*”, along with other types of open space. The plan also suggests that the city map out parcels of land for potential purchase, for the purpose of protecting or expanding community gardens and other types of open space (City of Burlington 2000)

### Food Policy Councils

The Portland-Multnomah Food Policy Council is a citizen panel, created by the City of Portland and Multnomah County to provide advice on promoting a sustainable regional food system. The Council has begun a project to make a Geographical Information Systems map (a digital map) of grocery stores, farmers’ markets, emergency food locations and community gardens in Multnomah County (see Figure 3). Another project with the City of Portland has directed various City Bureaus to conduct an inventory of their properties, to identify City owned land that could be used for community gardening or other agriculture (Portland-Multnomah County Food Policy Council 2004). Out of this process, 289 possible sites for agriculture were located, on 439 parcels of land. However, 72 of these are located in zones where agriculture is prohibited. The next stage in this process will be to change the zoning in these areas to one where agriculture is allowed, to make them ready for use by gardeners (Portland State University 2005). The District of Columbia also has plans to create an inventory of suitable land for community gardening, see above.



**Figure 3: An inventory of city owned land that could be used for community gardening or other agriculture (Source: Portland-Multnomah County Food Policy Council 2004).**

## State Land Use Laws

The state land use laws applying to community gardens are varied. A statute from the state of Oregon sanctions the use of land for agricultural, forest, or non-urban uses if it is not needed for development. This could also be seen as a form of land banking, with the state allowing the non-urban land to be used for rural purposes until it is needed. Oregon also has Statewide Land Use Planning Goals, which discuss the benefits of urban agriculture and support it (Portland State University 2005).

An interesting law is the *Tennessee Community Gardening Act of 1977*, which allows any resident to apply to the commissioner of agriculture to use vacant land for gardening, with priority given to low-income groups, the elderly and children. The commissioner also collects and distributes information on vacant land to county officials (Portland State University 2005).

## Sale of Community Gardens

The Minneapolis *Real Estate Disposition Policy* put constraints on the sale of community gardens. The gardens can only be sold to non-profit organisations or agencies, and a conservation easement must be placed on the land after purchase. This serves to protect the city's community gardens. The gardens can only be sold at market value, presumably to give a fair price to nonprofits that want to assume responsibility for the gardens (City of Minneapolis 2008).

## Unusual Sites for Community Gardens

There are a range of possible sites for community gardens. In Minneapolis, groups can apply to grow plants on land owned by the railway authority. Another site in Minneapolis is 'tax forfeit' land, or land that has been seized by the city because of overdue taxes, which can be transferred to a government authority for the purposes of gardening. The Minneapolis Public Housing Authority does not have a community gardens policy, but allows community gardening on its land, after obtaining permission from the management and the resident council (West 2007). In Portland, the land under electricity transmission lines can be used for gardening. This is desirable for the utility as it decreases maintenance costs (Portland State University 2005).

## Other Policies

The City of Portland gives a floor area bonus to developments that incorporate rooftop gardens. For each square foot of rooftop garden area, a bonus of one square foot of additional floor area is able to be developed in excess of the planning limits. The requirements are that:

- *"The rooftop garden must cover at least 50 percent of the roof area of the building and at least 30 percent of the garden area must contain plants.*
- *The property owner must execute a covenant with the City ensuring continuation and maintenance of the rooftop garden by the property owner."* (City of Portland 2008)

This encourages developers to build rooftop gardens, which can be used for growing food. A different scheme is used by the city of Toronto, where a grant of \$50 is given for each square metre of green roof that is developed (City of Toronto 2008).

The *Southeast False Creek Urban Agriculture Strategy* was created to guide the development of a model sustainable community in Vancouver. The report discusses considerations for creating an urban agriculture strategy for the community, and recommends strategies. The strategies that relate to community gardens are to:

- *“Create public community gardens in the parks, public open space (including some boulevards in street rights-of-way) and school grounds in SEFC*
- *Establish accountable local organizations to manage public community gardens to ensure they are developed and maintained in a fashion appropriate to a highly used public space*
- *Provide subsidized space and training for low income residents in SEFC’s public community gardens*
- *Provide information and assistance to groups overseeing the management of public community gardens or school gardens regarding composting of landscape litter and other organic wastes and their re-use in the garden areas” (City of Vancouver 2002).*

## **Conclusion**

These examples show that there are a variety of methods and levels for supporting community gardens in planning policy. A more ‘unofficial’, yet important, ingredient for the successful management of community gardens has been found to be a strong partnership between community gardeners, non-profit groups and government (ACGA 2000). As Quon (1999) stated earlier, planners can assist the development of community gardens by collaborating with different groups and linking them together. The importance of open space strategies should also be stressed. Cities without open space strategies have been found to be less effective at supporting community gardening because gardening groups have more difficulty accessing services, and because there is less stability surrounding the future of open spaces (ACGA 2000). Lastly, the importance of the community garden groups themselves needs to be underlined. While policy can support the development of community gardens, and zoning can protect them, community garden groups are the ones who manage the gardens. Policy should not be imposed from above, but should be created in collaboration with gardening groups. The ability to analyse the policies was limited by the lack of documentation on the effectiveness of the policies, but it is assumed from the wording of the policies that they will benefit community gardens.

## 5. Recommendations: How These Policies Can be Implemented in South Australia

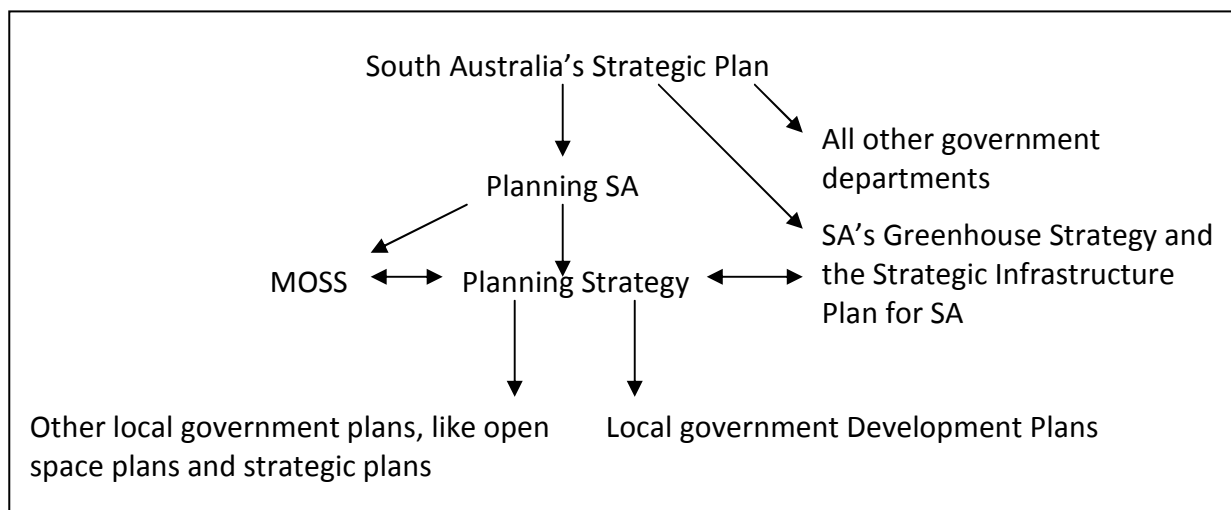
This section will briefly explain the South Australian planning system, and then formulate ways for the strategies above to be integrated into that system.

### The South Australian Planning System

*South Australia's Strategic Plan* is the overarching strategy for the state, and all government departments and strategies have to agree with it. The state government's urban planning strategy is the *Planning Strategy*, which has sections for different parts of the state, including Metropolitan Adelaide. The Planning Strategy sits underneath the Strategic Plan, and has to agree with the Strategic Plan. The Planning Strategy was written by the government's planning agency, Planning SA. The Planning Strategy is integrated with other plans, such as *South Australia's Greenhouse Strategy* and the *Strategic Infrastructure Plan for South Australia*. The Planning Strategy contains provisions for protecting the Metropolitan Open Space System (MOSS). The MOSS is implemented by

- Grants through the Planning and Development fund to local governments
- Direct purchase of land by the state government
- Development of planning policies for land in MOSS, to retain the open space character (Government of South Australia 2008a).

Each local government area (council) in South Australia has a Development Plan, which must align with the state Planning Strategy. Development is assessed according to the Development Plan for that area (Planning SA 2008c). Currently, all Development Plans are being aligned with the Planning Strategy through Planning SA's Better Development Plans project. Figure 4 illustrates the South Australian Planning system.



**Figure 4: The South Australian Planning System. Lower strategies have to align with higher strategies. Linked strategies are integrated with each other.**

The strategies discussed above show that most of the policies relating to community gardens are administered by local government – only a few are state government policies.

However, state planning strategies have the power to influence local government policy, and therefore could be used to great effect. The statement in the *Planning Strategy for Metropolitan Adelaide* to: “Consider the establishment and development of community gardens, particularly in areas with minimal open space” (Planning SA 2007a; p40), influences all the local government development plans in metropolitan Adelaide, as they are required to align with the *Planning Strategy*. Supporting community gardens in high-level plans like this could go a long way towards supporting community gardens.

## **5.1 Policy Context for Adelaide**

The policy issues facing community gardens are different in different areas. For Adelaide, they are that:

- Adelaide is a low-density city, with most people living in houses that have gardens. This means that many people may choose to garden on their own land rather than use a community garden. In this sense, community gardens in Adelaide are used primarily for their social and educational benefits, rather than the need for land to produce food. The exception to this is renters, a considerable population who may not be able to grow food in their gardens, and would value community gardens. Another exception is people whose gardens are not suitable for growing plants. The low density of Adelaide could be used as an argument that there is no ‘need’ for community gardens, as there is ample land available. This argument should be combated by referring to the arguments above, and by referring to the multiple benefits of gardens.
- Water restrictions in Adelaide threaten food production in the urban area. The restrictions limit or ban outdoor water use, varying at different times of the year. For this reason, community gardens would need to obtain an exemption from the restrictions, or invest in water storage tanks. The Planning and Development Fund can be applied to for grants for water tanks.
- The hot summers of Adelaide also pose a problem for food production, as they can quickly kill plants, even with regular watering. If conditions become too hot, community gardens in Adelaide may have to stop growing in the hottest parts of summer, or find ways to shade the gardens in summer.

## **5.2 Strategies for State Government**

### **Strategic Plan**

*South Australia’s Strategic Plan* contains objectives that relate to community gardens, and revisions to the plan could include more of them. The plan states that the government is working to implement the *Eat Well be Healthy Weight Strategy for South Australia* – a plan that includes a strategy to increase access to food through a variety of measures, one of which is community gardens. Other targets in the plan that could relate to community gardens are those that aim to decrease overweight, increase sport and physical activity and increase healthy life expectancy (T2.2, T2.3, T2.4). Target T3.7 aims to reduce South Australia’s ecological footprint (Government of South Australia 2007). Food makes up 36% of an average South Australian’s ecological footprint (Government of South Australia 2008b), so the plan could have a target for reducing the environmental impact of food.

Alternatively, it could have a target to increase the purchasing of local food. Food grown in community gardens would support both of these possible targets, because it is local and mostly organically grown (so there are less chemical inputs). Linking these targets to the food system would emphasise the importance of food, and help food programs get state government funding.

### **Planning Strategy**

The *Planning Strategy for Metropolitan Adelaide* (2007a; p40) already contains a policy to “Consider the establishment and development of community gardens, particularly in areas with minimal open space”. This is to “Ensure that biodiversity assets are protected within the overall open space framework with a focus on enhancing the MOSS.” The policy is listed in the section for open space strategies. There is another provision in the Strategy that could relate to community gardens, which is that land in the MOSS could be used for low scale uses, such as non-intensive agriculture. Community gardens can be considered a form of non-intensive agriculture because most of them do not use pesticides or fertilisers, so they have few environmental impacts. From these two policies it can be seen that the Strategy already recognises that community gardens can be used to preserve biodiversity and provide open space. The Planning Strategy does not have ways to measure if these outcomes have been achieved, or allocate responsibility for them to a specific government department, so it is not ensured that these strategies will be implemented.

The Planning Strategy could include many more policies that support community gardens, such as having a target for developing more gardens. Any of the strategies discussed above could be used. The most important policy would be to recognise community gardens as a desirable land use, or to state their benefits. This would then encourage policy makers at lower levels to plan for them. Another idea would be to have a policy to encourage local food production and purchasing under the section on energy efficiency, as local food saves energy in transport.

### **Better Development Plans Project**

The Better Development Plans project has created guidelines for policies that are common to most councils. These guidelines are very influential over the content of council Development Plans, so having policies to support and encourage community gardens in the guidelines could have a large impact.

### **Public Housing**

There is an opportunity for public housing apartments in South Australia to include community gardens.

### **Residential Developments**

In future, new ‘sustainable developments’ such as the Lochiel Park development could have their own planning strategies. This would allow them to have stronger policies in support of community gardens. An example of this is the *Southeast False Creek Urban Agriculture Strategy in Vancouver* (City of Vancouver 2002).

Another way that new developments could better support community gardens is if the Land Management Corporation (LMC) integrated them into its development projects. The LMC is already planning to build a community garden in its Lochiel Park development, and should continue putting community gardens in new developments.

## Land Banking

Land that is being protected for future use could be made available for community gardens. The Industrial Land Strategy for Metropolitan Adelaide is setting aside industrial land for future use (Planning SA 2008d). Most of this land is in industrial areas, so the amenity value would be low, but some of them may be suitable. Proximity to residential areas is also important, as people might not want to/be able to travel very far to get to a community garden. Smaller industrial areas near residential land would be the most suitable – an example would be the Thebarton Bio Science precinct. The Land Management Corporation also banks land in South Australia. There may be a possibility for the Corporation to build community gardens on land that is being protected for future use.

## Food Policy Councils

Earlier it was found that community garden policies were rare in South Australian planning documents. From this it can be argued that the concept of metropolitan Adelaide having a food policy council is far off. However, there are a number of stakeholders that may have an interest in forming a food policy council in Adelaide. Some of them are the:

- Permaculture Association of South Australia
- Australian Community Foods – South Australian contact list
- Slow Food movement: there is a chapter in the Fleurieu Peninsula, Adelaide and the Barossa, and Stirling
- South Australian chapter of the Australian City Farms and Community Gardens Network
- Community Gardens SA
- Community and Neighbourhood Houses and Centres Association
- Various food co-ops
- Various farmers' markets
- Public health promoters
- Food charity programs
- Soil Association
- Friends of the Earth's Reclaim the Food Chain Collective
- Government agencies – Office of Sustainability, Department of Health, PIRSA etc.
- Community Foodies
- Schools with community gardens

From this it can be concluded that there are a number of groups that may have an interest in creating a local, sustainable food system. If the state government wanted to create one, it would have no problem finding participants. There is also a possibility that these groups could create an alliance without government support, with the aim of promoting sustainable food systems. This would be similar to the Sydney Food Fairness Alliance. One task for such an alliance would be to make submissions to government on policies that are open for public comment.

## **Community Garden Project**

The SA Department of Health sponsored a program to promote and sustain community gardening, which ran in two separate stages during 2003-2006. The project was called Community Gardening in SA (Hunter 2006). This program needs to be started up again to spur the development of community gardens in SA – it could be run by the Department of Health or another government department.

## **5.3 Strategies for Local Government**

### **Development Plans**

Local government Development Plans usually have open space objectives. The definition of open space in this section could be modified to include community gardens, to give them legitimacy. A stronger form of support would be to include an objective to encourage and support the development of community gardens.

### **Zoning**

The four types of zoning strategies discussed above could be used in council Development Plans.

### **Rooftop Gardens**

The Adelaide City Council, due to the high density of its development, has an opportunity to encourage the development of rooftop gardens. Portland's strategy of giving a floor density bonus to developments with roof gardens is free for the city to administer, but Toronto's policy of giving cash for green roofs allows existing building owners to retrofit green roofs. Both have advantages. There is already a rooftop garden in the city, at the Christie Walk development (Reid 2005).

### **Open Space Plans**

Some councils have open space plans – one of these is the City of Unley. In these plans the definition of open space could be widened to include community gardens, and policies could be made that promote community gardens.

### **Community Garden Policies**

The city of Norwood, Payneham and St. Peters has released a draft community gardens policy for public consultation. The policy defines community gardens, explains their benefits, states that the council recognises these benefits, and explains how the council will support community gardens. The draft policy also explains how community gardens in the council area will be managed, which includes a user agreement, leasing arrangements, funding, staffing and implementation arrangements (City of Norwood, Payneham and St. Peters 2008). More councils could follow them in this action.

### **Adelaide City Council Community Garden**

A community group is currently negotiating with the Adelaide City Council to develop a community garden in the city parklands (Nicholson et. al. 2008). The creation of this garden would send a strong message that the city values sustainability and community – two things that community gardens embody. Having a community garden in such a central and high



profile area could also aid the development of other community gardens around the metropolitan area, by normalising and promoting them. The Adelaide City Council should develop this garden.

## **5.4 Other Recommendations**

### **Water Restrictions**

Water restrictions pose a threat to community gardens, as some do not have enough taps to be able to water all the plots in the specified times. Additionally, gardeners may not be able to water at these times due to commitments. Community gardens should have modified water restrictions that allow them to water more often and in a wider time frame, because by growing food organically and using mulch, they are actually saving more water than if they were to buy food from a store (as well as saving transport energy and reducing waste by composting). It has been calculated that backyard gardening uses 5 times less water than broadacre agriculture (Holmgren 2005; Schluter 2007). By concentrating on tap restrictions, the government misses the bigger picture: the water used to produce food accounts of 48% of a household's water use, while water coming out of the tap only makes up 11% (Schluter 2007).

Additionally, a grant program should be created so that community gardens can buy water tanks – this would help to reduce water use. The Planning and Development fund may give grants for this, but it is worth investigating if this is an adequate funding source.

### **Universities**

The lack of literature on food and urban planning and the lack of awareness by planners could mean that these issues are not being taught in planning courses at university. To raise awareness of the links between planning and food, universities should teach students about it in undergraduate planning courses. While not a policy recommendation, this measure would raise planner awareness on the importance and benefits of planning for food (and planning for community gardens), which would make planners more receptive to policies to promote community gardens.

### **Planning Institute of Australia**

Additionally, the Planning Institute of Australia has a role to play in raising awareness about food issues and community gardens. The Institute could hold seminars on food planning and create a food planning chapter.

## ***5.5 Where will the pressure for change come from?***

A range of strategies have been discussed that could be integrated into the South Australian planning system. The ways that these policies can be implemented should also be discussed. The pressure for change can come from two sides: the public and the government. Community groups, organisations and individuals can suggest and push for these policies by making submissions into government policies that are out for public consultation, and by attending public consultation meetings. Letter-writing is another useful tool. On the other side, progressive government employees can push for change in their workplace. Both have a role to play in educating policy makers about the benefits of community gardens, and promoting policies to support community gardens. At present, the organisations that have an interest in creating sustainable food systems are not communicating, and are not making submissions to government. An important first step is for them to get together and create a food policy council for South Australia, so that they can pool resources and expertise, write submissions to government, and present a coherent, organised body that the government can engage with.

Planners should also lead the push for better planning for community gardens. Educating planners about community gardens is important for this, and could occur through the Planning Institute of Australia, which holds seminars and talks, and writes policy statements. There is also an opportunity for the Institute to set up a food planning chapter, which it currently does not have.

## 6. Conclusion

This thesis has concentrated on a way that planners can improve people's food security - by supporting the development of community gardens. It has been shown that community gardens can also contribute to other desirable outcomes, such as improved health, crime reduction and community building. A literature review has found that the literature on urban planning on community gardens is not well developed, and that the broader concept of urban planning and food is still a relatively new field of planning. Most of the literature comes from the USA and Canada, and very little comes from Australia. Critical analysis of the literature and policies was limited by the lack of negative or dissenting views on community gardens, and research into the effectiveness of the policies. The low awareness of the importance of planning for food could explain why there are so few planning policies in Australia that relate to community gardens. Hopefully, this will change. Planners are well-placed to aid the development of community gardens, and there are a wide range of policy options of aiding in their creation, promotion and protection. To stimulate change in South Australia, a range of planning policies from around the world have been discussed, which have guided recommendations for how the South Australian planning system can plan for community gardens at the state and local level. The task now is for community groups to push for the recommendations to be put into policy, and for planners to recognise the benefits of community gardens, and aid in their development. By doing this, wider social and environmental causes will be aided, and cities will be better prepared for future food price increases from the decline in global agricultural production, and the double threats of climate change and peak oil.

## Suggestions for Further Research

There is a dearth of information the effectiveness of planning policies to promote community gardens, which reduced the ability to analyse them to find which are the most effective. It is suggested that the planners in charge of administering or writing certain policies could be interviewed to find their opinions on the effectiveness of certain policies.



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