

FRESH

FARMS REINFORCING ECONOMIC AND SOCIAL HEALTH

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FRESH

Farms Reinforcing Economic and Social Health

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FRESH : Farms Reinforcing Economic and Social Health

Globally, cities have started to recognize urban agriculture's vital role in the food system and many have taken action to encourage its expansion. Many North American examples, however, have not achieved substantial results in encouraging urban agriculture's growth. Therefore the goal of FRESH is to develop a vision for a successful and comprehensive urban agriculture plan that fits within the context of West Sacramento, California.

This vision makes a case for increased government support of farms and gardens within the city. By encouraging the growth of urban agriculture through new policies and plans, the city can reap the benefits associated with urban farms and gardens. These benefits coincide with West Sacramento's current goals to promote healthy residents and a vibrant economy and community. The following document discusses the current status of West Sacramento and how its

environment is conducive for urban agriculture. It also touches on solutions to the barriers and missing links needed to support a comprehensive flow between urban agriculture, its markets and supporting resources.

FRESH also provides a spatial vision for how urban agriculture might exist throughout West Sacramento in order to capitalize on these flows. This includes the identification of urban agriculture types, and their regrouping into broader categories based on purpose. These larger purposes of personal production, economic production, community engagement, and education/demonstration, rely on certain spatial considerations, and therefore, are what drive the decision for urban agriculture's locations within the city.

Abstract





Introduction

Cities stem from agriculture. Today, this notion has been so far removed from the everyday consumer, that the mutually dependent relationship between the contrasting city fabric and agricultural landscape often goes unnoticed.

Extensive research shows that this growing disconnect leads to a multitude of issues. This includes society's disengagement with food, increased greenhouse gas emissions, and a decline in ecological diversity due to the planting of large crop mono-cultures (Deelstra & Girardet, 2000).

Many cities are now recognizing urban agriculture as an alternative to the current industrial food system. The American Planning Association defines urban

agriculture as the

“production of food for personal consumption, education, donation, or sale . . . within urban, suburban and rural built environments”

(Hodgson, et. al., 2011).

Just as traditional agriculture and cities depend on one another, this new model of urban agriculture depends on the close proximity to people. In many government attempts to promote urban agriculture the social considerations contributing to it's success are often overlooked. FRESH, therefore, suggests a new way to plan for urban agriculture by allowing each case's specific social requirements determine its spatial location within the context of West Sacramento.

Chapter 1. Urban Agriculture's Roots

Urban Agriculture + Planning

Many cities are now looking to urban agriculture as a remedy to issues associated with the current food system as well as many other social and economic issues.

Despite cities' reliance on agriculture, planners in North America have often discouraged the presence of farming related activity within city centers. With the onset of the industrial revolution, zoning and policy efforts pushed newly emerged industrial agriculture beyond the city due to its assumed threats to public health safety. (Hodgson, et. al., 2011).

Amid this exile of agriculture, however, a few cases of government implemented farms and gardens sprang up in efforts

to combat poverty, food shortages and encourage social reform. In 1894, the city of Detroit initiated a garden program in response to a wave of high unemployment (Hodgson, et. al., 2011) Many of residents were left in economic need and the gardens provided a cheap and fresh source of food. During World War Two the United States government promoted a similar movement, encouraging citizens to plant what were known as "Victory Gardens" in response to food shortages (Napawan, 2013).

Up until the 1970's, urban agriculture remained a short term solution to urban ailments and a backyard hobby. Beginning in the 70's, the current urban agriculture movement sprang

up in the form of community gardens. Today the movement is mainly driven by grassroots efforts and nonprofit organizations. As research on urban agriculture continues to be published, a handful of city governments have started to recognize its associated benefits and have initiated policy to support its growth.



Figure 1.2 - Industrial farming.



Figure 1.3- Victory gardens poster

Associated Benefits

Healthy residents

The diverse benefits associated with urban agriculture address a vast array of urban issues and can contribute to the development of vibrant and healthy cities. The associated benefits include the following:

Vibrant communities

Vibrant communities: Urban agriculture often provides the opportunity for community involvement, leading to social engagement, and community pride (Hodgson, et. al., 2011). Community gardens, school gardens and other types of associated urban agriculture spaces can act as vibrant public spaces that promote community development and contribute to a city's "sense of place" (Mendes et. al., 2008). Many urban agriculture programs can lead to a sense of safety by engaging people with the community and also act as an interim use for vacant land that is prone to vandalism, trash accumulation, dumping, and crime. (Hodgson, et. al., 2011)

Economically sound cities

Healthy residents: Promoting the growth of food within the heart of cities can increase residents' access to fresh fruits and vegetables, and in turn improve nutrition and dietary intake (The Planning Center, 2012). This can also provide food security and eliminate poverty and hunger by promoting the growth of food at home or in community gardens (Quon, 1999). Community gardens and farms also provide opportunities for physical activity and recreation which benefits the physical and mental health of residents (Mendes et. al., 2008).

Economically sound cities: The addition of new farms into a city can increase local employment opportunities,

Sustainable cities

and act as income generation. New commercial farms will also attract food-related businesses to the area such as restaurants, community kitchens, processing facilities and farmers markets. Urban agriculture located on public land can eliminate maintenance costs and increase adjacent property values through its ability to “green” an area. Residents who take up farming can experience reduced household expenditures on food as well (Hodgson, et. al., 2011). Agritourism can also function as an economic draw through seasonal festivals. Typically these festivals revolve around a specialty crops such as pumpkins or Christmas trees (SACOG, 2011).

Sustainable cities: Urban agriculture promotes environmental sustainability through its large array of benefits. A few commonly discussed benefits include the addition of green space, improved

air quality, decreased storm water runoff, and increased biodiversity (Mendes et. al., 2008). Urban agriculture can also contribute to waste management through the utilization of compost (Napawan, 2013). Bringing food back to the city center has the ability to reduce the net discharge of carbon dioxide through photosynthesis as well as reduce the need for fossil fuels needed for large scale agriculture production and transportation of food over long distances. (Deelstra, et. al., 2000)



Figure 1.4 Vierra Farms, a West Sacramento farm, relies on agritourism for income generation. The farm hosts seasonal fall festivals that draw customers from around the region.

General Risks and Barriers

Nuisance

The American Planning Association defines certain risks and challenges in planning for urban agriculture. It is important to consider the former use of sites, and potential contaminants present in soil. One must also consider a site's proximity to future pollutants such as runoff from industry sites and roads. Both past and future pollutants can cause dangerous health threats to both the producer and consumer. Governments should create provisions for environmental site assessments before a site can be used for agricultural purposes (Hodgson, et. al., 2011).

Competing lands uses

Cost of land

Land tenure

Water access

Community interest

Pollutants

Land use conflict is another well noted risk identified by multiple sources. The improper management of harvesting, compost and animal keeping can become a nuisance in the form of eye sores, noise and odors. A city, such as West Sacramento, should implement certain

production standards that select for the responsible management of agricultural activities.

Urban agriculture's inability to compete with higher economically viable land uses such as development often prevents its growth within city centers (Mbiba & Van Veenhuizen, 2001). Therefore it is important to align the argument for urban agriculture's inclusion into planning and zoning with a city's existing social, environmental or economic goals.

Other challenges might include the cost of urban land which is often the main factor limiting start up farmers. Leasing options of private or public land provide a solution to real estate costs. With leasing, however, come the issues of limited land tenure, especially on vacant parcels deemed for future development.

Cities Promoting Urban Agriculture

Cities in North America have slowly gained more interest in promoting urban agriculture in an effort to develop healthy and sustainable urban environments. Portland, Vancouver, San Francisco and Alameda are four of the many cities that have participated in the government promotion of urban agriculture. All four cities initiated their efforts through the inventory of government land suitable for urban agriculture.

The article *Using Land Inventories to Plan for Urban Agriculture* conducts a close investigation of the land inventory techniques used in the cities of Portland and Vancouver and their success in the facilitation of urban agriculture (Mendes et. al. 2008). Both cities were able to identify urban agriculture as a competitive land use by aligning its associated benefits with existing city goals . Portland's

support of urban agriculture “exists within the context of a preexisting commitment to principles of sustainable development” (Mendes et. al., 2008). Vancouver's support derived from a similar commitment to sustainability as well as their standing as a national leader in municipal food system planning.

To overcome funding barriers both cities teamed up with nearby universities to conduct the land inventories. In both the final product was a publicly accessible list of land deemed suitable for crop production. This public list functions as a resource for those looking to lease land for urban agriculture. Both cities were successful in identifying a multitude of locations with Portland selecting 289 locations and Vancouver 639. Despite the number of identified sites, in Portland, few projects have



Figure 1.5 Down town Vancouver community garden. Photo by Arlen Redekop.

sprang up as a direct result of the inventory. Vancouver's resulting inventory lacked a strong engagement with communities and clear specific goals (Napawan, 2013).

San Francisco has taken the inventory one step further by implementing city policy directly pertaining to urban agriculture, incited by former Mayor Gavin Newsom's Executive Directive on Healthy & Sustainable Food (Napawan, 2013). Although San Francisco has effectively implemented policy, and began pilot urban agriculture projects there is still a lack of interest at the site scale. Similar to Vancouver, this may correlate to a

lack of clarity in goals from the city to site scale (Napawan, 2013). This may also be a result of San Francisco taking an available land approach and looking at locations of underutilized city owned land first, rather than areas where there is a need for urban agriculture. Planning strategies therefore must recognize "the specific needs and goals of a community and their relationship to spatial and programmatic characteristics and encourage a dialogue between city and community" in order to achieve a holistic and successful implementation of urban agriculture into the urban fabric and policy (Napawan, 2013).

The Alameda Urban Farm and Garden Plan prepared by The Planning Center : DC&E provides a detailed framework for the implementation of urban agriculture into a the City of Alameda’s open space plan. Unlike Vancouver and Portland which partnered with local universities, the city of Alameda used funds provided by Proposition 84 to hire an outside consultant to develop a master plan.

The plan provides a thorough analysis of existing conditions and the documentation of social factors within the City of Alameda that influence the growth of urban agriculture. They documented existing conditions such as schools and community gardens and mapped specific demographic data such as communities of color, population density, youth population, and population that is 65 and older. Other factors the plan took into consideration when determining ideal urban agriculture locations were transit routes, bicycle routes, locations of school and parks, and city health data.

Interviews were conducted with important stakeholders such as the Alameda Food Bank, City of Alameda Housing Authority, Alameda Back Yard Gardens and other organizations holding potential influence and interest in the urban agriculture movement.

The plan also lays out general guidelines and design criteria for the specific urban agriculture typologies of community gardens, school gardens and urban farms as well as three financing models including the privately-operated urban agriculture model on public land, the jointly-operated urban agriculture model on public land, and the privately-operated model on private land.

Alameda’s plan proves successful at looking beyond available land and takes social factors into consideration when selecting appropriate urban agriculture sites.

Portland, Vancouver, San Francisco and Alameda have all made significant efforts in the governmental promotion of urban agriculture. The outcome in the first three cases

proved less successful than expected. The Alameda plan, although newly implemented, seems to take the most comprehensive approach when considering the location of urban agriculture. It looks beyond the available land approach used in Portland Vancouver and San Francisco and takes many social factors into consideration that often determine the success of urban agriculture. When looking at West Sacramento it is important to draw on the strengths and weaknesses of these examples. Similar to Portland and Vancouver, West Sacramento could benefit from a partnership with the University of California, Davis to overcome funding issues. It is also key that a plan in West Sacramento follow the examples of aligning the need for urban agriculture within current city goals. As far as an overall plan the city should work towards the comprehensive model set by Alameda, and allow social factors determine where and what type of urban agriculture should occur within the city.



*Figure 1.6 Zenger
Urban farm in Port-
land Oregon.*

Chapter 2.

West Sacramento's Conducive Environment



West Sacramento's Long Agricultural History

West Sacramento sits on the eastern edge of Yolo County at the heart of California's Central Valley. The City spans 22 square miles, its borders defined by the Sacramento River to the north and east, the Yolo Bypass and deep water channel on the West and the Shangri-La Slough to the south.

The area has boosted a long agricultural history many years before the City's incorporation in 1987. From the first foreign influence in the 1800's up until the 1940's, agriculture has held a strong cultural significance and farming remained the main economic activity in West Sacramento (WSGPU, 2009c). In 1949 the agricultural landscape shifted dramatically with establishment of the Port of West Sacramento. Construction for the deep water channel began in 1949 and West Sacramento transformed into a transportation and distribution hub for the Sacramento region. The once

agriculturally dominated city interior transformed to large scale commercial and industrial development. Despite the City's transition from an agricultural to industrial landscape, agriculture fields still line its boarder. This coupled with the City's location in the highly productive Central Valley provides it with a unique opportunity to easily breach the modern day dichotomy between the rural agricultural landscape and the urban city fabric.

Currently 90% of the 1.8 million tons of vegetables produced in a year are shipped out of the region to other markets. Only an astonishing 2% of the 2.2 million tons of food consumed by residents comes directly from local ranchers and farmers. This leaves an open niche for more localized markets (SACOG, 2011).

Figure 2.2 Placer, El Dorado, Yuba, Sutter Sacramento and Yolo counties make up what is known as the Sacramento region. They sit at the heart of California's agriculturally productive central valley.

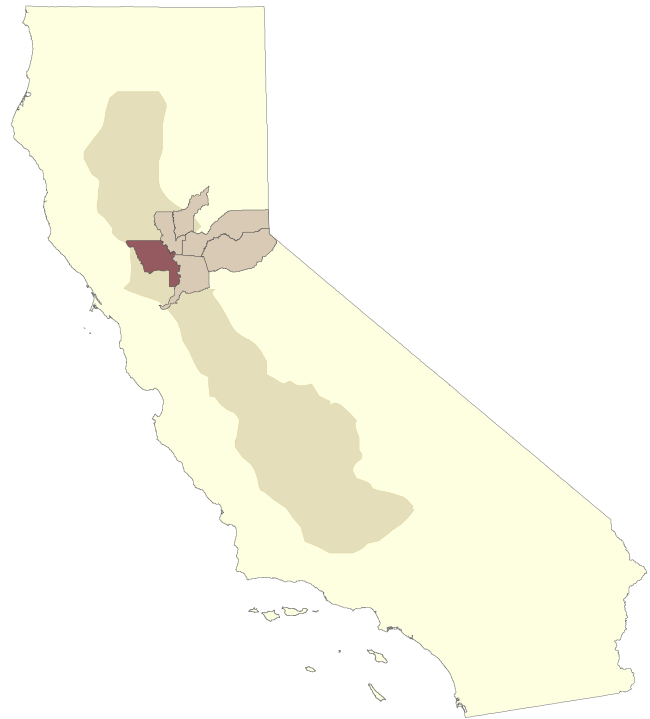
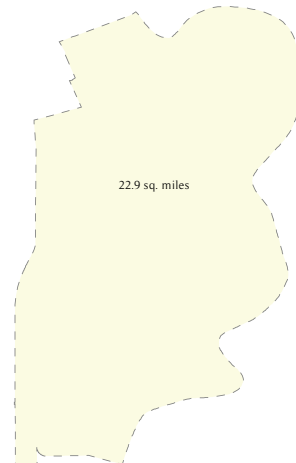


Figure 2.3 West Sacramento sits on the eastern edge of Yolo County.



Figure 2.4 West Sacramento is a fairly small city of only 22.9 sq. miles compared to 99.2 sq miles that makes up Sacramento.



Context

A Changing City

Incorporated in 1987, the City of West Sacramento is still fairly young, and therefore, undergoing a significant amount of growth and change. In his 2012 State of City Address, Mayor Chris Cabaldon described West Sacramento as the

“cool, get it done, all pulling together city that seems to be making a new improvement every five minutes”

(West Sacramento, 2012).

In addition, the General Plan is currently under revision. Many of its changes will focus on the revitalization of West Capitol avenue that once functioned as the main thoroughfare of the City and the

riverfront to provide vibrant and dynamic public spaces. This new image for the city represents one of health. Even the new architectural styles along West Capital Ave. feel fresh and clean. With its strong association to health and sustainability, urban agriculture seems to fit perfectly within this future vision. Along with this vision, West Sacramento is anticipating a 64% population increase with a projected population of 73,500 by 2030 (WSGPU, 2009c). With more people comes a higher demand for food. Urban agriculture, again, goes hand in hand with West Sacramento’s growth.



Figure 2.5 West Sacramento City Hall.

Regional Agriculture Interest

The region currently hosts quite a few agriculturally focused organizations. All of their goals seek to address a variety of social, health, economic and environmental issues through the promotion of agriculture.

Alchemist Community Development

Corporation: Alchemist is a nonprofit organization that aims to provide residents in the Sacramento region with a voice in shaping the future of their communities. They work with residents to identify the best strategies to better their neighborhood, taking a strong focus on food access issues (www.alchemist-cdc.org). Their influence has previously reached into West Sacramento through the past implementation of the 2010-2012

Bryte and Broderick Urban Farm Stand after residents had expressed a need for access to fresh fruits and vegetables. Unfortunately the farm stand came to an end due to lack of demand. Alchemist speculates that the farm stand was not the correct model for the senior citizen dominated market and they might have had more interest in delivery services.

Yolo County Ag and Food Alliance:

Rick Landon, the Yolo County Agricultural Commissioner founded the Yolo County Ag and Food Alliance in 2004. The alliance works closely with Yolo County to ensure that policy supports local agriculture and promote agricultural economic development efforts (aginovations.org/alliances/yolo).

Sacramento/Capital Region Food Systems Collaborative (FSC): The FSC is housed under Valley Vision, a nonprofit association dedicated to secure the social, environmental and economic health of the Sacramento. The FSC works to establish goals for the regions food systems regarding food access, sustainability and education (www.foodsystemcollaborative.org/about.php). In doing so the organization worked to develop a food charter that represents the community's goals and values about nutrition, food and food systems. These goals address many issues solved by urban agriculture's associated benefits. The charter also explicitly encourages the promotion of local agri-

cultural lands “through supporting urban and rural agriculture, farmers markets, farm stands and agritourism” (FSC, 2012).

Farm Link: Farm Link is a statewide organization whose land-linking program helps farmers find land to purchase or lease or land owners a farmer to tend to their land. The organization also provides financial services in the form of loans or business training. The Central Valley Region encompasses West Sacramento and the Sacramento Region and currently offers assistance to a few farms in the area (www.californiafarmlink.org/about-us).

Existing Urban Agriculture

Within West Sacramento there already exists a variety of urban agriculture models including, community farms, small urban farms, local food markets as well as a few government spurred promotional efforts.

Community Farms/Gardens:

(WUSD): WUSD has a few community gardens on school campuses. The gardens, however, are no longer integrated into the curriculum or managed by the school due to budget cuts. The surrounding communities currently farm and manage these plots of land. Charline Hamilton, director of West Sacramento's Community Development Department, believes that the schools might be interested in integrating the gardens back into curriculum if they

received incentive from the City or had a passionate staff member or parent come along to spearhead the project (D. Tilley & C. Hamilton, personal communication, April 22, 2013).

Friends of the Main Drain: Friends of the Main Drain started out as a group of neighbors farming on an undeveloped plot of city owned land in the South Western part of the City. Today the group has become a nonprofit and runs two community gardens. The group hosts veggie swaps in which residents can swap produce for vegetables they do not have. Chip Wallace, the president of the organization, said that often a few individuals show up just to take fresh produce back to feed their families that they could not afford otherwise (C. Wallace, personal

communication, April 18, 2013).

Bryte and Broderick Community Action Network

(BBCAN): BBCAN is a nonprofit organization dedicated to increasing the involvement of Bryte and Broderick residents in their communities. Housed within BBCAN is the City of Gardens Committee whose goal is to develop a community garden that encourages social interaction between residents and community involvement (www.bryteandbroderick.org/BryteParkGarden.cfm). According to a BBCAN member, the community gardens have lost momentum after contamination was found on the selected garden site. Since then little has been done to re-incite this movement.

Sycamore Park: Sycamore Park is a park intended for development at the corner of West Capital and Sycamore Ave. on a plot of vacant city owned land covering the city's sewer main. A third of the plan includes a public square with covered space intended for a farmers market. Another third of the plan includes a community garden and raised beds



Figure 2..6 Community garden on WUSD property.



Figure 2..7 A view of the Main Drain Parkway.

(Schmidt Design Group Inc., 2013).

Fulcrum properties: Fulcrum properties is currently developing a new mixed use development bordering the Sacramento river just south of the I Street bridge. Raised beds have already been installed anticipating an community interest in growing food (D. Tilley & C. Hamilton, personal communication, April 22, 2013).

Urban Farms:

West Sacramento hosts a variety of urban farms all running at different scales Most of the farms run the same market model of Community Supported Agriculture. This is when customers will pay a fee in advance in exchange for CSA boxes of fresh produce for a determined period of time. They also rely on farmers markets, restaurants, and agritourism.

Humble Roots Community Supported Agriculture (CSA): Dan Gannon runs Humble Roots CSA off of his 1/2 acre urban farm located on the south side of

West Sacramento. Instead of buying his land, Dan rents property from two homeowners. In addition to his CSA, Gannon sells his produce to local restaurants (D. Gannon, personal communication, April 12, 2013).

Del Rio Botanical: Del Rio Botanical is a farm located just to the west of West Sacramento's city limits. Similar to Gannon, Del Rio runs a CSA, sells food to local restaurants, and in addition sells wholesale seeds specializing in gourds (www.delriobotanical.com/site-main.html).

Vierra Farms: Vierra Farms, also better known as Dave's pumpkin patch, functions on a larger scale than other West



Figure 2.8 One of Dan Gannon's farms . He allows weeds to grow up around his row crops to facilitate a healthy mycorrhizal network within the soil.

Figure 2.9 West Sacramento Farmers Market



Sacramento farms. Dave Vierra owns 100 acres in the southern portion of West Sacramento. According to the Vierra farms website he runs a CSA, grows seasonal crops such as pumpkins and Christmas trees, holds seasonal festivals and also rents the property out for special events and weddings (<http://www.vierrafarms.com/>).

Wantanabe Farms: Ran and operated by Hedi Wantanabe and her husband, this 7 acre farm just South of West Sacramento grows produce to sell to local restaurants and at farmers markets, specializing in tomato varieties.

Market Channels for Urban Agriculture:

New Farm Online Farm Stand: Beyond farming Gannon has also been working to improve small farmers' access to market channels and educate West Sacramento residents about urban agriculture. He hopes to see West Sacramento become an attractive and easy place for new urban farmers to start up. His work includes the current development of an online farm stand called New Farm where customers can order fresh produce from beginning farmers in the area (www.anewfarm.com). He is also currently working with the City to lease a plots of land where he would like to set up a resource centers for farmers in West Sacramento including demonstration gardens, training, compost, and seeds.

Farmers market: The West Sacramento farmers market runs for May to September. It is located on West Capital Ave. in front of the City Hall. The market was spearheaded and is currently managed by the City's Chamber of Commerce which saw it as an important aspect for a well

rounded community. Denice Seals, the Chamber President, said they saw the addition of a farmers market as a key component to a well rounded community. The goal for West Sacramento is to return farmers markets back to their origin by focusing on smaller local farms. In addition the market hosts a variety of educational cooking classes teaching customers what exactly to do with that Swiss chard. The Farmers market also hosts a food truck that serves as an incubator for startup farms or restaurants to develop a customer base (D. Seals, personal communication, May 1, 2013).

Restaurants featuring locally produced food: Many restaurants in the area purchase produce from local farms and feature it in their meals. A few of the restaurants involved include, The Eatery, Wicked West Pizza, and Broderick Restaurant and Bar.

Government Support:

With new growth comes more mouths to feed. While leading West Sacramento in a forward march to a vibrant future, the optimistic Mayor Cabaldon remains conscious of the regions agricultural capacity. In the 2012 State of the City Address, he points out that the City sits at the center of many important food related streams, including production, research, innovation, distribution, consumerism and the foodie movement. He sees the capitalization of these streams as a unique opportunity, and declares,

“shame on us if we don’t take advantage of what ought to be the critical economic cluster for us moving forward.”

(West Sacramento, 2012)

This future vision of West Sacramento as a vibrant and hip city and the Mayor’s

desire to capitalize on its streams of food set the stage for the promotion of urban agriculture. Although Cabaldon's goals reside at a larger regional level in which West Sacramento becomes the "Silicon Valley of food," it is fitting that urban agriculture and its associated benefits should play a role in moving West Sacramento towards a fresh and dynamic future (West Sacramento, 2012).

City officials have responded well to the Mayor's food visions for the region and welcome urban agriculture into the City. Currently Ernesto Lucero with the Economic Development department works with new farmers interested in leasing a plot of land from the City for food production. Because the City wants to promote the growth of urban agriculture lease fees are kept to one dollar. Ernesto helps interested farmers pick a vacant or underdeveloped site with no immediate

plans for development, access to water and favorable growing conditions. Currently the City is undergoing an inventory process and the geo-spatial mapping of parcels that fit the above criteria. By August 1st this resource should be available for farmers wishing to locate or expand in West Sacramento.

It is important that West Sacramento does not fall into the same track as Portland, Vancouver and San Francisco, however. While a land inventory of city owned land is a great place to start, it should by no means be the only factor considered. Urban agriculture can exist in a variety of places and at a variety, scales and for a variety of purposes. In order for West Sacramento to achieve a successful urban agricultural plan the city must take this into consideration when determining where urban agriculture might exist within the city.

Government Goals

The City of West Sacramento aligns its future growth and economic goals with the Sacramento Area Council of Government's (SACOG) "Blue Print" plan and Next Economy. These are both associations between the six counties in the Sacramento region intended to serve as forums and decision makers for regional issues.

Under the SACOG "Blue Print" exists the Rural-Urban Connection Strategy (RUCS) which identifies local agriculture as a means of catalyzing associated jobs and income. The RUCS currently has a working group examining issues such as connecting farmers to available land markets, providing business train-

ing, increasing local processing capacity as well as local distribution, promoting agritourism etc. (www.sacog.org/rucs/working-groups.cfm).

Next Economy works to pursue a competitive and strategic economic development agenda focused on resiliency, vitality and a wide range of new opportunities for job creation, innovation and increased investment. This strategy recognizes "Agriculture and Food" as a vital economic component (Valley Vision, 2013).

More importantly Next Economy is nested under a broader umbrella known as Valley Vision. Valley Vision also houses the Sacramento and

Health

jobs surplus

income generation

economy

agritourism

reduced household expenditures

Capital Region Food Systems Collaborative (FSC) discussed earlier. Neither Charline Hamilton, director of the Community Development Department, or David Tilley with the Planning Department recognized the FSC as an organization the City aligns its food system goals with. The food charter is meant to represent the community’s “values and beliefs about nutrition, food and food systems, therefore it is a critical document to take into consideration when talking about the incorporation of urban agriculture at the city level. Its main goals align with those of the city, with a focus on food access, stimulation of the economy, and enhance the quality of life of residents (FSC, 2012).

Currently the City’s general plan is under revision, making this a pivotal time to suggest changes for its inclusion of urban agriculture. The revised document will take a larger focus on the physical and social health by providing “convenient access to health foods” and “neighborhoods that sustain mental health and promote social interaction” (WSGPU, 2009b). Maintaining a “strong and diverse economy and, [continuing] to retain a job surplus” is also on the top of the priority list (WSGPU, 2009b). These two areas can easily be supported through urban agriculture’s associated benefits.

community pride

beautification

recreation

society

social interaction

crime reduction

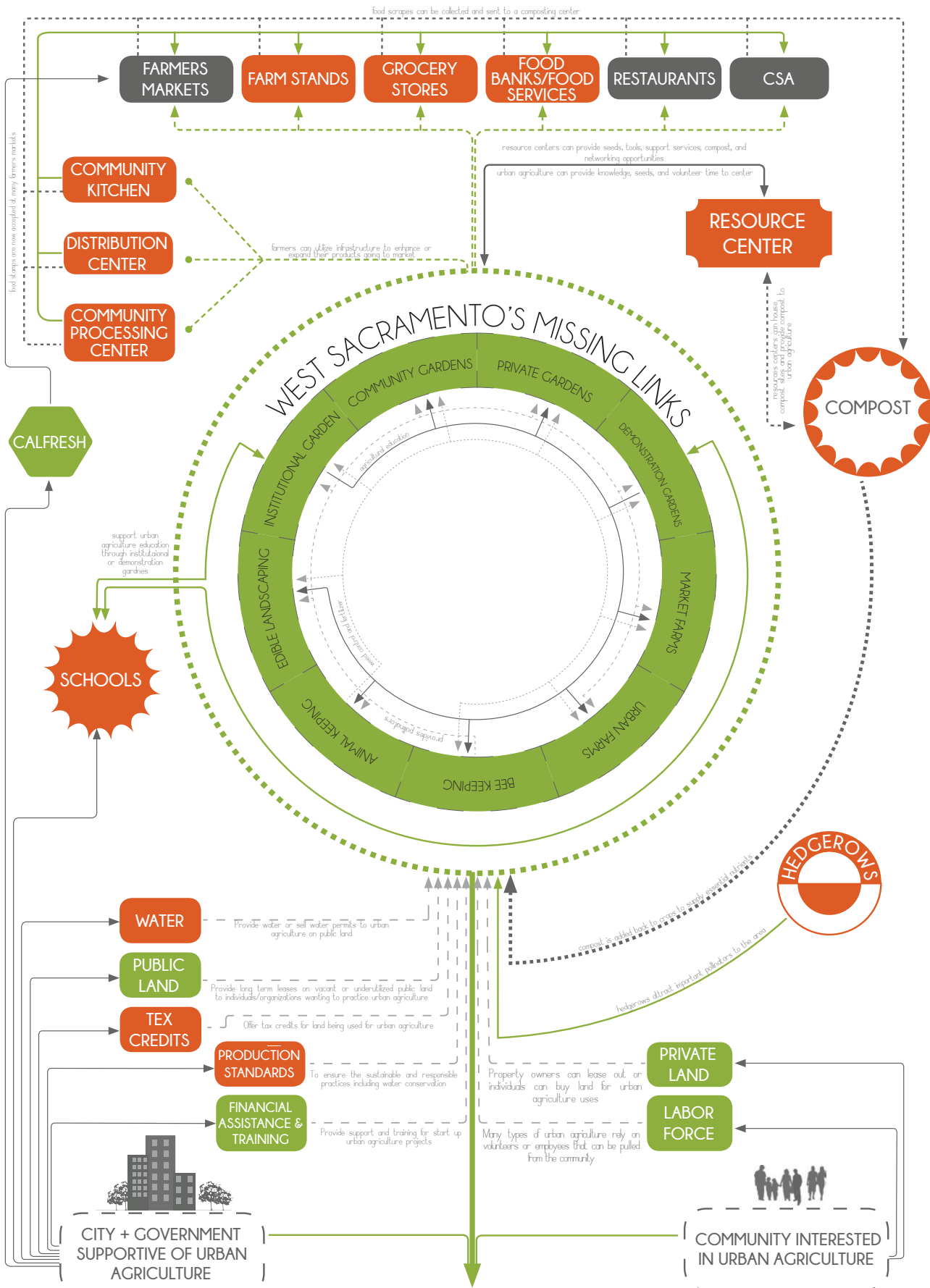
access to fresh food





Chapter 3.

Finding and Filling the Voids



URBAN AGRICULTURE'S BENEFITS CAN ADDRESS A CITY AND COMMUNITY'S COMMON GOALS OF:

- HEALTHY RESIDENTS
- SOCIALLY ENGAGED COMMUNITIES
- VIBRANT ECONOMY
- SUSTAINABLE CITIES

Urban Agriculture Flows + Weak Links

A comprehensive urban agriculture system provides a necessary foundation when addressing the larger scope goals of a economic and social health. The success of such a system depends on an intricate cycle of flows between supporting resources, production and markets. The diagram to the left illustrates these relationships and their connection to government and community support. West Sacramento already possesses many of the key components. These include existing community gardens, market/urban farms, and supporting organizations as discussed earlier. There are still a few missing links, that, if bridged, would further promote a conducive environment for urban agriculture.

Education

Coupled with society's lack of interaction with food and separation from the food system, comes a loss of agricultural knowledge. Therefore, education is key to the success of a comprehensive urban agriculture system both in agriculture practices.

Schools: Washington Unified School currently

houses a few community gardens on school property. The schools do not utilize this valuable education opportunity and gardens are not integrated into school curriculum. The surrounding southeast Asian and Russian communities currently operate and utilize these gardens for personal consumption. Charline Hamilton discussed that the schools will most likely need a push from the government and supportive funding to re-integrate the gardens back into education.

Denise Seals also expressed the need for produce and cooking education for the success of farmers markets and farm stands. Farmers markets are a great social addition to a city but unless customers know how to use the produce, there will not be enough business to make it worthwhile for the farmer. Therefore the farmers market is taking a strong educational stance by offering types of classes throughout the season.

Markets

As identified by Dan Gannon, Farm Link and other stakeholders, access to markets is often the

inhibiting factor to many start up farmers. West Sacramento already contains restaurants that source produce from local farmers, a few CSA operations and a farmers market.

Food banks/food services: Currently many churches in the area source food from Yolo County Food bank and distribute it to the homeless. They might have interest in sourcing from local farms or accepting donations of blemished crops that might not sell elsewhere.

Urban Farm Stands: The Bryte and Broderick Community Action network and Alchemist combined their efforts to open an urban farm stand within the neighborhood of Broderick. After three years, however, the demand was not high enough to justify the amount of work going in and the stand closed. BBCAN speculates that this had to do with a lack of produce education. Now that the West Sacramento Farmers Market is gaining a foothold, and promoting produce education through cooking classes, the city might see a larger interest in a satellite location.

Grocery Stores: Grocery stores should source products from local farmers. Currently the Nugget buys

seasonal produce from Vierra Farms. Stores such as Safeway, Grocery Outlet and Walmart should follow suit.

Infrastructure

Resource Center: This center could act as a hub for a variety of urban agriculture resources such as compost, seeds, animal production, demonstration gardens, educational classes, networking center between farmers and markets, and a CSA distribution point. Dan Gannon is currently working with the city to lease a parcel of land for this purpose.

Community Processing Center: as defined by the American Planning Association a community processing center is small-scale state-inspected and licensed facility containing a variety of equipment, which can be rented by urban growers to add value to raw food products through processing, packaging, and subsequent delivery to retail destinations.

Community Kitchen: this could be a licensed for commercial sale or non licensed facility for personal consumption that contains a fully equipped kitchen for the use of food preparation preserva-

tion and packaging.

Agricultural Necessities

Pollinators- Pollinators are a key component to entire agriculture system. Currently West Sacramento municipal code classifies bees as a wild and exotic species which are not permitted in any residential zoning (§17- 36-040). Since agriculture relies on bees the city's urban agriculture could benefit from a series hedgerows that act as pollinator trails throughout the city.

Land- The city currently leases city owned land to new farmers and permits crop production in the majority of its zones. To further encourage urban agriculture the West Sacramento should consider allowing agriculture production in mixed use zones. There is also a missed opportunity with privately owned land. An organization or online resource that connects farmers to private property owners interested in leasing their land would boost land availability (§17- 36-040).

Water Supply- Dan Gannon expressed that

the city is hesitant to supply water to urban agriculture projects on city owned land. The city might want to consider a type of permit system in which farmers pay a flat rate to gain water access to a site. The City of Cleveland, for example, sells seasonal water permits allowing un-metered access to fire hydrants for irrigation (Hodgson, et. al. 2011).

Government Support

Tax Credits- To encourage urban agriculture on private land, the city should consider offering incentives in the form of tax credits to property hosting urban agriculture uses.

Production Standards- If West Sacramento is to encourage the presence of urban agriculture throughout the city, it would benefit from a series of production standards. These standards should select for responsible and sustainable farming practices. They might prevent the spraying of pesticides, contain standards for composting and animal production and other potential health or nuisance concerns.

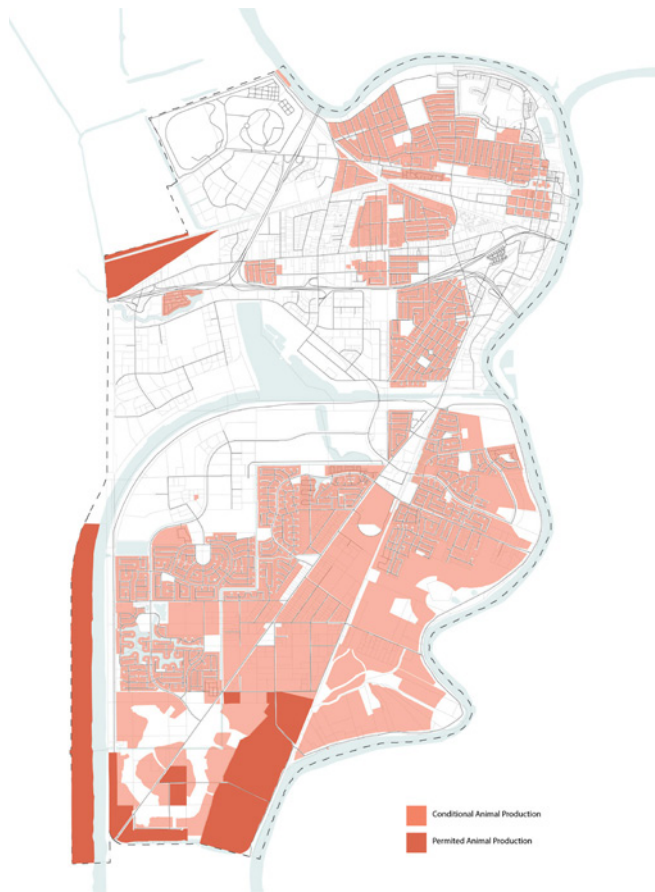


Chapter 4.

A FRESH Vision

F.R.E.S.H. Farms Reinforcing Economic and Social Health

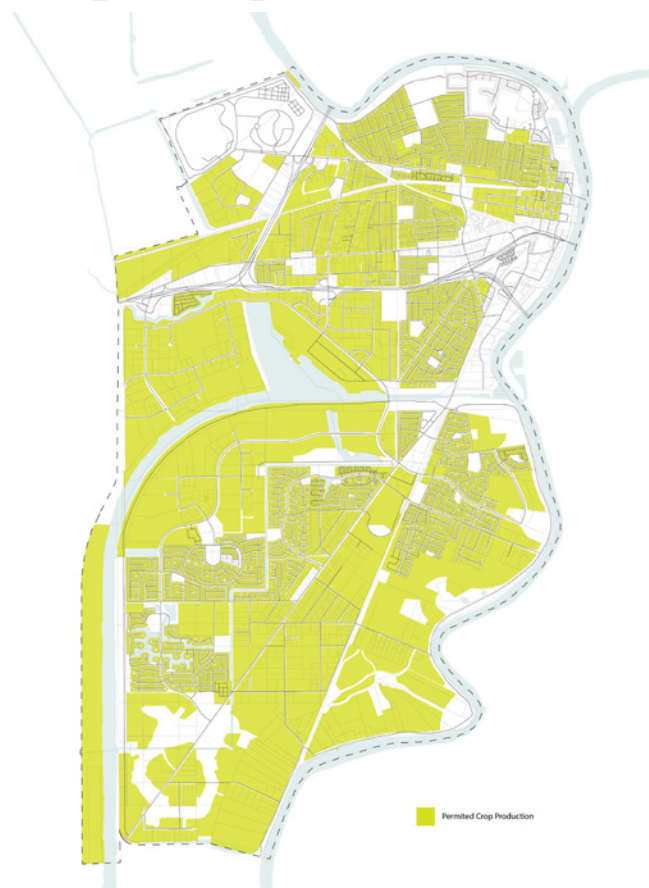
It is evident that West Sacramento possess many characteristics that contribute to a conducive urban agriculture environment. This coupled with the City's focus towards a vibrant economy, social and physical health of residents provides a nice framework for a urban agriculture master plan. This plan takes the flows of urban agriculture a step further and attempts to link them spatially throughout the city. Stepping away from the vacant land tactics used in Portland, Vancouver and San Francisco, this vision bases the location of urban agriculture within the city on the social factors needed to support it.



Permitted Animal Production

Figure 4.2

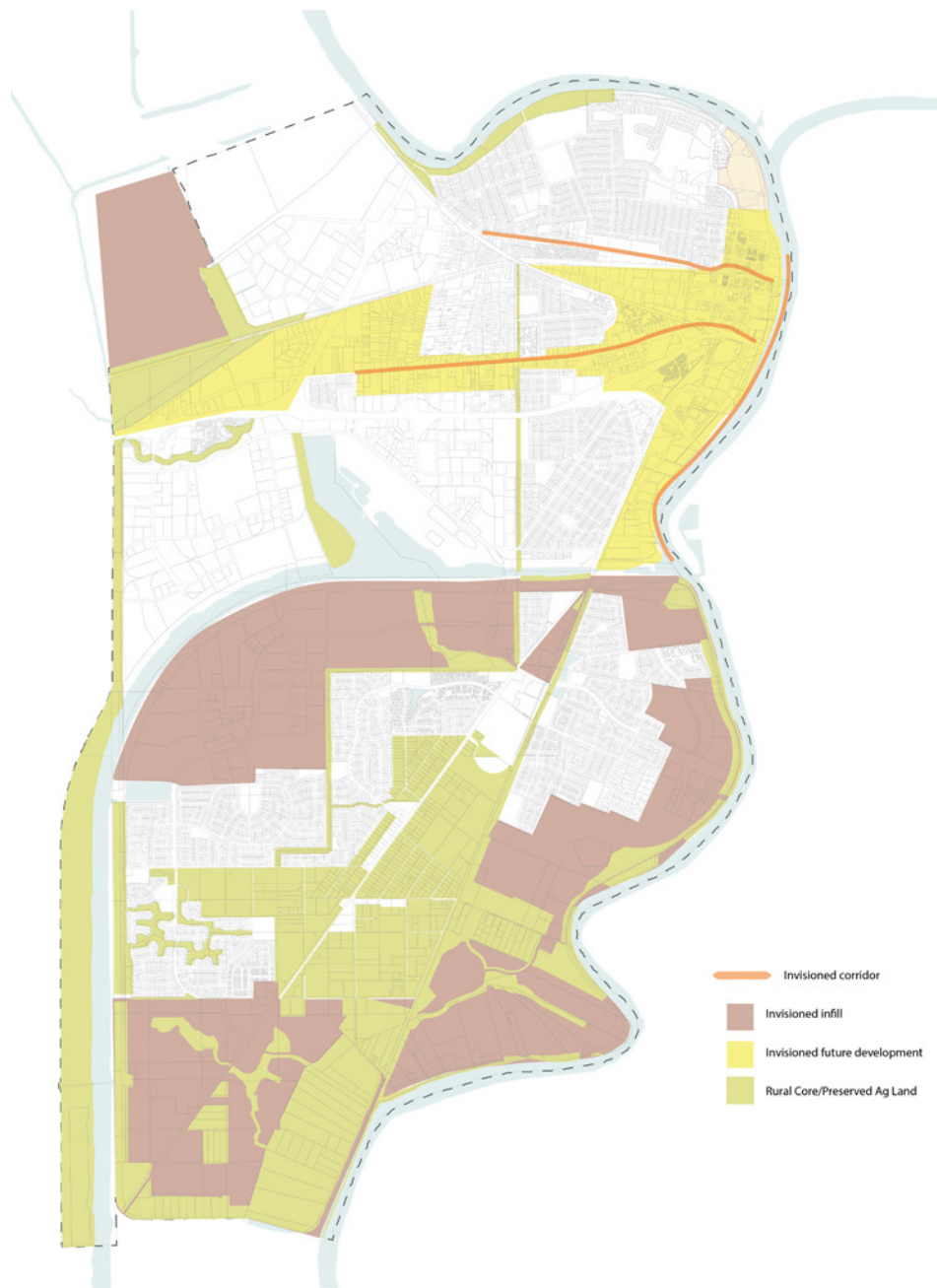
Animal production can exist in a large majority of the city on a conditional basis. Chickens and pot bellied pigs are classified as a small domestic animal and up to four may be kept in residential zones. Goats, cattle, swine, sheep, and horses are considered large domestic animals and permitted under certain conditions defined in the City's municipal code §17- 36.



Permitted Crop Production

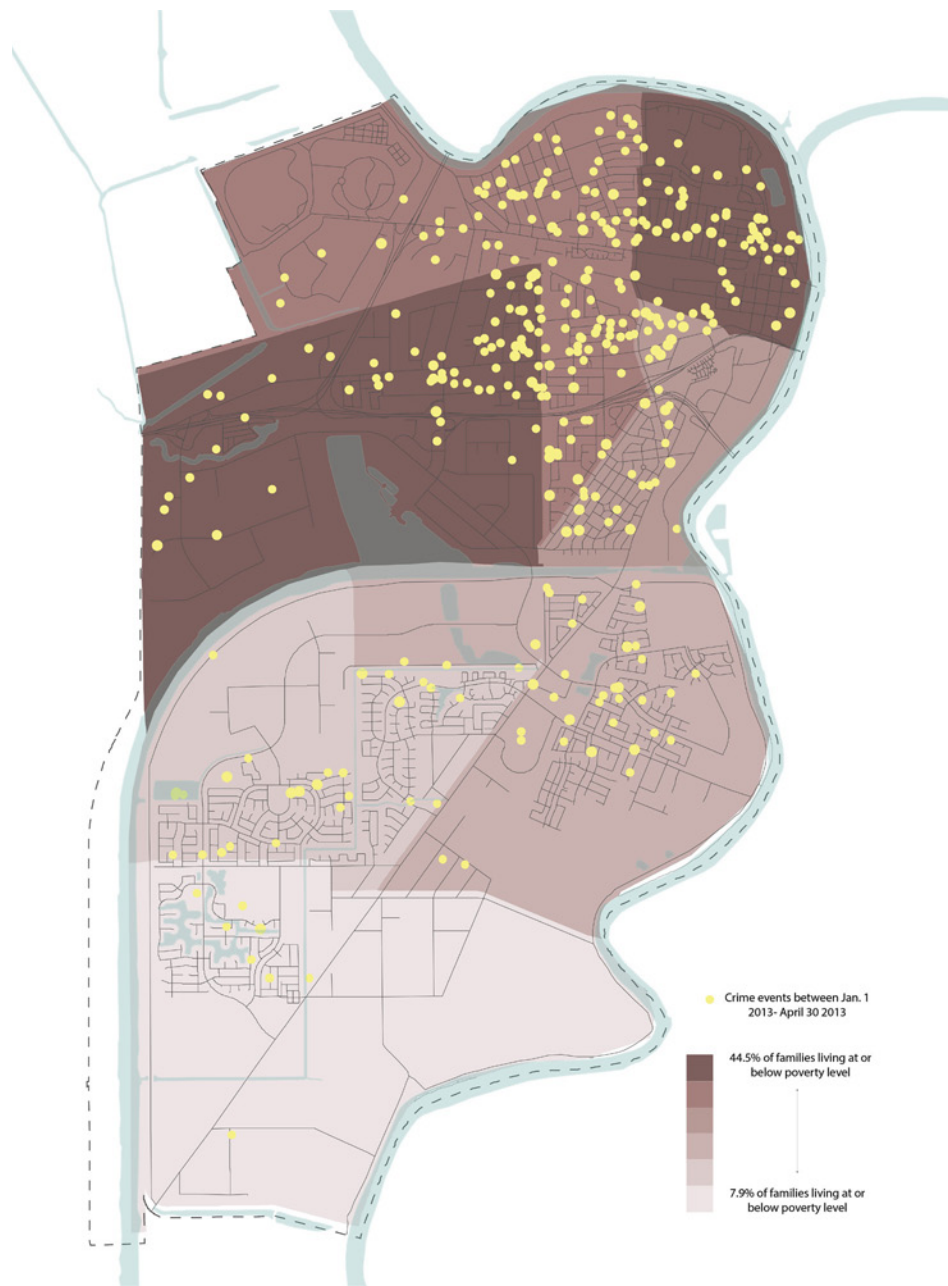
Figure 4.3

Crop production is currently permitted in a large portion of the city. This means the urban agriculture activities can occur with out requiring additional permits (§17- 23-010).



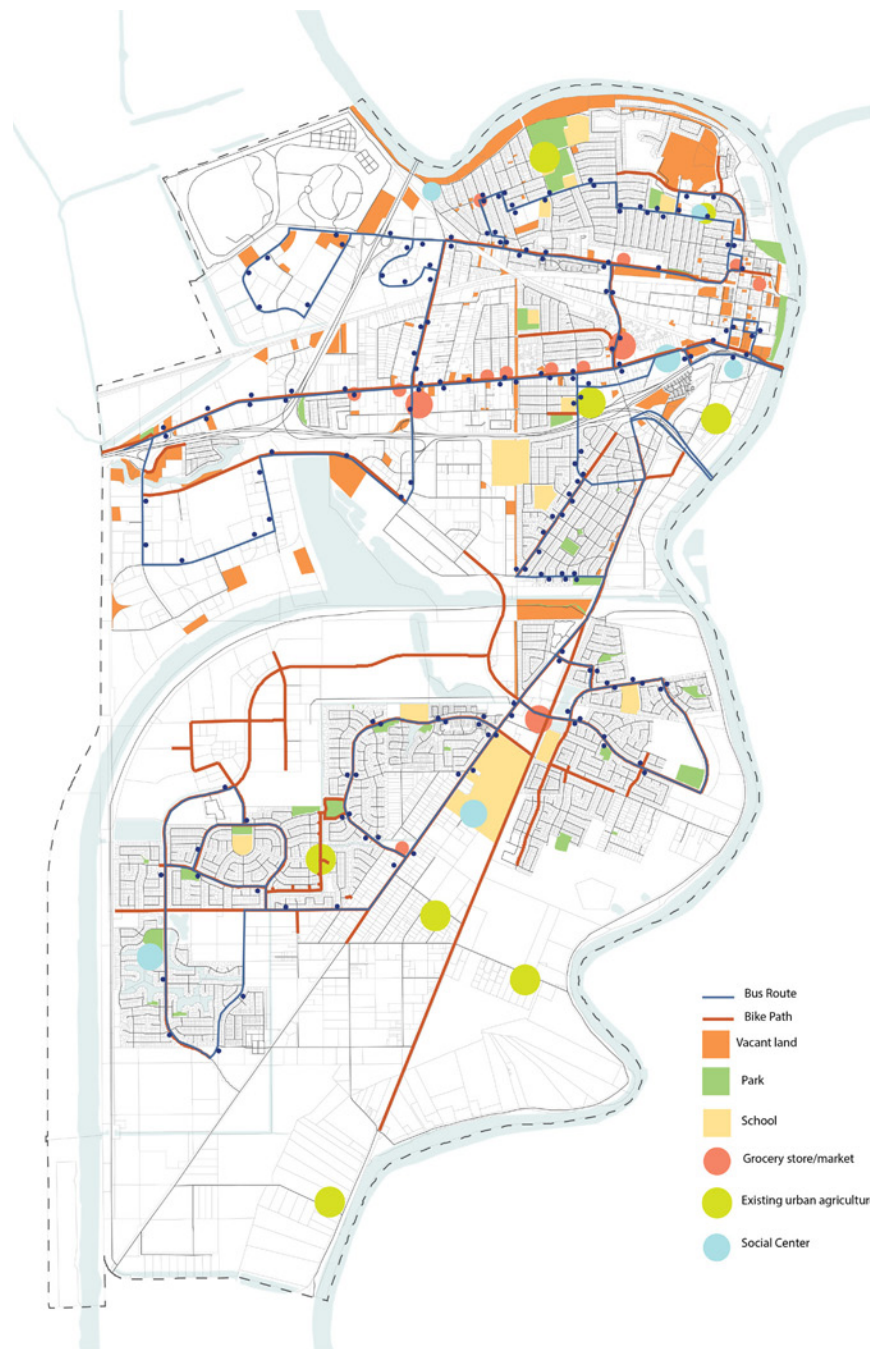
Future City Vision, *Figure 4.4*

The City of West Sacramento has the vision for infill development on the northern portion of the city, enhanced corridors along West Capital Ave., Sacramento Ave, and along the water front. There has also been an approved development plan for the southern portion of the city promoting the growth of four housing neighborhoods. Separating these neighborhoods is what the city refers to as the rural divide, a section of land retaining rural residential, rural estate and agriculture zoning (WSGPU, 2009a).



Crime Rates + Poverty, *Figure 4.5*

Crime and poverty tend to be clustered in the northern neighborhoods of Bryte and Broderick. These neighborhoods might make a good place for urban agriculture focused on community involvement while providing an alternative source of fresh food and reduce household expenditures. Crime data retrieved from the Sacramento Police Department online crime mapping system from January 1st to April 30th (<http://www.sacpd.org/crime/mapping/>). Poverty data was retrieved from city-data.com.



Social Conditions, *Figure 4.6*

These factors act as the back bone for an urban agriculture system. Many types of farms are gardens are most successful where there are people and a community to support them.. This examination of social factors begins to expose the flow of where people gather and how they move throughout the city. Analysis of bus stops, bike routes, location of residential neighborhoods, grocery stores, community centers and vacant land determines where certain types urban agriculture should occur spatially.

Figure 4.7



Resource spine

The resource spine runs central to the City on an underutilized strip of land atop the sewer main. The spine supplies physical resources (land compost, seeds etc.) , education, marketing opportunities, and food to the surrounding city.

Education/Demonstration

Schools, churches, community gathering spots, resource centers and other places with high visibility and where people gather are best for education and demonstration.

Commercial Production

This purpose relies on proximity and convenient access to markets. It can exist just outside of social centers since, on its own, this purpose does not solely depend on community interaction. Networking can occur at central hubs while the production takes place on the periphery lands.

Neighborhood Revitalization/ Community Involvement

Urban agriculture that seeks to engage the community must be located in close and convenient proximity to people. Mid density to high density residential areas would best support this farms and gardens with this purpose.

Personal Production

Personal production will flourish best in residential areas where individuals have private property to garden or farm. This type of urban agriculture encompasses back yard gardens, window boxes, and balconies.



URBAN AGRICULTURE MASTER PLAN *Figure 4.8*



- Personal Production
- Commercial Production
- Neighborhood Revitalization/Community Involvement
- Education/Demonstration
- Market for Urban Agriculture

Resource Spine, Figure 4.9

Imaging a Resource Spine

1 Commercial Resource Center

Provide markets such as restaurants business and services to larger farms in the south portion of West Sacramento. One business might include the facilitation of lease agreements between private property owners and farmers.

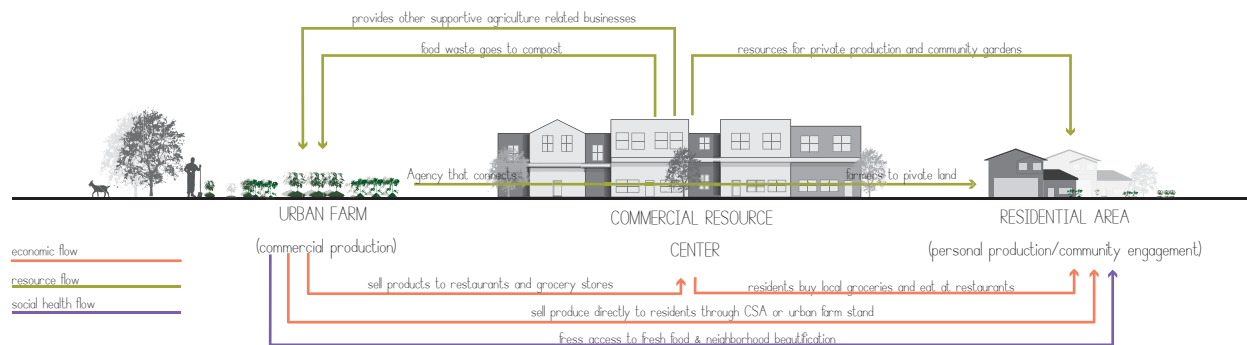


Figure 4.10 - Commercial Resource Center Flows

2 Community Involvement & Personal Production

Residents living along this strip are required to care for the city owned land directly behind their homes. Many homes have already planted small personal gardens. There is an access road and driveways along this piece of land making this strip feel integrated into the neighborhood. Therefore urban agriculture such as community gardens and personal production might function best in this area.

3 Commercial Production

This large plot is in close proximity to the resource center, and on a heavily traveled street. This high visibility makes great marketing advantage. A portion of its products could feed into the CSA distribution center and the adjacent commercial resource center.

4 Resource Center

A resource center might house a composting center, demonstration gardens, agriculture and farming education, CSA drop off for local farms, satellite farmers market/urban farm stand, networking and social opportunities. The idea is that a resource center acts as the final suture in the urban agriculture network.

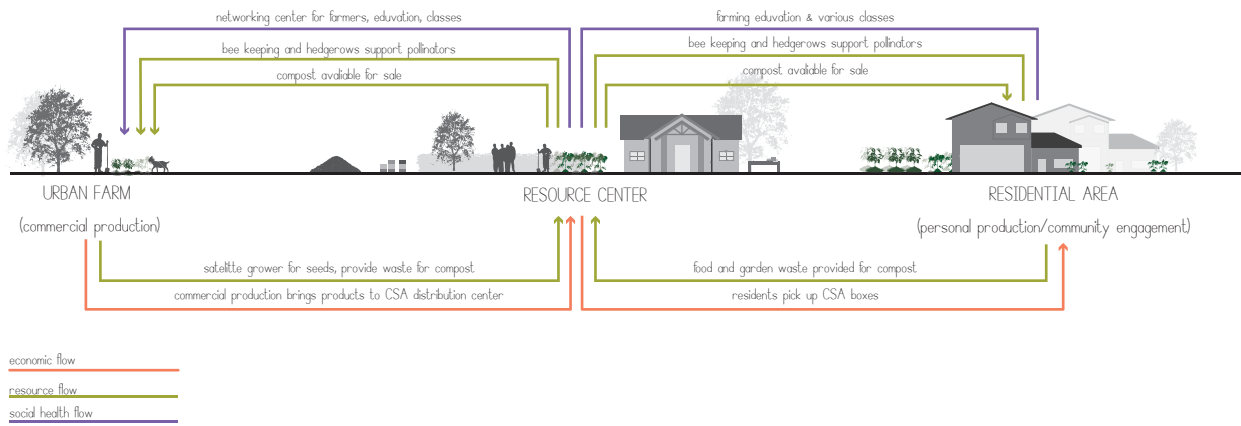


Figure 4.11- Resource Center Flows

5 Pedestrian Bridge

A new pedestrian bridge will facilitate the linear quality of this “resource spine” and allow farmers, residents and tourists to travel easily along what might be an urban agriculture trail. This idea of a trail could reach further south into areas of traditional agriculture. When the individual moves along this spine, they would experience a gradient from the larger scale traditional agriculture to a new small scale model of urban agriculture.

6 Personal Consumption and/or Commercial Production

This portion of the spine can only be accessed from the North and South points. The adjacent neighborhood provides no other entry points. Therefore the use of this stretch could function for personal consumption if neighbors knocked down their fences and opening up their back yards. There is easier access from the industrial neighborhood to the West. Therefore commercial production might function as the preferred form of urban agriculture on this strip.

7 Gleaning Headquarters

This facility will act as the distribution center for the city’s edible streetscaping, and excess harvests of partnered residential gardens and fruit trees.

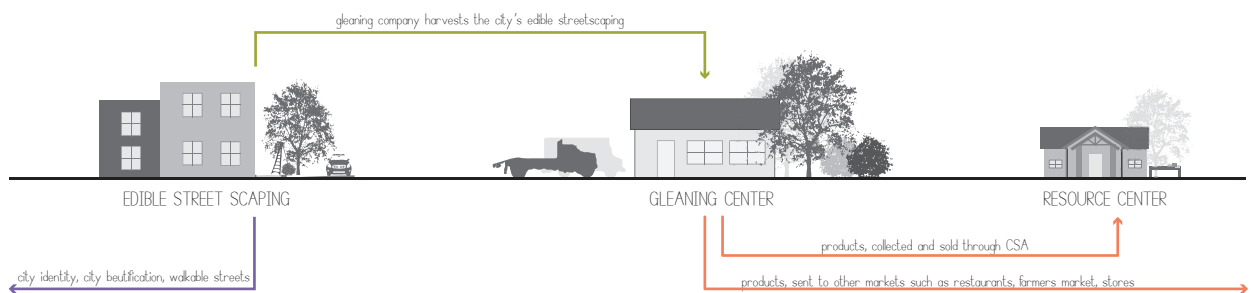


Figure 4.12 Gleaning Center Flows

8 *Education/Demonstration*

The spine divides Westmore Oaks Elementary School. The school might want to consider the development of a school garden to fit within this new urban agriculture spine.

9 *Edible Streetscaping*

To provide a unique urban agriculture identity, connector streets that support the flow of resources away from the spine should host edible streetscaping in the form of fruits trees.

10 *Pedestrian Bridge*

This pedestrian bridge crosses highway 80, again contributing to the linear quality of the resource spine and overall pedestrian connectivity of the city. This bridge will be highly visible and could act as a marketing strategy. Vines crops could be planted along its ends and banners hung from the middle could advertise the farmers market and other urban agriculture related activities, drawing people off the freeway into West Sacramento.

11 *Proposed Sycamore Park*

This park will provide a future spot for the farmers market, relocating it directly onto the proposed spine. The park plan also includes community gardens.

12 *Education/Demonstration*

Existing school gardens that are now being utilized for community gardens. The gardens should be reincorporated into the curriculum to provide valuable agriculture education.

13 *Commercial Production and/or Community Engagement and/or Education & Demonstration*

This site sits between and residential neighborhood and a trailer park. The proposed park across the street already contains community gardens, therefore this site might work as a market farm that engages the community through classes. Cooking classes and a community kitchen might function well given the close proximity to the farmers market.

14 *Education/Demonstration and/or Community Engagement*

The adjacent school and residential neighborhood make this plot ideal for a school or community garden.

15 *Commercial Production*

The adjacent industrial zone makes this site suitable for uses that do not require a strong community involvement.



Figure 4.13- A portion of the resource spine. Residents of adjacent neighborhoods can use the new spine as a trail system and recreational outlet as well as a means food security and community engagement.





What is Next?

With this new approach the city of West Sacramento can choose to implement city ran

gardens and farms similar to the pilot projects in San Francisco. The resource spine would be the ideal place for the city to focus its efforts. Pilot projects and city ran programs along

Figure 4.14- A view of the resource center from Industrial Blvd.



this spine would act as the support for future private farms and gardens in the surrounding community. In order to achieve this the City would benefit from a partnership with one of the many agriculturally focused organizations

in the region. Many of these organizations have valuable experience with the managing and operating of many different agricultural models that city officials might be lacking.

The city should also take advantage of its close proximity to UC Davis, one of the top agriculture research institutions in the nation. Hiring students is a great way for the City to overcome issues of funding.

Overall, FRESH provides a vision for what a comprehensive urban agriculture system might look like and how it might function within West Sacramento. What makes this approach in West Sacramento stand out from others is the prioritizing of goals and purposes and letting the social support needed for specific urban agricultural purposes determine where certain types will function spatially throughout the city. By promoting urban agriculture the City of West Sacramento can take advantage of urban farms' ability to reinforce the economic and social health of a city.

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