



## **Land Use & Natural Resources Committee**

November 26, 2014

### **Sacramento Region Food Hub Feasibility Analysis**

**Issue:** RUCS staff has completed work developing data, analysis and tools that will help agriculture and food stakeholders better understand and capitalize on opportunities in markets for locally grown food.

**Recommendation:** None. This item is an update and is for information only.

**Discussion:** At the December 2013 meeting of the Land Use & Natural Resources Committee RUCS staff provided an overview of the *Sacramento Region Food Hub Feasibility Analysis*, a grant-funded study delving into the economics of food hubs—facilities that aggregate, store, process, pack and distribute locally grown food—to serve the fast growing local market. The need for this work has been called for by a number of stakeholders since the beginning of RUCS.

The project has resulted in several technical deliverables documenting the market trends and business case for a regional food hub, including:

- *Research Analysis of Food Hub Trends and Characteristics*
- *Sacramento Region Food Hub Cost Estimate Analysis*
- *Sacramento Region Food Banks and Food Hub Development*
- *Sacramento Region Food Hub Business Plan and Feasibility Toolkit*
- *Impediments to Supplying Locally Grown Specialty Crops*

Overall, the study concludes that a food hub can be a financially viable business enterprise in the region. First, the project quantifies the market imbalance between ever-increasing demand for local food and current levels of local production. The study then describes gaps in the current food system that limit expansion of the local market opportunity. In response, the study offers a food hub business model to address critical infrastructure gaps and build efficiencies in the market. The project demonstrates the viability of the proposed business model through detailed cost, phasing and financial analyses. Finally, the project summary concludes with recommendations for investors, growers and local governments to help realize this important economic and community development opportunity.

At the December 2014 committee meeting project staff will present the top-level results of the study. Attachment A, *Sacramento Region Food Hub Feasibility Analysis*, provides an executive summary of the project's research findings to serve as reference to the staff presentation.

Approved by:

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Attachment

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*A project of the  
Rural-Urban Connections Strategy  
(RUCS)*

## SACRAMENTO REGIONAL FOOD HUB ANALYSIS



*Prepared by:*

**Applied Development Economics, Inc.**

*In partnership with:*

**Foodpro International, Inc.**

**The Hatamiya Group**

**DH Consulting**

## SACRAMENTO VALLEY FOOD HUB FEASIBILITY ANALYSIS

### PROJECT SUMMARY

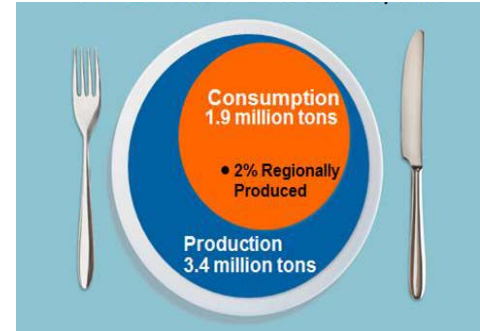
November, 2014

## ABOUT THIS PROJECT

The six-county Sacramento region is America’s Farm to Fork Capital, with a wealth and diversity of agricultural bounty that is unrivaled. It is at the heart of one of the largest agricultural economies in the world. Some of the region’s key assets include:

- Almost 1.5 million acres of farmland, with more than 7,200 farms and ranches of all sizes<sup>1</sup>
- Production of more than 150 crops totaling 3.4 million tons<sup>2</sup>
- Farm gate value of crop production of \$2.15 billion in 2013<sup>3</sup>
- An estimated \$3.4 billion annual output in the overall agriculture and food industry cluster value chain, employing more than 37,000 workers in 2011<sup>4</sup>

Annual Sacramento Region Food Production and Consumption Estimates



*SACOG is an association of local governments in the six county Sacramento region providing transportation planning and funding and serving as a forum for regional issues, including linking land use, transportation and air quality. The Rural-Urban Connections Strategy (RUCS) is the region’s rural economic and sustainable strategy complementary to the Blueprint, the region’s overall growth strategy.*

[\(http://www.sacog.org/rucs/\)](http://www.sacog.org/rucs/)

The Sacramento region produces food for people worldwide, with systems in place to reach local, national and global markets. Yet, ***the Sacramento Area Council of Governments (SACOG) estimates that of the almost 1.9 million tons of food consumed within the region, only two percent comes from local sources.***

Through its ground-breaking Rural-Urban Connections Strategy (RUCS), SACOG and RUCS stakeholders identified the need for expanded ***“regional agricultural infrastructure”*** to increase the amount of locally grown food reaching local markets. ***Agricultural infrastructure encompasses aspects of aggregation, packing, processing, storage, marketing and distribution capacity and facilities,*** forming what many are calling ***“food hubs.”*** Food hubs help connect locally produced and source-identified foods to local markets by creating new market channels between growers and consumers. As the food hub and local food system scale expands, it can serve larger markets, such as institutional and wholesale buyers, and even markets outside of the SACOG region.

To help bridge this market gap and capitalize on an important emerging economic development opportunity, SACOG obtained funding from the California Department of Food and Agriculture, the California Strategic Growth Council and the U. S. Department of Housing and Urban Development to assess the feasibility of developing new regional agricultural infrastructure, focusing primarily on food hubs. The **Sacramento Regional Food Hub Analysis**, managed through RUCS, builds upon several previous analyses, feasibility studies and local initiatives, producing new analytic tools and a business plan for a regional food hub model and associated infrastructure.

<sup>1</sup> Farm and land estimates, 2012 USDA Census Agriculture.

<sup>2</sup> 2010 estimates of Crop production, SACOG Crop Map, [www.sacog.org/rucs](http://www.sacog.org/rucs).

<sup>3</sup> County Agricultural Commissioner Reports, 6 counties, 2012.

<sup>4</sup> “Capital Region Prosperity Plan,” Next Economy, Valley Vision, March 2013, p.17.

SACOG developed the project’s tools, models and business plan as resources for entrepreneurs, jurisdictions, developers, investors and other stakeholders to advance the development of regional agricultural infrastructure. This expansion will enable the region to meet its stated goals to:

- Improve the economic viability of local growers by creating new markets and increasing capacity;
- Increase access to healthy foods, especially fresh produce, in underserved communities;
- Help meet strong and growing consumer, business and institutional demand for fresh, local and sustainably grown produce;
- Keep important agricultural lands in production;
- Strengthen the region’s many rural communities; and,
- Increase business growth and job creation, a priority of the regional prosperity strategy, Next Economy.

To conduct the project, SACOG contracted with a consulting team (Project Team) led by Applied Development Economics, Inc., in partnership with Foodpro International, Inc., the Hatamiya Group, and DH Consulting. The Project Team, along with SACOG, prepared several interrelated reports, described below, which contain findings resulting from detailed market and financial research, consultation and analyses.

#### SACRAMENTO VALLEY FOOD HUB FEASIBILITY ANALYSIS REPORTS

- ***Research Analysis of Food Hub Trends and Characteristics:*** Overview of national trends on food hubs, market context including information on illustrative suppliers and institutional/business consumers of fresh produce in the region, and examples of successful/promising types of hub business models.
- ***Sacramento Valley Food Hub Cost Estimate Analysis:*** Capital and operating costs for a prototypical 22,150 square foot hub enterprise with mid-scale aggregation, distribution and processing functions.
- ***Sacramento Valley Food Banks and Food Hub Development:*** Capability of food banks to incubate and/or support a regional food hub, and their role in transforming the regional food system by sourcing and promoting healthy, locally grown foods and expanding their own infrastructure/facilities.
- ***Sacramento Valley Food Hub Business Plan:*** A business model, financial feasibility analytic tools and business plan for the proposed hub, including information on regional market demand, illustrative target crops, and findings of the feasibility analysis. It is supplemented by the ***Financial Feasibility Toolkit***, a user manual that accompanies pro forma worksheets and illustrates how the business model feasibility analysis works.
- ***Impediments to Supplying Locally Grown Specialty Crops:*** Identification of barriers for both growers and food hubs in building and scaling up the local food system, and analysis of possible economic development incentives aimed at overcoming barriers for specialty crop market avenues.

## KEY FINDINGS

*The Sacramento Valley Food Hub Feasibility Analysis concludes that a Sacramento region food hub can be financially viable at the right scale and product mix.* The study offers a conceptual business model for a location-neutral regional food hub, based on market analysis and extensive consultation with stakeholders and experts in food system innovations, and tests the feasibility of the model using financial analysis tools. This document provides a summary of key findings, recommendations, and conclusions for realizing this economic and community development opportunity.

## The Sacramento Region Market Opportunity

### Fresh Produce Regional Demand

Residents in the six-county Sacramento region consumed almost 1.9 million tons of food in 2012. More than half of this total came from fruits, nuts and vegetables (specialty crops), showcasing the significant existing demand for fresh produce in the region.

**TABLE 1. ANNUAL TOTAL FOOD CONSUMPTION BY COUNTY AND REGION, 2012  
(IN PRIMARY WEIGHT TONS)**

Food Group	SACOG Region	Sacramento	EI Dorado	Placer	Sutter	Yolo	Yuba
Fruits	385,393	236,356	29,432	58,956	15,489	33,272	11,887
Vegetables	669,185	410,403	51,105	102,369	26,895	57,773	20,641
Nuts	5,968	3,660	456	913	240	515	184
<b>Subtotal</b>	<b>1,060,546</b>	<b>650,419</b>	<b>80,993</b>	<b>162,238</b>	<b>42,624</b>	<b>91,560</b>	<b>32,712</b>
All Other Foods (1)	837,127	513,399	63,931	128,060	33,644	72,272	25,821
<b>TOTAL tons</b>	<b>1,897,673</b>	<b>1,163,818</b>	<b>144,924</b>	<b>290,298</b>	<b>76,268</b>	<b>163,832</b>	<b>58,533</b>

(1) Other Foods includes meat, eggs, grains, fat/oils, dairy, sugar

Source: SACOG Regional Food Consumption Calculator analysis of USDA's FICRCD and LAFA data bases.

The demand for locally grown, source-identified, healthy and sustainably produced food is growing rapidly. The box below highlights just some of the market trends and policy market drivers that will accelerate the demand for locally grown food in the next several years.

### SOME TRENDS AND MARKET DRIVERS FOR LOCALLY GROWN FOOD

- National consumer surveys document local and sustainably produced foods as a major market trend. Project interviews with a wide range of local stakeholders, including industry associations, hospitals, restaurants, schools, food banks, distributors, growers, and jurisdictions all validated this trend.
- In May 2014 the California State University Board of Trustees approved a statewide Sustainable Food Policy dictating at least 20% of all campus food spending by 2020 goes to local farms and businesses. Likewise, in July 2014 the University of California President announced the UC Global Food Initiative to explore new policies whereby local growers can become campus suppliers.
- Hospital systems and school districts throughout Northern California are working to increase the purchasing of sustainably and regionally grown fresh produce, impacting future supply chains.
- In October 2014 the Sacramento Kings announced they will work with local chefs, farms, vineyards, breweries and other companies to source 90 percent of the new downtown arena's food and beverages from within 150 miles.

## Supply/Demand Imbalance of Crop Production/Consumption

The existing and future consumption of specialty crops is a strong market driver for the sourcing of locally grown foods.

However, as noted above, **in spite of the huge volume of crops grown within the region (3.4 million tons), SACOG estimates that only two percent of the 1.9 million tons of food consumed within the region is grown within the region.** This gap signals a major market disconnect, with a great deal of our food dollars leaving the region, but it also represents a very significant market opportunity.

The Project Team further explored this market opportunity by identifying supply/demand imbalances for 23 specific target crops that exhibit strong market opportunity to supply a regional food hub. While there are some data limitations, the analysis provides a good indication of existing market gaps, as shown in Table 2.

For four crops - lima beans, peaches, tomatoes and walnuts - the amount of produce grown far exceeded the amount needed to provide for local consumption levels, but most of these crops are exported from the region. Excluding these crops from the supply/demand calculation, **there were 3,519 acres of target specialty crops in production in the region in 2012, with 20,858 acres needed to meet demand (at existing consumption levels) – a gap of more than 17,000 acres.**

**TABLE 2. SACRAMENTO REGION PRODUCTION (SUPPLY) VS. CONSUMPTION (DEMAND) OF TARGET SPECIALTY CROPS, 2012**

Target Crop	Acres in Production	Acres Needed to Meet Regional Consumption
Apples	1,723	8,129
Apricots	118	225
Asparagus	63	1,721
Bell Peppers	32	323
Blackberries	102	10
Blueberries	92	570
Broccoli	56	1,497
Carrots	17	940
Celery	7	167
Chili Peppers	144	258
Eggplant	84	79
Kale	10	307
Lettuce (all)	83	2,755
Lima Beans	2,189	940
Onions	222	1,028
Peaches	9,668	747
Raspberries	14	47
Spinach	23	522
Squash	606	729
Strawberries	123	781
Sweet Potatoes/Yams	2	770
Tomatoes (both fresh & processing)	54,491	9,475
Walnuts	69,175	219
<b>TOTAL</b>	<b>139,041</b>	<b>32,239</b>
<b>TOTAL - Less Lima Beans, Peaches, Tomatoes and Walnuts</b>	<b>3,519</b>	<b>20,858</b>

Sources: For production- 2012 USDA Census of Agriculture  
For consumption- SACOG food calculator and USDA National Agricultural Statistics Service NASS 8 year CA average yields per ton

## Sacramento Region Food System Capacity, Gaps, Impediments

As a major agricultural economy, the Sacramento region has significant existing aggregation, processing and distribution capacity, but much of this agricultural infrastructure is geared for large production volume crops such as nuts, rice and processing tomatoes which are mostly exported from the region. The region also has strong, although unevenly distributed, direct market assets including farmers' markets, Community Supported Agriculture (CSA subscription food box programs), farm stands and agri-tourism.



While the area has developed agricultural infrastructure covering large export and direct market access, SACOG and RUCS stakeholders identified a lack of mid-scale produce handling and processing capacity as a gap in the regional food system. Without this locally-serving infrastructure, produce distributors and wholesalers serving institutional and commercial food service customers are challenged to source locally grown produce at a cost-effective, consistent and reliable scale, often purchasing large amounts of produce from outside the region. Further local food system challenges include:

- The strength of the current national and international commodity system and the contracts that farmers receive to grow for this system create a disincentive for many producers to expand into local production.
- Small to mid-size growers in particular face many challenges in growing produce for local consumption, including a shortage of supply chain infrastructure, lack of access to larger markets, labor costs and complex regulatory requirements.
- Existing procurement policies make it difficult for many institutions to purchase locally grown specialty crops. There is fragmentation of purchasing power across types of customers such as schools and hospitals.

## Sacramento Valley Food Hub Model

Through research, stakeholder input and analysis, the Project Team has identified the need for a locally-serving food hub to overcome supply chain challenges and help realize the local market opportunity. Several types of food hub business structures exist, including for-profit, non-profit and cooperative, that target different market segments and objectives. SACOG's Agricultural Infrastructure project offers a regionally-tailored food hub model to capitalize on regional assets while building capacity in the local food system:

The Project Team has developed a ***Sacramento Valley Food Hub Business Model*** that focuses on **creating a direct market channel for local source-identified fresh produce geared to distributors, wholesalers and institutions.** The model targets the region's critical food system gaps while building on existing distributor contracts and relationships. Additionally, the model assists smaller and mid-sized growers, builds efficiencies in the institutional markets and can help address community food access and health issues. A for-profit business enterprise targeting significant regional demand for fresh food appears to be the most likely to succeed in reaching a viable level of operations within five years.

## Capital Costs and Phasing of the Business Model

The Project Team’s detailed cost analysis estimates the food hub business model would require a **total project investment of \$6.9 million**. As with any business, the food hub enterprise will undergo several phases of growth. As shown below, this phasing over seven years will allow a reasonable entry point into the regional food system and time for the hub operator to build market relationships and capacity.

<b>Phase I</b> <i>Year 1: Start-Up</i>	The operation locates within an existing facility, incubating with an existing partner if possible, with 2 limited sorting and packing production lines
<b>Phase II</b> <i>Years 2-3: Scaling Up</i>	One to two years of growth in a leased facility as the hub scales up operations for aggregation, sorting, packing, storing, packaging and distribution of fresh produce
<b>Phase III</b> <i>Years 4-5: Stabilization</i>	The hub moves into its own 22,000 square foot facility and adds processing functions, gaining the ability to sell consistently to larger institutional buyers, with a stabilized level of operation on 2+ production lines
<b>Phase IV</b> <i>Years 6-7: Full Capacity</i>	The facility reaches full capacity, with three production lines during Year 6, and expanding in Year 7 with four production lines as the market grows for the hub’s services and products and more processing equipment is added

The project’s expansion results in the phased capital outlays shown in Table 3, for equipment and systems starting in Year 2, and design and construction of a mid-scale food hub facility (22,150 s.f.) which would be ready for operations in Year 4.

Several factors could reduce the project’s overall cost estimate, including the costs of land, permits and infrastructure as well as incentives such as a new sales tax exemption for the purchase of manufacturing equipment, energy and utility rebates, permit streamlining, or land write-downs by a jurisdiction. The project’s investors could also choose to retrofit an existing facility, though it would be important to do a comparative cost analysis with new construction.

TABLE 3. SACRAMENTO VALLEY FOOD HUB PROJECT INVESTMENT COST ESTIMATE BY YEAR, YEARS 2-7							
Cost Center Category	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Project Total
<b>GRAND TOTAL PROJECT VALUE (CAPITAL TO BUILD &amp; INSTALL)</b>	<b>\$884,903</b>	<b>\$3,198,539</b>	<b>\$574,308</b>	<b>\$515,667</b>	<b>\$829,685</b>	<b>\$918,754</b>	<b>\$6,921,856</b>

Source: Foodpro International, Inc.

## Food Hub Level of Production and Needed Agricultural Supply

Table 4 on the following page illustrates the levels of throughput (tons of produce per hour) and the associated agricultural acreage needed to supply hub operations by year. Processing lines added over time provide for additional value-added activities such as freezing and drying. During each phase, the volume of product moved through the hub increases as hub managers develop market and supplier networks. Participation of larger growers, especially in the initial phase of the hub, could help provide the product volumes and competitive pricing necessary to achieve economies of scale.



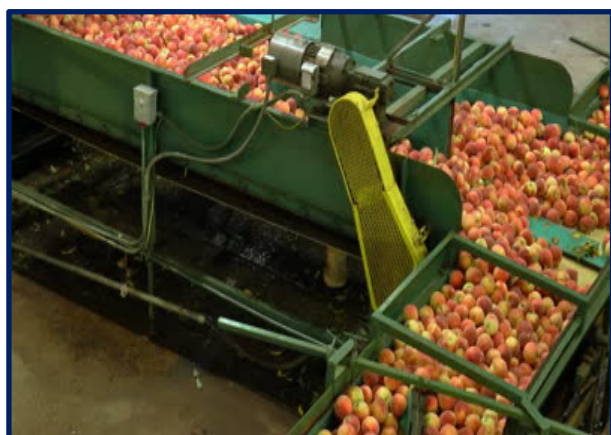
**TABLE 4. ESTIMATED LEVELS OF PRODUCTION AND ACREAGE NEEDED FOR HUB OPERATIONS, BY YEAR**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Processing lines	2 limited	2 limited	2 limited	2	2+	3	4
Tons of production/hr.	-	.25	<.5	1	2	3	4
Total tons	312	572	832	2,059	4,076	5,830	7,787
Agriculture Acreage Needed	27	50	72	171	351	539	743

Source: Project Team Analysis

The project’s phasing structure results in a manageable expansion plan, requiring only 27 acres of supporting agricultural production in the hub’s first year of operation and 351 acres by year five. **There are at least 526,000 acres of specialty crop production in the region.** Given this existing acreage, there is enough existing production to support several food hubs at various locations in the region.

### Food Hub Financial Feasibility Analysis Results



The Project Team conducted a detailed financial feasibility analysis for the prototypical food hub business model, developing a set of pro forma analytic business tools for each year of operations, from start-up to scaling up of operations to a profitable level of operation. The analysis tested various alternatives of crop volumes, types and mixes across the hub’s processing lines using actual 2013 wholesale commodity price data for the 23 target crops. The analysis assumes the hub operator finances 80 percent of the capital cost and fronts half the first year’s operating expenses as an equity investment.

Table 5 on the following page reports the top-level findings of the financial feasibility analysis, and demonstrates that the **proposed food hub model can be a viable business enterprise in the region.** Given the assumptions of the financial analysis, the hub produces a **positive net cash flow by Year 5 and achieves a positive Internal Rate of Return (IRR) by Year 8.** At stable operations in year 7 the food hub model generates revenues of over \$18 million a year and an annual net cash flow of \$2.25 million, with an IRR of 24 percent by the end of the 20 year pro forma. To realize these economic returns the hub model requires an estimated cash investment of \$3.6 million to cover expenses in excess of operating income until the facility generates a positive net cash flow.

The financial feasibility analysis is based on wholesale prices and estimates for the more basic levels of processing. As the hub is viable at this level of operations, it will have the opportunity to generate higher levels of revenue and return with more value-adding activities and services such as providing liability insurance, certification and training for growers.

**TABLE 5. PRO FORMA ANALYSIS - HUB 20 YEAR ANNUAL OPERATIONS**

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 10	Year 15	Year 20
<b>Revenue</b>		\$459,030	\$858,000	\$1,248,000	\$4,609,774	\$8,828,863	\$12,980,958	\$18,257,245	\$18,257,245	\$18,257,245	\$18,257,245	\$18,257,245
Processing Lines		\$459,030	\$858,000	\$1,248,000	\$4,609,774	\$8,828,863	\$12,980,958	\$18,257,245	\$18,257,245	\$18,257,245	\$18,257,245	\$18,257,245
Add'l Services Revenue												
<b>Expenditures</b>		\$707,462	\$1,113,213	\$1,500,862	\$4,211,981	\$7,530,961	\$10,989,236	\$16,004,295	\$16,004,295	\$16,004,295	\$16,004,295	\$16,004,295
COGS (w/pkging)		\$383,609	\$734,448	\$1,068,288	\$2,644,131	\$5,018,658	\$7,625,788	\$11,642,894	\$11,642,894	\$11,642,894	\$11,642,894	\$11,642,894
Labor		\$271,863	\$324,643	\$368,368	\$894,823	\$1,305,793	\$1,678,306	\$2,094,198	\$2,094,198	\$2,094,198	\$2,094,198	\$2,094,198
Operating Costs		\$51,989	\$54,122	\$64,206	\$673,027	\$1,206,511	\$1,685,141	\$2,267,204	\$2,267,204	\$2,267,204	\$2,267,204	\$2,267,204
<b>Net Op. Inc. (EBITDA)</b>		(\$248,432)	(\$255,213)	(\$252,862)	\$397,794	\$1,297,902	\$1,991,722	\$2,252,950	\$2,252,950	\$2,252,950	\$2,252,950	\$2,252,950
Percent of Sales		-54%	-30%	-20%	9%	15%	15%	12%	12%	12%	12%	12%
<b>Debt Serv. On Capital</b>			(\$103,578)	(\$484,660)	(\$541,354)	(\$601,457)	(\$698,523)	(\$744,935)	(\$744,466)	(\$744,466)	(\$143,611)	0
<b>Annual Equity Investments</b>	(\$353,731)	(\$255,213)	(\$695,434)	(\$664,297)	(\$105,140)	(\$105,531)	(\$169,796)	(\$82,369)	\$0	\$0	\$0	\$0
<b>Net Cash Flow</b>	(\$353,731)	(\$503,645)	(\$1,054,225)	(\$1,401,820)	(\$248,700)	\$590,915	\$1,123,403	\$1,425,646	\$1,508,484	\$1,508,484	\$2,109,339	\$2,252,950
<b>Internal Rate of Return</b>							-20%	-3%	6%	15%	22%	24%
<b>Operating Characteristics</b>												
Total Tons Processed		312	572	832	2,059	4,076	5,830	7,787	7,787	7,787	7,787	7,787
Revenue per lbs		\$0.74	\$0.75	\$0.75	\$1.13	\$1.07	\$1.11	\$1.17	\$1.17	\$1.17	\$1.17	\$1.17
COGS per lbs		\$0.61	\$0.50	\$0.50	\$0.65	\$0.61	\$0.65	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75
Gross Margin		\$0.12	\$0.25	\$0.25	\$0.48	\$0.46	\$0.46	\$0.42	\$0.42	\$0.42	\$0.42	\$0.42
Percent of Sales		16%	33%	33%	43%	43%	41%	36%	36%	36%	36%	36%

## TARGETED PROJECT FINDINGS

### FOR INVESTORS

#### Hub Business Model

The Project Team found that a for-profit business model for a Sacramento Valley food hub is the best approach. The Project Team considered a number of important factors in reaching this conclusion, including:

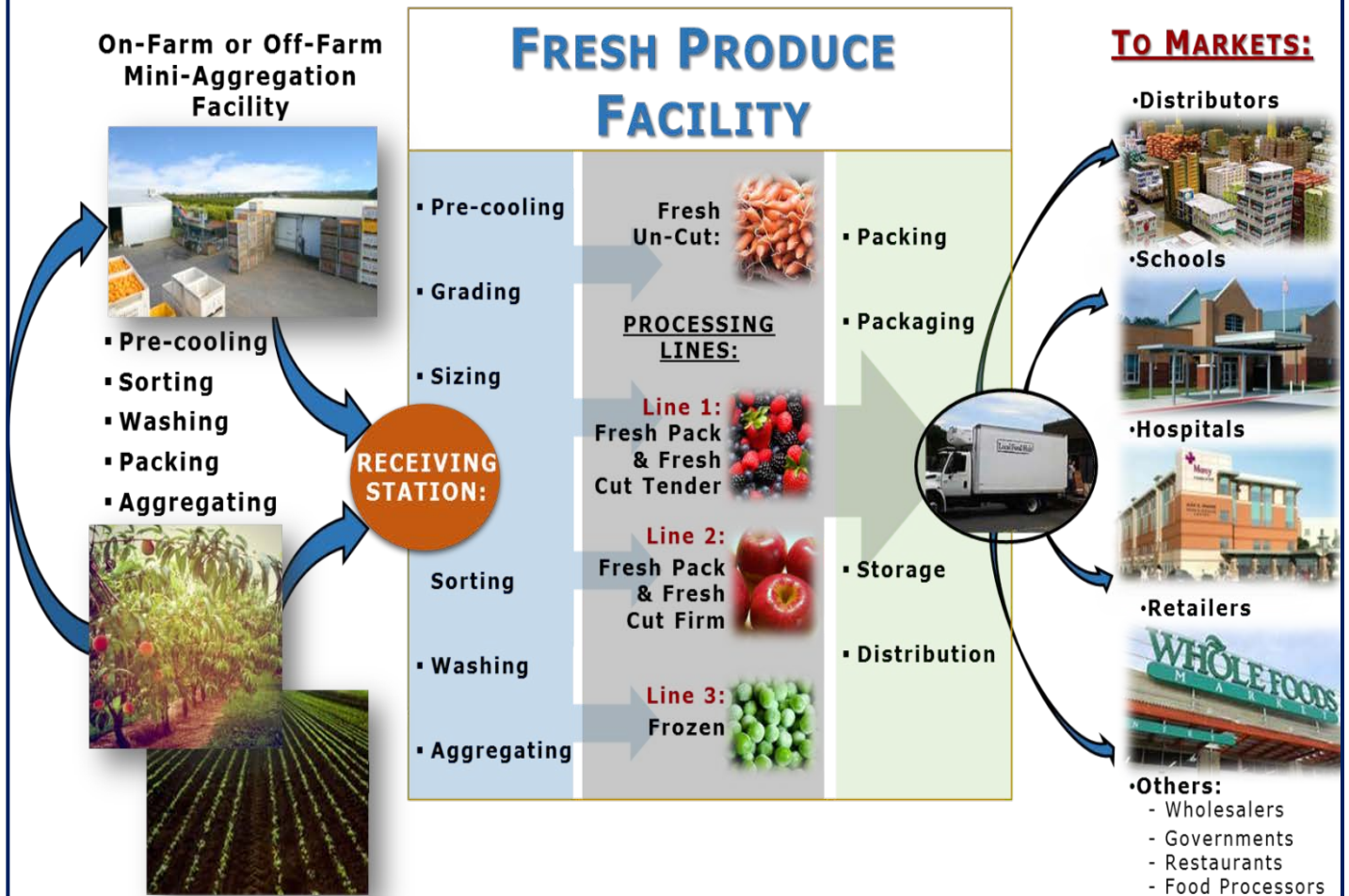
- Diversity of current regional crop production as well as the potential for future production
- Scalability of crop production mix and market distribution opportunities
- Flexibility of the proposed food hub processing lines to meet market demand
- Strong potential for short-term profitability and ongoing viability
- Reasonable initial capital investment, and
- Lack of need for public subsidy

The project's pro forma shows that the hub needs to reach an expanded scale of operations to achieve profitability and sustained viability over the long-term. Many nonprofit hubs across the country do not operate at this projected level of scale and can face difficulty achieving the level of private capital investment needed without some form of public subsidy. In contrast, the for-profit model helps overcome funding challenges and offers flexibility to respond to market conditions and opportunities well into the future. The hub's business model is designed with the capacity to quickly adapt processing lines for different crop mixes depending on market opportunities and emerging food trends.

#### Hub Target Markets, Functions and Services

The hub's business model provides a market channel for locally sourced and identified foods to access the region's institutional and large-customer markets using existing supply networks. To fill this market niche the proposed Sacramento Valley hub model incorporates a continuum of activities and services beyond a basic hub facility, including light food processing, marketing, branding and technical assistance to farmers. Two functions are essential—marketing and creating a clear and compelling brand for the hub, and providing technical assistance and capacity building to farmers. Research shows that growers working with food hubs improve their business and crop planning, which often results in better financial outcomes. Emphasizing a strong relationship with growers will help ensure a consistent, quality supply of produce, especially during the first few years of the hub. The graphic below illustrates the hub's proposed markets, functions and services, which are described in detail in the *Cost Estimate Analysis* and *Business Plan* reports.

# SACRAMENTO VALLEY FOOD HUB



## Partnerships

As a for-profit enterprise, the hub should look to partner with a wide range of entities involved in the regional food system. Formalized partnerships with nonprofits and other entities would enable the region to leverage features of nonprofit hub models – including the ability to generate funding support from government and philanthropic sources. As an example, complementary hub-related services such as workforce training and social enterprise activities could be provided by a nonprofit partner such as a food bank, a training organization, or an economic development entity. Community and environmental services could be provided by partner organizations to improve access to healthy foods in underserved neighborhoods and strengthen the overall sustainability of the regional food system. The *Business Plan* provides information on partner organizations and roles they could play in providing support for locally grown and source-identified foods.

In particular, the region’s food banks are playing an important role catalyzing the budding regional food system. The food banks have been instrumental in increasing procurement of fresh locally grown produce and building more robust local food distribution channels to underserved communities. In addition to these social enterprise functions, the food banks can be an important logistics and transportation partner to the hub.

## For Growers

### Hub Target Crops, Consumption and Production

The project analysis used a set of market, consumption and production data bases and criteria to identify a target list of 23 specialty crops that represent a strong market opportunity for the hub and for growers supplying the hub (shown in Table 2). The list was refined using the following set of criteria for crop selection:

- Are available locally or could be grown in the region
- Have a high ratio between purchase and sales prices
- Have a high potential for value-added activities
- Extend the seasonality of fresh produce and provide year-round supply to the hub
- Capture innovations in food trends

The pro forma analysis used 2013 farmgate commodity price data, which reflects the prices growers have actually received; these prices are a good proxy for what growers could expect to receive from the hub for the selected set of crops during early years of operation. The analysis suggests it would be profitable for farmers in aggregate to grow for the hub at the pro forma prices. Table 4 above illustrates how the acreage requirement to supply a local hub is minimal relative to the total amount of specialty crop production in the region. Overall, many existing and new farmers already have indicated an interest to supply produce for a hub.

### For Jurisdictions

Jurisdictions throughout the region have expressed support to expand and develop regional agricultural infrastructure. While the food hub market and financial analyses show the hub can be a viable business operation, local jurisdictions can help create an environment conducive to investment through site location, infrastructure readiness, regulatory barriers removal and provision or leveraging of incentive programs. The **Business Plan** identifies some key barriers and potential solution-oriented actions in zoning and local permitting processes as well as financing options and overall regulatory compliance. Likewise, the **Impediments** report delves into possible state and local incentives that local governments can employ so that farmers need not shoulder the full burden of scaling up the local food system. These include local purchasing requirements, sales tax exemptions, new hiring credits and permit streamlining.

The project analysis is **location neutral**, instead documenting key location criteria for site selection: the hub itself should be centrally located to suppliers and customers, have access to major transportation routes, be on a site that is fully serviced with infrastructure if possible, and have expansion potential, with five acres optimal. Importantly, local jurisdictions should ensure that sites are appropriately zoned and serviced and that the permitting process is supportive of agricultural and food-related businesses.

The project analysis indicates sufficient demand to support more than one hub in the region as hub operations expand, regional demand for locally grown produce increases and markets outside of the region—most notable the San Francisco Bay Area—also increase. As such, there is opportunity for several communities to benefit from serving as a hub location.

## CONCLUSIONS

The research reports, feasibility tools, hub business plan, analysis of impediments and incentives, and case studies and models that are components of the Sacramento Regional Agricultural Infrastructure Project show that:

- There is strong market demand and large gaps between the consumption of fresh produce and amount of produce sourced locally. This is an important economic development opportunity.
- In order to meet this market opportunity and decrease the loss of food dollars outside the region, a food hub model that increases local sourcing for local markets offers a solution.
- A key hub objective is to create a dedicated market channel primarily for large-scale consumers, including existing fresh produce distributors and wholesalers serving institutions such as schools and hospitals, and food banks, governments, businesses and other commercial and nonprofit customers which are seeking locally and sustainably grown, source-identified food.
- A Sacramento Valley food hub can be a feasible business operation. The most promising model appears to be a for-profit business to reach the scale of operations needed for long term financial sustainability.
- The conceptual hub business model demonstrates potential feasibility with basic aggregation, sorting, packing, storing and distribution functions, reaching a positive cash flow in five years and a positive Internal Rate of Return (IRR) after eight years. Increasing value-added activities such as a variety of niche processing will accelerate and increase the economics of the hub.
- There is enough market demand in the region to support more than one hub as the system scales up over time.
- There are continually emerging market drivers such as procurement and other policies by major institutions like universities and hospitals that will expand the market demand for locally sourced foods; the region must be prepared to handle this demand.
- Knowledgeable staff and delivery of supportive services to growers, such as business planning, branding and marketing, and food safety training and certification, are vital components for the scaling up and long term success of the hub.
- The conceptual hub model is a pilot that could be developed in many locales throughout the region, although ideally the hub should be centrally located to transportation facilities and markets.
- Many jurisdictions throughout the region are interested in participating in food system-related economic development activities and need to ensure they are ready with sites, facilities, infrastructure, land use and zoning ordinances and other policies. The *Business Plan* provides information on financing resources that could be leveraged for development and operations of the hub.
- The regional food system will be enhanced by collaboration among business, nonprofit, public and civic sector partners, as described in the *Business Plan*, especially to address impediments to increasing locally-oriented agricultural production, developing regional agricultural infrastructure and expanding economic opportunity throughout the region.

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