



# Strategic Public Investment in San Diego's Regional Food System: Incubator Farm

## Research and Financial Analysis

2022

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## I.0 Summary of Report

The project is a result of an RFP from UC San Diego Center for Community Health, funded by County of San Diego Health and Human Services Agency, Healthy Food Access Services. The goal of this project is to identify the most strategic use of public funds to launch an incubator farm in San Diego county that would allow farmers to scale up with access to public land. The startup of an incubator farm would also intentionally support the county resilient food system, climate action, and decarbonization goals. The result of our work is an implementation plan for activation of an incubator farm, and all that would be required for it to create a successful model for farmers.



## 1.1 Summary of Recommendations

The Farm Incubation Program concept development is a direct response to the needs of San Diego small, sustainable farmers to scale up in a region where the cost of land and land access are the biggest challenges facing farmers wanting to scale up. Incubator farms exist all around the country, and the opportunity to secure a space for beginning farmers is appropriate for this region right now. During our focus group, approximately 20 different farming groups and food system nonprofit organizations signed up to help with future efforts to develop this dream. Currently, at least 2 organizations in San Diego - Foodshed Small Farm Distro and RCD of San Diego - are incubating very small farms but have no room to scale up - and would have farmers that want to join the incubator immediately, making their very small plots available to the next wave of future farmers. The development of an incubator farm would also support a variety of county initiatives around building a more resilient future food economy through support for local and BIPOC farmers, and fighting climate change through shorter food chains and expansion of regenerative farm practices.

The keys to success will be:

- One organization taking a leadership role in the next stage of project development, fundraising, planning, and land acquisition.
- Build a strong coalition of farmer advocacy and technical support organizations to ensure this project keeps moving forward, and that it is truly serving the needs of the local farmers by building up capacity for farmer assistance networks.
- Working to solidify the opportunity to create a long term farm lease in the San Pasqual Valley Agricultural Preserve in cooperation with the city's DREAMS office and PUD.
- Determine the appropriate scale of the project in order to finalize a lease and financial needs for the project, in order to launch a robust fundraising strategy.
- Plan to start small, stabilize, grow and repeat; working with the appropriate teams to ensure that the right size land is acquired and there is an opportunity to grow.
- Make the right capital investments in the farm's infrastructure to ensure the farmers can be successful on the land, such as wash stations, coolers, transportation, and equipment.
- Build a strategy from the start that addresses farmer exit, and supports farmers finding appropriate land lease and/or purchase opportunities upon exiting the program.

## 2.0 Description of Project

### 2.1 Current Status of Project

San Diego County is home to over 5000 small farms, 3500 of which are under 10 acres. Some of those farms are located on small incubator properties, such as the quarter acre plots managed by the Resource Conservation District of Greater San Diego County in the Tijuana River Valley, or urban farms in the city. Organizations like Wild Willow Farm and Education Center and Foodshed Small Farm Distro are training farmers in sustainable practices. However, many small farms hit a wall in their ability to expand due to the barriers that exist in the region, such as:

- Land access and the unaffordable cost of land compared to potential revenues, and available startup incubator plots being in the floodplain
- Cost of water
- Infrastructure costs and lack of regional shared infrastructure
- Cost of vehicles and cooling facilities coupled with lack of supply chain support and facilitation
- Technical assistance needs in business and finance
- Lack of long term land leases, discouraging farmer investment in growth
- Affordable housing proximal to the farm

Currently, various organizations are working in a technical assistance capacity to help farmers get access to land. San Diego Food System's Alliance (SDFSA), Foodshed Small Farm Distro, and the Conservation Fund have been working together to help farmers access land, which is a work in progress. Other organizations like RCD of San Diego have made quarter acre plots available for farms to incubate very small farm businesses. Wild Willow Farm and Foodshed Small Farm Distro offer different types of farmer training as well. However, the additional needs that an incubator farm would address would dramatically increase these farms' chances of long term viability through land access, shared services, and technical assistance.

This project focuses on distilling the shared vision of county stakeholders of what that incubator farm would offer to potential farmer members, and what strategic public investment would be beneficial to launch this project. We'll also examine exactly how such a project would support a number of interconnected county reports and the corresponding goals and initiatives, such as:

- The State of the Food System Report which identifies the challenges of the food system in the county, especially for the 5,082 small farms; as well as opportunities
- 2030 Food Vision, which includes major goals and objectives for cultivating food justice, fighting climate change, and building a more resilient food system
- Climate Action Plan, where climate measures can be reached only with contributions from a stronger local food system
- Regional Decarbonization Framework, where carbon farming plays a major role

## 2.2 Why are we addressing this project?

We are addressing this project because:

- Foodshed small farm distro is running a climate smart farming program, training beginning farmers on sustainable farming practices. Most of those farmers are on questionable leases or need more land.
- Foodshed would like to supply a larger produce prescription program for the food insecure, but the farmers need more land to provide for the program.
- An incubator farm would help decrease the loss of farms in the region. Farmers are aging to retirement and without access to land and additional resources such as housing and equipment, beginning farmers cannot create a viable career in farming.
- Beginning farmers cannot find affordable land to access for scaling up. BIPoC beginning farmers are facing greater challenges in a structurally racist system. An incubator farm can address these issues in some form.
- An incubator farm would create a home for shared facilities and equipment that beginning farmers could utilize to more successfully scale up.
- The city and county have land assets in inventory that could be utilized for this project.
- Farms without adjacent housing are more likely to fail.
- An incubator farm in the county would lead to greater resilience in the food system, a shorter food supply chain, and an opportunity to lead climate smart farming initiatives via placemaking.

“San Diego says they care about farmers and agriculture, but what are you actually doing to champion the growth of farmers and new farmers too? Farms need to do more than survive; we need healthy farmers and healthy workers, healthy housing for farm workers - who wants to barely scrape by? Farming is so important for healthy and resilient communities, adjacent to urban areas it’s so important. Most farmers can’t even afford a health program, let alone retirement - how do you attract a new generation of farmers with that?”

*Craig Kolodge Ph.D., CPESC, QISP ToR - San Pasqual Valley Soils*

## 2.3 Timeline for project: 3-5 years and beyond

The timeline for this project varies depending on the land and funding mechanisms selected.

The land selection, lease development and fundraising efforts are likely going to take up to 2 years to complete. Once land is acquired and the project is financed, the development of the infrastructure and programs to get farmers onto the land would take up to 1 additional year.

## 2.4 What resources are needed?

**Incubator Farm Champion:** Every program needs to have an “owner” that takes responsibility for guiding and driving the program to success. This is the most critical resource needed for this project. There are a variety of stakeholders in San Diego that want this to succeed and are willing to put in the work to start and run an incubator farm, but there is no clear leader or leading organization charged with driving it at this time. Foodshed Small Farm Distro has expressed interest in becoming a champion.

### Capital Projects

- **Land:** The literal and figurative foundation of an incubator farm is the land on which it's built. There is currently no singular, clear opportunity for land to house this program, but there are many leads and opportunities identified. Stakeholders from Conservation Fund, City of San Diego, and San Diego County have identified tracts of land that are suitable to start an incubator farm. The land should have good soil health, access to water, ease of access via roads, and be appropriately zoned and permitted for an incubator farm. This land does not necessarily need to be owned by the incubator farm entity, but could also be in a secure, long-term lease.
- **Water:** Water in California is scarce and expensive. Ensuring that the land has adequate access to water, and water use is budgeted for, is critical.
- **Infrastructure:** Infrastructure will need to be funded, procured, and managed, and high performing incubator farms require a lot of capital expenses. This could include a warehouse, housing for farmers, processing infrastructure, irrigation, cold storage, dry storage, tractors, and more.

### Farmer Support Resources

- **Market Access Support:** All incubator farms have some level of support for sales and marketing of farm-grown product. The scope of this market access support should be established, and then marketing expertise to support and implement this identified. This can be as simple as offering marketing technical assistance resources to farmers, or as complicated as managing a food hub for product aggregation, sales, and fulfillment on behalf of the farmers.
- **Technical Assistance:** Incubator farm programs are predicated on helping farmers establish new farm businesses through access to resources and *training*. This requires either in-house or contracted technical assistance. The most critical areas for this are marketing & sales support, business planning support, and agronomic support. There are a number of organizations in the region that could be potential partners for these resources.

- **Program Exit Support:** When farmers leave the program, they will likely need assistance moving their farms to a permanent location. Developing and establishing this process is critical to farm incubation, and will ultimately determine whether graduates are successful or not. A constellation of support organizations, public entities, and land access experts will be required to make sure graduates land on their feet after exiting the program.

**Funding:** Starting and operating an incubator farm requires ongoing sources of funds. There are a plethora of opportunities to fund incubator programs including grants, foundations, community contributions, and earned revenue. Ease of funding requires a foundation of community support and stakeholders, and a strong program champion to develop and execute the fundraising strategy.

## 2.5 Who is involved?

In order to develop an incubator farm that meets the needs of its stakeholders, it is essential that these stakeholders be an integral part of the planning process. A group of organizations in San Diego have done incredible work in bringing together these early stage stakeholders to develop a unified vision for the incubator farm, but this formal process is in its nascent stages, and will require further cultivation and planning to solidify this base. The organizations can be found in further detail in section 3.2 below.

Below is a list of common stakeholders and partners involved with successful incubator farm programs:

Internal:

- **Executive Director:** Champions and guides the incubator farm program.
- **Incubator Farm Manager:** Manages program entry and exit, and oversees incubator operations. Can lead farm educational curriculum development if there is not a separate position for this.
- **Incubator Farm Coordinator:** Assists with daily incubator farm operations.
- **Administrative Assistant:** Manages bookkeeping activities, and is the support person for all incubator farm programs.
- **Finance and Fundraising Manager:** Charged with raising, monitoring, and reporting of all funds.
- **Incubator Farmers:** The actual farmers who utilize the incubator farm program. This may also include farmer families if the program allows for them to live on-site.

External:

- Existing local farmers
- New and beginning farmers
- Land conservation organizations

- Resource Conservation & Development Programs (RCD of SD)
- Soil & Water Conservation Districts
- City Officials
- City Staff
- County & State Officials
- Food System Organizations
- Food Access Organizations
- Farm Technical Assistance Providers
- Suppliers
- Land Owners
- Funders
- Other Farm Incubator Programs
- Sales Channel Partners

## 2.6 What are the critical risks?

While a farm incubator program has been considered in the larger San Diego food system community for quite some time, actually starting an incubator farm program will come with some significant risks. Planning for and mitigating these risks accordingly is critical to starting and scaling the program longer term.

Critical Risk	Start up	Scaled Up	Solutions
Land to operate the incubator farm on cannot be identified or procured	X		Lean on San Diego County and the San Pasqual Valley Agricultural Preserve for access to affordable, long-term leased land. Additional assistance from Conservation Fund and Working Lands Fund.
Land may not have adequate water availability to meet the needs of farmers initially or at scale	X	X	Ensure that land evaluation includes thorough understanding of water availability and cost at start up and at scale.
Land must be properly zoned and permitted to meet the needs of working farmers, and potentially for on-site living	X	X	Coordinate with city and county land offices to thoroughly vet permitted uses of land, including farmers potentially living in housing on property.



Lack of initial and ongoing funding	X	X	Farm Incubator lead must drive strong fundraising efforts from a diverse group of stakeholders and supporters, including individuals, organizations, and institutions.
Scope creep: Farm Incubator program being all things to all farmers and all consumers	X	X	Farm Incubator lead must lead strategic visioning and planning with the local community, and ensure that the program and mission is scoped appropriately to be achievable.
Farmers have difficulty exiting the program due to lack of stable land access		X	Cultivate deep programmatic relationships with Conservation Fund, other land stewardship organizations, county, city, and state to support robust land identification and funding sources for farmers to find land.
Lack of pipeline of qualified applicants in the long term as initial interested applicants dry up		X	Constantly cultivate interest in the farm incubator program through partnerships, presentations, and educational workshops offered to the farm community broadly. Market the program through conventional mediums such as email marketing, web presence, social media, etc.

## 3.0 Backgrounding and Existing Infrastructure

### 3.1 Summary of current county background reports

The Farm Incubator will align with the County's overarching goals and objectives for the local food system and climate resiliency. Through review of several County reports we have identified the main concepts and themes surrounding the county's vision for an improved local food system.

#### San Diego State of the Food System Report

San Diego's climate and landscape has allowed the region to prosper in agriculture, making it the number one county in the U.S. for total number of farms, and highest concentration of organic farmers. While this demonstrates the area's capacity for producing agricultural goods, the food system is currently structured primarily for export of its goods. Avocados, citrus, and tomatoes dominate the agricultural scene and many of these products are shipped out of the area to meet the nations demand for these fresh commodities. At the same time the region is also facing a multitude of challenges and barriers for current and future farmers including;

- cost of real estate
- growing development pressures
- water stress and costs
- limited succession planning for current farmers
- limited support and technical services for farmers
- lack of value and awareness around local foods
- declining agricultural lands
- climate change

In order to change the narrative around the region's food system actions to bolster and strengthen the local supply chain and local consumption must be implemented. Opportunities identified include;

- increasing the awareness and connection for consumers to local food
- focusing on niche commodities, and experimenting with planting commodities that have generally been imported
- supporting and improving sustainable agriculture practices
- planning for urban agriculture
- investing in climate smart agriculture technologies

## **Food Vision 2030**

The Food Vision 2030 builds off of the San Diego Food System Report's analysis of the County's food landscape and identifies the main goals and objectives that will be the driving forces behind the County's food system work.

The Goals include:

- 1) **Cultivate Justice**: We can *elevate opportunities for healthy food access, ownership, and power across Black, Indigenous, and people of color* in San Diego County. We can create a more just food system, one that belongs to all of us
- 2) **Fight Climate Change**: We can *invest in climate-smart agriculture, carbon sequestration, plant-rich diets, zero waste initiatives, indoor food production, and community-based food systems* in San Diego County. We can fight climate change and create a more sustainable food system
- 3) **Build Resilience**: We can cultivate diverse local and regional economies and *build shorter, fairer, and cleaner food supply chains*. We can build stronger safety nets. We can *heal relationships with the earth and one another*. We can create a diverse and resilient food system that is capable of nourishing us today and for generations to come

The document further breaks down the goals into 10 objectives and identifies key strategies under each objective. We will highlight which of these objectives and strategies align with the Farm Incubator program in the *Section 7.0 Alignment with County Vision*.

## **Climate Action Plan & Regional Decarbonization Framework**

The San Diego Climate Action Plan sets goals to reduce GHG emission and details the strategies and actions to make San Diego more sustainable, healthy and thriving. The six strategies identified include:

1. Decarbonization of the Built Environment
2. Access to Clean and Renewable Energy
3. Mobility and Land Use
4. Circular Economy and Clean Communities
5. Resilient Infrastructure and Healthy Ecosystems
6. Emerging Climate Action

The document sets measurable GHG reduction targets to reach by 2030 and 2035 for each strategy. Included in these measures are several ties to agriculture and food system work including; improving local food systems and food recovery, climate focused land use, and carbon sequestration.

The San Diego Food System Alliance published a report, [\*Linking Climate Friendly Farming Practices to San Diego County's Climate Action Plan\*](#), identifying major opportunities for climate farming practices to be linked to the Climate Action Plan. In which, farming practices including compost usage and riparian restoration were highlighted for their synergistic effects on farming

and climate systems. They also highlighted how supporting opportunities for new and beginning farmers is an investment in future carbon sinks. A farm incubator that not only provides access to land, but also trains new farmers on carbon farming practices, will have long term benefits that align with the Climate Action Plan. We will further explore the connection between the Farm Incubator program and these measures in *Section 7.0 Alignment with County Vision*.

In relation to the Climate Action Plan, the Regional Decarbonization Framework was created to assist in policy creation that will also lead to reduction in GHG emissions. This document highlights three target areas for decarbonization;

- 1) Transportation Sector
- 2) Buildings
- 3) Natural Climate Solutions and Other Land Use Considerations

The area of decarbonization through natural climate solutions encompasses carbon farming and related activities to support and engage farmers in using agriculture as a way to sequester and reduce carbon emissions. These principles will be layered into the Farm Incubator principles and program offerings.



### 3.2 Summary of current countywide infrastructure

**Current incubation, land access and education programs:**

Program Name	Program Summary
Wild Willow Farm and RCD of San Diego	3 different certification programs, Farming 101 intensive 8 week course, Principles of Ecological Farming, Small Scale Production Farming. Adjacent RCD of San Diego has 10 ¼ acre plots in use for farm incubation.

Seeds@City Farm	Farm for San Diego City College, 2 year sustainable agriculture program. Various courses available.
Solidarity Farm	Summer Farmer Training Program. Offering 5 farmers ½ acre incubator plots on their farm. Lease is not renewed for next year at present time.
Foodshed Small Farm Distro	Local food distribution hub that offers a tool lending library, farm incubation program (full) and carbon sink incentive program. This program allows higher premium payment for farm produce based on their carbon smart practices, which are qualified in tiers.
SDFSA Local Food Economies Lab	A new program that supports the viability of small-scale farmers, ranchers, fishermen, food business owners, and the communities they serve in San Diego County through consulting and technical assistance via a network of providers.
Farm to Institution Center	Part of Community Health Improvement Partners, F2I has been offering a variety of one-off farmer business and sales training programs. The San Diego Farm Sustainability Program in 2021 was most recent.
The Conservation Fund	A national organization that works to pursue environmental preservation and economic development. Has been working with Foodshed and SDFSA to identify land for farmland conservation and an incubator farm. This is early stage work in progress.
University of California Cooperative Extension	Offers various workshops and online resources to support farmers in specific crop industries.
San Diego Urban Growers' Collaborative, UC San Diego ACTRI Center for Community Health	The San Diego Urban Growers' Collaborative Project investigates the barriers and opportunities for collaboration among local urban growers to improve their viability and entry into new local markets, particularly markets that serve low-income urban residents and communities of color.
Archi's Institute for Sustainable Agriculture	Archi's Institute (in partnership with University of Minnesota Crookston) trains transitioning Military Service men and women, as well as members of the general public, to be successful entrepreneurs in the sustainable agricultural industry. They offer classes and workshops.
Mesa Grande Business	The Mesa Grande Band of Mission Indians established the Mesa Grande Business Development Corporation (MGBDC) for the purposes of developing and operating various tribal enterprises in

Development Corporation	order to generate revenue for the tribal community and tribal government. In 2022, they applied for and received a Beginning Farmer and Rancher Development Program Grant to expand their two-acre demonstration garden into a 10 acres organic farm.
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There are a variety of other organizations in the county offering food system support through advocacy and local food promotion efforts. This list has been limited to those providing educational and land access opportunities specifically for farmers. This list may be incomplete due to lack of response or findability.

**Summary of work in progress incubator farm opportunities**

At the time of this report, SDFSA, Foodshed Small Farm Distro, and The Conservation Fund have been working to identify land for an incubator farm in the county. They have had conversations with one farm on the preserve (Konyn Dairy) about subleasing under 50 acres to start an incubator farm. However, due to the holdover status of the leases in the San Pasqual Valley Agricultural Preserve, there are no currently leased lands available for a long term sub-lease, nor any land up for an RFP currently, although this can change at any moment. This concept has been in progress for about a year, but no real progress has been made due to the lease holdovers that have been in place for a very long time. Our conversations with the city office of real estate assets has led to a belief that within a year’s time those leases could be renewed and potentially open to discussions and then negotiations for sublease.

During the course of the research for this report, we connected with Jamie Kennedy, Senior Planner at the city’s Public Utilities Department. Jamie is responsible for working with the office of Real Estate Assets and Airport Management to execute any land leases. They informed us that the RFP process has been initiated for 3 properties in the San Pasqual Valley Agricultural Preserve, and has been open and supportive of sharing information and procedures to help us to understand the associated costs and requirements of leasing those agricultural lands.



### 3.3 Identification of stakeholders

<b>Organization</b>	<b>Name</b>	<b>Area of work</b>
Wild Willow Farm	Gregg Cady	Farmer training, farm incubation
RCD of San Diego	Ann Baldrige	Executive Director, conservation district
RCD of San Diego	Joel Kramer	San Diego Agricultural Planning Program
Foodshed Small Farm Distro	Ellee Igoe	Food hub, farmer training
Solidarity Farm	Ellee Igoe	Farm and farming incubation
UCSD	Elle Mari	Urban Food Equity, San Diego Urban Growers Collaborative
SDFSA - San Diego Food System Alliance	Sona Desai	Food system advocacy
Mission RCD	Lance Andersen	Agricultural Program
San Diego County	Rebeca Appel	Land Use and Zoning, Decarbonization Strategy
San Diego County	Ariel Hamburger	Health and Human Services Agency, Climate Action Plan
City of San Diego	Rep Marni Von Wilpert's office	San Pasqual Agricultural Preserve
The Conservation Fund	Steve Hobbs	Land Conservation
Farm to Institution Center (f2i)	Antoinette Kraft	Food system advocacy, connecting farmers and markets
San Diego farmers	various	Sustainable farming

## 3.4 Summary of Interviews with Stakeholders

In order to gain understanding of incubators' successes, challenges and future opportunities, a number of individuals were interviewed, including internal and external stakeholders:

- RCD of SD Staff
- Foodshed Staff
- San Pasqual Valley Soils Staff
- Conservation Fund Staff
- Incubator Managers and Farmers
- County Staff
- City Staff

All of the interview questions were related to incubator successes, failures, and models or visions for creating long term success within the parameters presented by the environment and economics of San Diego County.

### Opportunities for the Future

- **Developing a funding strategy:** Providing land, infrastructure, shared resources, and TA and low to no cost to carefully vetted incubator farmers - at least to launch toward a potentially self-sustaining model.
- **Develop Key Partnerships:** With land acquisition and water needs at the forefront, success will come with strong collaborations between the county, land owners, established incubators, RCD of SD, and farmers.
- **Educate the Local Community:** Increase demand for locally produced goods, creating a public push for smarter local land use and a stabilized profitability for local farmers.
- **Increase Farmers' Potential for Success:** A comprehensive incubator model could not only support farmers that lack land and infrastructure, but also need: 1) support as they hone their production skills, 2) access to markets, 3) business management training.
- **Regenerative Ag:** A well designed incubator with strong partnerships could set industry standards and lead the way for increasing practices important for regenerative ag.
- **Finding a Farm Incubator owner:** There are a variety of stakeholders working on farm education and incubation projects. There needs to be an owner and champion of a larger farm incubator program to drive planning, organization, fundraising and program stewardship.

Topic areas covered and common themes from the interviews are as follows:

## **Theme I:**

### *Land, Water, Infrastructure*

- **Land:** San Diego land prices are well out of reach for small farmers. Even the most profitable farming operations would struggle to cover debt service for a reasonable tillable acreage. There are 14,000 acres of underutilized land in San Diego County - controlled by the county government. This is prime real estate on which to develop a well-planned incubator. Need a policy change on how public lands are leased - tying into the climate benefits are critical for getting movement here. There seems to be a lull in development pressure recently, and conservation organizations are monitoring how this is impacting the price of real estate. Valuations may come down in the near future, which would make land more accessible to conservation funds, and therefore a potential farm incubator program
- **Water:** The second most expensive and scarce resource, is also secure and stable on the aforementioned 14,000 acres. Infrastructure for irrigation would be critical to sustain efficient, intensive plots within the incubator. Regardless of location, water infrastructure and consistency of supply will be imperative to the success of an incubator.
- **Infrastructure/Shared Equipment**
  - **Housing:** Several interviewees feel on-site housing is the difference between success and failure. Opinions are that farmers that live several miles from their acreage have a much higher rate of failure and attrition.
  - **Wash/Pack/Process:** Proper planning for this infrastructure is critical to meet capacity requirements. Ideally built to accommodate at full capacity with a buffer for including rental to others just outside of the incubator.
  - **Storage/Barn/Shed:** This would include shelter for equipment, crop storage (dry, cold, root), feed/fodder if applicable. Ideally would include a designated meeting space.
  - **Tools/Tractors:** Essential to have enough equipment to satisfy the seasonal and 'meteorological' timing needs of the farmers. This element cannot be missing from the incubator if it is to endure time.
- **Technical Assistance:** Every interviewee felt that technical assistance for production education and development as well as business management coaching is crucial for rounding out a holistic approach, leading to long term success of not only the incubator, but also the individual farmers.

- **Access to Market/Distro:** Interviewees sometimes felt skeptical that this ‘dream come true’ model of an incubator could include access to market, a hub, and or a distribution facility. All felt that this feature would galvanize profitability of the incubated farms, thus stabilizing an incubator, long term.

## Theme 2:

### *Cooperation from San Diego County and City of San Diego*

- **Lack of Action:** Everyone wants to find a path to *action-based* collaboration. Most interviewees expressed exhaustion with ‘lip service’ and ‘photo opps’ from the county and/or city with little to no action to back up their enthusiasm.
- **Lack of Priority on Ag:** Several expressed disappointment about government entities and conservation groups not placing enough emphasis on agricultural ventures, projects and planning in the county - specifically on regenerative agriculture, local food sourcing, and land acquisition issues.
- **San Pasqual Valley Agricultural Preserve:** The City of San Diego owns 11,000 acres of land just outside San Diego that is currently leased to a variety of agricultural companies on land that is protected for the purpose of water preservation. There is one dairy (Konym Dairy) and a number of turf producers. This land is currently leased out on short term leases to these businesses (month to month in some cases, or 3-5 year leases). These short-term leases make it very challenging for these businesses to secure capital for capital investments. The Conservation Fund, in partnership with a variety of other organizations including Solidarity Farm, are currently in early stage discussions with the City of San Diego about negotiating longer term leases for these businesses. This could serve as a potential site for a farm incubator program, as well.

## Theme 3:

### *Vetting for Farmers*

- **Length of Participation:** Minimum of 5 years was consensus.
- **Experience:** Opinions varied. All agreed that *some* experience would be necessary.
- **Shared Expense:** Interviewees got energized when discussing the possibility of a blend of outside funding combined with farmer buy in, whether fixed fees or capped/sliding scale profit sharing. It appears that stakeholders are energetically invested in the planning for structured stability after a capital stack for start up is established.

## **Theme 4:**

### *Location and Community*

- **14,000 Acre Land Preserve:** All interviewed believe this is an ideal space to build out a well-planned incubator. The barrier is the lack of a long term lease, and weak relationship with the County.
- **Underutilized City Plots:** Conversations are in progress to acquire underused urban acreage, converting them to small plots that could have better water access. These areas do not seem ideal for the incubator model that interviewees have envisioned.
- **Education for Local Consumers:** Critical to not only vibrant markets, but also for pushing the county and city to prioritize the funding of land acquisition for incubators and farmers.

## **Theme 5:**

### *Climate Smart Incentives / Regenerative Ag*

- **Climate Smart Incentives:** For farmers - Foodshed pays a % premium to the farmer on their market price when they use regenerative practices - tier 1: 5%, tier 2: 10% and free compost, tier 3: 15% and sit on advisory committee
- **Grant Acquisition:** Administrative support or collaboration from other agencies is needed in order to capitalize on available grants.

### *City of San Diego and Property Leases*

KTC conducted a series of interviews with relevant City of San Diego employees connected to the San Pasqual Valley Agricultural Preserve to better understand the opportunity of leasing on this land to house the incubator farm.

Interviewees included:

- Matt Ostlund, Program Coordinator at the City office of Real Estate Assets and Airport Management (DREAMS)
- Jamie Kennedy, Senior Planner at the City's Public Utilities Department (PUD)
- Quinton Grounds, staffer for Marni Von Wilpert, the City of San Diego Councilmember who oversees the San Pasqual Agricultural Preserve (SPAV)

According to Quinton Grounds, the City of San Diego is highly supportive of the development of an Incubator Farm. He described that many of the agricultural leases in the SPAV are short term, or on holdover, due to a change in the governments shift from a city manager to a Mayor model and a lack of personnel within the DREAMS office dedicated to lease renewals. There are currently no available properties in the region, but when land owned by the City is deemed available for lease it goes through an RFP process. Jaime Kennedy was able to identify a number of properties in the area that would be vacated in the next year and could potentially serve as an incubator farm site; including a 14 acre property with citrus trees, a 20 acre property and a 5 acre property that was formerly a nursery. Quinton, also identified current lease holders that may be interested in a sublease agreement, which would also have to be approved by the city, but could be an alternative option.

The process for obtaining land in the SPAV would involve interaction with these entities:

1. Public Utilities Department
  - a. They determine lease details as well as the leasee's suitability for the land
  - b. They handle the water and utilities rights to the land
2. The Department of Real Estate Assets and Airport Management
  - a. They send out the RFP's and write and manage the lease
3. City Planning Department
  - a. They become involved in the case of any zoning or community plan adjustments
4. Economic Development Department
  - a. They would become involved with permitting if pursuing non public lands

The City can consider a single proposal, instead of the RFP process if a business case is presented to the city staff for review and approval. All leases are made to obtain fair market rent, that must be at least 80% of the appraised rent value. Flat rate and percentage leases are both options for rental terms. If a lease is longer than 3 years it must receive a majority vote from all City Council members. For more details on the lease types and terms refer to the [Disposition of City-Owned Real Property](#).

### 3.5 Summary of other engagement with stakeholders

On September 29th, this project team held a feedback session with the farming community at the San Diego Food System Alliance's annual gathering event. The session was entitled "Feedback Session: Co-Create a vision for San Diego's Own Incubator Farm". The workshops summary description was as follows:



If San Diego County invested in an incubator farm that provided small farmers with an opportunity to access land and scale up, what would that look like? Who would be involved? How would it operate? What more would it provide to farmers than a piece of land? Join this feedback session and help co-create a vision for the ideal incubator farm and facilities that would make a meaningful contribution to our movement toward a climate smart food system that is cultivating justice and resiliency.

The session was led by Rebecca Frimmer of Kitchen Table Consultants, Ellee Igoe of Foodshed Small Farm Distro, and Elle Mari of UCSD Center for Community Health.

We asked the attendees in the room a series of questions:

- Is your organization already doing work on an incubator farm project?
- Does your organization want to be involved with the launch of an incubator farm? In what capacity?
- What features or facilities must an incubator farm include in order to be a home for successful farm incubation?

We also asked the participants to participate in a social barometer exercise: where participants line up along a “barometer” - an imaginary line in the room - to show how strongly they feel about a particular question or issue.

The themes and outcomes of the focus group were as follows:

### **Theme I:**

#### *Infrastructure and Support Systems Needed*

- Cold storage and dry storage in a packing warehouse facility, at scale
- Water access and irrigation systems
  - Catchment systems
  - Water Storage
  - Agricultural prices
- Wash stations built for high volume, professional farms
- Transportation infrastructure, including loading docks, vehicle access
- A resource hub for farmers, whether in house or a network of the TSP’s that already work in San Diego County. That resource hub should include:
  - Pipeline to develop new market channels (such as new farmers markets)
  - Pipeline to enter existing market channels
  - Support for farmers in accessing funding; applying for an navigating the government programs and systems for grants and loans

- Housing for farmers is vital to success, farmers need to be able to afford to live on or near their land.
  - Housing on the farm is an option
  - Housing near the farm is an option
- Processing facility for value added product development and manufacturing

## **Theme 2:**

### *Farmer Vetting, Entry and Exit*

- There is a need for various entry points; for example a first time farmer starting on ¼ acre, or a farmer who is more experienced working a 2 acre plot.
- There is a need for various exit points - when does a farmer get ready for their next step of leasing or owning a farm?
- There needs to be coordination for land access with exit from the incubator.
  - Rental property is an option
  - Pathway to ownership is a better option
- How do we address equity and inclusion, refugees, indigenous and other multi-cultural perspectives?
- Foodshed expressed an interest in managing the incubator farm

## **Theme 3:**

### *Location and Scale*

- Farmers may need 2-5 acres, or in some cases 10 acres, to pursue a living wage for a family. Farmers could start at ¼ acre for 1-2 years and scale up.
- Farmers are spread around the county. It would be ideal to locate the incubator where the farmers are, and potentially have multiple sites that could feed into one central site where the majority of infrastructure is located.
- How many farmers can we support? It depends on the scale of the land.
- Farmers on the land need to be farming full time and generate a livelihood once they reach a certain scale.

## **Theme 4:**

### *Programs*

- Climate resilient crops programs would be beneficial and contribute to resilience
- Soil Health programs would incentivize building equity in the soil

### Other Feedback

- The National Young Farmers Coalition (NYFC) survey states that the top needs of young or beginning farmers are access to land and capital. The NYFC Chief of Staff happens to reside and work in San Diego.
- CDFA has a Beginning farmer and farmworker technical assistance grant program and is looking for places to deliver \$5M in grant funds.
- The City of Escondido has a 25 acre property and they are looking to create a plan at this stage for what to do on it.
- RC&D of San Diego has 10 x ¼ acre incubator plots with irrigation. They have no other infrastructure. This program could feed farmers into a larger incubator.
- In the room, we have lots of organizations and people with the power to train farmers and support incubation, but not many land owners.
- There is a [National Incubator Farm Training Initiative](#) that can be joined or followed with vetted resources to help expedite the process.
- We ARE capable, we CAN do this.

During our social barometer exercise, we asked “Does your organization want to be involved with this incubator farm project?” and a majority of the room walked to the “yes” end of the barometer.



During the session we collected names and emails to create an interest list for next steps of the project. Some of the organizations and companies that signed up to be included in the communications around this effort included (in no particular order):

- Bee Valley Farm
- Solana Center
- Linda Vista Steering Committee
- MAKE Projects

- Farm to Fork San Diego
- Coastal Roots Farm
- Hidden Valley Farm
- Farm to Institution Center at CHIP
- Foodshed Small Farm Distro
- San Diego RCD
- Solidarity Farm
- Wild Willow Farm
- Grow EcO Farm
- University of California Cooperative Extension
- Health Care Without Harm
- Feeding San Diego
- Dr. Bronner's
- Slow Food Urban San Diego
- Private individuals as farmers, chefs, consultants

In summary, the needs that the county stakeholders have expressed are a strong match with the research on notable farm incubator programs below. The program also confirmed that there is strong interest from a wide variety of stakeholders to pursue this project.

### 3.6 Summary of research on notable Farm Incubator Program Practices

Incubator farms were developed as a way to assist new and beginning farmers address barriers to entry for starting their own businesses. These barriers include access to land, infrastructure, knowledge and markets. This has amplified significance for our agricultural industry, because currently over 50% of US farmers will retire in the next decade, and the USDA estimates that over 70% of farmland will change hands over the next two decades.<sup>1</sup> The goal is that incubator farms can help to grow a new generation of farmers that can go on to run their own farm enterprises and strengthen local food systems. This concept is not new, just new to San Diego. The National FIELD Network, an incubator farm collaboration program from Tufts University, has [mapped incubator farms nationwide](#) and indexed information about these programs.

In a nationwide survey conducted by National Incubator Farm Training Initiative (NIFTI) the organizational structure of active incubator farms was broken down as follows:<sup>2</sup>

- 68% Non-Profit Organizations
- 12% Hybrid (two or more organizations, ie.e academic/non-profit or non-profit/cooperative)
- 8% Academic or Government agencies
- 4% Sole proprietorship

<sup>1</sup> [https://nesfp.nutrition.tufts.edu/sites/default/files/resources/nifti\\_toolkit\\_v2.pdf](https://nesfp.nutrition.tufts.edu/sites/default/files/resources/nifti_toolkit_v2.pdf)

<sup>2</sup> [https://nesfp.nutrition.tufts.edu/sites/default/files/resources/nifti\\_toolkit\\_v2.pdf](https://nesfp.nutrition.tufts.edu/sites/default/files/resources/nifti_toolkit_v2.pdf)

In the same survey, 84.6% of incubator farm respondents provided employment information:

Number of employees:

- 52.7% have 3 employees or less
- 18.2% have one or fewer staff members

Types of employees:

- 40.2% of positions are part time
- 38.4% of positions are full time
- 16% of positions are seasonal

There is a wide variety of how incubator farms are structured, but at the core **all are land based and provide land to beginning or disadvantaged farmers**. The overall structure can be broken down into the following components.

- **Land:** A parcel of land is provided to the farmer usually for either no rent, or low rent for a set period of time
- **Curriculum:** Some incubator farms provide additional training, courses, and workshops on farm techniques or business strategies for beginning farmers and/or community members
- **Infrastructure:** Resources required for farming are often shared between farmers and are either available for free or for a fee, this includes tractor, irrigation, cold storage, etc.
- **Market:** Some incubator farms help to provide markets for farmers product by acting as a link connecting them to direct to consumer, wholesale, restaurant or other market opportunities
- **Transition:** When a farmer's time limit has been reached some incubator farm programs will help the transitioning farmer into finding their own land to continue their business, one example is through linking retiring farmers in the area with the new farmers, or linking the transitioning farmers with financial institutions

## PROGRAMMATIC CASE STUDIES

### Headwaters Incubator Farm

KTC interviewed Rowan Steele, Incubator Farm Program Manager with Headwaters Incubator Farm to learn more about their programmatic and financing practices.

The Headwaters Incubator Farm is housed under the East Multnomah County Soil & Water Conservation District office. The office purchased the 60 acres of land where the farm incubator resides in 2011. This land formerly housed a large-scale commercial nursery, and there was interest in protecting the land as it is located next to a creek and needed restoration work. The land was purchased for \$1.3M financed through their general operating budget which is funded

through local taxes. In 2013, they started the farm incubator program on this site. (See Financial Background section for more details on financing and securing this land).

Headwaters Incubator Farm Program Summary	
<b>Location</b>	Offices: Portland, OR; Incubator Farm: Gresham, OR
<b>Entity Type</b>	Public Entity, Soil and Water Conservation District Office
<b>Acres</b>	60
<b>Current # of Farmers</b>	13
<b>Total # Farmers since Inception</b>	39
<b># Incubator Farm Employees</b>	2.5 FTE. Program Manager (1), Operations Assistant (1), Facilities Manager (.5)
<b>Program Duration for Participants</b>	1 - 5 years
<b>Program Offerings</b>	Land access, infrastructure access, business planning support services, program exit support, bridge loans

**Program Entry:** Headwaters likes to see three years of farming experience from applicants, one year of which is in a management role. There is flexibility to this requirement, and they consider the overall application in determining if they will be accepted. They used to require a business plan, but have since waived this, as the background and experience of the applicant is more important than the business plan. They are also cognizant of equitable access to their programming, and that not all low income individuals can afford to gain the experience required on the wages that are typically offered, and this is weighed when considering applications as well.

**Program Exit:** One important insight from Rowan was that geographies don't need many farm incubator programs, but you need a ton of land opportunities for farmers exiting the program. 10 years into their farm incubator program, they are spending time and resources innovating how students can exit their program, rather than continuing to innovate their core incubator farm program. Many program graduates (There are 39 total program participants, 31 graduates, and 8 that have not graduated) want to purchase land when they exit the program - only three have been able to do so. One way they attempted to find land for graduates was by partnering with Multnomah County to send land owners at risk of losing their agricultural tax exemption the



opportunity to partner with a graduate to start a farm on their property. This would allow the owner to maintain their agricultural tax exemption, and potentially provide graduates the leverage to negotiate leases that would suit their business needs. They also partner with Oregon Farm Link to try to identify land for graduates.

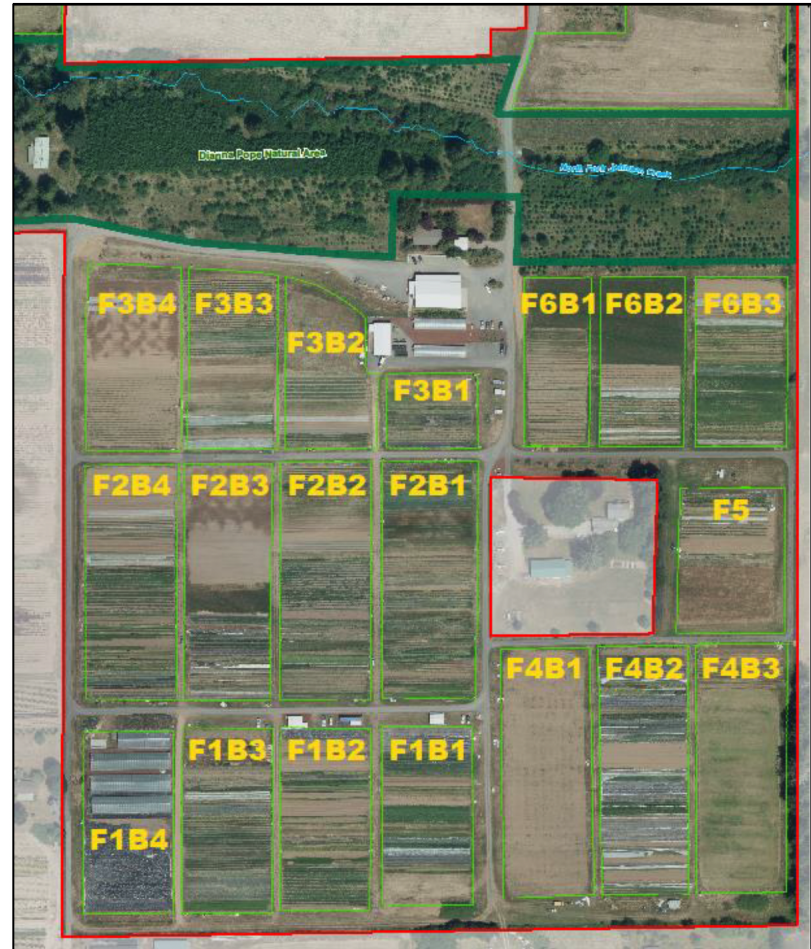
A particularly compelling innovation is that Headwaters purchased an adjacent property, put the property under a conservation easement, bringing down the value of the land, and then entered a long term 20-year lease with one of their graduates as the leaseholder. This leaseholder then subleases the land to other graduates from the program.

**Program exit strategy is critical to an incubator farm, and is in fact the ultimate goal of any incubator farm program.**

**Key Partnerships:** Headwaters relies heavily on partnerships, particularly for farmer recruitment and farmer exit strategies and support. Briefly, here are the partnerships they most rely on:

- National Incubator Farm Training Initiative (NIFTI)
- Local farm development programs (ie. Zenger Farms, Sauvie Island Organics)
- Natural Resource Conservations Services (NRCS)
- Agricultural Extension
- Local farms

Headwaters Farm Plot Map



**Typical Farm Participant:** Rowan described in broad strokes what a typical incubator farm participant background might be. They typically have off farm income via a spouse, or they themselves work off the farm part-time, particularly in the off season. Most farmers utilize bookkeeping software to track financials, to varying degrees of detail and success. The average farm revenue roughly is ~\$250k for 3-5 acre farms, with a 20% profit margin. For smaller farm plots at 1 acre, revenue is \$50k - \$90k.

### Infrastructure Offered:

- Cleared, cultivated land
- Wash & Pack Shed
- Cold Storage
- Propagation Greenhouse
- General Storage
- Irrigation with variable frequency drive. Maxes out at 110 gallons per minute, which is not enough to serve all farms concurrently and has been an issue to manage.
- Tractor and implements (full list of implements below)
- BCS walk-behind tiller

**Fee for Service Model:** Fees from incubator farmers make up roughly 10% of their ~\$400k annual budget.

- Land: \$750 / acre per year. This is tiered pricing. Year 1 participants pay 20% of this, and each year 20% is added until they are paying the full \$750 per year by year 5.
- Custom Tractor Work: \$30/hr. This work is performed by other program participants, and they are paid \$25/hr for this work. \$5/hr presumably goes towards Headwaters overhead.

Implement	Tractor Requirements	Appropriate Use
Middlebuster	Cat 1 Three Point	Cutting furrows/digging potatoes
Rototiller — 5ft	Cat 1 Three Point/40hp/PTO	Bed prep/turning in crops
Rotary Mower — 6ft	Cat 1 Three Point/30hp/PTO	Mowing field periphery, cover crops (not field crops)
Chain Harrow — 8ft	Cat 1 Three Point	Removing trash/setting seed
Subsoiler — three 20in shanks	Cat 1 Three Point/40hp	Breaking dry hardpan
Front Forks	Bucket Mount	Lifting items up to 300lbs
Rear Forks	Cat 1 Three Point	Lifting pallets up to 2,000lbs
Bedder Layer Combo — 5in raised bed with ~bed top at 28in; single line drip	Cat 1 Three Point/40hp	Shaping bed, laying mulch, laying drip tape
Broadcast Spreader — 300lb capacity	Cat 1 Three Point/PTO	Spreading of granular fertilizer or seed
Flail Mower — 5ft swath	Cat 1 Three Point/PTO/40hp	Mowing thick vegetation up to 1in diameter
Power Harrow — 4ft	Cat 1 Three Point/PTO/40hp	Final pass bed prep
Disc — 5ft	Cat 1 Three Point	Discing of fields
Disc — 9ft	Draft/75hp	Discing of fields, primary tillage
Chisel Plow — 5ft	Cat 1 Three Point	Breaking hardpan, primary tillage
Chisel Plow — 8ft	Cat 2 Three Point	Breaking hardpan, primary tillage
Drop Spreader — 10ft	Draft	Spreading granular fertilizer and amendment
Undercutter — 3ft	Cat 1 Three Point	Loosening up crops before harvest or re

Equipment Costs Quick Reference Table

Item	Cost	Billing Schedule	Notes
Handtools/Wheelbarrow/Wheel Hoes	Free	N/A	Cost included in land rent
Paperpot Transplanter	Free	N/A	Farmer provide their own propagation materials
Flame Weeders	\$5/hr	Quarterly	Farmers provide their own propane – <i>Training Required</i>
Backpack Sprayer	\$5/hr	Quarterly	Only NOP-compliant sprays – <i>Training Required</i>
String Trimmer	\$5/hr	Quarterly	HIP provides string and batteries – <i>Training Required</i>
BCS Walk-Behind Tiller	\$10/hr	Quarterly	<i>Training Required</i>
New Holland Tractors	\$25/hr	Quarterly	Includes implement costs – <i>Training Required</i>
Tractor Implements	\$15/hr	Quarterly	For individuals with tractors – <i>Training Required</i>

Infrastructure Costs Quick Reference Table

Item	Cost	Billing Schedule	Notes
Irrigation	\$100/year in HIP	Annually	Incentive exists for receiving free irrigation water
Cooler	\$5/ft <sup>2</sup>	Annually	Section increments are 12ft <sup>2</sup> or 15ft <sup>2</sup>
Wash Stations	Free	N/A	Included in land fees
Propagation Tables	\$30/table	Annually	Options for automated & non-automated irrigation
Heat Mats	\$30/mat	Annually	Limited number and distribution of prothouse outlet
Bottom Heat Table	\$30/section	Annually	EMSWCD covers the cost of propane
Germination Chamber	Free	N/A	Cost included in table rental; <b>requires training</b>
Hardening-Off Tables	\$5/6ft section	Annually	Outdoor tables between the props and curing shed
Field Storage	\$40/section	Annually	Storage section within container
Barn Storage	\$50/shelf	Annually	Items must be kept within the footprint of racking
Office Space	Free	N/A	Included in land fees
Office Room	\$200/year	Quarterly	Renting one of the private rooms in the Headwaters office. This space is very limited.
Small Hoophouse	\$800	Quarterly	Can be rented as whole- or half-house
Large Hoophouse	\$1,200	Quarterly	Can be rented as whole- or half-house
Curing Shed Middle & Western Rack Columns	\$30	Annually	Column includes 2 pallet box space & shelves above
Curing Shed East Rack Column	\$15	Annually	Column includes all racks from floor to ceiling
Curing Shed Extra Pallet Box	\$5	Annually	Western wall racking or miscellaneous locations
Bin Washing and Drying	Free	N/A	Outside western lean-to on curing shed and behind the auxiliary wash station and tuff shed
Tuff Shed	Free	N/A	Space to store items for the auxiliary wash station
Root Washing Station	Free	N/A	For washing crops heavy in soil; backup wash station

**Funding & Financing:** Headwaters is reliant on the Soil & Water Conservation Districts office ability to receive funding through their tax base to fund the vast majority of their startup and ongoing operational budget needs. See the Financial Background Concepts section for more details on Headwaters funding and financing.

**Outputs & Metrics:** Headwaters tracks economic and environmental metrics in their program to demonstrate program efficacy to their public funders. Example metrics that are tracked (these are not exhaustive):

- # farmers enrolled
- # farmers exiting the program
- \$ revenue for farms
- \$ net profit
- % net margin



- Water quality tests
- Linear feet of stream banks repaired
- Soil test
- Acres of pollinator habitat
- Cover Cropping acreage

**Farmer Community Development:** Rowan stressed the importance of cultivating and maintaining the farm community in the incubator. With 10+ farmers in the incubator program annually, there is much opportunity to engage farmers for input on the program and how it can be adjusted and strengthened over time. Additionally, it is natural for farms in each cohort to have conflict arise, and having a formal process for participants to address and escalate these issues is critical to keeping the peace. Taking an intentional approach to planning and execution of making the space inclusive is critical, and equity has been centered in their programming. Mediation services should be budgeted for, policies should be clear, and the space should be made safe for all people including BIPOC participants.

**Other key notes and takeaways:** Working land easements were critical to Headwaters to reduce the cost of the land and make it more accessible to the farmers they serve. In starting a farm incubator program, Rowan suggested starting slow, and making sure to build the infrastructure and site development before bringing on farmers. Also, be intentional and clear very early on in the planning process on: what barriers the program is addressing, who the program is trying to serve (different communities can have very different needs), and ultimately what the program is trying to accomplish.



## Intervale Incubator Farm

The Intervale Center was founded in 1986, and has since grown to be nationally renowned as one of the leaders in sustainable agriculture, food system programs, and farm incubation. Intervale houses programs for a conservation nursery, food hub, food rescue, and was the first farm incubator in the country.

Since founding the incubator farm in 1990, and significantly expanding it in 2005, ***the incubator farm program has since been closed to new applicants***. Much of the programmatic overview below is based on what the incubator farm had been doing until they ceased accepting applications and are no longer actively promoting this service.

Intervale Incubator Farm Program Summary	
Location	Burlington, VT
Entity Type	501c3 Non-Profit
Acres	350 total acres, 110 acres currently leased
Current # of Farmers	8
Program Duration for Participants	5 years
# Farm Incubator Employees	1 FTE
Estimated # Full Time Jobs created	60 full time, part time, and seasonal jobs
Program Offerings	Land access, infrastructure access, business planning support services

**Program Entry:** Intervale requires that farm applicants have 1 - 3 years of experience working on farms, preferably in a management role. Upon acceptance into the program, new farmers are paired with a mentor farmer. Mentor farms are also on the incubator farm land, but have no limits on how long they can farm on the property, since they contribute significantly to the incubator farm programmatically as mentors. Intervale provides business planning services to farms that have +\$15K in revenue annually. Intervale has their own internal staff that perform this work, as well as a variety of external experts they can bring in for additional business planning support. Currently, all farms produce vegetables and some flowers, although in the

past they also hosted animal and protein operations. Currently, the 8 farms in the program generate roughly \$1.5M in sales annually.

**Program Exit:** After 5 years, incubator farms (not mentors) are expected to exit the program. Intervale has invested time and resources into developing farm business planning services in house to help farmers plan for their transition off the farm. Intervale also has a close partnership with the Vermont Land Trust, which helps farm graduates locate and access permanent sites for their farms with the assistance of working land and conservation easements to bring down the price of land.

**Infrastructure:** Intervale offers a wide array of infrastructure to farmers, including very rich soil. They have irrigation from a well onsite. They also offer a greenhouse, cold storage, hay barn, storage facility, two tractors, tractor implements, and others. Intervale has a unique equipment and infrastructure shared-use system, in that a group of farms in 2007 purchased a significant portion of the equipment that Intervale had previously owned, and also leased facilities from Intervale to manage directly. This group was formed by a variety of farms that were operating in the farm incubator at the time of the purchase, and were organized under the Intervale Farm Equipment Company (IFEC). Intervale owns 40% of this company, while the farms own the remaining 60%.

**Funding and Financing:** Like many farm incubators, Intervale relies on a mixture of grants, private philanthropy, and community support for their funding needs. See the Financial Background Concepts section for more details on Intervale funding and financing.

**Changing Direction:** Ultimately, Intervale decided to cease enrollment in the farm incubator program, and shift towards farm business planning services. This was prompted by their application pipeline slowing down considerably, indicating there was less of a need for their farm incubator program in their particular area. With four farm business planners on staff, they are able to serve about 125 farms annually. They were well positioned for this transition, as they had been performing these services for 16 years. They view this work as being more efficient than farm incubation, as they help farmers who are already on land they have managed to establish operations on. They are literally meeting farmers where they are at, rather than requiring them to start and move their operations on and off their particular plot of land.

## 2017 Equipment Rental Rates

Item	Annual Fee for Mentor Farms	Annual Fee for Incubator Farms (y 1-3)	Unit of Measurement
Land	\$210	\$168	Per Acre
Water Access (if using well water)	\$285	\$225	Per Meter
Water Rate (if using well water)	0.0051	0.0051	Per Gallon
Land Management Fee	\$775	\$620	Per Farm
Propane	Market rate	Market rate	
Greenhouse Lot (tenant pays for installation of electricity, gas, and water. IC pays for water access and water per gallon)	\$400	\$320	Per Lot
Cooler Pallets in IC owned cooler	\$320	\$256	Per Year
Hay Barn Basement	\$9.50	\$7.60	Square Foot
Farmer Barn Loft Space (May-Oct, 1/2 bay minimum)	\$430/bay	\$344/bay	Bay = roughly 1/3 loft
Farmer Barn Access Fee (wash station access)	\$310	\$248	Per Farm
Farmer-Owned Cooler space (for installation of farmer-owned coolers and assoc. costs)	\$310	\$248	Per Year
Corn Crib	\$330	\$264	Per Year
Bunker	\$115	\$92	Per Year
Metal Barn	\$170	\$136	Per Year
Food Hub Cooler Pallet	\$75	\$75	Per Month

### 3.6.2 Infrastructure

According to the NIFTI Incubator Farm Toolkit, there are a number of necessary infrastructure components that all incubator farms should include the following.<sup>3</sup>

- *Acreage, both for administrative project support and to expand the project;*
- *Parking or other site access (i.e. public transportation) for participants and visitors;*
- *Water access for irrigation (dependent on method and region);*
- *Potable water for washing produce, drinking, or washing up;*
- *Storage for equipment and supplies;*
- *Bathrooms for staff, participants, and visitors*

<sup>3</sup> [https://nesfp.nutrition.tufts.edu/sites/default/files/resources/nifti\\_toolkit\\_v2.pdf](https://nesfp.nutrition.tufts.edu/sites/default/files/resources/nifti_toolkit_v2.pdf)

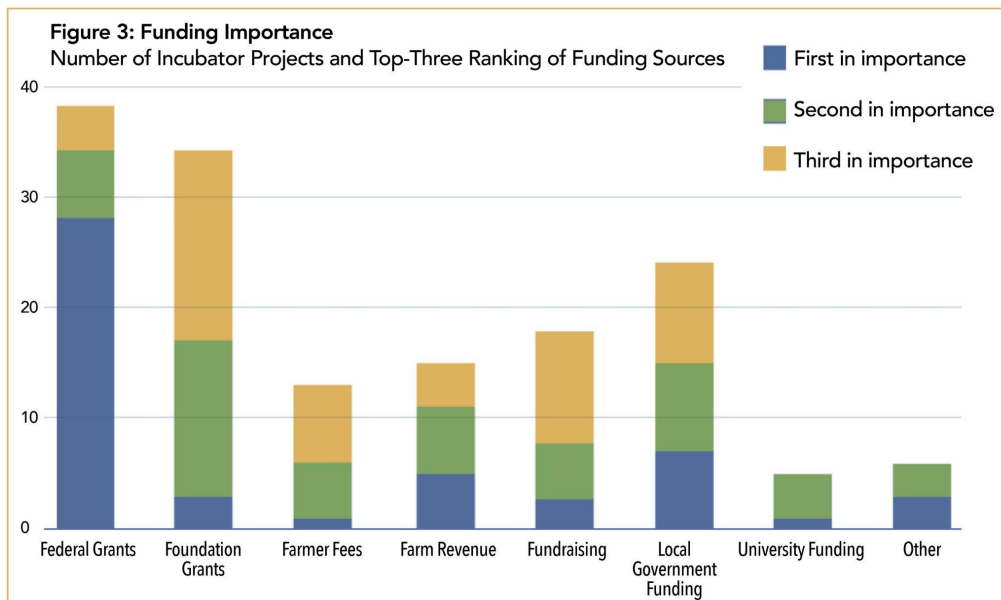
Other infrastructure that could be considered useful, but that is not essential at start-up includes the following.

- *Electricity (could be required depending on irrigation);*
- *Greenhouse space;*
- *High tunnel/hoop house space;*
- *Cooling/cold storage;*
- *Meeting space;*
- *Office and/or computer access;*
- *Fencing (required depending on site);*
- *Barns;*
- *Vehicles;*
- *Hand tools; and*
- *Equipment (tractors, rototillers, etc.).*

### Summary of research on Farm Incubator funding models

In the NIFTI survey of Incubator farms, respondents ranked the importance of funding streams to their operations which is depicted in the figure below.<sup>4</sup>

Federal grant programs were ranked as the most important source of funding, the major sources of federal funding being the Beginning Farmer and Rancher Development Program (BFRDP) or the Refugee Agricultural Partners Program (RAPP)) were the most important source of funding for their projects.



<sup>4</sup> [https://nesfp.nutrition.tufts.edu/sites/default/files/resources/nifti\\_toolkit\\_v2.pdf](https://nesfp.nutrition.tufts.edu/sites/default/files/resources/nifti_toolkit_v2.pdf)

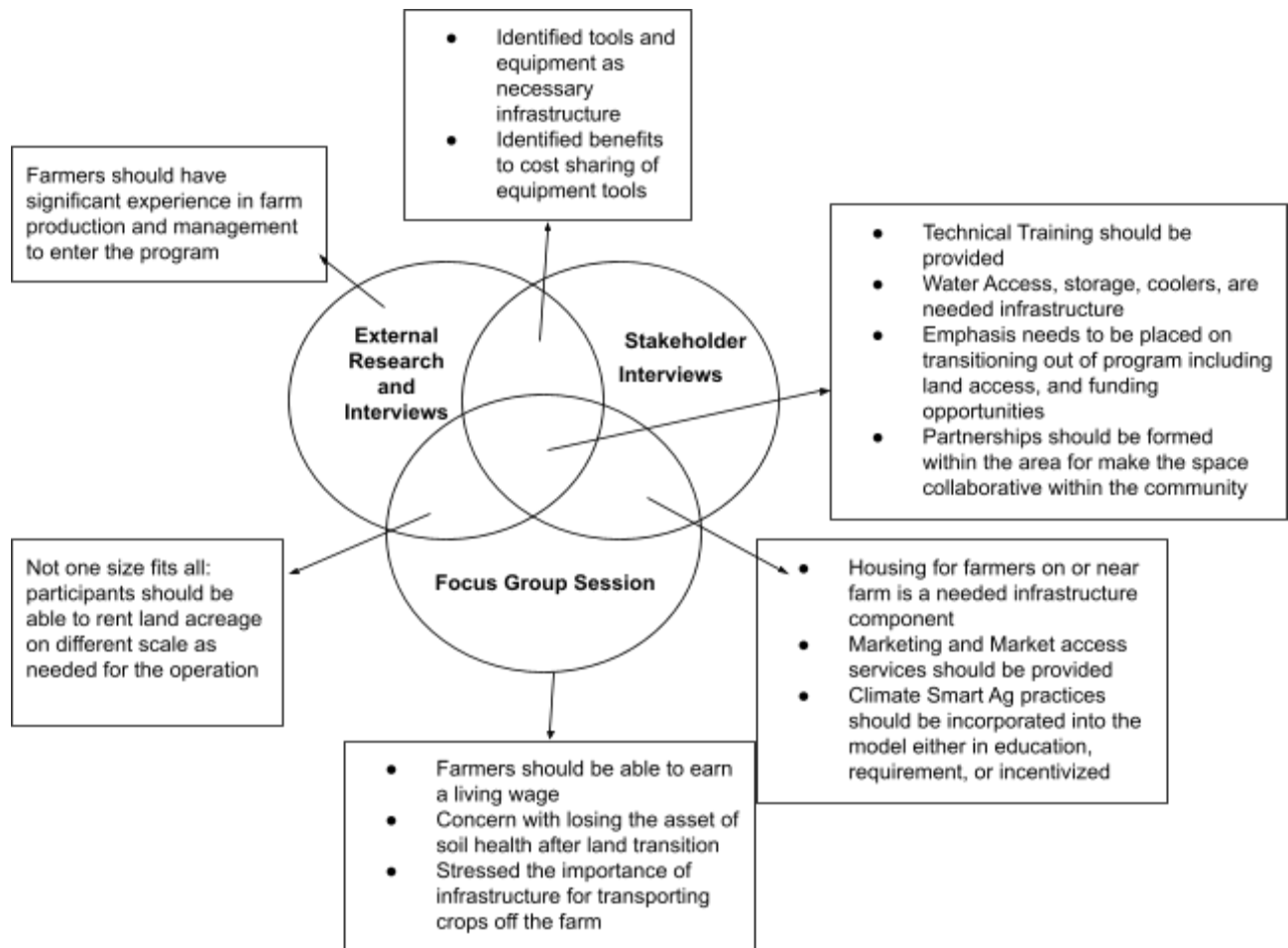


### 3.7 Summary of intersection between stakeholders and research

There is significant alignment between the various parties who provided input throughout the information gathering process. The diagram below summarizes the overlap between main points collected through the feedback session with direct stakeholders, focus group participants, and external research interviews. Some of the most notable intersections include:

- The necessity of infrastructure at the Incubator Farm. While research and the stakeholders made it clear that basics such as tools, equipment and storage are a must; The focus group and stakeholders emphasized the importance of nearby housing and transportation vehicles for the farmers. All parties also agreed that securing water and having irrigation systems in place is critical for success.
- All groups identified the exit strategy as a key factor; providing land and capital leads and assistance for existing farmers should be incorporated into the model.
- All groups identified areas for collaboration across food system organizations and/or land holding organizations within the County. Research showed models that used outside organizations as partners for technical skills, while the stakeholders and focus groups identified specific groups or organizations that could serve as collaborators.
- Climate smart agriculture was emphasized in the stakeholder and focus group sessions. They would like to incorporate these practices into the farm incubator offerings either through education and/or incentive strategies.





## 4.0 Program Structure and Alignment

### 4.1 Concept summary of “Incubator Farm”

New Entry Sustainable Farming Project (NESFP) defines a farm incubator as “a land-based multi-grower project that provides training and technical assistance to aspiring and beginning farmers.”

There are generally five areas within incubator programs that should be addressed:

1. Land
2. Infrastructure
3. Knowledge
4. Markets
5. Capital

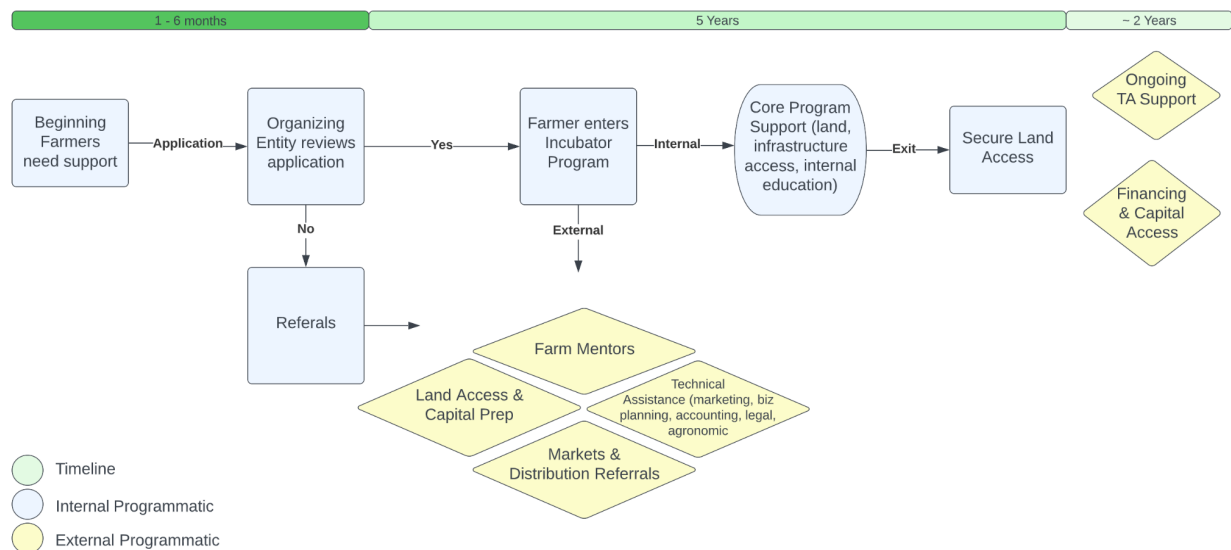
Each one of these will be outlined in more detail in Section 4.3

On September 29th, 2022, KTC and UC San Diego held a focus group in partnership with Foodshed Small Farm Distro and The San Diego Food System Alliance (SDFSA). Over 80 participants attended this in-person discussion, with stakeholders from across the local food system represented, including farmers, technical assistance providers, nonprofit and for profit entities, and representation from the public sector.

Those outcomes are summarized in section 3.5 above. The intersection of those outcomes and the research are summarized in section 3.7 above.

### 4.3 Program Management of an incubator farm

KTC performed extensive outreach to get input on the scope, size, and impacts of a farm incubator in San Diego County. Section 3.5 covers this input in detail. The general program overview is outlined in the chart below, and elaborate on throughout section 4.3



The above chart highlights the importance of external partners to have a truly impactful, robust farm incubator program. While this section discussed internal programmatic needs, it also touches on these external partner considerations.

### 4.3.1 Program Overview & Program Entry

**Program Mission & Purpose:** This will need to be considered in more detail with additional input by the organizing entity that actually champions the incubator farm program. Based on input from San Diego stakeholders, we've attempted to distill this down into the core mission and objectives of a Farm Incubator Program in San Diego County:

1. *Growing new farmers:* The ultimate goal of the farm incubator is to lower barriers to entry for new and beginning farmers. Starting a farm is daunting, especially without the support of personal or family wealth, and this program should lower these barriers along land access, financial, and knowledge-based vectors.
2. *Meeting localized needs of localized farmers:* The Farm Incubator Program should be responsive to the needs of local, beginning farmers in San Diego and the surrounding area, specifically. This means that there should be multiple entry and exit points in the program for beginning farmers, and that is a safe and intentional space for farmers from a variety of backgrounds including BIPOC, refugees, and other historically marginalized populations.
3. *It takes a village to raise a farm:* An Incubator Farm Program cannot succeed in a vacuum. It relies on a large ecosystem of community members and professionals to succeed, including farm and knowledge networks, professionals from disparate fields, and other partner organizations. The Farm Incubator Program should embrace this, and see itself as a piece of a larger puzzle to make farming more accessible to San Diego regional beginning farmers.
4. *Growing farms with impact for the future:* This program will emphasize regenerative farming methods that have positive externalities on environmental, social, and economic outcomes. The educational curriculum will include climate resilient cropping, with soil health as a critical outcome.

**Program Entry:** Program entry should be on an annual basis. Applications would be reviewed in the fall, accepted applicants would be notified in the winter. There should be an orientation for accepted applicants that is rigorous and in-depth, with the Farmers' Manual serving as the guide for orientation. Orientation would include: Mission overview, DEI policies, on-site safety, program overviews, infrastructure and agronomic overviews, guidelines and conflict resolution policies, cost & payment schedules, and more.

*Eligibility requirements:* We recommend not having hard and fast eligibility requirements for applicants. The program should receive a formal - and thorough - application from applicants with a resume. Generally, looking for farmers with 1 - 3 years of farming

experience is likely the most critical criteria, with a preference for farm management experience in particular. We do not recommend requiring a business plan for applicants - this can create significant barriers to entry for those who are not savvy with lengthy business plans, and business plans are not necessarily indicative of a farmers' readiness to begin farming, but rather how good they are at writing business plans. The application should be set up in a way that they are filling in their own abbreviated business plan, which levels the playfield. We also encourage collecting demographic information to help ensure that each cohort of beginning farmers is diverse across age, ethnicity, and backgrounds when possible.

It is critical for the farm incubator organizing entity and stakeholders to define the population they want to serve, and then build eligibility requirements and outreach strategies around this. For instance, a farm incubator program that serves refugees and new Americans directly will be drastically different from one serving a wide swath of the local population.

Most of the farm incubator programs reviewed had total enrollment of fewer than 10 farmers. We recommend starting small and growing from there. For our financial model, we modeled 5 farms in year 1, growing to 12 farms by year 3. The number of farmers accepted each year will be impacted by the scale of the land and the organizing entity's capacity to grow the program with farmer interest.

The duration of the program should be determined by the organizing entity with stakeholder input. The most common durations from other incubator farms are 5 years. Some are shorter, and some allow participation indefinitely. We recommend 5 years, as it allows enough time for the farm to get established to build their business and brand, and enough time to plan to transition off the farm when they graduate from the program.

Farm applicants should be interested in pursuing farming as a long-term professional path, rather than trying to build a homestead or hobby farm. Long-term farm businesses generate more positive externalities across the local community through economic output, job creation, and potentially larger scale climate mitigation.

Farm incubator programs also cannot serve all types of farms. It is important to narrow the scope of the types of products that can be grown by farmers in the program, so the shared equipment and infrastructure is more widely applicable and utilized by participants. The vast majority of incubator farms focus on specialty crops (fruits and vegetables), while some also support small scale ruminants.



### 4.3.2 Farm Infrastructure

The following are the structural and programmatic elements of San Diego's Farm Incubator Program that may be included in their offerings.

**Farm Infrastructure:** There should be sufficient infrastructure in place for beginning farmers to utilize and cut their overhead costs. Input from San Diego stakeholders mentioned the following infrastructure in particular: cold storage, water access and irrigation, wash stations, transportation, and value-added processing. Additionally, there was significant input on the need for housing for farm incubator tenants. We were unable to identify an incubator farm program that offers on-site housing, but this does not mean it can't be done.



Below is a list of capital expenses which includes infrastructure and equipment that could be made available to farmers in the program:

<b>Infrastructure</b>	<b>Notes</b>
Irrigation Equipment	Includes permanent pipes, hydrants, water meter(s)
Tool Library Equipment	Hoes, shovels, rakes, etc.
Greenhouse	36 x 90 with tables for propagation (not for in-soil growing)
High Tunnel	36 x 90 for in-soil growing
Tractor < 50 HP	Small tractor for weeding and cultivation
Tractor, 50 HP	Larger tractor for tillage and field prep
Tractor Implements	
Front Loader	
Tiller	
Disc	
Cultivator	
Brushhog	
Plow	
BCS Tiller	Smaller, walk-behind tractor for smaller operations (generally < 1 acre)
BCS Implements	
Mower	
Tiller	
Rotary Plow	
Vehicle	Van (ie. Sprinter) for general farm needs and deliveries
Warehouse Facility	At least 10,000 sq/ft with a dock
Coolers	1,600 sq/ft at incubator farm maturity
Wash House & Packing Floor	50 x 50 space in the warehouse. Build additional wash and pack stations as needed on the outside of the building
Forklift	
Dry Storage Buildout	1,200 - 1,500 sq/ft for a variety of dry storage. Potentially double or triple this at incubator farm maturity
Commercial Kitchen	Space dedicated for value-added production for farmers (ie. pickles, jams, sauces, etc.)

The above list is not intended to be exhaustive, and could be significantly less or more depending on the land that is identified and its existing infrastructure.

### 4.3.3 Farm Incubator Programs

Some Incubator Farm Programs offer a wide spectrum of programs and support programs for their farmers, while others just offer basic infrastructure with little or no programming. Based on input from San Diego stakeholders, there is considerable interest in creating more holistic wraparound programs for farmer participants to help alleviate the many barriers to entry for farmers.

**Basic Program Offering:** At minimum, any farmer in the incubator program will utilize the following programs and services:

- *Greatly subsidized access to land and basic infrastructure:* Land and infrastructure outlined in section 4.3.2 will be available to all participants. There should be fees in place for farmers to help share some of the cost of these, but this should be marginal. Headwater's Incubator Farm, for instance, generates about \$4,000 in earned income per farmer annually on average, which includes dues and rental fees, representing about 10% of their total budget needs. The more critical reason for farmers to buy-in is for more figurative reasons - so they have some skin in the program and learn about the importance of paying for these essential resources. Some farm incubator programs offer these materials and services at a discounted rate on a sliding scale. Year 1 participants are offered the lowest rate, and participants in their final year pay at the highest rate. This way, they gradually take on more of the burden onto their businesses, which will better prepare them for exiting the program.
- *Cohort Educational Program:* Farm Incubators can offer regular group training to their cohort that are mandatory or optional to attend. Programs can utilize existing, internal staff members for this such as their Farm Manager or Coordinator or other specialized positions on staff (marketing and sales, business planning, etc.). These can include agronomic training, soil health, post-harvest handling, management training, financial management, and many other subject areas.
- *Mentor Program:* Some programs offer mentorships from existing, established area farmers. These mentor farmers can be compensated for their time, while also experiencing the joys of imparting their knowledge on the next generation of growers. Mentors can be successful program graduates or local farmers.
- *Sales & Marketing Support:* There is wide variation in the level of sales and marketing support that incubators offer. Some farm incubators (such as Plant It Forward Farm in Houston, TX, Intervale in the past, and Growing Farmers Training Program in Lincoln, NE) provide aggregated sales opportunities internally in their organization. The organizing entity plans with the farmers annually to grow crops, which the entity



purchases, and is then value-added through a central marketing brand through their local food box of CSA program to consumers. Other programs (such as Headwaters in OR, and Juniper Gardens in KS) offer opportunities for their farmers to sell at partnering farmers' market organizations. Incubator farmers can sell directly at the farmers' market, or some entities will purchase and resell their farmers' products on their behalf at their local farmers' markets. It is more common for farm incubator programs - particularly in the early stages of the program development - to rely on farmers to sell their own products through their own direct to consumer or wholesale sales channels. They provide support through education, workshops, and connections to buyers, but do not buy and resell on their behalf.

- *One-on-One Technical Assistance*: The Intervale Incubator Farm has pivoted almost entirely to one-on-one technical assistance in lieu of their incubator farm program. Headwaters has also relied more heavily in recent years on one-on-one technical assistance. This is a critical component of successful incubator farms. The reality is that every farm and business is different, and they require customized technical support to achieve their definition of success. This can include marketing and sales, financial management, people management, agronomic, and business planning TA. We recommend having a mix of in-house and external TA to refer incubator farmers to, and have a thoughtful plan and robust budget in place to service these farmer needs.

#### 4.3.4 Program Exit

Incubator farm programs are not set up to support farmers for the lifetime duration of their farm. They are intended to develop the core knowledge, capabilities, and capital needs of a farmer to move out of the program to support their own operations in more permanent locations.

Program exit requirements should be highlighted in the farmer manual and include:

- Clear timeline for maximum enrollment in the program (ie. 5 years)
- Clear educational and experiential requirements across core competency areas in: production, agronomics, food safety, sales and marketing, people management, financial management, and business planning.
- Clear requirements on additional workshops and education requirements (ie. attending x number of internal or external workshops or conferences)

Additionally, significant programmatic support should be put in place for farmers to graduate from the program. This will include the technical assistance outlined above, with emphasis placed on:

- *Land access*: Having farmers graduate and move directly onto owned land is the ideal, but is not the only option. Having farms move their operations to secured locations is

often a more attainable and realistic goal. This might include a long-term lease on an existing farm with robust infrastructure, or a shared long-term lease with a group of farmers. It is common to have a land conservation program partner who can assist with one-on-one support with farmers to evaluate their land needs, and what the options are for finding them secured long-term plots of land. This could also include working land or conservation easements to reduce the price of the land for graduating farmers, and assistance with identifying financing. Even in this scenario, it can be a significant challenge to get graduating farmers onto owned land due to the high cost of land, particularly outside of city centers, even with a conservation easement on them. Having a variety of land access organizations and professionals to help guide this portion of the program is arguably the most important factor in the long term success of farm participants in the incubator farm program.

- *Access to capital:* This is another area that the incubator farm program will likely need to lean heavily on their partner network. Business planning assistance can lead to farmers understanding how much capital they will need to raise for land, equipment, and infrastructure, and where the financing for these purchases will come from. Partnerships with NRCS, FSA, banks, financial institutions, and impact investor networks can help provide important financing connections for graduating farmers.
- *Post-Graduation Support:* Intervale provides their graduates with ongoing one-on-one support through ongoing consultations with their inhouse technical assistance providers. San Diego's farm incubator program should strongly consider ongoing internal or external technical assistance for a certain period of time (ie. two years) for graduates to continue transitioning from incubator to permanent location. There are a variety of challenges that will surely occur - from sales issues, to agronomic challenges, to financing difficulties - and having TA to turn to for help can be invaluable for graduating farmers.

#### 4.3.5 Key Programmatic Considerations

- **Incubator champion will likely have a significant impact on the strategy and direction of the overall incubator program.** Whichever entity actually moves forward with housing and driving the farm incubator program will end up having a significant impact on the direction of the program. There is a delicate balance between community engagement with stakeholders, and the influence that the program champion will naturally have on the program.
- **Additional visioning and communal goal setting is required to understand what population San Diego's Incubator Farm Program will serve.** Different populations

have different needs, including historically marginalized communities, new american farmers, BIPOC farmers, or recent college graduates. Incubator farms cannot be all things to all farmers, and the more intention around scoping for these services will lead to better programs that meet specific community needs.

- **Like all farms, the land that is secured for the incubator farm will dictate some of the programmatic offerings.** If the land that is secured has ample infrastructure already in place, farmers' equipment and building needs may be met more readily and easily. If the location is closer to city centers, it may be easier to provide sales and marketing channels for farmers in the program. Conversely, if the farm is further away, they may require more assistance.
- **Farmer entry and exit is often the bottleneck for incubator farm programs and needs to be carefully considered.** Headwaters Incubator Farm - after many years in operation - now spends the majority of their programmatic innovations on farmer exits from the program. It can be daunting for program graduates to find and secure longterm locations for their farm businesses, and providing planned, intentional support for this long before they graduate is critical to the ultimate success of the program.
- **Onsite housing for an incubator program is a community need, but implementing this will be a challenge.** Input from San Diego stakeholders on the farm incubator project indicated a strong desire for on-farm living quarters. While this is worthy of deeper investigation, developing this on-site could significantly enlarge the scope and scale of support for farmers in the program. The capital expense of this could be very significant, as well as liability issues with multiple farmers - and potentially their families - living on the farm around lots of large equipment, as well as the potential for lifestyle, cultural, and community conflicts. Contacts at The City of San Diego have indicated that there may be funding made available for on-site housing, due to a need for affordable housing across the state.

## 4.4 Economic Impact on the Local Economy

Developing an incubator farm that generates a pipeline of new farms into the San Diego area will have significant positive economic impacts in the short and long term. The below economic impacts include estimated impacts through the first three years of the program, which includes farm tenants and the organizing entities programmatic activities:

Three Year Economic Impacts:

- 12 farmers served across 24 acres of land
- 784,080 lbs. of produce grown and sold locally

- \$1.44M in farmgate revenue, \$551K in organizing entity revenue, for a total of ~\$2M in total revenue
- \$2.51M in local spending multipliers<sup>5</sup> (local food sales have a disproportionate impact on local spending and spurring local economies)
- 15 jobs created in incubator farms directly, 4.5 jobs created in the organizing entity, for a total of 19.5 jobs.

As farm participation grows, and graduates move onto their own farms, these economic impacts could grow exponentially depending on the success of graduates to run their own businesses long term.

## 4.5 Alignment with county vision and reports

The establishment of an incubator farm could have a significant impact for the County's food system by providing a supportive pathway to success for beginning farmers. This impact translates into a maximized alignment with San Diego's vision documents for food systems and climate action work. The connection to each document is outlined below.

### **Aligning with San Diego State of the Food System Report:**

The incubator farm will act as a solution to challenges laid forth in the State of the Food System Report, it will:

- Address the cost of real estate for new and beginning farmers
- Address water costs for new and beginning farmers
- Create an opportunity for succession planning for current farmers and farmland
- Create increased resources and technical support for farmers
- Address climate change through climate smart agriculture principles

And will align with opportunities set forth in the document by creating a space for:

- Investment in smart agriculture technologies
- Experimental plantings for investigating opportunities to grow instead of import certain commodities
- Improvement upon sustainable agriculture practices

### **Aligning with San Diego Food Vision 2030 Objectives and Strategies:**

The Food Vision 2030 calls for a multitude of strategies to be employed to reach the County's overall goals for the food system. An incubator farm aligns with the strategies as follows:

- Supports a coordinated effort to increase the viability of local farms

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<sup>5</sup>

[https://www.google.com/url?q=https://hdfa.org/wp-content/uploads/2018/04/economicimpact\\_localfoods\\_centraloregon\\_hdfa-1.pdf&sa=D&source=docs&ust=1663109251043128&usq=AOvVaw1DosP5kceMV\\_IbN7\\_qSXbB](https://www.google.com/url?q=https://hdfa.org/wp-content/uploads/2018/04/economicimpact_localfoods_centraloregon_hdfa-1.pdf&sa=D&source=docs&ust=1663109251043128&usq=AOvVaw1DosP5kceMV_IbN7_qSXbB)

- Supports a coordinated effort to create technical assistance and business assistance networks for farmers
- Supports an environment for collaboration between producers through peer to peer learning and networking opportunities
- Encourages creative farm viability models
- Supports efforts to expand climate smart agriculture
- Supports community-led food systems work and elevating voices of BIPOC people, places and programs
- Helps develop plans for bold, flexible and lasting sources of funding for farmers
- Strengthens the local food economy

#### **Aligning with the Climate Action Plan:**

The Climate Action Plan calls for creating a circular economy and clean communities through several measures including Local Food Systems & Food Recovery. An incubator farm aligns with the action items mentioned in the Climate Action Plan as follows:

- Supports a network of local food sourcing
- Involves a multidisciplinary team to impact healthy food access and encourage and uplift community farms
- Invests in climate smart agriculture and local food supply chain
- Creates a space for piloting a carbon farming program and practices, such as those outlined in the *Linking Climate Friendly Farming Practices to San Diego County's Climate Action Plan*

#### **Aligning with the San Diego Decarbonization Strategy:**

Farmers participating in farm incubator program could receive climate smart agriculture education which aligns with the actions related to Natural Climate Solutions and Land Use Considerations as follows:

- Promotes carbon farming that produces goods with negative emissions
- Fosters community knowledge and sharing of climate smart farming practices

## 5.0 Financial Background Concepts

### 5.1 Funding Sources Summary & Recommendations

1. **Funding sources are relative to the strength of the partnerships the incubator farm has prior to launching.** Startup capital expenses can be heavily mitigated through partnerships with city, county, and states that have access to land and infrastructure that can be leased or purchased outright by the incubator farm entity at below market value.

2. **The scope and scale of the incubator farm will directly impact the amount of funds that need to be raised initially, as well as for ongoing operations.** Start small, and grow organically from there. This will keep the fundraising needs more minimal, and allow the incubator farm to demonstrate traction and find funding for expansion in later years.
3. **Start with a grant, then find ongoing funding.** There are a variety of grants to start and grow incubator farm programs, but this is an unreliable way to fund an incubator farm long-term. Ongoing operational funding can be secured much more readily with impact and programmatic traction. Private foundations, private donors, and community funding can be more readily leveraged once there are impacts and metrics to report and aspire to.
4. **Utilize the Fee for Service model, but don't rely on it.** While requiring farm incubator participants to share some of the costs can help ensure that they have 'skin in the game' and defray some costs, relying too heavily on this defeats the purpose of a farm incubator model. The barriers to entry into agriculture are so significant, the incubator farm is meant to serve as a buffer in the early, fragile years of a farm starting, and slowly exposing them to market forces directly.

## 5.2 Recommended Funding Sources

Incubator farms require startup and ongoing funding streams to continually offer their program and services. The majority of incubator farm programs are couched within a larger non-profit or governmental organization. This offers more flexibility for fundraising tactics and strategies for both the incubator farm and the organizing entity, but can sometimes be difficult to parse out exactly what funds are used for the incubator, and what funds are used for the rest of the organization. Being clear and targeted about where funds will come from in the short and long term is critical to the success of incubator farms.

### 5.2.1 Ongoing & Operational Sources of Funding

Through primary and secondary research, we came across the following sources of funds as being the most common. There is no "silver bullet" for funding incubator farms. It relies heavily on the organizing entity's existing ability to raise funds, the partnerships they have cultivated, the geography they are located in, the size and scope of the planned incubator farm, among many other variables.

The commonality we found is that the key to financial sustainability is diversification in funding sources:

- **Fee for Service:** Service Fees are also common for incubator farms as a source of funding, but generally cover only a fraction of the added costs of running educational programs. These fees give farm participants a more realistic experience with running a farm business. Fees can include land rent, service fees, technical assistance fees or consulting fees.
- **Grants:** Can be utilized as one-time funding to start or expand program offerings, or can be stacked and planned for for long-term funding (see next section for potential grant sources)
- **Grassroots Funding:** Individual donors from community members in small amounts through ongoing donations or capital campaigns.
- **Individual Donor Funding:** Larger donations from wealthy individuals and foundations.
- **Events:** Charging for events to raise funds from grassroot and individual donors.
- **Sponsorships:** Business and institutional sponsorships in exchange for promotion through the incubator farm. Can be cash or in-kind.
- **Crowdfunding:** Oftentimes combined with grassroots funding and capital campaigns.
- Cultivate **in-kind contributions** from partners: Material and advertising contributions from other businesses.
- **Public funding:** Tax-based funding through state and municipal sources can provide long-term funding, but require significant planning and strong partnerships across a diversity of stakeholders.
- **Generate program income through social enterprises;**
  - Start a Community Supported Agriculture (CSA) program;
  - Sell farm products and services to the general public; and
  - Collect registration or attendance fees to generate revenue from training/educational workshops and conferences

## 5.2.2 Grant Funding Opportunities

[Refugee Agricultural Partners Program](#)<sup>6</sup>: provides grants for programs that assist refugee populations in rural and urban farming and gardening projects

- \$80,000-\$100,00 for 36 month project<sup>7</sup>

[Community Food Projects](#)<sup>8</sup>: Provides grants that help to fight food insecurity by promoting self-sufficiency of low-income communities

- \$10,000-\$400,000 from 1-4 years
- One time and require dollar for dollar match in resources

[Beginning Farmer and Rancher Development Program](#)<sup>9</sup>: Provides grants for education, mentoring, and technical assistance for beginning farmers and ranchers

- Must be a collaborative of public and private entities (like extension services, federal/state/tribal entity, ngos, college/university)
- Up to \$250,000 per year for three years

[2501 Program: Outreach and Assistance to Socially Disadvantaged Farmers and Ranchers](#)<sup>10</sup>: Provides grants for agricultural education or agriculturally related services to socially disadvantaged or veteran farmers and ranchers.

- Eligible to higher education institutions and non profit organizations
- Organization must have worked with a socially disadvantaged group for at least 3 years

[Farmers' Market Promotion Program](#)<sup>11</sup>: Provides funding to projects that develop, coordinate and expand direct producer-to-consumer markets

- Open to Ag businesses, CSA networks, food councils, local gov't, non profits, and more
- Capacity Building projects: \$50,000 to \$250,000
- Community Development Training and Technical Assistance \$100,000-\$500,000
- 25% match requirement

[Local Food Promotion Program](#)<sup>12</sup>: Funds the development and expansion of local and regional food systems to increase access to locally and regionally produced agricultural products.

- Eligible applicants include agricultural businesses and cooperatives, producer associations, CSA's, food councils, local governments, non-profits, farmers' markets, and tribal governments.
- Awards: Planning Grants, \$25,000 - \$100,000. Implementation Grants, \$100,000 - \$500,000.
- 25% match requirement

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<sup>6</sup> <https://www.acf.hhs.gov/orr/programs/refugees/refugee-agricultural-partnership-project>

<sup>7</sup> <https://www2.fundsfornbos.org/latest-funds-for-ngos/refugee-agricultural-partnership-program-in-the-us/>

<sup>8</sup> <https://www.nifa.usda.gov/grants/programs/hunger-food-security-programs/community-food-projects-competitive-grant-program-cfpcgp#:~:text=The%20Community%20Food%20Projects%20Competitive,sufficiency%20of%20low%20income%20communities.>

<sup>9</sup> <https://www.nifa.usda.gov/sites/default/files/2022-05/FY22-BFRDP-RFA-MOD2-508.pdf>

<sup>10</sup> <https://www.usda.gov/partnerships/frequently-asked-questions-2501-program>

<sup>11</sup> <https://www.ams.usda.gov/sites/default/files/media/2022FMPPRFA.pdf>

<sup>12</sup> <https://www.ams.usda.gov/services/grants/lfpp>



[Regional Food System Partnership Grant](#): Supports partnerships that connect public and private resources to plan and develop local or regional food systems.

- Eligible entities include producers, farmer or rancher cooperatives, producer networks or associations, majority-controlled producer-based business venture, Community Supported Agriculture (CSA) networks and associations, food councils, local governments, nonprofit and public benefit corporations, economic development corporations, regional farmers' market authorities, and tribal governments.
- Awards: Planning Grants, \$100,000 - \$250,000. Implementation Grants, \$250,000 - \$1,000,000.
- 25% match requirement.

[Specialty Crop Block Grant Program](#):<sup>13</sup> Provides funds to projects that enhance the competitiveness of California specialty crops.

- Non-profit organizations, colleges, university, local government entities are eligible to apply as are sole proprietors
- In certain cases funds can be used for small tools and rent or some payment of equipment

[Sustainable Agriculture Research and Education](#):<sup>14</sup> Provides fund to research and educational projects that advance sustainable agriculture practices

- Offers a variety of grants based on region
- In the Western region the [Farmer/Rancher and Professional + Producer grants](#) may be a fit with incubator farm activities. \$75,000 award limit.

[CDFA Beginning Farmer and Farmworker Training and Workforce Development Program](#)<sup>15</sup> (BFFTP)

- 2022 was the first year of funding, but CDFA believes there will be a longer term funding pool available for this.
- One-year funding track for planning projects for the purpose of planning the development of farm incubator projects or farmworker workforce development projects.
- The total funding that was available for this round was 5 million, and projects are currently being evaluated through a review process.

[CDFA Urban Agriculture Program Grants](#)<sup>16</sup>

- This is not currently launched, but in the planning phase at CDFA. Planning to launch in Winter 2023.
- This program will have funds available through grants, but the funding guidelines have not yet been released

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<sup>13</sup> [https://www.cdfa.ca.gov/Specialty\\_Crop\\_Competitiveness\\_Grants/pdfs/SCBGP\\_FAQ\\_Phase\\_I.pdf](https://www.cdfa.ca.gov/Specialty_Crop_Competitiveness_Grants/pdfs/SCBGP_FAQ_Phase_I.pdf)

<sup>14</sup> <https://western.sare.org/SARE-in-Your-State/California/>

<sup>15</sup> <https://www.cdfa.ca.gov/bfftp/>

<sup>16</sup> <https://cafarmtofork.cdfa.ca.gov/>

[Community Development Block Grants](#)<sup>17</sup>: These funds are provided by the US Housing and Urban Development Department (HUD), and are administered through state, county, and city municipalities.

- These funds are specifically for housing and economic opportunities for low and moderate income persons.

[USDA Urban Agriculture & Innovative Production Grant](#)<sup>18</sup>. Urban Agriculture and Innovation Production (UAIP) competitive grants initiate or expand efforts of farmers, gardeners, citizens, government officials, schools, and other stakeholders in urban areas and suburbs. Projects may target areas of food access; education; business and start-up costs for new farmers; and development of policies related to zoning and other needs of urban production

- \$14.2M in funding will be available in the 2022 application cycle.

[FSA Increasing Land, Capital, and Market Access Program](#)

- This is a new program from FSA that provides funding for underserved communities to access land, capital, and markets.
- Eligible entities include non-profit and governmental organizations. For-profits and private entities are not eligible.
- Funding available is \$250k - \$40M per award to be utilized over a period of up to 5 years.

### **Non-Profit & Foundation Grants**

[Clarence E Heller Foundation](#): Health related funding with a focus on regenerative agriculture and food system planning.

[Clif Family Foundation](#): Operational program support grants with a focus on food systems, health outcomes, and safeguarding the environment.

[Food & Farm Communications](#): Non-profit grants for marketing and operations with a focus on sustainable food and equity driven programs.

## 5.3 Funding Case Studies

The upfront costs and capital expenses associated with starting an incubator farm can be considerable. The largest initial expenses will be: land, infrastructure, equipment, and staffing. Two examples of how incubator farms were started and funded can help illuminate this:

**Headwaters Farm Incubator Program**: This program is housed within the East Multnomah County Soil & Water Conservation District in Gresham, OR, just outside of

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<sup>17</sup> [https://www.hud.gov/program\\_offices/comm\\_planning/cdbg](https://www.hud.gov/program_offices/comm_planning/cdbg)

<sup>18</sup> <https://www.usda.gov/topics/urban/grants>

Portland. Because this is a public entity, they have many advantages in their startup and ongoing funding mechanisms.

When they started their incubator farm in 2013, they had already purchased 60 acres of conserved land. This was a nursery that had since been out of business, and was located next to an important urban waterway. In 2011, they purchased the land for \$1.3M and put it under a working land easement, which restricts the type of development that can occur on the land, but still allows the land to be worked agriculturally with conservationally-minded practices. This land was purchased from general revenues from their budget. The East Multnomah County Soil & Water Conservation District's current annual budget is about \$5M annually, which comes mostly from their tax base. Since they are located next to a large tax base in Portland, their revenues are much higher than most soil and water conservation district offices.

Additional capital costs included building a wash & pack shed, cold storage, propagation greenhouse, general storage, and irrigation. Ensuring that this infrastructure is as modular as possible was an important consideration, as the number and types of farms in the incubator is in flux every year. For example, irrigation was established in a way that an incubator farm could expand or contract and still have access to the water it needs. Plots that are not utilized will not utilize water while there is no occupant.

Headwaters operating budget is about \$400,000 per year. This supports 13 farmers on its 60 acres of land. 10% of this funding comes from their fee for service model, where farmers pay for the land and infrastructure they utilize through Headwaters. The other 90% of funds comes from their general operating budget, which is mostly funded through tax revenues on assessed property tax values.

**Intervale Incubator Farm:** This program grew organically out of the community and institutional connections Intervale had spent years cultivating prior to this commencing.

In 2005, Intervale acquired 230 acres of land for their incubator farm just outside of Burlington, VT.. 179 acres of land were purchased from the Burlington Electric Department, and 50 acres and a farmhouse were donated by an adjacent farm, who had been a core partner of Intervale prior to this. All 230 acres were put under an easement in partnership with the Vermont Land Trust, which was funded and supported by The Housing and Conservation Board in Burlington. All land purchased during this period was in a flood plain, so there was minimal development pressure on the property, and was actually critical to the successful acquisition.

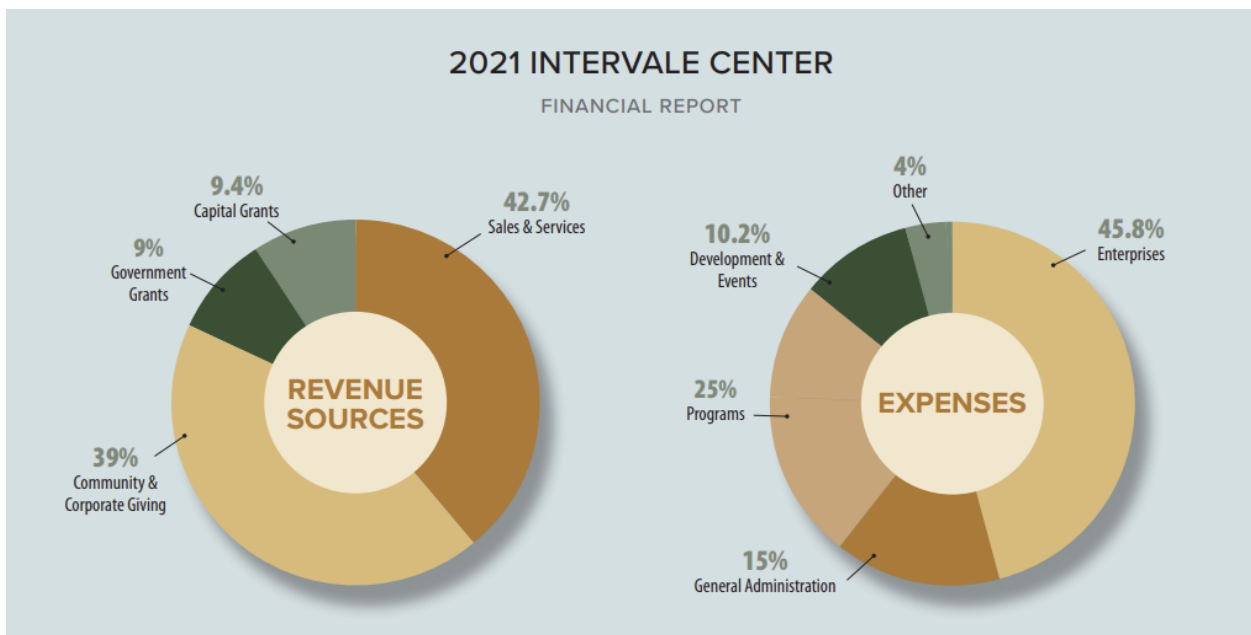
In 2022, Intervale purchased an additional 90 acres to expand their agricultural land based programming. This was fundraised through private donors and the community at

large. Intervale’s strong reputation - both locally and nationally - allows them the ability to fundraise for large capital projects like this.

Operating funds come from ongoing private and philanthropic sources, as well as Community Development Block Grants, which funds workforce and job development through the City of Burlington.

Critical to the initial and subsequent partnership and fundraising efforts to secure this land for the incubator farm was the community benefits of the land. Intervale highlighted the impact the incubator farm would have on food access, outdoor recreation, increased biodiversity, research opportunities, and increased quality of life for employees and employers in Burlington - the last of which they have 150 businesses that partner with them for volunteer days and sponsorships.

Below is a chart illustrating Intervale’s funding sources and expenses. This is for the entirety of Intervale, and not specifically for their Incubator Farm Program.



## 5.2 Program Financial Projections

### 5.2.1 Financial Assumptions

Below are the assumptions used to help scope and inform the financial projections. Generally, we started the program with less and fewer - farms, acres in production, revenues - which

steadily grows through year 3. All these assumptions were informed through our case studies and research, as well as benchmarks with other KTC clients

<b>Proforma Assumptions</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
# Farms enrolled	5	8	12
Average acreage per farm	0.75	1	2
Total farmed acres	3.75	8	24
Acres for organization infrastructure	3	3	4
Unutilized acres	33	29	12
<b>Total Acres</b>	<b>40</b>	<b>40</b>	<b>40</b>
Revenue Per Acre	\$40,000	\$45,000	\$50,000
Revenue per Farm	\$30,000	\$45,000	\$60,000
<b>Total Revenue from Farm</b>	<b>\$112,500</b>	<b>\$360,000</b>	<b>\$1,440,000</b>

## 5.2.2 Financial Summary

*Profit & Loss Proforma:* Below is a financial model summary of what the income, costs, and fundraising requirements for an incubator farm in San Diego County might look like. There are many unknown variables that we have made assumptions for, and it is important to acknowledge that this is a high-level model to serve as a general guide for an incubator farm's financial plan.

We utilized existing financial information that we researched to populate many of the assumptions, as well as internal diversified farm financial benchmarks at KTC. Below is a high-level 3-year proforma.

<b>Farm Incubator High Level Proforma</b>		<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
<b>Total Income</b>		<b>\$412,911</b>	<b>\$434,765</b>	<b>\$551,440</b>
Expenses				
	Total Operating Expenses	\$71,839	\$82,106	\$117,903
	<i>OpEx to Income Ratio</i>	17%	19%	21%
	Total Labor	\$200,772	\$263,858	\$319,738
	<i>Labor to Income Ratio</i>	49%	61%	58%
	Total Fixed Expenses	\$27,800	\$27,800	\$27,800
	<i>Fixed to Income Ratio</i>	7%	6%	5%
	Total General & Admin	\$55,000	\$61,000	\$86,000
	<i>G&amp;A to Income Ratio</i>	13%	14%	16%
<b>Total Expenses</b>		<b>\$355,411</b>	<b>\$434,765</b>	<b>\$551,440</b>
<b>Net Income</b>		<b>\$57,500</b>	<b>\$0</b>	<b>\$0</b>

The current proforma assumes that in most years the farm incubator organizational entity will breakeven annually, with the exception of Year 1, which assumes a profit to keep in reserves as working capital.

One critical assumption here is that this organizing entity will focus solely on farm incubation. This is not the case for most of the farm incubator programs we researched. Most farm incubator programs are housed in larger food system organizations, which could decrease overhead relative to other cost centers dramatically.

*Cash Flow Projections:* Below is a high-level summary of cash flow projections. The most notable financial variable in this section is capital expenditures and associated fundraising activities. Investing Activities include capital expenditures, while Financing Activities include fundraising specifically for these capital expenditures.

Farm Incubator High Level Proforma		Year 1	Year 2	Year 3
<b>Statement of Cashflows</b>				
Total Operating Activities		\$57,500	\$0	\$0
Total Investing Activities		-\$895,880	-\$50,000	-\$244,548
Total Financing Activities		\$895,880	\$50,000	\$244,548
Net Change of Cash		\$57,500	\$0	\$0
Starting Cash		0	\$57,500	\$57,500
Ending Cash		\$57,500	\$57,500	\$57,500

### 5.2.3 Income assumptions

Farm Incubator High Level Proforma		Year 1	Year 2	Year 3
Income				
Earned Revenue		\$7,500	\$20,000	\$36,000
Operational Charitable Contributions		\$155,411	\$82,383	
Operational Grant Funding		\$250,000	\$332,383	\$515,440
<b>Total Income</b>		<b>\$412,911</b>	<b>\$434,765</b>	<b>\$551,440</b>

Income assumptions were generated based on the total costs and expenses associated with the incubator farm. Income was built to service these expenses adequately.

- Earned Revenue:* This is programmatic income paid by incubator farms to the organizing entity. We assume that each farm will pay for an average of \$1,500 - \$3,000 annually for participation in the incubator farm program. Examples of payments might include: land rental payments, application fees, equipment rental, utility usage, etc. Generally, earned revenue should be kept at a minimum, as the purpose of the farm incubator is to lower financial and educational barriers to starting a farm, and more earned revenue increases these barriers for farm incubator participants.
- Operational Charitable Contributions:* These are funds that the organizing entity would raise directly from the community, including individual and business donations. These funds are typically unrestricted and can be used to cover any expense the organizing entity incurs. We've also assumed that the organizing entity would need to raise charitable contributions for capital expenses (ie. buildings, equipment), so charitable



contributions have been split into “Working Capital” and “Buildings & Equipment”. Working Capital raised from charitable donations is registered on the proforma, while Buildings & Equipment are registered in cash flow (see section 5.2.4 for details on this)

- *Operational Grant Funding:* These are grants that the organizing entity applies for. In this model, we have selected the Beginning Farmer and Rancher Development Program Grant through USDA for modeling purposes. These funds could come from a variety of grant sources, though, and will be incumbent on the organizing entity to actually identify and apply for.

Importantly, Total Income is not a reflection of the total fundraising and cash inflow needs of the organizing entity, as mentioned in the Cashflow Summary above. See 5.2.4 for additional details on Sources and Uses of funds.

## 5.2.4 Sources & Uses of Funds

Sources and Uses of funds is a way of looking at fundraising needs for an entity to understand the total types of capital that need to be raised and the specific ways that it will be utilized. The majority of the farm incubator organizing entity will rely on fundraising - as opposed to earned revenue - for ongoing operations and capital projects.





Year 1				
Uses		Sources		
Type	Amount	Funding	Amount	Type
Equipment	\$160,859	BFRDP	\$250,000	Working Capital
Building	\$735,021	Capital Campaign	\$800,000	Buildings & Equipment
Working Capital	\$355,411	Capital Campaign Working Capital	\$155,411	Working Capital
		Public Contributions (City / County)	\$95,880	Buildings & Equipment
<b>Total</b>	<b>\$1,251,291</b>	<b>Total</b>	<b>\$1,301,291</b>	

Year 2				
Uses		Sources		
Type	Amount	Funding	Amount	Type
Equipment	\$50,000	BFRDP	\$250,000	Working Capital
Building	\$0	Community Giving	\$50,000	Equipment
		Community Giving Working Capital	\$82,383	Working Capital
Working Capital	\$414,765	Public Contributions (City / County)	\$82,383	Working Capital
<b>Total</b>	<b>\$464,765</b>	<b>Total</b>	<b>\$464,765</b>	

Year 3				
Uses		Sources		
Type	Amount	Funding	Amount	Type
Equipment	\$130,000	BFRDP	\$250,000	Working Capital
Building	\$114,548	Foundation Giving	\$244,548	Buildings & Equipment
Working Capital	\$515,440	Local Food Promotions Program Gr	\$250,000	Working Capital
		CDFA Beginning Farmer and Farmworker Training and Workforce Development Program	\$15,440	Working Capital
<b>Total</b>	<b>\$759,988</b>	<b>Total</b>	<b>\$759,988</b>	

There are three types of Uses of funds: 1) Buildings, 2) Equipment, and 3) Working Capital. Buildings and Equipment funding amounts were determined through our capital expense assumptions (see section 5.2.5). Working Capital needs is determined by the total operational losses from the organization in a given year (Total Expenses minus Earned Revenue).

Sources of funds are where capital inflows will originate. The Beginning Farmer and Rancher Development Program Grant (BFRDP) is a grant this incubator farm will be particularly well positioned for. Funds from this are ideal for working capital to pay for operating supplies and labor. Buildings and Equipment funding is difficult to find grant sources for, as many grants do not cover capital expenses. That is why we have relied on community giving, foundations, and capital campaigns for these particular capital costs.

All capital expenses are not considered operating costs, and occur in the statement of cash flows in section 5.2.1. Working capital is captured as operating income, as it is used for ongoing operations.

### 5.2.5 Capital Expenses

Below is a summary of projected capital expenses, as well as a table with additional details. The majority of the costs will be for building infrastructure, as the assumption is that the land will have no buildings or infrastructure already in place. Equipment will be required for land maintenance, as well as having equipment for tenants to rent and use for their operations. Depending on the land and infrastructure of the land that is actually secured for the farm incubator, these capital expenses could be drastically reduced. A summary of total capital expenses is below, followed by a more detailed list of potential capital purchases for the incubator farm.

<b>3-Year CapEx Summary</b>		
<b>Type</b>	<b>Amount</b>	<b>% Total</b>
Building	\$849,569	71%
Equipment	\$340,859	29%
<b>Total</b>	<b>\$1,190,428</b>	

<b>Capital Expenses</b>		
<b>Item</b>	<b>Amount</b>	<b>Type</b>
<b>Year 1</b>		
Irrigation Equipment	\$25,000	Equipment
Tool Library Equipment	\$30,000	Equipment
Greenhouse	\$35,000	Building
High Tunnel	\$20,000	Building
Tractor, 50 HP	\$20,000	Equipment
Tractor Implements		
Tiller	\$4,500	Equipment
Disc	\$1,200	Equipment
Cultivator	\$2,500	Equipment
Brushhog	\$2,500	Equipment
Plow	\$1,500	Equipment
BCS Tiller	\$5,759	Equipment
BCS Implements		
Mower	\$2,000	Equipment
Tiller	\$900	Equipment
Rotary Plow	\$2,000	Equipment
Admin Startup Expenses	\$10,000	Equipment
Vehicle	\$20,000	Equipment
Warehouse Facility	\$625,000	Building
Coolers	\$32,053	Building
Wash House & Packing Floor	\$15,000	Equipment
Forklift	\$18,000	Equipment
Dry Storage Buildout	\$22,969	Building
<b>Total Year 1</b>	<b>\$895,880</b>	
<b>Year 2</b>		
Wash & Packshed Expansion	\$50,000	Equipment
<b>Total Year 2</b>	<b>\$50,000</b>	
<b>Year 3</b>		
Cooler Expansion	\$91,579	Building
Commercial Kitchen	\$100,000	Equipment
Tractor #2	\$20,000	Equipment
Tractor #2 Implements	\$10,000	Equipment
Dry Storage Expansion	\$22,969	Building
<b>Total Year 3</b>	<b>\$244,548</b>	

## 5.2.6 Expenses

Below are the expected expenses and overhead costs of running the farm incubator program. These are separated into four expense areas: Operating Expenses, Labor, Fixed Expenses, and General & Admin. Each section is described in more detail below.

<b>Farm Incubator High Level Proforma</b>		<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
<b>Total Income</b>		<b>\$412,911</b>	<b>\$434,765</b>	<b>\$551,440</b>
<b>Expenses</b>				
<b>Operating Expenses</b>				
Repairs & Maintenance		\$4,826	\$6,326	\$10,226
Facility Maintenance Expenses		\$21,474	\$21,474	\$23,014
Land Maintenance Expenses		\$29,000	\$25,600	\$12,800
Equipment Rental		\$2,500	\$4,000	\$6,000
Vehicle Expenses		\$1,250	\$2,000	\$3,000
Fuel		\$2,500	\$4,000	\$6,000
Water		\$9,713	\$18,130	\$54,390
Reimbursable Costs				
<b>Total Operating Expenses</b>		<b>\$71,262</b>	<b>\$81,529</b>	<b>\$115,430</b>
<i>OpEx to Income Ratio</i>		<i>17%</i>	<i>19%</i>	<i>21%</i>
<b>Labor</b>				
Payroll		\$171,600	\$225,520	\$273,280
Payroll Taxes		\$25,740	\$33,828	\$40,992
Workers Comp		\$3,432	\$4,510	\$5,466
<b>Total Labor</b>		<b>\$200,772</b>	<b>\$263,858</b>	<b>\$319,738</b>
<i>Labor to Income Ratio</i>		<i>49%</i>	<i>61%</i>	<i>58%</i>
<b>Fixed Expenses</b>				
Utilities (not including water)		\$1,800	\$1,800	\$1,800
Farmland Rent		\$24,000	\$24,000	\$24,000
Interest				
Insurance		\$2,000	\$2,000	\$2,000
<b>Total Fixed Expenses</b>		<b>\$27,800</b>	<b>\$27,800</b>	<b>\$27,800</b>
<i>Fixed to Income Ratio</i>		<i>7%</i>	<i>6%</i>	<i>5%</i>
<b>General &amp; Admin</b>				
Marketing Communications		\$5,000	\$3,000	\$4,000
Office Supplies		\$1,500	\$1,500	\$1,500
Computers & Hardware		\$1,000	\$1,000	\$1,000
Dues & Subscriptions		\$500	\$500	\$500
Meals & Entertainment		\$1,500	\$1,500	\$1,500
Bank Fees		\$500	\$500	\$500
Internal Professional Services		\$20,000	\$13,000	\$17,000
Tenant Professional Services		\$25,000	\$40,000	\$60,000
<b>Total General &amp; Admin</b>		<b>\$55,000</b>	<b>\$61,000</b>	<b>\$86,000</b>
<i>G&amp;A to Income Ratio</i>		<i>13%</i>	<i>14%</i>	<i>16%</i>
<b>Total Expenses</b>		<b>\$354,834</b>	<b>\$434,188</b>	<b>\$548,968</b>
<b>Net Income</b>		<b>\$58,077</b>	<b>\$577</b>	<b>\$2,472</b>

*Operating Expenses:* These are expenses that will be required to operate the farm and incubator program. These include costs for upkeep of land, buildings, and equipment, fuel, and water costs. While some of these expenses will be offset by incubator farm participants, and each farm will have their own set of equipment and supplies, the organizing entity will also incur some or all these costs directly through services rendered to farm incubator participants, as well as general upkeep costs that participants will not incur.

*Labor:* The above budget shows a summary of the annual labor budget. Below is a staffing chart with more detail. As mentioned earlier in this report, it is important to note that this budget assumes that the organizing entity is managing the incubator farm program only, and does not have any other program areas. Most of the incubator farm programs we reviewed have a variety of other programs and enterprises, which would defray some of the labor overhead and likely make the incubator farm program more affordable. We've modeled a small, core team of staff that would launch the program, which would likely perform multiple job functions in year one. Staffing would gradually become more specialized and specific as more staff is brought on to increase the capacity of the organization.

Position	Rate	Annual Hours	Total Pay, less fringe
<b>Year 1</b>			
Executive Director	\$85,000	2,080	\$85,000
Incubator Farm Manager	\$65,000	2,080	\$65,000
Administrator	\$20	1,080	\$21,600
<b>Total</b>		<b>5,240</b>	<b>\$171,600</b>
<b>Year 2</b>			
Executive Director	\$88,000	2,080	\$88,000
Incubator Farm Manager	\$68,000	2,080	\$68,000
Incubator Farm Coordinator	\$22	2,080	\$45,760
Administrator	\$22	1,080	\$23,760
<b>Total</b>		<b>7,320</b>	<b>\$225,520</b>
<b>Year 3</b>			
Executive Director	\$90,000	2,080	\$90,000
Incubator Farm Manager	\$69,000	2,080	\$69,000
Incubator Farm Coordinator	\$23	2,080	\$47,840
Administrator	\$23	1,080	\$24,840
Outreach & Education Coordinator	\$20	2,080	\$41,600
<b>Total</b>		<b>9,400</b>	<b>\$273,280</b>

*Fixed Expenses:* These are expenses that generally do not fluctuate from year to year. The largest fixed expense is Farmland Rent. The City of San Diego Public Utilities Department has offered a sample appraisal indicating that the cost of land would be \$600 per acre per year, and they are interested in continuing this conversation to make this farm incubator program a reality. This is in the context of an RFP property in the San Pasqual Valley Agricultural Preserve.

*General & Admin:* This captures more discretionary overhead expenses. This includes marketing costs that will be required to network and attract participants to the program. Professional Services are captured in this portion of the budget. We have split this into Internal and Tenant Professional Services. Internal Professional Services would be specifically for the organizing entity and would include accounting, legal, and financial audits. This is higher in year 1 to account for more services needed during the startup year. Tenant Professional Services includes \$5,000 to be provided to each farm incubator participant in order to secure their own professional services which might include additional agronomic expertise, marketing, financial and business planning services, legal, and/or accounting. In this model, each participant would be able to choose their own service providers independently of the organizing entity, although the organizing entity could refer them to their network of technical assistance providers.

Technical assistance for farm incubator participants is a critical factor in achieving positive outcomes for participants. Some programs have their own TA in-house, some lean on external TA, while the majority seem to lean on both. By year 3, we envision the organizing entity having some level of agronomic and operational expertise in-house with the Farm Manager, Farm Coordinator, and Education & Outreach Coordinator. There will likely be a need for external TA, and we recommend the organizing entity have a list TA provider referrals in the following subject areas:

- *Marketing:* Many farmers start growing food because they are drawn to the production and lifestyle aspects of the profession. They also want to enter direct to consumer sales, because the price per unit is highest for the farmer. If farmers are interested in entering the wholesale and B2B sales channels, they will still likely need assistance with marketing and sales structures, as well as connections to friendly buyers with low onboarding and entry requirements. This all requires marketing expertise, which farmers can often lack.
- *Financial and Business Planning:* It is common for beginning farmers to lack basic financial management skills and business planning backgrounds. Having consultants who specialize in bookkeeping, management accounting, budgeting, and business planning is an important piece of the TA puzzle.
- *Accounting:* Farmers will likely need assistance preparing and filing their taxes each year, and making sure this is done correctly can be critical for future funding needs (ie. ensuring that they file a schedule F and business taxes).

- *Legal:* Farms could require legal counsel on a whole host of issues as they grow their businesses, particularly when they are approaching program exit. Purchasing land or large capital expenses can sometimes require an attorney for review, having help to set up new business structures and entities, and navigating opaque labor regulations and workers comp insurance requirements, can be very valuable to farmers.
- *Land Access Expertise:* Land conservation organizations, government offices, and real estate expertise will be critical TA to have access to as farmers approach program exit. Identifying parcels of land for lease or purchase, exploring easements and programs to make land more accessible, and assistance with paperwork and transactions is an absolute program necessity.
- *Food Safety & Certification Assistance:* Food safety around post-harvest handling is a common area of technical assistance for beginning and new farmers. National Farmers' Union and National Young Farmers' Coalition have food safety training programs that could be a good place to start to identify local food safety technical assistance. Additionally, for farmers that are interested in becoming Certified Organic or Regenerative Organic Certified, Rodale Institute can offer a variety of support directly to farm incubator participants.

## 5.6 Financial Feasibility Summary & Recommendations

**Capital Expenses associated with starting a Farm Incubator program are significant.** We have modeled \$1.1M of capital expenditures related to this program for buildings and equipment only. This could be considerably more if there was an outright land purchase involved (our model assumes the land is leased, and is therefore an operating cost). Moreover, 79% of these capital costs (~\$877K) would be required in year one. Building and equipment capital expenses are very difficult to cover with grant sources, so fundraising would need strong leadership from the organizing entity. The stronger the existing partner and community network, the more feasible this will be.

**Housing the Farm Incubator program within an existing entity would likely lead to significant cost savings.** In particular, staffing could be greatly reduced, in addition to General & Admin and Fixed Expense costs. While our model has assumed the organizing entity would be independent, this would create redundancies if there is another organization that could house this program, and is how most other farm incubator programs are structured.

**None of this will happen unless there is a clear farm incubator leader who will own the responsibility of launching and growing this program.** The leader will ultimately be



responsible for raising and managing these funds. The program leader should have deep connections in the local food system community, as well as institutional and other programmatic partners.

**The Farm Incubator project is financially feasible.** Ultimately, what makes this project financially feasible is the demand from the local community and farmers for this program. Based on the outreach and stakeholder interviews we have conducted, there is clearly this demand. This demand needs to be aggregated and galvanized by the program champion. The funds will flow through solid leadership, as there are a plethora of grant opportunities to fund this.

**Don't internalize all programming. Lean on external technical assistance. Especially in years 1 - 3.** Starting the farm incubator and establishing all the baseline programs will be a heavy lift for the organizing entity. While relying on external contractors will likely be more expensive in the short term, the quality of support will likely be higher working with experts for any particular type of technical assistance, and it will decrease the administrative burden of housing all this expertise internally. Additionally, relying on external contractors for this assistance will grow the whole local food ecosystem, which relies on decentralized expertise - just like any other mature sector.

## 7.0 Alignment with county vision

### 7.1 Climate Action Plan and Decarbonization Strategy

The Climate Action Plan calls for a decrease in carbon emissions. Creating a circular economy and clean communities through the local food system is a strategy supported by the CAP. Investment into climate smart agriculture and the local food supply chain are strategies to strengthen the local food system; the farm incubator program would be an investment into both.

If the program provides resources for the participating farmers to adopt climate smart farming practices, access local markets, and create sound business models; the end result would be more economically thriving agricultural businesses that take good care of agricultural lands and feed the local population. As mentioned in the San Diego Food System Alliances Report on *Linking Climate Friendly Farming Practices to the SD Climate Action Plan*, investment into new and beginning farmers is an investment into future carbon sinks. They will carry forth the practices learned within the incubator farm program into their farming careers which will exponentially expand the amount of lands with climate smart agriculture practices.

The incubator farm participants can be supported to incorporate carbon farming practices into crop plans, which would have negative impacts on carbon emissions. They will also have a community for networking with their peer farmers and program collaborators to foster community knowledge and sharing of practices related to carbon farming. This is in direct alignment with the Decarbonization Strategy's recommended actions for natural climate solutions.

## 7.2 Food Vision 2030

The Food Vision 2030 report sets goals for the County to cultivate justice, build resilience, and fight climate change within the food system.

The farm incubator program can cultivate justice in the food system by providing new and beginning farmers an entry point to farm ownership. It will break down barriers of land and equipment cost for starting up, and provide support and resources along the way. Depending on the focus population of participants, this program can be geared towards uplifting underrepresented individuals in farm ownership such as BIPOC farmers, women, or immigrants and refugees.

The farm incubator can build resilience in the food system by giving farmers a space to create innovative farming businesses that can fill gaps and increase availability of local food. The wrap-around support strategies, and fostering of community amongst participating farmers will contribute to the creation of strong, but flexible businesses that can adapt and work together to support a stronger food system.

The farm incubator can fight climate change by making climate smart agriculture practices part of the education it provides to participating farmers, and even potentially offer financial incentives, such as discounts on fees, for specific practices. The program will also support conversation and collaboration around regenerative, climate smart and carbon farming practices. Each farmer that graduates out of the incubator farm and carries along these practices into their farming career will be making positive climate impacts.

## 7.3 Food System Report

The Food System Report highlights that 50% of farmers are 61 years of age or older; finding a strategy for young farmers to break into the industry is critical to sustaining agriculture as a whole. The report indicated that the challenges that farmers in the region are grappling with are primarily cost related; for both doing business and sustaining production. Cost of labor, land, water, and soil, pest, and disease management are all challenges for the common farmer. Beyond that are the effects of climate change on landscapes, weather and resource availability.

With an incubator farm the land, water, equipment and infrastructure provided to farmers at a subsidized rate, will make it easier for them to break into the industry. The technical assistance in agricultural and business practices will help them to navigate both the business and climate challenges inherent to the farming industry. And while farmers cannot change the weather, if the incubator farm supports climate smart technology, irrigation infrastructure and activities such as crop diversification, these farmers will be well positioned to contend with environmental challenges.

## 8.0 Final Recommendations

San Diego's food system community has an opportunity to create a lasting, sustainable, and deeply impactful farm incubator program to support new and beginning farmers' entry into a profession that is *very* difficult to enter - farming and food production. KTC's research and interviews with San Diego farm incubator stakeholders indicates that there are high levels of interest from a diverse range of individuals, organizations, institutions, and farmers for this farm incubator to succeed. This is the most critical ingredient in creating a successful farm incubator program - demand and stakeholder buy-in. Everything else follows from this and cannot be overstated in its importance.

Starting any new program or business has its challenges and risks. The following are our high-level recommendations for a successful farm incubator program:

1. **The Farm Incubator program needs a champion to drive the program and set boundaries.** Foodshed Small Farm Distro has expressed an interest in leading this work, and they may be best positioned to do so with their existing work in farm support, aggregation, and distribution. That said, the community needs to organically come to this conclusion. This can be done through Foodshed or another entity doing independent outreach separate from this report to gauge interest and buy-in. Whoever the organizing entity, they need to engage in robust strategic planning and development with shared goals across organizations that are both impactful and highly scoped. One organization cannot solve all the issues and barriers facing beginning farmers as they try to start their businesses, or solve food access issues for all consumers. It takes a village to raise a farm.
2. **Strong leadership can unlock funding in the short and long term.** By building a strong mission and shared goals, the organizing entity for the farm incubator program should be able to find the funding they need to launch this program. Between community giving, foundational support, and institutional funding, they should be able to raise the required funds to launch the program and put all the basic infrastructure in place. Grants can be utilized for operating expenses, and there are many grants to choose from.

Demonstrating traction with clear metrics and outcomes will build a strong case for future funding from philanthropic foundations that will alleviate long term funding needs, and allow the organizing entity to focus on developing the strongest program and outcomes possible for farm incubator participants.

**3. For Farm Incubator participants, exiting the program is the most difficult step.**

And, this is the most important outcome for the organizing entity, making this a potentially very fragile portion of the program - and critical to get right. We recommend a five year program for participants to get them ready to actually exit the program, which is a significant amount of time for the farm to streamline their operations, build their financial foundation and performance, and plan strategically to find and secure land longterm to exit the program. The organizing entity and external partners must work collaboratively and holistically to provide farms with this support including ongoing technical assistance while in the program and after they exit, innovative programming and partnerships with land conservation organizations, and intentional partnerships with public entities who can provide visibility into land opportunities. Additionally, land ownership for program graduates is often not feasible due to high land values and a lack of risk tolerant financing options. A more attainable goal could be long-term, secure land access, which could mean securing a long-term lease which is much more feasible. Ideally, the farm would establish key relationships with county and city governments, as well as farmers who are on large land holdings, to help match farmers with available land parcels.

**4. Identify the land opportunity, and plan from there.** Just like any farm endeavor, the land can dictate what can be produced, what customers can be served, and provides the foundation for the core business. A Farm Incubator program is no different. Pursue the San Pasqual Valley Agricultural Preserve as a permanent home for the farm incubator program, and perform due diligence on land basics to ensure it will be a good fit. Work to sign a long term lease that supports infrastructure development. More detailed program planning can be built from this.

**5. Clearly define program policy and farmer participant expectations.** A farmer manual for the program should be developed fully before program launch, including basic overview of the program, communication expectations, liability and legal requirements, financial commitments, conflict resolution process, DEI policies, etc. While the farm incubator will be created in service of farmers, farmers will also have to commit to the program and abide by the rules and policies laid forth. Headwaters Farm Incubator program has the most complete farmer manual we have seen for this, and can serve as a model to build this program's policies upon.

**6. Start small, gain traction, grow, repeat.** While the vision and mission of the farm incubator can be lofty (but clearly defined and scoped), the execution and

implementation should be staged to limit risk and exposure to program failures that are sure to happen. There is clarity to be found in implementation, but scaling too quickly can lead to larger failures. Years 1 - 3 should be considered pilot years. These years will be critical for the sake of clarity and dialing the program in, as well as building traction and metrics to assist with raising funds and meeting mission, leading to program growth.