San Diego Agricultural Planning Program

Sustainable Agricultural Lands Conservation Grant Program

Final Report

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Prepared by the Resource Conservation District of Greater San Diego County

On Behalf of the San Diego County Local Agency Formation Commission

With Generous Funding from the State of California Department of Conservation

Supported by our Partners in the San Diego Region

For more information, visit the program website:

https://www.rcdsandiego.org/san-diego-agricultural-planning-program

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Executive Summary

This report serves as the culmination of work performed as part of a two-year planning project funded by the State of California's Sustainable Agricultural Lands Conservation (SALC) program to identify, map, and assess agricultural lands and key agricultural trends in San Diego County. The project team draws on the expertise of its public, private, and non-profit organization partners with a collective focus to determine effective methods to strengthen agricultural production, achieve policy reform for the benefit of the agricultural industry and create co-benefits to the region. This regional analysis describes systemic structures and related barriers; meanwhile, market analysis of individual commodities is still needed. Subsequent efforts by the San Diego County Local Agency Formation Commission (SD LAFCO) will build on this planning process by quantitatively analyzing trends and opportunities for different commodity markets and to summarize the key costs required to operate an agricultural business in the County.

The program focused on direct outreach to farmers and ranchers while incorporating decades of research conducted by agricultural organizations in San Diego. The program set out to broadly define industry viability while ensuring a demographic representation of producers in the region. Mapped lands compiled diverse sources of data, expanded the definition of arable land to include slopes, as well as state and federal grazing lands. Outreach efforts included in-person interviews and direct outreach to small-scale farmer associations, while compensating agricultural producers for their involvement as paid professionals. Similarly, to encourage collaboration among stakeholders, contractors and partners, the program incorporated feedback from regional organizations representing agriculture at multiple scales. Stakeholder outreach focused on land-based commercial production, therefore major aspects of the agricultural industry were best represented through prior research, most notably: nursery and ornamental production, urban producers, indigenous land management, production in the desert region, and related issues in the food industry.

Regional Context

Agriculture has long been an important part of the local economy in San Diego County. As the region's fifth largest industry, direct economic output from agricultural production recently is $1.75 billion (County, 2021) with a total economic impact of $2.8 billion (County, 2015). San Diego leads the nation in nursery production, organic farming and the number of small farms. But, significant challenges threaten long-term viability of the region's agricultural industry.

The moderate climate in San Diego permits production of 200 varieties of locally grown crops (UCCE, 2018) across approximately 219,874 acres or 8% of the County area (County, 2021). Nursery and ornamental production are the lead agricultural commodity, accounting for $1.3 billion, or 74%, of agricultural sales, despite representing only 5% (11,429 acres) of the total crop acreage (County, 2021). Subtropical fruits are another major commodity, including citrus (8,812 acres, $114,746,057) and avocados (14,458 acres, $82,832,387). Others include wine grapes, vegetables, livestock and eggs. The County boasts the highest concentration of United States Department of Agriculture (USDA) Certified Organic farmers in the Country with 376 registered growers generating $71.0 million per year in sales (County, 2021). Organic methods and practices are also common among uncertified producers.

Land reserved for agriculture has fragmented and contracted with each passing decade (FMMP, 1986). For the last thirty years, San Diego consistently ranked in the top ten counties in California with the largest net loss of irrigated farmland (DOC, 2015). Currently, there are 219,874 acres in agricultural production

(County, 2021) compared to a peak of 371,592 acres in 1986, representing a decline of 41% (FMMP, 1986). The historical area of farms and ranches once exceeded 630,000 acres, however records of acreage are incomplete for extensive coastal dairies, dryland farming, row crops, montane pastures and the globally-renowned floral industry (FMMP, 1986). More than two-thirds (69%) of San Diego farms now operate on less than ten acres (USDA, 2017).

Producer Concerns

Through direct outreach, policy meetings, and working groups, project partners sought input from stakeholders across San Diego Ten policy recommendations emerged, representing multiple crop types, demographics and regions of the County, including:

1. Assign agricultural liaisons for city and county governments
2. Design lease agreements that invest in working lands
3. Create a regional land use plan to prioritize agriculture
4. Fund growers to transition to low water-use crops and more efficient irrigation
5. Equip and incentivize producers to adopt climate-smart practices
6. Streamline construction of farmworker housing
7. Develop advanced water treatment facilities with priority for agricultural use
8. Inform small farming opportunities through analysis of costs and benefits of small farms
9. Expand technical assistance by providing more vocational training
10. Build capacity of farmers and farmworkers with training and services

Pressures on agricultural businesses are intensifying now more than ever. The high expense of imported water and rising land costs from urban encroachment are universal pressures (County, 2009; Appendix 4B). Most producers highlight extreme weather conditions as a major impact to production, with an increase in minimum temperature of >3°F in the last century (Appendix 4B, CA EPA 2018). Regulations for grading and development, environmental review, and labor rates complicate and add expense to production (Appendix 4B). For small farmers, high labor costs, pest management, and marketing are paramount (UCCE, 2018). General concerns also include access to capital, training opportunities, and market stability.

As markets develop, producers need support adapting their business to new costs and opportunities. Labor costs continue to rise, while nearby urban markets provide higher premiums for high quality food (Appendix 4B). Existing regulations can be prohibitive to business, namely state restrictions on overtime and minimum wage laws which paralyze industries that employ seasonal workers or graziers. Environmental permitting is not streamlined, making it expensive to navigate and comply with local and state regulations. State grants provide opportunities to invest in on-farm climate solutions, but applications are too convoluted for producers to complete on their own, spotlighting a need for technical assistance. The local urban market presents a growing opportunity, but producers need additional support connecting to local businesses and institutions to take advantage of the available premium. Turning a weakness into a strength, water scarcity has driven local producers to adopt water conservation measures at a higher rate than most counties in the State (USDA, 2012). However, the rising cost of water has also forced some producers out of agriculture.

The results of land conversion and rising water costs are most visible in the subtropical orchard industry. San Diego was formerly the lead producer of avocados in the country. However, total production value and acreage dropped by nearly half from a peak in 2007 ($153 million on 26,000 acres) to 2021 ($82.8 million on 14,458 acres)(County, 2021). Decreased avocado yields and rising water costs may also be linked to the increase in hotter and drier conditions (County, 2021).

Policy Goals

The agricultural stakeholders and supporting organizations who collaborated on this program recommend policy goals at the local, regional, and state levels. Central to each policy proposal is the need for farmers to be actively involved in regional land use policies, and for agriculture to be valued as a critical element of the local culture and economy. Therefore, all levels of government should dedicate agency liaisons to provide direct representation to agricultural producers in order to navigate regulations and funding opportunities. To support this, industry leaders should draft a holistic assessment of the direct and indirect economic impact as well as the co-benefits of the agricultural industry in the region as a value analysis (Appendix 4C). SD LAFCO has taken the lead on this policy recommendation in collaboration with the County of San Diego by renewing this SALC grant for additional analysis of the costs of agricultural production at the farm scale and co-benefits of agricultural communities to the region; a concurrent goal is to help economically diversify production to support the agricultural industry.

To guide regional land use, an agricultural zoning plan is desperately needed. Land use planners should work with producers and other stakeholders to develop an agricultural land use plan interconnected across the entire County to guide future policy development, land use planning and to preserve working lands. Water is a limiting factor to the future of local agriculture. To help preserve San Diego agriculture, water districts should collaborate on future regional funding opportunities to incentivize producer participation in a local CropSWAP program which would support the transition from high water-demand subtropical groves and orchards to drought-tolerant perennials or crops with lower water usage. This model has shown to be successful elsewhere in Southern California. In order to preserve and invest in fertile agricultural lands, farmers and ranchers need access to agricultural reserves as was previously achieved through the Williamson Act. Public agencies should work with agricultural producers to place land in trusts, develop beneficial agreements to lease public lands with historic agricultural use, and incentivize climate-smart practices on those fields. These programs allow the preservation of agricultural lands while protecting farmers from further urban encroachment and drought risk.

Economic policies should be developed to support agricultural producers to adapt to a shifting market. The pipeline for the region's robust agricultural education programs tapers off after high school; training opportunities should support young farmers to learn, stay, and grow in San Diego. This could be accomplished by investing in more horticultural programs at local community colleges and with support from USDA Beginning Farmer and Rancher Development Program. Meanwhile, the workforce should be supplemented by a consistent system for providing permits to seasonal workers to contribute and benefit from the agricultural economy. Regional agencies should address the formidable cost of living for vulnerable farmworker populations by simplifying permitting and incentivizing the construction of farmworker housing. Participants in the San Diego Food System Alliance (SDFSA) Food Vision 2030 highlighted the need for a pathway to land ownership, coupled with succession planning, mentorship, and marketing support (SDFSA, 2021A). County policymakers could work with local advocates to request a revision at the State level to make labor laws concerning overtime and wages more flexible based on seasonal needs.

Climate conditions continue to trend toward extremes. Fortunately, carbon farming practices are available and in use at the farm level which helps to increase storage of carbon in soils, improve water holding capacity and help mitigate heat islands. To adapt to and mitigate climate change impacts, local governments should invest in capacity-building programs to reduce the cost of implementing climate-smart practices. Practices listed in the County's Climate Action Plan (2018) identify the need to increase

carbon sequestration, promote sustainably and locally grown food, and reduce emissions of equipment used in agriculture, activities which can be supported by local incentives.

Above all, producers are under-represented and need designated staff at government agencies to advocate for them and help them navigate services. With strong representation in place, regional agencies and residents can build momentum and provide the agricultural community with the support that it has earned.

Grant Description

Unique Project Objective

The San Diego Agricultural Planning Program sought to identify, map, and quantify the ownership of active agricultural lands within the San Diego region to determine effective methods to strengthen agricultural production and the growing agricultural economy. To achieve policy reform on gridlocked issues, grant partners sought industry unity through a collaborative approach representing multiple angles of the local agricultural industry. Project methods were informed by the results of previous projects and the needs of the constituents served by the coordinating organizations.

The project design considered previous studies and took a unique approach on a variety of elements. While many SALC projects focus on conservation easements as the primary tool for agricultural preservation, program partners broadened the focus to industry viability in general. As such, agricultural producers were consulted and valued as paid professionals for the time and input they contributed. Contractors and partners included regional organizations representing agriculture at multiple scales, from individual farmworkers to the owners of established operations. This approach addressed gridlock on key issues such as water availability, climate adaptation, land accessibility and agricultural workforce by encouraging collaboration among critical players including agricultural industry associations, government agencies, and community organizations.

A broader definition of farmers and farming expanded the mapping and outreach processes. To better represent the full extent of agricultural lands, the mapping team engaged the ranching community to locate grazing lands, broadened the definition of arable land to include steeper slopes, and combined multiple sources of spatial data. In outreach and policy efforts, collaborators sought a wider demographic representation of producers in the region through in-person interviews and direct outreach to small-scale farmer associations. Outreach results focused on qualitative content to better understand systemic barriers, thus quantitative results lacked statistical strength. For statistical strength, outreach relied on existing studies and reports.

This project was not able to deeply explore all aspects of the agricultural industry, most notably nursery and ornamental production, urban producers, indigenous land management, production in the desert region, and related issues in the food industry. Collaborators instead relied on the results of previous reports which already explored these topics sufficiently.

The following report details how partners advanced the objective of strengthening the local agricultural economy.

Program Funder

This two-year planning grant was funded by the California Department of Conservation (DOC) through the Sustainable Agricultural Lands Conservation Program (SALC). The project is managed by the San Diego County Local Agency Formation Commission (SD LAFCO) and coordinated by the Resource Conservation District (RCD) of Greater San Diego County (RCDGSDC) with support from regional partners. The SALC Program was created in 2014 as a component of the California Strategic Growth Council and administered by the DOC. The SALC program is primarily funded through California Climate Investments, which is a statewide program that provides cap-and-trade funds through agricultural

conservation acquisition and planning grants for programs intended to reduce greenhouse gas emissions (GHG). The principal goals of the SALC Program are stated as:

> Protect at-risk agricultural lands from sprawl development to promote growth within existing jurisdictions, ensure open space remains available, and support a healthy agricultural economy.
>
> Further the purposes of Assembly Bill 32 by avoiding increases in the greenhouse gas emissions associated with the conversion of agricultural land to more greenhouse gas-intensive nonagricultural uses.

Beginning in 2019, SD LAFCO and RCDGSDC collaborated with regional partners at the County of San Diego, San Diego Association of Governments, and San Diego County Farm Bureau (Farm Bureau) to submit a SALC planning grant application. SD LAFCO was the lead applicant and was awarded a two-year grant in the full amount of $250,000 in April 2021 with work commencing in June 2021. Funding included administration, staff time, contractor fees and printing costs, with outreach expenses such as venues, travel and refreshments as match funds.

Tasks: Mapping, Outreach, and Policy

The grant included five primary tasks: (1) grant management; (2) mapping and greenhouse gas analysis; (3) collaborative outreach; (4) policy analysis; and (5) strategic planning. Grant management such as reporting and financial tracking was conducted by SD LAFCO throughout the duration of the program. The RCD developed specific outcomes for tasks (2) through (5) at the scale of San Diego County and as described below:

Mapping and Greenhouse Gas Analysis

- Map the extent of historical, current, and potential agricultural lands
- Model the greenhouse gas sequestration potential on agricultural lands

Collaborative Outreach

- Conduct needs assessment with 99 agricultural producers with a focus on under-represented operations in order to identify systemic issues
- Hold two listening sessions with producers representing a variety of crop types, demographics, and regions to discuss major policies which affect systemic issues

Policy

- Inventory policies at local, regional, and state level which affect agricultural operations
- Analyze potential for implementation of new agricultural policies at the local and regional level, prioritized by systemic issues identified in the outreach task
- Host public meetings to discuss existing policies for the prioritized issues including (1) Land Access, (2) Water Availability and Efficiency, and (3) Agricultural Workforce Development
- Host a strategic planning meeting to identify one project for each of the three policy topics, and form stakeholder working groups to be responsible for each project

Advocacy

- Coordinate Working Groups on three priority policy topics of (1) Land Access, (2) Water Availability and Efficiency, and (3) Agricultural Workforce Development

- Compose final report to inform regional policy development
- Design outreach materials for agricultural stakeholders to advocate for policy reform
- Advocate with agricultural stakeholders to the general public and to elected officials to implement prioritized policy reforms

Partners and Acknowledgements

This work is made possible only by the participation of agricultural producers. The Resource Conservation District of Greater San Diego County appreciates all of the time, input and expertise they shared and we dedicate our efforts to influencing positive regional changes that support them.

The original grant application was skillfully prepared by Dr. Chandra Richards, in coordination with Keene Simonds at SD LAFCO, Hannah Gbeh at the Farm Bureau, Meghan Kelly at the County of San Diego, Amie MacPhee and Serena Unger at the Cultivate Team and former RCDGSDC Executive Director, Sheryl Landrum. We are grateful for our grant manager, Priscilla Mumpower of SD LAFCO, who has gone above and beyond to stay engaged at each level of the project. We are also grateful to Darcy Cook and the Mission Resource Conservation District, for participating as both an outreach and strategic partner. With their support and engagement, we have been able to reach more producers outside of our jurisdiction to create a more holistic vision of what is needed for our regional agricultural community. Along with Mission Resource Conservation District, we had support from our outreach partners at Community Health Improvement Partners (CHIP) and Foodshed Inc. who actively contributed to the distribution of the Producer Needs Assessments across our very diverse county.

In addition to our partners, there were many regional contributors to this work.

Agricultural Stakeholders

- Agri Service, Inc
- California Farmlink
- Community Alliance with Family Farmers
- Escondido Growers for Agricultural Preservation
- Foodshed Inc.
- Ramona Valley Vineyard Association
- San Diego County Cattlemen's Association
- San Diego County Cattlewomen's Association
- San Diego County Farm Bureau
- San Diego Food System Alliance
- San Pasqual Valley Soils
- University of California Agricultural & Natural Resources
- Vista Community Clinic - Farmworker Care Coalition

Government Agencies

- California Department of Food & Agriculture
- City of Escondido
- City of San Diego, Council District 5
- City of Oceanside
- County Board of Supervisors District 2
- County of San Diego

    - Planning and Development
    - Agricultural Weights and Measures
    - Land Use and Environmental Group
- Mission Resource Conservation District
- Rainbow Municipal Water District
- Representative of State District 75
- Resource Conservation District of Greater San Diego County
- San Diego Association of Governments
- San Diego County Water Authority and key member agencies
- San Diego Local Agency Formation Commission
- Temecula Elsinore Anza Murrieta Resource Conservation District
- United States Forest Service
- United States Natural Resources Conservation Service
- Upper San Luis Rey Resource Conservation District

Supporting Organizations

- Adam Wilson – SD LAFCO Policy Consultant
- Community Health Improvement Partners - Farm to Institution Center
- Conservation Fund
- Dudek
- Palomar College
- Ramona Community Planning Group
- San Diego City College
- San Diego Irrigated Lands Group
- San Diego State University - School of Public Affairs
- Southwestern College
- University of California San Diego - Community Health

Summary of Other SALC Projects

RCDGSDC was inspired by the regional planning work of other organizations in California.

- Mendocino County Sustainable Agricultural Lands Strategy – In 2015, the Mendocino County Agricultural Commissioner's Office and the Mendocino County RCD (MCRCD) were funded by DOC and the Strategic Growth Council (SGC) to research their region's untapped and undeveloped agricultural potential. Noting the statewide pattern of land use conversion towards housing and commercial spaces, MCRCD focused on creating a plan that would advocate for the preservation of their agricultural lands. They worked on mapping their region's agricultural extent of lands, gauged the community's interest in identifying spaces for conservation easements, and increased their technical assistance for farmers and ranchers interested in adopting carbon farming practices. In 2020, MCRCD utilized funding from the Sustainable Agricultural Land Conservation (SALC) Program to expand upon this work. In addition, they are developing an agricultural component to the county Climate Action Plan, increasing capacity for carbon farm planning and soil health initiatives, and promoting further participation in the Williamson Act and conservation easement programs.
- 2018 Santa Clara Valley Agricultural Plan – Santa Clara was once known as "the Valley of Heart's Delight" for its abundant agricultural land, but with their proximity to the rapidly expanding Bay

Area, land use priorities shifted to support the emerging technology industry. The County of Santa Clara, Santa Clara Valley Open Space Authority, and their partners developed the Santa Clara Valley Agricultural Plan to emphasize the cultural, ecological, environmental, and economic importance of preserving and protecting existing land for agricultural use. This group identified four focus areas to promote their vision, which were 1) Land Use Policy, 2) Regional Agricultural Conservation Easement Program and Other Financial Incentives, 3) Agricultural Economic Development Strategy, and 4) Branding Education and Awareness Strategy. The initiatives identified in the project are now being implemented, with a focus on agricultural conservation easements.

- 2020 Inland Empire Agricultural Plan – The Local Agency Formation Commission for San Bernardino County, the Inland Empire RCD (IERCD), and their partners received SALC funding during the same round as the San Diego Agricultural Planning Program. Partners are setting out to preserve the San Bernardino region from being entirely developed into industrial warehouses and manufacturing centers. The plan focuses on mapping out a corridor of preserved agricultural lands in the San Bernardino Valley, analyzing city and county policies that affect agriculture, developing an agricultural easement program, and creating a regional agricultural advisory committee. The project will be completed in the Spring of 2023.

Background

Geography and Industry Overview

San Diego County is renowned for its mild climate, beachfront and hilly terrain. The topography of the county varies widely from coastline to canyons, mountains to deserts. With a unique ability to enjoy a year-round growing season, San Diego County hosts over 5,000 farms operating mostly on less than ten acres (USDA, 2017). The various microclimates permit the production of 200 locally grown crops while fostering an active agricultural hub in Southern California (UCCE, 2018).

Before 1986, grazing lands and coastal areas were dominated by agriculture activity expanding over more than 630,000 acres, including land for dairies, dryland farming, row crops, orchards and the historic nursery industry (FMMP 1986, SDSU Analysis). However, as San Diego County became more urbanized and sprawled, the area of land dedicated to food production declined. Until 2006, an overall decline in cultivated area due to urban expansion was partially compensated for with the planting of new avocado orchards in East County (County, 2006). During this period, acreage devoted to commercial agriculture peaked at 315,296 acres. However, with the decline of the avocado industry total acreage is steadily decreasing, represented by a loss of 30% 4.2% or about 10,000 acres from 2019 to 2020 (County, 2021).

Water supply in the region developed in tandem with population growth. The San Diego County Water Authority (CWA) formed in the 1940's with the purpose of importing water from the Colorado River, linking earlier major investments made by the Metropolitan Water District of Southern California (MWDSC) in the Colorado River Aqueduct. The majority of the agricultural industry is now dependent on an imported water supply, with rates among the highest in the country. The conservation efforts of local farmers have resulted in San Diego County leading the state with adoption of energy and water conservation measures (USDA, 2012). Despite these efforts, San Diego County has ranked in the top ten counties in California with the largest net loss of irrigated farmland since 1994 (DOC, 2015).

Economic Impact

Proximity to the Central Valley and the U.S.-Mexico border provides an active market for export and trade. Direct economic output from agricultural production totaled $1.75 billion in 2021 (County, 2021), with a total economic impact of $2.8 billion (County, 2015); in the last census, San Diego County ranked in the 99th percentile (18th out of 3,073) for crop sales in the country (USDA, 2017). Approximately 12,335 farmworkers (County, 2015) are employed by regional operations and an additional 4,313 employees work in supporting businesses (County, 2015). More than 2,000 businesses related to the agriculture sector are within five miles of farms throughout the County (Appendix 4A). The food system in the County employs 217,000 San Diegans and generates more than $35.0 billion in direct sales, as well as indirect and induced outputs from agriculture, fisheries, manufacturing, retail wholesalers and food service (SDFSA, 2021A).

Nurseries are the fastest growing industry and the majority of agricultural income is earned through the sale of nursery products and ornamentals (County, 2021). Of the $1.75 billion in annual production revenue nursery and cut flower production accounts for 74%, even though it represents only 11,429 acres. Common perennial crops include subtropical fruits like avocados and citrus, in addition to vineyards; avocados represent the second largest land use for any agricultural product. Livestock and poultry income is dominated by egg production, while the largest land use is devoted to rangeland.

San Diego is home to 376 certified organic growers, the highest concentration of U.S. Department of Agriculture Certified Organic farmers in the United States (County, 2021). USDA Certified Organic farmers in San Diego generated over $71.0 million in product sales in 2021. Meanwhile, it is common for uncertified producers to use organic techniques to meet the demand of local markets. The USDA describes organic agriculture as the application of a set of cultural, biological, and mechanical practices that support the cycling of on-farm resources, promote ecological balance, and conserve biodiversity (USDA, 2015).

Social Context

Despite a robust high school agricultural education system, San Diego producers are aging. The average age of producers in the San Diego region in 2012 was 62 years old. Compared to 2007, fewer multi-generational families are continuing the farming and/or ranching professions, representing a 14% decrease in farms (USDA Census, 2012). Farm ownership and management is not exclusive to any one ethnicity. However, the majority of farms in San Diego are owned by Caucasians (USDA, 2017) while the majority of farmworkers in California are Latino (USDL, 2022). A higher proportion of producers are males (59%; USDA, 2017), with a 4-year college education or higher degrees, and those with an income outside of farming; however, San Diego women are leaders in farming and marked by the County ranking second statewide for the number of woman-run farms (UCCE, 2018). As the current farmers age and retire, there is a major opportunity for them to mentor the next generation of farmers in the County. Beginning farmers represent a wide range in ethnicities and income levels in the County and would benefit from training, access to land and capital, and marketing support.

Historically, farmland was easier to access and the demographics of farm owners were therefore more representative of the population. Price inflation from urban encroachment and discriminatory policies for land ownership compounded to shift the profile of the average grower in the United States. Project New Village collaborated with San Diego State University to illustrate how the Good Food District in Southeast San Diego was and can be a center for food traditions based on its inherent diversity (Joassart-Marcelli, 2018). The Ito Family is of Japanese descent and raised celery and tomatoes in Southeast San Diego in the early 1900's under the label 'Encanto Hill', alongside neighboring farms owned by Mexican, African-American and Filipino families. In another example, Dr. Caroline Collins describes in the series 'We Are Not Strangers Here' how the growth and development of the agricultural community of Julian accelerated rapidly in the late 1800's as African-American settlers invested in local industries, building off of relationships with indigenous communities (Collins, 2022). The diversity of the agricultural industry is now represented by diversity of local crops, broad technical knowledge and variety of food traditions, but no longer in terms of farm ownership.

High San Diego land and water costs, the latter of which are rising faster here than anywhere else in Southern California, are driving many farmers to halt agricultural production and, in some cases, sell their lands. A shortage of labor and complex farming regulations on local, state, and federal levels also contributes significantly to financial stress for the local agricultural community and therefore significant loss of agricultural land. The high cost of land and competition for alternative land uses makes the cost of entry prohibitive for beginning farmers and ranchers. The San Diego County Food Vision 2030 explores how to achieve social equity in the local food system. One outcome has been a study on community wealth-building, which is supporting fledgling agricultural operations to develop business plans which share ownership while increasing access of fresh produce to local communities (SDFSA 2021b). Within the agricultural industry, investment in agricultural land trusts could increase access to farmland for beginning farmers and cooperatives.

Indigenous Land Management

San Diego County is home to 18 federally-recognized tribal reservations belonging to the Kumeyaay, Luiseño, Cahuilla and Cupeño people, whose members have stewarded the land since time immemorial. Tribal farmers actively produce food through large-scale agricultural operations throughout the County. A more applicable definition of agriculture should be broadened beyond export-oriented food production. Indigenous land management practices include managing food-bearing landscapes such as oak woodlands, grasslands and freshwater marshes which have sustained native people in this region for millennia. United States agencies are beginning to recognize the immense value of these indigenous land management practices including selective harvest, prescribed burning and check dams with interest in supporting and expanding these traditional practices. While the focus of this program is conventional agriculture, many individuals and organizations involved actively support the leadership of native peoples and the reintroduction of traditional management practices to rejuvenate the land and the native people who are its stewards.

Regional Players

To achieve policy reform on gridlocked issues, program partners actively encouraged collaboration from multiple perspectives of the local agricultural industry. Agricultural stakeholders informed the core of the outreach and policy efforts, while government agencies and community organizations were involved to provide additional structure and resources. When this project began in 2021, the most active agricultural stakeholders in the region included the Farm Bureau, San Diego County Cattlemen's Association and Cattlewomen's Association, Escondido Growers for Agricultural Preservation (EGAP), Foodshed Inc., and Vista Community Clinic. Actively engaged government agencies included the County of San Diego Agricultural Weights and Measures (AWM), SD LAFCO, Natural Resources Conservation Service (NRCS), San Diego County Water Authority (CWA), Mission RCD, Upper San Luis Rey RCD, RCDGSDC, and Regional Water Quality Control Board Region 9. Actively engaged supporting organizations included UC Cooperative Extension (UCCE), San Diego Food System Alliance, Community Health Improvement Partners, Community Alliance with Family Farmers, and UC San Diego Community Health.

Meanwhile, jurisdictions with the largest proportion of agricultural stakeholders included the County of San Diego, City of San Diego, City of Escondido and the City of Oceanside. In addition to the CWA, the member agencies with the largest proportion of agricultural stakeholders include City of San Diego, Fallbrook Public Utilities District, Rainbow Municipal Water District (MWD), Yuima MWD, Valley Center MWD, Rincon Del Diablo MWD, Vista Irrigation District, and Ramona MWD, among others. Additional governments and agencies who own large tracts of farmland or rangeland include the County of San Diego, San Diego Gas and Electric Company, CA Department of Transportation, CA State Parks, CA Department of Fish and Wildlife (CDFW), US Bureau of Land Management (BLM), US Department of Defense, US Forest Service, US Fish and Wildlife Service and several tribal nations.

In the San Diego Agricultural Planning Program, program partners explored how a framework including each of these types of groups could advance a particular policy issue to demonstrate how progress can be made at a larger scale. Each of these organizations listed above plays a critical role in representing or serving the agricultural community. However, issues beyond the agricultural industry such as land use, water supply, and labor laws increased collaboration among these groups. For regional issues, discussion with these diverse groups will allow for more effective progress.

The involvement of private individuals and businesses is important to shape the future of agriculture; farms on the edge of urban centers, often referred to as peri-urban, can have a mutually beneficial relationship with nearby cities. Private landowners affect environmental regulations, housing availability, and zoning for nearby farms through neighborhood policies, consumer choices and property sales. Individual businesses, developers and planners have a responsibility to consider the vital role of agriculture in the development and growth of urban planning. Similarly, local consumers have major buying power with unique access to a food system that provides a diverse selection of products year-round. By consuming local produce, San Diegans not only benefit from access to high quality local foods, but support beneficial land management practices, access to conserved lands and a historic cultural identity.

History of Regional Policies

The County of San Diego has taken the lead on assessing the status of agricultural policy in the County, with periodic reports and initiatives on a variety of topics. In 2005, the County held listening sessions in collaboration with the Farm Bureau and shared the results in a 2009 report, "San Diego County Farming Program Plan". The effectiveness of this process was mixed, with some current programs like the Purchase of Agricultural Conservation Easement (PACE) stemming from this effort, while proposed regulatory assistance and industry development programs have not been realized. An advocacy group took on the effort themselves in 2012 when EGAP analyzed the costs of production and the need for an affordable water supply to support the region's avocado industry (EGAP, 2012). The question of economic viability is at the core of most conversations about the future of agriculture, and the County of San Diego addressed this directly in their 2015 report on the direct and indirect economic impact of agriculture on the local economy (County, 2015).

Water supply has historically been the limiting factor for agriculture in the region, making water conservation a priority policy. Following a major drought in the early 1990's, the CWA shifted purchasing from the MWDSC based in Los Angeles to the Imperial Irrigation District in Imperial Valley by investing in conservation measures on Imperial Valley farms. Regional water agencies continue to invest in drought preparedness through the Agricultural Water Rate; 2,000 local producers are currently enrolled in this program (SDCWA, 2023). This program reduces the water rate by 25% for agricultural compared to water for residential and commercial customers by removing fees for infrastructure for surface storage, desalination or conveyance from Imperial Irrigation District. In exchange, the participating producer accepts a lower level of water supply reliability during drought conditions.

Policy implementation in support of agriculture gained a surge of energy in 2017, when the County developed the Agricultural Promotion Program (County, 2017). This effort streamlined existing regulations to make it easier and cheaper for supporting businesses like wineries, bee-keepers and cheese-makers to operate. During the course of this project, several new policies have been advanced by the County to deregulate and invest in agriculture, such as the Agricultural Pass Program for emergency events and the Organic Materials Ordinance for composting facilities. The County developed a Climate Action Plan (CAP) in 2018 which emphasized the importance of agriculture in the region, referenced the potential to sequester carbon on working lands and encouraged agricultural land easements, machinery electrification and tree planting as opportunities to reduce agricultural emissions. The County CAP is currently being revised to enforce the implementation of reduction measures and will emphasize the potential to sequester carbon on working lands through the implementation of specific "carbon farming" practices.

The impact of climate change on agriculture and the opportunity to mitigate its effects have been a major focus for regional study. California's Fourth Climate Change Assessment for the San Diego Region was conducted by UC San Diego in 2018 and projected the impacts and opportunities on working lands (Kalansky et al., 2018). SDFSA led a study about the potential for carbon sequestration on San Diego agricultural land and the Climate Action Plan as a vehicle for its implementation (SDFSA, 2018). Climate Science Alliance and the California Department of Food and Agriculture (CDFA) analyzed the impact of climate change on Southern California specialty crops, including strategies needed to help farms adapt to new conditions (CSA, 2020). In 2022 the County of San Diego used the Regional Decarbonization Framework to analyze the opportunities for sequestering carbon on Working Lands (County, 2022A).

Community groups have filled the gap left by most of these institutional efforts by conducting a deeper analysis of equity and social justice within the agricultural industry. In 2018, Project New Village collaborated with San Diego State University to illustrate how the Good Food District in Southeast San Diego was and can be a center for food traditions based on its inherent diversity (Joassart-Marcelli, 2018). The most direct efforts by government institutions have included analyses of the Food System by UC Davis (2010) and the County of San Diego (2019). At the State level, the National Young Farmer's Coalition explored the policy concerns for beginning farmers statewide (NYFC, 2019). The Coalition concluded that land access was the most critical issue limiting beginning farmers from developing their farm businesses. SDFSA developed the San Diego County Food Vision 2030 which involved members from all strata of the food industry to explore how to address issues of environmental justice, climate change, and system resilience through an equity lens (SDFSA 2021A). This program now hosts annual gatherings to engage the community in workshops, panels and discussions as they develop a central resource hub for underserved farmers, fishers and restaurant owners in the region.

Municipalities across the County have adapted policies as the primary land use has transitioned from primarily agricultural to primarily urban, especially in the south and west of the County. The most popular farmland conservation program was the Williamson Act, which paid producers to keep their land in agriculture for a 10-year period, subject to renewal. Without continued State or local funding this program has been removed, replaced by conservation easement programs offered by the County PACE, State SALC and Federal NRCS. The City of San Diego implemented agricultural conservation on a major scale when it created the 14,000 acre San Pasqual Valley Agricultural Preserve in 1964 in order to achieve water management goals. The 1995 San Pasqual Valley Plan detailed specific measures to conserve natural resources and protect agricultural production such as groundwater management and farmworker housing (City, 1995). Current leases in the Preserve do not take into account the needs of agricultural producers, with leases stuck on a month-to-month renewal, lack of investment in farmworker housing, declining groundwater availability and no direct City representative with fluency on agricultural topics. These issues and others necessitate a revision and implementation of this plan.

The State of California has pioneered climate change legislation through regulations and incentives programs. To support soil health practices, CDFA launched the Healthy Soils Program in 2017 which is funded by uses Cap-and-Trade proceeds from California Climate Investments. The Healthy Soils Program incentivizes producers in San Diego and statewide to implement practices like compost application, hedgerow planting and prescribed grazing. Furthermore, California Senate Bill 1383 regarding Organic Waste Reductions went into effect on January 1, 2022 and intends to reduce the emission of greenhouse gases by diverting away from landfills at least 75% of the organic waste produced each year (County, 2022B). Agriculture is a major potential sink for the nearly 3.5 million tons of organic material produced each year and the proximity of farms to urban centers in San Diego could make this an efficient system. Building soil organic matter can help farmers both mitigate and adapt to climate

change by sequestering carbon in the soil, while reducing the direct effects of climate change to the farm by improving soil health and retaining soil moisture (Libohava et al., 2018).

Key Findings

The initial tasks of mapping and greenhouse gas analysis (Task 2), collaborative outreach (Task 3) and policy analysis (Task 4) produced key findings which informed strategic planning (Task 5). The findings for the extent of agricultural lands below describe the total historic, current and potential area of agricultural production, including breakdown by commodities; the current extent was used to estimate existing carbon sequestered on agricultural lands. The findings for the producer outreach describe the producer needs assessment and listening sessions, which described producer concerns. The concerns of individual producers are grouped and explored through systemic issues. The status of climate-smart agriculture programs and the complexities of the relationship between agricultural producers and government agencies are discussed separately. Finally, the policy analysis based on these systemic issues is analyzed for the jurisdictions with a high proportion of agricultural land, including an inventory of existing policies affecting agriculture and the degree of their adoption across different areas.

Extent of Agricultural Lands

RCDGSDC worked with graduate students and faculty from the School of Public Affairs at San Diego State University to map the historical, current and potential extent of agricultural lands. Spatial data for historical lands was limited to 1986, with the exception of historic ranches that extended earlier. Changes over time showed a near complete elimination of agricultural land along the coast, and a vast reduction in the amount of actively grazed rangeland (Farley et al., 2017).

The USDA Census identifies more than 5,000 principal operators in San Diego County, more than any county in the United States (USDA, 2017). Approximately 1,300 farmers are enrolled in the San Diego Irrigated Lands Group (comm. Farm Bureau), while the County of San Diego maintains records of approximately 1,200 producers who are certified organic, sell at farmers markets or apply pesticides. The mapping task focused on the spatial extent of agricultural lands, but did not rectify the discrepancy between reported numbers of producers. Regardless, the County ranks as one of the highest concentrations of principal farm and ranch operators in the state and the country.

Findings for current agricultural lands show 252,118 acres currently in production, based on combined data from County AWM, San Diego Association of Governments (SANDAG), CA DOC and a variety of agencies and private owners of rangelands (Appendix 4A). These data sources were compared and combined to estimate the lands currently under cultivation; for comparison, the County of San Diego reports 219,874 acres in production as elaborated below (County, 2021). Rangelands are owned and managed by a multiplicity of public agencies and private owners, resulting in regular under-reporting of total grazed acreage. Special effort was spent on mapping rangelands by actively seeking out and verifying spatial data for individual agencies and private owners of rangelands to include in the total. The largest current land use was rangeland (153,318 acres), followed by fruit and nuts (51,447 acres), vegetable crops (32,739 acres), nurseries, greenhouses and ornamentals (13,056 acres) and vineyards (1,558 acres). Agricultural lands are primarily located in the jurisdictions of the unincorporated County of San Diego, followed by City of San Diego, Carlsbad, Encinitas, Escondido, Oceanside, Poway, San Marcos, Santee and Vista.

Sources of spatial data on agricultural land in the County vary widely in the definition of agricultural land, its extent and data verification. For comparison, the County of San Diego reports land use of rangeland and field crops (179,088 acres, including 176,173 acres of rangeland), followed by fruit and nuts (26,014 acres), nurseries and cut flowers (11,429 acres), and vegetable and vine crops (3,342 acres including 986 acres of vineyards) for a total of 219,874 acres in production (County, 2021). The area of agricultural land in this study is more extensive than County AWM statistics because it accounts for rangeland in East County managed by other agencies and private individuals, and because it integrates data from SANDAG Land Use and Farmland Mapping and Monitoring Program (FMMP). SANDAG Land Use data indicates 111,582 acres of possible cropland, including categories of Field Crops, Intensive Agriculture and Orchard or Vineyard; this is not a reliable data source for rangeland as grasslands are broadly classified as "Open Space." FMMP data from CA DOC indicates 338,209 of important agricultural land in San Diego County, including 211,452 acres of cropland and 126,757 acres of rangeland. While County AWM data is verified through periodic field visits, the latter two sources are not verified in-situ. Therefore, the FMMP estimate for cropland likely includes fallowed lands with high quality soils which were previously cultivated.

Agricultural area was recorded beginning in 1986, when 371,592 acres were in production, including 160,230 acres of rangeland and 211,362 acres of cropland (FMMP, 1986). In total, 119,474 acres of agricultural land were taken out of production since 1986, representing a 32% decrease. However, by 1986 massive swaths of coastal farmland and backcountry rangeland had already been taken out of production. To estimate the extent prior to 1986, spatial analysts added maps of ranches active prior to 1986, including historic ranches and BLM lands, expanding the area dedicated to agriculture to more than 630,000 acres. Peak acreage along the coast is not recorded nor mapped and was not included in the analysis, but was highly significant for dairies, dryland farming, row crops, subtropical orchards and the globally-renowned floral industry (FMMP, 1986).

The extent of agricultural land was used to map potential agricultural land, agricultural businesses and current carbon sequestration. Potential agricultural lands were defined as non-urban lands that are not currently being cultivated, based on an analysis of land use, soil types and slopes. These included non-urban lands on loamy soils throughout the County on slopes below 30-degrees. The dominant soil type in San Diego is a sandy loam, while soils dominated by clay or cobble are generally less productive for agriculture. Whereas NRCS excludes any land for farming on greater than 15-degree slopes, this study expanded the definition based on input from technical assistance providers and agricultural producers in the region. Due to the region's variable topography, orchard production and terraced vegetable crops and nurseries in San Diego are planted on steep slopes, while managed grazing is a common practice on slopes of up to 30-degrees. Slopes less than 15-degrees were classified as suitable for most agriculture including row crops and orchards, and slopes less than 30-degrees were classified as feasible for managed grazing. Results show the potential for agriculture to expand by more than 50% beyond the current cultivated area. This finding supports the FMMP estimate of agricultural land, which includes fallow cropland with high quality soils that was previously cultivated. The largest contiguous cropland is located in the mountainous Southeast region of the County. Potential grazing land is distributed throughout the county, with large continuous swaths in Scripps Ranch, east of Miramar and in Harmony Grove, west of Escondido.

Urban lands were excluded from the mapping task because they are heavily fragmented and difficult to distinguish from landscape vegetation using spatial data. To represent the connection of agriculture to the urban economy, SDSU assessed the number of businesses related to the agricultural industry. Methods included mapping the addresses of North American Industry Classification System businesses within five miles of a current agricultural operation. The resulting more than 5,592 businesses across all

communities of the County demonstrated showed how ubiquitous the agricultural industry is and the vast support it provides to the regional economy, consumers and culture. The most common types of businesses that do or could support agriculture included florists, farms, animal hospitals, produce retailers, veterinarians, ranches, food manufacturers, herb and spice retailers, meat retailers and animal rescue.

Baseline stocks of carbon which are already sequestered on agricultural lands in the County were estimated by Dudek, using a map of current extent on 246,369 acres. Dudek used the methodology from the SANDAG Carbon Storage and Sequestration Study (SANDAG, 2022), the same methodology as the San Diego Terra Count model. They calculated the total carbon for defined commodity types and grazing land cover types including soil organic matter, live plant material below ground, and all plant material above ground. Grazing lands were then subdivided into categories based on vegetation and land cover types from the SANDAG 2022 study. An estimated 6,510,894 Metric Tons CO2e (MTCO2e) is stored on the 246,369 acres that were assessed. One MTCO2e equates to 113 gallons of gas consumed or 2,312 kilowatt hours of energy use (USEPA, 2023). Thus, current storage equates to 1,448,871 gas-powered vehicles being driven in one year (23 miles per gallon fuel economy driven 11,520 miles) or 820,592 homes' energy use for one year (USEPA, 2023). Grazing lands contain the greatest volume of stored carbon per acre due to the presence of native shrubland, followed in net storage by orchards and field crops. Potential carbon sequestration was estimated by SDFSA to be 234,000 MTCO2e/year if conservation practices such as compost application, hedgerow planting and cover cropping were fully implemented on all agricultural lands (SDFSA 2018). The calculated emissions of the local agricultural industry equal 163,696 MTCO2e/year; the SDFSA estimate indicates the potential to sequester at least 40% more than is currently emitted until potential storage is saturated. Sequestration potential is significantly higher, as these estimates do not account for the potential to expand agricultural production as described above.

Producer Needs Assessment

Methodology

Outreach partners distributed a Producer Needs Assessment based on the 2018 UCCE Grower Needs Assessment. Outreach partners included Darcy Cook at Mission RCD, Bea Alvarez and Hernan Cavazos at Foodshed Inc. and Toni Kraft at the CHIP Farm to Institution Center. UCCE and the County of San Diego Land Use and Environmental Group provided feedback on the assessment prior to distribution. Three eligibility criteria were required for producers to take the assessment: (1) ownership, management or employment for a commercial agricultural operation within the boundaries of San Diego County, (2) employment in agriculture within the last ten years, and (3) employment in agriculture for at least three consecutive years. Questions included demographics, a profile of the operation and business, ranked impacts and concerns, conservation practices and support needed. The qualitative format, availability of partners to conduct the assessment in-person, and translation services allowed for more substantive answers regarding the future of agriculture in San Diego.

Outreach partners distributed the assessment between January and March 2022. RCDGSDC staff coordinated the outreach effort, including Outreach Coordinator Codi Hale and Agricultural Specialist Joel Kramer; Jessica Blasjo uploaded the assessment to an online format. To ensure a wide range of producers could participate, the assessment was offered in both English and Spanish, online, through a mailer, over the phone with program partners or in-person at a location of the producer's choice.

Offering the assessment both remotely and in-person provided allowed for in-depth qualitative data about producer concerns and policy proposals. Producer contacts were primarily gathered from partner organizations and the County AWM registry of producers. The UCCE assessment and USDA Census represented a much larger number of farmers (296 and 8,597, respectively); the purpose of this assessment was to elaborate on those findings by exploring the impacts to farm businesses with an in-depth, qualitative approach. Therefore, a concerted effort was made to include demographics of the agricultural industry who were under-represented in the USDA Census (2017) and the UCCE Grower Needs Assessment (2018), such as beginning farmers, urban farmers, farm workers, producers who identified as an ethnic minority, and producers who did not possess a college degree.

Maintaining producers' privacy was a major priority for the assessment. All digital submissions were secured in a password-protected document with access restricted to RCDGSDC program staff. When Outreach Partners conducted a direct assessment, the hard copy was submitted directly to RCDGSDC and/or a copy uploaded to a password-protected folder. When reporting findings, any producer information shared is stripped of personal identifiers such as the name of the producer, their contact information or address.

Results

A variety of agricultural operations throughout the County were represented by the 99 producers who responded to the assessment (Appendix 4B). The typical farm size was less than ten acres (78% of participants), and more than two thirds were five acres or less (69%). More than half (53%) of participants were located in the Northern communities of Bonsall, Fallbrook, Pauma Valley and Valley Center. Few participants (7%) were from Southern communities of Bonita, Chula Vista, San Ysidro, Jamul and Boulevard. The remainder (40%) were located in the Central region of the County, primarily in Ramona, Escondido and San Diego. Nearly half (44%) of participants produced subtropical fruits such as avocados or citrus. In terms of age, two-thirds were 50 or older and nearly one third were between 30 and 50 years. About one third (28%) of participants were women. One quarter (24%) of producers identified as people of color, while 26% per preferred not to state their identity.

The assessment suggested factors which could affect the productivity of agricultural operations, with insight from the UCCE Assessment (2018). These included soil fertility, water quality, water availability, pests or diseases, the need to convert to new crop types, or extreme weather such as frost, heat stress, fire, drought or flooding. Participants were asked to select three factors affecting operation productivity and rank them by severity. The primary factor affecting productivity was water availability (35.4%), followed by extreme weather (22.9%). More than 10% of participants reported their top productivity concern was water quality or was pests or diseases, at 11.5% of respondents each. Soil fertility was the top productivity concern for 9.4% of participants.

The assessment also explored factors which could affect the profitability of agricultural operations, including input costs, market prices, water prices, land costs, labor management, access to capital, and laws and regulations. Participants were asked to select three factors affecting operation profitability and rank them by severity. The primary factor affecting profitability was high water prices (36.7%), followed by market prices (17.3%). More than 10% of participants reported their top profitability concern were laws and regulations, labor availability or land access, at 10.2% of respondents each. Input costs were relatively important for profitability, and were ranked second by 14.6% of 90 producers who responded.

Listening Sessions

Outreach partners conducted in-person listening sessions to explore the concerns presented in the assessment. Producers who took the assessment were invited to attend listening sessions, and outreach partners also invited select producers to ensure a diversity of operation types and demographics. At each session, producers were randomly placed in breakout groups facilitated by representatives from RCDGSDC, Mission RCD, Foodshed Inc. and CHIP Farm to Institution Center. Sixteen producers attended the February listening session in Lakeside; these were primarily small-scale farmers and mid-scale livestock producers. The first listening session focused on the issues affecting producers most severely and discussed examples of successful models for agricultural systems to guide the vision of an agricultural economy that is growing, adapting and integrated. Eleven producers attended the May listening session in Escondido, the majority of whom were subtropical fruit growers operating on over 15 acres. The second listening session focused on the issues affecting producers most severely and identified existing policies which exacerbate those issues.

The concerns which producers shared are described in the section 'Systemic Issues'.

Relationship between Government and Producers

Producers have a complicated relationship with government agencies. For example, technical assistance providers, like NRCS, historically had more topical experts available and offered a faster response time to inquiries. Regulatory agencies like the County of San Diego previously provided more support programs such as equipment rental and seed subsidies, but site inspection and permitting have come to reshape this relationship in recent years. Meanwhile, many state programs are providing ample funding for conservation practices, but grant applications are unnecessarily complicated and too time consuming for the average producer to take advantage of them. Existing regulations can be prohibitive to business; these include environmental review for developing new structures or labor compliance for wages and overtime which do not match seasonal needs of the industry. Agency staff and regulatory bodies rarely have staff with experience of operating a farm or ranch, which constrains communication about regulatory guidance and the potential impact of support programs. Producers strongly request dedicated agricultural liaisons throughout municipal and county departments to bridge these gaps in knowledge and communication.

These dynamics and potential solutions are explored more in the section 'Proposed Policy Actions'.

Systemic Issues

A diverse ecosystem of organizations is actively working to address these myriad issues. Most prominently, the Farm Bureau plays a critical role keeping local officials informed about the needs of the agricultural industry. Agriculture offers a variety of economic, cultural and conservation co-benefits to the region. Unfortunately, advocacy efforts on behalf of agriculture are often stymied as their producers' concerns are often viewed by the general public as solely industry problems. In fact, most of these problems are symptoms of the growth and structure of the region. For local leaders to fully address these individual needs in a holistic manner, they must be characterized in the context of wider trends. During the assessment and listening sessions, producers expressed their concerns about impacts to their individual operations. These concerns are synthesized into systemic issues which affect the whole industry.

Communication of these issues is the first barrier. The agricultural community and support systems are fragmented among industry sectors, technical assistance providers, advocacy groups and government

agencies, resulting in missing opportunities for collaboration and growth. Agricultural producers repeatedly commented during assessment interviews, listening sessions and policy planning meetings that they feel that they lack a central voice to advocate for the needs of the farming community and also lack direct representation within local government.

The cost of production in today's economy is unrecognizable from the days when San Diego's avocado and citrus groves were first planted. Critical components like land, water and labor are now extremely expensive, driven by the costs for surrounding urban consumers and residents. Land prices are far too high for agricultural lease or purchase, while limited capital is available to support the purchase of land for beginning farmers. Low wage labor is largely unavailable as agriculture cannot compete in terms of cost or work conditions with other industries. Educational programs are available for beginning farmers, but agricultural degrees are only offered outside of the County, driving most young agricultural professionals to leave the County for education and not return as they look for work elsewhere. Water costs in San Diego are among the highest in the nation; the expense is largely due to the cost of imported water as the MWDSC and the CWA must construct and maintenance infrastructure to convey, treat and store water for the region; approximately 10% of this cost can be attributed to management by local water districts. Meanwhile, water sourced from the Colorado River is decreasing in availability, while the high salt content requires additional treatment as it is conveyed from users upstream. Water efficiency is already implemented by many producers, but there is a need for more technical support and a dedicated water supply for agricultural use. Input costs such as fertilizer and fuel are sporadically rising, and are influenced by global economic trends or supply chain interruptions. Producers have enough to concern themselves with just to grow their commodities; they need support for sales, marketing, and business development to receive the full value for their goods.

Just two generations ago, the core culture in San Diego was agriculture. As urban areas sprawled into agricultural communities, residents largely lost their appreciation for the cultural value of agriculture. Consumers drive what producers grow, how they manage their land, and what policies affect production. Unfortunately, producers feel unsupported by residents and most resort to selling their products to wholesale or export markets at a minimal rate. Government regulators and policymakers who manage agricultural lands or enforce agricultural policies often lack farming fluency and struggle to communicate with producers or to understand the limitations of agricultural production. Poor communication has spin-off effects of impeding projects on agricultural lands and missing opportunities for state investment, ultimately building animosity between agricultural businesses and public servants. Decades ago, state and federal agency budgets allowed for enough employees to provide technical assistance upon request; today, a lack of technical assistance providers leaves producers waiting for weeks, or on their own altogether.

Agricultural businesses maneuver costly hurdles posed by regulations from multiple levels of government. Complying with record-keeping and procedures for environmental regulation can be rigorous, demanding too much time from a small farm business with limited staff. Furthermore, the permitting process is not consolidated among government departments, forcing producers to contact multiple departments to complete an individual project, such as building permitted farmworker housing. Without designated agricultural liaisons to help producers navigate the regulatory process across multiple agency departments, many farm projects stop short of being implemented. Large swaths of farmland and grazing land are owned by local, state, and federal agencies, but a lack of transparency makes the process for beginning farmers and ranchers to apply for a lease cumbersome or altogether inaccessible. State environmental regulations do not necessarily match other counties in California concerning development of land for agricultural use, given the unusually high biodiversity of the San Diego landscape. At the state and federal level, laws for overtime and wages attempt to match similar

industries, but workers largely favor less demanding work and farm owners struggle to pay the higher rates for seasonal or year-round labor. Market prices greatly affect the already narrow margins of wholesale production; when local producers cannot meet prices for milk, avocados and other commodities set by national and international industry associations, San Diego loses the value that producers offer to the local economy through co-benefits of food production, employment, and land stewardship.

Looking to the future, a holistic agricultural system would have myriad of benefits for San Diegan society. During listening sessions, producers shared their motivations for working in agriculture and their vision for a thriving agricultural community, including a desire to communicate the appreciation of agriculture, heritage and lifestyle, health and increased access to food, business ownership and income generation, and environmentally sustainable land management practices. A thriving agricultural community which satisfies these motivations would have direct contributions to regional wellbeing. Producers expressed the desire that neighboring communities would take interest in and care about their local farms. Growers would be connected to local consumers for wholesale use of local produce and direct purchase. The community would hire producers for essential services, such as using grazing of cattle, goats, or sheep as a tool for fire prevention and soil health management. The basic health of farm workers would be supported through comprehensive healthcare services, quality housing and safe working conditions. Producers would support one another by sharing labor and equipment, improved by access to centralized infrastructure. Agricultural vocational training would be available for specific in-demand skills, while San Diego colleges would offer degrees in agriculture to prevent brain drain. Regional and local governments would incentivize landowners to lease land to local farmers. Veteran farmers would have a platform to mentor the next generation of producers, while decision makers would reserve a seat at the table for farmers to share their essential perspective. Some of these aspirations are already in development today, but the agricultural community needs broad support to make them a full-fledged reality.

Climate Programs

Extreme weather was the second-highest ranked productivity concern, after water availability. Farmers operating on one to five acres were most concerned and affected by both water availability and extreme weather, like droughts and freezes, whereas farmers managing 30 acres or more were most concerned with having ample water supply to support their working land. Fortunately, several existing programs have already gained momentum with programs at the regional and state levels addressing climate impacts. Therefore, RCDGSDC chose not to propose a policy recommendation focused only on climate.

Several funding sources are available for local producers to implement carbon farming practices. The company Foodshed Inc. distributes local produce and offers an incentive to participating farmers to implement carbon farming practices. CDFA funds conservation practices which sequester carbon through the Healthy Soils Program. The 2022 Healthy Soils funding cycle funded four local organizations providing technical assistance for conservation practices, and 15 projects in San Diego County totaling nearly half a million dollars. In addition, Zero Foodprint is a private coalition of restaurants who offset the carbon footprint of meals by funding regenerative practices, primarily compost application. Each year for the past five years, UCCE has hosted a Climate Symposium in San Diego to showcase the most current research and projects addressing climate change in agriculture. NRCS provides cost-share incentives for conservation practices through the Environmental Quality Incentives Program. Regional efforts which support climate resilient practices include UCCE Agricultural Advisors, City of San Diego

Climate Action Plan, County of San Diego Regional Decarbonization Framework, and the SDFSA Food Vision 2030.

Local RCDs have formed the Southern California Soil and Water Hub to enhance technical assistance. Services include Carbon Farm Planning to help producers to prioritize which conservation practices to implement; completed plans include sequestration potential of up to 7,400 metric tons of carbon dioxide equivalent per year. Since 2017, hub members have maintained CDFA Healthy Soils demonstration sites for practices including cover crops, compost application, mulch application, hedgerow installation, reduced tillage, and prescribed grazing. As part of demonstration projects, technical assistance providers monitor soil organic matter in treatment and control sites. Typical values or conventional soils are <2%, but organic matter can increase by at least 0.5% per year with frequent compost application, as documented since 2018 at several Incubator Farm Plots at the Tijuana River Valley Community Garden. Instead of being a net producer of greenhouse gases, organic waste can be used as an essential tool to reduce the impacts of climate change. Building soil organic matter mitigates the effects of climate change by sequestering carbon in the soil. Meanwhile agricultural soils with high levels of organic matter adapt to the effects of climate change by improving soil health and retaining soil moisture. For sandy soils in arid climates, every 1% increase in organic matter equates to an increase in 2,850 gallons per acre, which can be refilled multiple times by precipitation during the wet season (Libohava et al., 2018).

Producer Profiles

Orchard Entrepreneur – Papaw's Farm – James Harris

James Harris' great-grandfather owned a timber farm, which was not the norm for an African-American man in Louisiana in 1895. James grew up hearing stories of family members born on the farm and how empowering it was to own land and be self-sufficient. In the 1960s, there was a transition of ownership and the family lost an important connection to their heritage. When the COVID-19 pandemic hit in 2020, James began to think about his legacy and "decided to get land to return land ownership back to our family."

The Harris Family began hearing about the many neighboring farmers in Valley Center who could not afford to water their groves. They found an avocado grove that had been fallowed for six years and decided to invest in reinvigorating the operation. Their plan was to use climate-smart practices, efficient irrigation and diversify with coffee and other subtropical fruits. James named their farm for his grandfather – Papaw – who lived long enough to see James return agricultural land ownership back to the Harris family.

The process of restoration has been vigorous work that requires resilience and creativity. "If you continued to farm the way that you farmed for the last 100 years then there is no way you can sustain avocados or farming in that area, so we had to do things differently." They are working towards organic certification, but for James that is just the beginning of being a sustainable land steward. Some of the key management decisions they have made include moving to high density plantings, utilizing deep root irrigation, using soil moisture sensors, and installing solar panels to power their automated systems. He is pairing the knowledge passed down from his great-grandfather with his own passionate pursuit of new information. He has found that "the people who have been the most educational are farm workers and day laborers" and greatly appreciates these local mentors.

When asked how he is inspiring his own daughters to take interest in agriculture, he noted that his younger daughter helped design their solar system and their older daughter is taking interest in becoming an entrepreneur of value-added products made from farm grown produce. "It doesn't have to be the traditional hand in dirt farming to be involved in agriculture. It doesn't have to be the traditional overall wearing farmer – even though I wear overalls every day."

Ranching Family – John Austel – 4J Horse and Livestock

It all started with summertime in the Sierras. John Austel had moved to California and was grazing cattle in California's mightiest mountain range, honoring his grandfather who first taught him to ranch in the Ozark's of Arkansas. After working a few years for the Farm Credit System, John settled in San Diego and was inspired to follow a career providing technical support to cattlemen and selling Property & Casualty Insurance. But when John's sons started in 4-H Youth Development it all came full circle - they raised ten steers together as a family: John, Jake, Josh, Jesse and Liz - and 4J H & L was born. John knew then that the craft of cattle-ranching would only be preserved by inspiring the youth.

Having previously sold fire insurance for a living and going through two major wildfires, he now became focused on wildfire prevention. Rancho Jamul and Hollenbeck Canyon are grasslands in South San Diego County that had been cultivated and grazed for two centuries. The grasslands were fallowed in the late 1990's with the intention of restoring native vegetation, but with no wild or domesticated grazing animals, instead invasive weeds took over to the detriment of wildlife. 4J H & L applied for a grazing

permit from CDFA and saw immediate effects as a vulnerable burrowing owl population bounced back and began to follow the herd through the fields. When fire swept through neighboring fallow grasslands, the reserve remained unscathed and neighboring homeowners began asking John to graze near their properties as well. There was something to this – managed right, working lands could provide food while also protecting biodiversity.

Prescribed grazing is an approach to rangeland management that rotates cattle through pastures with careful observation and timing. This allows the grasses to provide their maximum year-to-year forage potential, without the problems of over-grazing. This story of success drew major attention, and researchers sought to verify the effects of the approach. John collaborated with RCDGSDC to install fencing for more pastures and monitor soil health. Certified Rangeland Manager Liz Kellogg created a Grazing Management Plan, while the San Diego Management and Monitoring Program hired US Berkeley researchers to study how grazing affected habitat quality and wildfire potential; results will inform efforts to re-introduce grazing on fallowed lands.

The 4J herd operates on a portion of 12,000 acres and John plans to continue grazing in this manner indefinitely, with studies planned to track the progress going forward. He will also carry on investing in the ranching community by supporting youth education, hosting annual gatherings, advocating for the need for regional grazing and wildfire infrastructure, and serving local ranchers as President of the San Diego & Imperial County Cattlemen's Association.

Urban Market Farmers – Pixca – Leonard Vargas and Erik Rodriguez

Pixca is a farming business co-owned and co-operated by farmers of color Leonard Vargas, a 3rd generation Latino farmer, and Erik Rodriguez. Since founding Pixca in 2017, Leonard has been joined by and mentored several Latino beginning farmers as they grow their career in agriculture. The farm is located on a half-acre plot in the Tijuana River Valley Community Garden, which is managed by RCDGSDC and owned by the County of San Diego. Pixca is driven by the desire to support their South Bay neighbors and advance food sovereignty, while using regenerative practices to tend the land. Healthy soil paves the way for a healthy community. It shows in the strong response from youth to learn from the farmers and from the community to support the business.

It is inspiring to see how productive their small farm is throughout the year, and how resilient they are in the face of challenges. In the winter of 2019 and again in 2022, seasonal flooding from the Tijuana River forced them to halt food production for months and in response they began their floral program. While they cultivate practical skills with young farmers, they also cultivate a sense of community with their customers. Chicano traditions are central to their mission and their busiest day of the year is Dia de los Muertos when the farm stand is a sea of marigold Cempasuchil flowers.

Pixca hosts a farm stand on Saturdays at the Tijuana River Valley Community Garden, as a way to bring people to where their food is grown and meet the humans who grew it. In addition, they provide plant starts and resources to encourage others to start growing their own food. Their hard work has not gone unrecognized, and they were named New Farmer of the Year by the Community Alliance for Family Farmers in 2022. New farms are growing in San Diego with the youthful spirit of Pixca.

Sustainable Winemaker – Ramona Ranch Vineyard & Winery – Teri Kerns and Micole Moore

Teri Kerns and Micole Moore, partners in life and business, moved to Ramona in 2004 with no plans to farm. A year later, they had made their first wine and joined the Ramona Valley Vineyard Association.

With sustainability as their top priority, they began to develop their experimental vineyard very intentionally. "We looked at what the climate really supported", and they took notes from what worked in similar Mediterranean climates, like Viognier, Grenache, Tempranillo and Sangiovese varietals. With these guiding principles, Ramona Ranch Vineyard & Winery has become the only certified Sustainable Winery in San Diego. They've installed a wind turbine, solar panels and Tesla battery to support off grid operations during times of peak use.

They are also very invested in supporting diverse habitat around and within their vines while simultaneously improving soil health. After trial and error using crimson clover as a cover crop in the alleys, Teri had a realization. "Wait a minute, we are spending all this energy to take out [these] plants to put in a commercial plant that really isn't suited to the environment, so why don't I learn more about [them] instead?" What started as learning about how naturalized plants support the soil turned into a deeper understanding about how they also support beneficial insects and birds. She planted an insectary that offers year-round blooms and no longer use neonicotinoids on the vines, a common class of pesticides used amongst growers, as they are lethal for pollinators. She and Micole also assist with pest management and welcome select predators by providing water for coyotes so they do not chew on the drip lines, and maintaining raptor perches and owl boxes.

Teri notes that what many wine enthusiasts envision as a picturesque winery, perfectly manicured and clean, in reality may reflect the use of chemicals and practices that are not supportive of the soil and ecosystem. "It's really detrimental to the environment, but it looks good." Through her role as the Programs Director for the Ramona Valley Vineyard association and at her tasting room, she uses her many platforms to educate people about the sustainable practices they implement at their vineyard. The passion shows in their wine, and in 2022 Micole won double gold at the Sunset Magazine International wine competition for an estate Sangiovese wine that he crafted. Teri and Michel invite everyone to discover the not-so-hidden gem that is Ramona, named an official American Viticultural Area in 2006, where she believes "everybody is really invested in doing it right".

Local Leader – Nagata Brothers Farms – Neil Nagata

Neil Nagata is President of Nagata Brothers Farms, which produces berries, fruits and seasonal vegetables in North San Diego County. Three generations have worked on the operation. The Nagata Family first began farming in California more than a century ago and has worked in county since the 1930's. Neil's mother's side, the Yasukochi family, has been farming in the county since 1906. Both families are early contributors to the agricultural industry in San Diego. The operation benefits from Neil's more than 30 years' experience in agriculture, hydroponic production, and expertise in agricultural research.

Contributing to the agricultural community is central to Neil's work. From 2017-2019, he served as President of the Farm Bureau and has served as a board member and chairman in the California Strawberry Commission. In support of farmworkers, Neil founded the California Strawberry Growers Scholarship Fund. The fund has provided more than $2 million in scholarships to the children of farmworkers over the last 26 years. For his leadership and efforts, Neil was named 2021 San Diego County Farmer of the Year by the Farm Bureau.

Each generation of the Nagata Family Farm has adapted to a different set of issues. For Neil, wise land use has been paramount. In 2018, the Save Open Space and Agricultural Resources initiative threatened local agriculture. The public proposition would have encouraged the development of 2.5 acre estates on

existing agricultural land, fragmenting commercial farms out of use. Neil collaborated with other agricultural leaders including Mellano and Company to defeat the proposal with a more inspiring vision.

Agricultural lands can and should be an integral part of regional development. Nagata and neighboring farms in the Morro Hills Community are now working with the City of Oceanside to create a flexible land use plan that can evolve with changing market conditions. In this framework, farms can develop portions of their land in a coherent way that adds to the character of local communities and to the growth of local farms. While land owners maintain the right to sell some of the land, neighborhoods are clustered near existing developments. Homeowners benefit from having access to neighboring open space with trails running between rolling hills of extensive fields, and farm businesses can benefit from growing agritourism while shifting their crop mix to meet changing demand. In the wake of a changing economic climate, Neil's leadership is helping San Diego farms to continue to thrive.

Major Policy Impacts

Inventory of Existing Policies

Faculty and graduate students from the School of Public Affairs at San Diego State University (SDSU) inventoried existing agricultural policies by reviewing agricultural policy documents via internet searches between January and September 2022. Based on the results of the outreach effort, the review focused on policies related to water, land access and workforce as key factors that could influence agricultural outcomes in San Diego County. At the local level, cities in the County of San Diego were included in this assessment if they had agricultural land uses within its jurisdiction, including the governments of Carlsbad, City of San Diego, County of San Diego, Encinitas, Escondido, Oceanside, Poway, San Marcos, Santee and Vista. Water districts were also included as local agencies with potentially important influence over agricultural outcomes, with a focus on the City of San Diego Water Department, Fallbrook Public Utility District, Rainbow (MWD), Ramona (MWD), CWA, Valley Center (MWD), Vista Irrigation District and Yuima (MWD).

To assess the how widely each policy has been implemented across jurisdictions, SDSU grouped them into 23 themes. Next, they grouped the themes into four categories identified as policy priorities during the policy task, including Land Use, Water Availability, Workforce Housing, and Climate. Land Use policies included: agricultural conservation policies, agricultural conversion mitigation fee programs, agricultural land trusts, agricultural supportive zoning, agriculture permissible in flood zones, food systems planning policy, tax incentives for urban agriculture, transfer of development rights to land trusts for agriculture landowners, urban agricultural supportive policies, zoning to allow clearing on agricultural lands and zoning to allow renewable energy production on agricultural land. Water Availability policies included: local water quality and conservation, promotion of water efficient landscaping, rate reductions for producers, supply expansion policies and water recycling programs. Workforce Housing policies included: affordable housing for farmworkers, farmworker housing support programs and zoning for Farmworker housing on agricultural land. Lastly, Climate policies included: carbon farming, food waste promotion and reducing the carbon footprint of agriculture.

The appendix contains the full table of policies distributed across the ten local governments with agricultural land uses in the County of San Diego, as well as state and federal policies which affect local jurisdictions, producers and residents. Of the 23 different policy themes listed, 18 of these policies have only been adopted in three or fewer local agencies across the county. Five of these policies have been adopted in four to seven of the ten local agencies with agriculture across San Diego County.

Degree of Policy Adoption

Based on the Policy Inventory, SDSU School of Public Affairs prioritized which policies should and could be implemented most urgently, based on how widely they had been adopted across multiple agencies. Policies were selected from the existing list of local policies, as well as relevant policies from other regions of the state and country.

In terms of Land Use policy, there are strong adoption rates of agricultural conservation policies, but given the turnover rate of agricultural land in San Diego County, these policies may not be strong enough to be effective. Policies need to support off-setting development pressure on agricultural landowners, so they are financially able to retain their lands. Such policies include wider application of agricultural land trusts and easements, as well as wider application of transfer of development rights to land trusts and conservancies. Strong examples of such agricultural preservation programs are already in

place with the County Purchase of Agricultural Conservation Easement (PACE) Program and the City of Escondido. This type of program would offer the co-benefit of incentivizing new preservation development in existing urban areas or village centers.

Unfortunately, out of the ten agricultural jurisdictions in San Diego County, agricultural land trust policies were only implemented by the City of Escondido. Furthermore, conservation easement and land trust programs may be more effective when applied at the regional scale rather than by each jurisdiction. Applying these policies at the municipal-level results in fragmentation that weakens the overall effectiveness and outcomes for agricultural conservation. The benefits of strong coordination in multi-jurisdictional regional planning for agricultural conservation has been effectively modelled in the adoption of regional transportation plans, hazard mitigation plans, and multiple species conservation plans. The agricultural community could use these existing plan types as a prototype for a regional agricultural plan.

The inventory of Water Availability policies across the region identified supply expansion policies, rate reductions for producers, water recycling programs, promotion of water efficient landscaping and policies for non-imported water quality and conservation. Each local Water Availability policy was adopted by fewer than half of local municipalities, despite the critical importance of this topic. Consideration should be given to strengthening coordination between water districts and local government policy documents such as general plans by prioritizing essential industry needs for water use as population and infrastructure expenses continue to rise. The CWA incentivizes agricultural water availability through a Permanent Special Agricultural Water Rate, through which most member agencies offer a discount of approximately 25% to agricultural members in their water districts during non-drought conditions (SDCWA, 2023). Even so, the price of water remains among the highest in the country; agricultural producers cannot compete with other regions while paying rates for water set by urban consumers. In addition, the County and Water Authority work with local water districts and RCDs to provide subsidized technical assistance for water efficiency on farms. Furthermore, funding from NRCS through a Regional Conservation Partnership Program grant provides funding for on-farm efficiency upgrades, with a focus on orchards. However, more support is needed to make these programs accessible to the most vulnerable producers across the entire County. Water rates remain a primary factor for farm business viability when compared to other counties across the state and the country.

All of the Workforce Housing policies showed low adoption rates, which is reflected in the overall housing shortage across the region. Multiple agencies specified farmworkers as a vulnerable population in their Housing General Plans. Despite this, lack of affordable workforce housing undermines producers' ability to retain quality agricultural labor. Laborer wages are relatively low and housing across San Diego is in short supply and offered at exorbitant prices. To maintain the viability of the agriculture industry in San Diego County, housing for these laborers must be affordable and in close proximity to their work sites in order to reduce travel costs. More cities should adopt policies and modify zoning to allow construction of workforce housing onsite at agriculturally zoned lands. This not only benefits producers and laborers, but also the region in terms of lowering emissions and congestion generated by farm laborers' vehicle miles travelled. Property tax incentives and permit streamlining could also be employed to encourage construction of affordable housing on agricultural lands.

All Climate policies identified under this category had weak adoption rates across San Diego County, including programs for food waste, farmland carbon reductions, and carbon farming. Only the City of San Diego adopted all three Climate policies. Consideration should be given to stronger application of

carbon reduction and carbon farming programs to take advantage of the very high potential for agricultural lands to aide in greenhouse gas reductions.

This inventory of existing policies helped to inform the major policy recommendations, which are described in detail in the 'Proposed Policy Actions' section of the report.

Policy Working Groups

Producers chose to participate in the assessment because they trusted that it would result in meaningful action. Participants painted the vision for a more sustainable, equitable and accessible agricultural community in San Diego. To ensure that the process of reforming policies and building a better system would continue beyond the grant, Policy Partners including SD LAFCO, RCDGSDC, Mission RCD, County of San Diego and SDSU worked to identify key issues to address with working groups. The needs of San Diego's agricultural community are very diverse, with a significant number of urban, beginning or second-career farmers and ranchers working alongside large-scale or multigenerational operations. Diverse topography, crop types and farming practices further complicate the range of priorities among producers, with conventional and automated methods, as well as organic and regenerative practices. Recognizing these situational differences, Policy Partners held public meetings to find common ground, during which stakeholders identified three priority needs that affect all producers across the spectrum, regardless of size, experience, or methods. The priority needs identified were:

- Water Availability and Efficiency
- Land Access
- Agricultural Workforce Development

To address the three priority needs with a regional impact, Policy Partners created a list of actionable projects based on assessment results, listening sessions and direct feedback from producers. To assess stakeholder interest on which projects should be pursued, RCDGSDC hosted a series of three Policy Topic meetings at the Farm Bureau in July 2022. The full range of the agricultural community was invited to contribute: agricultural associations and producers, local and regional agencies and elected officials, supporting organizations, nonprofits, and educators. Each meeting was framed with a review of the needs assessments results and the existing programs available for each priority need. The meetings were facilitated by Adam Wilson, a consultant for SD LAFCO with extensive experience in project planning and land management from 17 years of public service for County Supervisor Dianne Jacob. As a facilitator, Wilson built off of the success of the creation of the Agricultural Promotion Program in 2017 which streamlined regulations for agricultural supporting industries (County, 2017).

Following the three Policy Topic meetings, RCDGSDC proposed three options for collaborative, tangible, projects for each of the priority needs which could be advanced during the grant timeframe. Project proposals were presented to regional stakeholders during a Strategic Planning meeting in September, during which working groups were formed for each priority need project. Each working group was formed with a balance of agricultural stakeholders, agency decision makers and supporting organizations. At the Strategic Planning meeting, working groups selected a coordinator and identified steps to address the need.

Agricultural stakeholders are an essential element of the working groups as they are directly affected by policy and have the lived experience of regional challenges. For policies to be sustainable, community members must have a seat at the decision-making table, while excluding them sends the message that their input is not valuable. Supporting organizations, defined as nonprofit and community organizations, are crucial as advocates for the agricultural community, have access to capacity-building resources, and provide a broad perspective of intersectionality across multiple demographics. Agency decision makers, defined as staff and elected representatives of municipal, regional, state and federal governing bodies, have the ability to affect change at the policy level and ensure that the needs of the agricultural

community are being represented in their districts and jurisdictions, as well as access to unique funds to initiate and maintain projects.

Water Availability and Efficiency

The issue of Water Availability and Efficiency was the top priority for participating producers. Policy Partners were conscious of the limited ability to affect issues like water costs and availability, as even individual water districts do not control overall water rates. The project focus was instead on water conservation and efficiency through land management practices. The primary projects discussed for development were:

1. Create a CropSWAP pilot program, to incentivize the replacement of high-water demand subtropical groves with alternative perennials and/or avocado root stocks with lower water requirements per acre
2. Prepare a cost and demand analysis for recycled water in Escondido, where the city is piloting a recycled water program to supply local farms
3. Develop educational workshops in partnership with irrigation suppliers to implement new technologies

The project chosen by the working group was to design and identify funding sources for a San Diego County CropSWAP program. CropSWAP is a successful water conservation rebate program developed and offered by Rancho California Water District in Riverside County, with the assistance of Mission RCD. Agricultural customers receive incentives to replace mature orchard trees, such as avocados, with high-density plantings or new crops that have lower water requirements. The Rootstalk Swap program funds replacement of existing mature trees with improved root stalk hybrids that require less water and are more salt- and disease-tolerant. Growers are funded up to $15,000 per acre for crop conversion based on the amount of water saved.

The Water Availability and Efficiency working group was led by Darcy Cook, District Manager of Mission RCD. A diverse set of working group members discussed issues and constraints and gathered information about how to implement a regional CropSWAP program. Members researched eligibility requirements, logistics, administration, financial incentives, water savings per acre foot, and the crops which are most typically implemented with the CropSWAP program management team at Rancho California Water District. In September 2022, RCDGSDC, EGAP and the CA Association of Compost Producers, applied for CDFA Specialty Crop Block Grant to pilot this program; the application was not awarded funding. The working group continued to identify funding sources and has generated interest from local water districts. Rancho California Water District submitted a proposal for extending their future funding to include the San Diego region. In addition to program development, EGAP has led discussion about a comprehensive economic development program to determine specifically how agriculture contributes to the local economy with jobs, erosion control and carbon sequestration; this is now being supported by LAFCO with the next award of the SALC Planning grant.

Land Access

One of the greatest barriers to farmers is land access, specifically for beginning farmers and ranchers. Land conversion to residential and industrial development is a major threat to agriculture in the region. To address these complex issues, the Working Group focused on preserving existing open space for

agricultural use and making land access more transparent for producers. The primary projects discussed for development were:

1. Create a directory of public and private available land to facilitate matchmaking with farmers
2. Using the County PACE program as a model, create a conservation easement pipeline to SALC Acquisition funding for agricultural land easements, to permanently preserve specific parcels for agricultural use
3. Create a new farm plot program with City and/or County owned land to provide small-scale farmers space to farm on conserved land with supportive leases

The project chosen by the working group was to create a central database for matchmaking agricultural producers with public and private lands available for lease or sale. This database would support identification of available agricultural land, which is immediately helpful for producers looking to acquire land and also serves as a means to locate lands that could be transferred into conservation easements.

The Land Access working group was led by Stephanie Neal, Land Use and Environmental Planner of the County Sustainability Planning Division within Planning and Development Services. The working group developed a Request for Information (RFI) to define the services of the companies that currently manage online databases to connect agricultural land holders and land seekers and distributed the RFI to nine companies. The non-profit organization California FarmLink responded and presented to the working group in December regarding their Land Portal, which is currently focused on Northern and Central California; CA Farmlink also offers agreement building services, farm business education, and a Community Development Financial Institution which was certified by the Department of Treasury in 2013 with lending relationships with over 325 total borrowers in 37 California counties. The working group is recommending a regional partnership with California FarmLink to expand the Land Portal and affiliated services to San Diego County. Expanding the of Farmlink reach would require funding to sustain a regional position that serves San Diego, as well as potentially partnering with city and county offices to increase accessibility to publicly owned agricultural land. In November 2022, the San Diego Food System Alliance applied to the USDA Increasing Land, Capital, and Market Access Program, with a proposal that included facilitating the development of beneficial leases on public land for beginning farmers. In May 2023, the County of San Diego and San Diego RCDs applied for CA DOC Climate Smart Land Management funding to provide match funding for a California Farmlink staffperson dedicated to San Diego County.

Workforce Development

An industry is only as strong as its workforce; the essential role of farm and food service workers was readily apparent when COVID-19 ground food systems to a halt. As society continues to rebuild and readjust post-pandemic, labor shortages remain an issue for local producers. Producers also expressed the need for more technically skilled staff, access to equipment that would support more efficient operations and improved regional infrastructure to support farmworkers. While high-school level agricultural education in the County is robust through 4-H and Future Farmers of America programs in North and East County, FFA chapters were once active across the entire County. There are local community college programs for aspiring horticulturists and urban farmers, but the connection for local students FFA is missing, driving young people to leave the region to pursue their college-level farming and ranching education. Policy Partners were conscious of the limited ability to affect issues like immigration reform and overtime laws, as these are controlled by federal and state legislatures, respectively. The primary projects discussed for development were:

1. Development of streamlined permitting and subsidized farmworker housing
2. Creation of a model curriculum for San Diego agricultural education, focusing on practical short courses and certifications, and connecting students to on-farm internships and work trade programs
3. Subsidize equipment purchases for regional producers to reduce costs of operation

The Workforce Development working group, led by RCDGSDC, sought to increase the availability of farmworker housing by aligning existing regional programs which subsidize the cost and use of farmworker housing. This work addressed several issues, including the industry-wide labor shortage, regional housing shortage, and high startup cost for beginning farmers. Regional general plans consider farmworkers to be vulnerable populations eligible for affordable housing, but many farmworkers struggle to pay for or even to find housing. Most agricultural land in the County and municipalities is already zoned for at least one farmworker housing unit. However, the cost of construction and complex environmental permitting can make the process prohibitively slow and expensive. This working group gathered existing programs such as the County program for Accessory Dwelling Units, affordable housing incentives, grants programs and apprenticeships which have the potential to reduce the costs of permitting and construction. The project was modelled on the County of Ventura's Farmworker Housing program, which has consolidated and streamlined all processes for approving farmworker housing into a single department. This proof of concept can be used later on to develop a large-scale farmworker community that is fundable by state and federal grants. Co-benefits include ease of entry for beginning farmers, supporting vulnerable populations, and reducing vehicle miles travelled for climate action goals.

Proposed Policy Actions

The message is clear – local agencies need to develop policies to support the growth of the agricultural community in tandem with the growth of the region. Producers resoundingly asked for one deliverable to start the process: representation. Local agencies, districts and regional agencies need to designate qualified staff to provide direct representation to agricultural producers. Liaisons will help producers to navigate regulations among multiple layers of departments and jurisdictions. Liaisons will also support producers to benefit from local, state and federal funding opportunities which may be challenging to apply to, or which they may not even be aware of. To make this effective, government at all scales from districts to cities to County departments should coordinate on business development and climate change adaptation to better support agricultural needs. This agricultural planning program has demonstrated the potential for collaboration, which should now be directed toward policy reform.

Working with stakeholders through outreach efforts, policy meetings and working groups resulted in the ten policy recommendations which span multiple crop types, demographics and regions of producers across the County. The ten policy recommendations include:

1. Assign agricultural liaisons for city and county governments
2. Design lease agreements that invest in working lands
3. Create a regional land use plan to prioritize agriculture
4. Fund growers to transition to low water-use crops and irrigation
5. Equip and incentivize producers to adopt climate-smart practices
6. Streamline construction of farmworker housing
7. Develop advanced water treatment facilities with priority for agricultural use
8. Inform small farming opportunities through analysis of costs and benefits of small farms
9. Expand technical assistance by providing more vocational training
10. Build capacity of farmers and farmworkers with training and services

Each of these recommendations is most effective when led by a key player with relevant expertise and at the relevant scale of government. The collaborations for these recommendations are illustrated below with examples of ideal leaders for reform and implementation of each of the policy recommendations above at the local, regional, and state/federal scales.

Local Municipalities and Districts

First and foremost, local municipalities such as the cities of San Diego, Escondido and Oceanside and water suppliers including the County Water Authority should designate staff to provide direct representation to agricultural producers to navigate regulations and funding opportunities. With sufficient representation in place at all municipalities and water districts, the following three recommendations are possible.

Local municipalities should design lease agreements that invest in working lands, with the first step taken by the City of San Diego on the more than 5,000 acres of farmland in the San Pasqual Valley Agricultural Preserve. Development of beneficial lease agreements and incentives for agriculture on public lands with historic agricultural use can support additional incubator farms throughout the County, and in doing so promote the continued preservation and cultivation of agriculturally viable lands. Leases should balance multiple objectives of business viability, food production, natural resource conservation and community engagement. By designing long-term leases which benefit agricultural production, agencies gain an active partner to meet climate action goals with regenerative practices, protect existing carbon sinks and manage the land for biological conservation objectives. In place of the Williamson Act,

agencies should work with producers to make easement programs like PACE and SALC more accessible and incentivize regenerative practices on conserved lands [see Project Spotlight]. Land development rights can also be transferred to non-profit land trusts or conservancies to incentivize preservation of agricultural land.

Wherever feasible, local municipalities and water districts should develop advanced water treatment facilities adjacent to urban areas with priority for agricultural use, following the leadership of the City of Escondido [see Project Spotlight]. Reverse osmosis treated water provides an opportunity to augment supply and to improve water quality by blending higher quality water with more saline water such as imported water or groundwater. Although MWDSC considers agricultural use to be interruptible, the supply from treated water would be more secure during drought periods. Water districts with different customer bases have an opportunity to collaborate, as urban water districts will produce more wastewater while rural districts will have eager customers. Based on existing water use in San Diego by sector, one third of the water that is processed through reverse osmosis should be prioritized for agricultural use, and any cost savings in treatment and conveyance should be passed on to agricultural users. In addition, agencies can promote investment in water efficiency and groundwater recharge, supported with safeguards for local food producers through technical and financial assistance.

Local municipalities should streamline construction of farmworker housing in accordance with general housing plans for vulnerable populations. Cities which contain few farms but are proximate to agricultural areas should adopt this policy as well. Pre-approved plans are already available at some agencies such as the County of San Diego. However, farmworker verification and centralized administration would allow for more extensive construction, broader enrollment, and access to rent subsidies. Streamlined permitting and incentivized construction of farmworker housing on agricultural lands will provide an example of a housing system that works as a model for the region. Programs can take advantage of existing County AWM processes, and follow the model of the County of Ventura Farmworker Housing program [See Policy Working Group].

Regional Agencies and Organizations

County-wide agencies such as the County of San Diego, San Diego Association of Governments (SANDAG) and the San Diego County Water Authority should designate qualified staff to provide direct representation to agricultural producers to navigate regulations and funding opportunities. The County of San Diego has led the way by staffing individuals or teams in various departments; but due to the immense scale of the County, more than one representative is needed to coordinate the many regulations and programs across all departments and serve as a contact for producer inquiries. With sufficient representation in place at all regional agencies, the following three recommendations are possible.

Regional agencies should collaborate to create a regional agricultural land use plan, where the County of San Diego can lead the process and involve SD LAFCO and SANDAG. The County has extensive land use planning efforts underway for working lands, and SANDAG is currently developing its most recent regional plan. These plans should be coordinated and specify agricultural needs to prepare the industry for projected pressures and opportunities, much like the 2018 Santa Clara Valley Agricultural Plan. Agencies should cooperate with the agricultural community to develop the content of the plan and could use existing plan types for transportation and species conservation as a prototype for a regional agricultural plan. Beyond land use, the plan should also consider supporting industries and organizations through the development of marketing support and food hubs across the region [see Project Spotlight], a persistent need that was identified by the County in 2005 (County, 2009).

Regional agencies should fund growers to transition to low water use crops and irrigation, led by the San Diego County Water Authority in collaboration with member agencies with agricultural customers. Water prices will continue to rise as the per capita supply decreases and more municipalities convert to fully treated water. Shifting to more resilient crops presents an opportunity to adapt to chronic drought. The CropSWAP program, pioneered by neighboring Rancho California Water District with assistance from Mission RCD, incentivizes replacement of high-water demand subtropical groves with alternative varietals, rootstock, and perennials, such as wine grapes and olives, which require less water [see Policy Working Group]. This program benefits the region by allowing producers to continue to produce food and manage the land, while benefitting water agencies by stabilizing the demand for agricultural water. Participation in the program should also incentivize the planting of lower water use crops by providing reduced rates for advanced treatment water as is currently proposed by the City of Escondido [see Project Spotlight].

Regional agencies should gather information about small farming opportunities by analyzing the costs and benefits of small farms, led by SD LAFCO with support from researchers at University of California Cooperative Extension and County of San Diego Agriculture, Weights and Measures. Agriculture is often minimized to being solely a business, when in reality it provides a myriad of economic, social and environmental co-benefits, such as local food supply, recreational space, species conservation and climate mitigation. Even so, most producers wrestle with unstable prices for their crops and are not fully compensated for the societal and ecosystem services they provide. A holistic assessment of direct and indirect economic impact which specifies the co-benefits of the agricultural industry in the region could create a funding base that subsidizes growers for the contributions they make to the community. SD LAFCO has initiated this process in collaboration with the County of San Diego with the award of a new SALC Planning grant, which will analyze the cost of running a small farm for various commodities and inform the diversification of crop production.

State and Federal Agencies

To represent and serve producers, state and federal agencies already have the structures in place to assign liaisons to the local agricultural community. Tragically, leadership at these agencies have divested from the region, reducing the number of agency representatives, technical assistance providers, and grant managers that serve San Diego. As a result, many state and federal lands have gone underutilized or even fallowed altogether. The United States Department of Agriculture should lead the way for related state and federal agencies by increasing the number and skill level of technical service providers who serve producers on the ground in San Diego. With sufficient representation in place at major state and federal agencies, the following three recommendations are possible.

State and federal agencies should expand technical assistance with more vocational training and should equip and incentivize producers to adopt climate-smart practices, led by the California Department of Food and Agriculture. This could be accomplished by investing in additional agricultural and horticultural programs at local community colleges, with support from the USDA Beginning Farmer and Rancher Development Program. Because grant applications for incentive programs are often overly complicated, San Diego producers cannot compete for funding to improve their operations without direct assistance. Grant applications for conservation practice implementation should be redesigned with producer input to increase accessibility. Agricultural producers should be included in the design of the applications: online applications should only ask for information once, contained within one form, and reduced in length so that busy small-scale producers can complete the application with minimal assistance.

State and federal agencies should build the capacity of farmers and farmworkers with training and services, led by the California Department of Labor. Established producers are struggling with overtime and minimum wage laws which paralyze industries which use seasonal farmworkers or graziers. Meanwhile, beginning farmers struggle to break into the agricultural industry without sufficient training and support for the practicalities of running a farm business. Agencies and organizations should dedicate workforce and career support services to agriculture to expand the labor pool and improve quality of life for farmworkers. Doing so will also open new opportunities for climate mitigation by building the capacity of producers able and willing to implement climate-smart practices more effectively.

State and federal agencies should design lease agreements that invest in working lands, led by the California Department of Fish and Wildlife. Most farmers are of retirement age and over the next ten years an unprecedented amount of land will change hands across the country. Meanwhile, historic farmland and grazing land has been fallowed in an effort to conserve biological resources. State demonstrations have shown that beginning farmers adopt conservation practices at a higher rate, and that working lands can be agriculturally productive while also enhancing habitat for wildlife. State and federal agencies should open fallow or underutilized lands to cultivation with the condition of strategic monitoring of critical environmental metrics. Veteran farmers should be engaged to provide mentorship to the next generation of farmers and land stewards. Land access for beginning farmers is a focus of the 2023 Farm Bill and has potential for nationwide implications.

Project Spotlights

WATER | City of Escondido - Membrane Filtration Reverse Osmosis (MFRO) Facility

There is a large concentration of farmers in the vicinity of the city of Escondido, many of which are subtropical fruit producers. Over the last decade as drought has intensified, many growers have had no choice but to abandon their groves due to high water costs. Escondido had an existing State Water Resources Control Board Title 22 recycled water supply through their Hale Avenue Resource Recovery station and sought a way to expand their support for growers, reduce the level of wastewater being discharged into the Pacific Ocean, and limit reliance on imported water. The project will blend MFRO water with recycled water to reduce the salinity for agricultural irrigation, since avocados are especially sensitive to salt. This blended water supply will be available to agricultural users at a reduced rate, recognizing the vital role of farmers in Escondido's economy and land use. This historical project was developed as a collaboration between the City of Escondido, environmental engineers from Brown and Caldwell, and J.R. Filanc Construction Company. They broke ground on the facility in March 2021 and expect to be completed in 2023.

WORKFORCE | Foodshed Inc. Farm Hub

Foodshed Inc. is a 100% farmer-operated- and -owned private organization dedicated to reconnecting people to their food system and appropriately valuing the farmers who tend the land. Founded in 2020 by members of Solidarity Farm in Pauma Valley on Pauma Tribal land, they developed a small farm distribution hub to make locally and sustainably grown food more accessible to communities of concern. Weekly harvests are aggregated from over 20 small-scale producers and made available to purchase at affordable prices, as well as covered by subsidies like CalFresh. Central to their mission is the notion that farmers need to be compensated fairly for their work. 80% of each "food dollar" spent at Foodshed Inc. goes to the farmer, rather than the national average of 15%. Foodshed Inc. also incentivizes their producers to use regenerative farming practices which sequester soil carbon rather than extract from the land, and 5% of all sales go towards regenerative agriculture research and project implementation. In addition to sales, they are also supported by grant funding and donations. This business model, which is centered on producers and serving the community, encourages the growth of new and small farmers because they can rely on a network of resources and a steady market.

LAND | Purchase of Agricultural Conservation Easement Program (PACE)

Since the mid-1990's, San Diego has been ranked in the top ten counties in California with the largest net loss of irrigated farmland (DOC, 2015). To combat this loss, the County of San Diego adopted the PACE program into their General Plan in 2011, which promotes the easement of agricultural parcels in unincorporated areas for permanent agricultural use. The program includes a monitoring component to ensure proper land use and also counts working lands in easements towards environmental mitigation banks. In 2021, updates to the PACE program allowed more properties to be considered for conservation easements in an effort to support the County's investment in their Climate Action Plan. This program is an example of organized regional support for the agricultural industry that seeks to achieve economic, social and conservation goals across the region.

Implementation Plan

Regional Vision

Agriculture is under historic pressure. What was once a dominant profession in San Diego is now threatened by rising land and labor costs, water prices, and climate change. While these challenges may seem insurmountable, we strongly believe that the first step to improve the industry is to reinvigorate the cultural importance of agriculture in our region. The shift toward an economy which thrives on tourism and manufacturing has resulted in the conversion of agricultural land to warehouses, factories, and hotels. Farms are taken for granted, as the majority of the local food supply is grown outside of the County, further diminishing the cultural connection to land management through the food we eat. We need to rebuild the narrative that agriculture is as critical to our economy and our regional identity as are our beaches and sunny skies. Investing in local farmers and ranchers not only makes San Diego more financially resilient, but also brings educational, nutritional, land use, and ecological co-benefits. Together we seek to build a community that is invested in sourcing food locally from producers that tend the land with climate-smart practices for the public good. Agriculture is a tool we can use to achieve our Statewide goals of reducing carbon emissions, all the while educating and empowering our local youth to proudly embrace the responsibility of land stewardship.

Key Collaborators

The ten policies highlighted above are critical to strengthening the agricultural industry. To ensure that they are implemented, government agencies and support organizations must demonstrate buy-in by prioritizing agriculture in policy change and fiscal commitments. More active stakeholder involvement from the agricultural community will ensure that there is ample opportunity for regional collaboration to consolidate resources and work towards solutions. Agency liaisons are sorely needed and are recommended as the top priority in order to continue the channels of communication developed during this process. The agricultural industry would benefit greatly with this increased representation both at the local and regional levels, as jurisdictions navigate further to protect and promote agriculture in the region. Carbon farming and irrigation efficiency incentives are well-developed around the State and can be implemented rapidly; these programs and services need to remain elevated for their continued execution within agricultural communities in order to meet regional climate action goals. Agricultural land use planning can begin immediately, but will require several years to complete. However, these long-term commitments will provide agricultural producers the on-going incentive and assurance to adapt and develop the industry. Reform of immigration is a federal effort, while labor and environmental regulation are state-level efforts; the time required to complete these goals is uncertain. Meanwhile, local government agencies can continue to advocate for legislative reform on behalf of producers through state and federal delegations.

Collaboration is critical to achieving these policy reforms. Regional players include agricultural stakeholders as well as government agencies and community organizations. Examples of leaders for policy priorities are given above, but teams of key players will need to collaborate to achieve these goals. This process has shown that lasting progress is made when stakeholders, agencies and supporting organizations are all at the table and have a stake in the outcome. Every local resident and business is a critical contributor because as consumers they have the power to invest in and as neighbors they have the power to advocate for local farms. Some examples of which key stakeholders will contribute to the implementation of these ten policies include:

Agricultural Stakeholders

- California Farmlink (Ex: Policy 2, Lease Agreements)
- Escondido Growers for Agricultural Preservation (Ex: Policy 4, CropSWAP Program)
- Foodshed Inc. (Ex: Policy 10, Farmer Training)
- San Diego County Cattlemen's Association and Cattlewomen's Association (Ex: Policy 2, Lease Agreements)
- San Diego County Farm Bureau (Ex: Policy 1, Agricultural Liaisons)
- Vista Community Clinic – Farmworker Care Coalition (Ex: Policy 6, Farmworker Housing)
- Ramona Valley Vineyard Association (Ex: Policy 5, Climate-smart Practices)

Government Agencies

- California Department of Fish and Wildlife (Ex: Policy 2, Lease Agreements)
- California Department of Labor (Ex: Policy 10, Farmer Training)
- California State Parks (Ex: Policy 2, Lease Agreements)
- Cities of Escondido, Oceanside and San Diego, among others (Ex: Policy 1, Agricultural Liaisons)
- County of San Diego Department of Agriculture Weights and Measures (Ex: Policy 8, Cost Assessment)
- County of San Diego Department of Planning and Development Services (Ex: Policy 5, Climate-smart Practices)
- Natural Resources Conservation Service – Escondido Service Center (Ex: Policy 9, Technical Assistance)
- Resource Conservation Districts including Mission RCD, RCD of Greater San Diego County and Upper San Luis Rey RCD (Ex: Policy 9, Technical Assistance)
- San Diego County Local Agency Formation Commission (Ex: Policy 3, Regional Plan)
- San Diego County Water Authority and key member agencies (Ex: Policy 7, Recycled Water)
- San Diego Housing Commission (Ex: Policy 6, Farmworker Housing)
- Tribal nations such as the Pauma Band of Luiseño Indians, Mesa Grande Band of Mission Indians among other Kumeyaay, Luiseño, Cahuilla and Cupeño bands (Ex: Policy 5, Climate-smart Practices)
- United States Bureau of Land Management (Ex: Policy 2, Lease Agreements)
- United States Forest Service (Ex: Policy 2, Lease Agreements)

Supporting Organizations

- 4-H Youth Development (Ex: Policy 10, Farmer Training)
- Community Health Improvement Partners (Ex: Policy 8, Cost Assessment)
- Community Planning and Advisory Groups (Ex: Policy 3, Regional Plan)
- Consumers in urban and rural communities (Ex: Policy 7, Recycled Water)
- Future Farmers of America (Ex: Policy 10, Farmer Training)
- Land Developers in rural communities (Ex: Policy 6, Farmworker Housing)
- San Diego Food System Alliance (Ex: Policy 1, Agricultural Liaisons)
- University of California Cooperative Extension (Ex: Policy 4, CropSWAP Program)

Funding these efforts can take the form of direct government programs, but can also take advantage of state and federal grant programs and consumer payment for services. Potential sources of grant funding include:

- California Department of Conservation
    - Sustainable Agricultural Lands Conservation
- California Department of Food and Agriculture
    - Healthy Soils Program
    - State Water Efficiency and Enhancement Program
    - Specialty Crop Block Grant
- California Department of Housing and Community Development
    - Affordable Housing and Sustainable Communities
    - Low-Income Weatherization Program Farmworker Housing
- California Department of Water Resources
    - Integrated Regional Water Management
    - Water Use Efficiency
- US Bureau of Reclamation
    - WaterSMART Water and Energy Efficiency
- US Department of Agriculture
    - Environmental Quality Incentives
    - Land, Capital and Market Access
    - Off Farm Labor Housing
- Western Sustainable Agriculture Research and Education
    - Professional and Producer

The next stages of the process have already begun. This planning process made clear the needs of farmers and ranchers to thrive, but also revealed new questions about the degree of support needed and the cost to implement new programs. SD LAFCO will continue the planning process in collaboration with the County of San Diego with renewed funding from DOC. The new grant will analyze the cost of running a small farm for various commodities and inform the diversification of crop production to help stabilize the local agricultural economy.

Closing Statement

We cannot achieve this cultural shift in a vacuum. Farmers and ranchers need to be invited to the table as key partners in regional land use decisions. Local, state, and federal agencies can collaborate and share resources on projects that bolster agricultural support. The community can commit to investing more of their dollars in locally-grown food on carefully stewarded land. Our local schools can incorporate nutritional and environmental education into the classroom and introduce their students to the land and people that grow their food. San Diego can transition to an economy, an educational system and a climate which recognizes local agriculture as a core element of its identity, and fully values the agricultural producers who make it possible.

References

California Department of Conservation, 2015. California Farmland Conversion Report

California Environmental Protection Agency, 2018. Indicators of Climate Change in California

Climate Science Alliance, 2020. Climate Change Impacts for Specialty Crops: Southern California Region

City of San Diego, 1995. San Pasqual Valley Plan

Collins, C. 2022. When Do You Stop Arriving? The Project "We Are Not Strangers Here: African American Histories in Rural California". California History.

County of San Diego, 2009. San Diego County Farming Program Plan.

County of San Diego, 2015. Economic Contributions of San Diego County Agriculture

County of San Diego, 2017. Ordinance No. 10463 Agricultural Promotion Program

County of San Diego, 2018. Climate Action Plan

County of San Diego, 2019. State of the Food System for the San Diego Region

County of San Diego, 2021. Crop Statistics & Annual Report

County of San Diego, 2022A. Regional Decarbonization Framework - Local Opportunities Analysis

County of San Diego, 2022B. Five-Year Review Report of the Countywide Integrated Waste Management Plan

Escondido Growers for Agricultural Preservation, 2012. Agriculture in Escondido: Contributions, Challenges and Opportunities

Farley KA, Walsh KC, Levine AS. 2017. Opportunities and obstacles for rangeland conservation in San Diego County, California, USA. Ecology and Society.

Libohova Z, Seybold C, Wysocki D, Wills S, Schoeneberger P, Williams C, Lindbo D, Stott D, Owens PR. 2018. Reevaluating the effects of soil organic matter and other properties on available water-holding capacity using the National Cooperative Soil Survey Characterization Database. Journal of Soil and Water Conservation.

National Young Farmer's Coalition, 2019. California Young Farmers Report

National Resources Conservation Agency, 2023. Climate-Smart Agriculture and Forestry Mitigation Activities List

Joassart-Marcelli, P. 2018. The Good Food District: Report of Needs, Resources, Priorities, and Impacts. Collaboration of Project New Village and San Diego State University.

Kalansky J, Cayan D, Barba K, Walsh L, Brouwer K, Boudreau D. 2018. California's Fourth Climate Change Assessment: San Diego Summary Report. University of California, San Diego.

San Diego Association of Governments, 2022. Carbon Storage and Sequestration Study

San Diego County Water Authority, 2023. Permanent Special Agricultural Water Rate Program Handbook.

San Diego Food System Alliance, 2018. Linking Climate-Friendly Practices to San Diego's Climate Action Plan

San Diego Food System Alliance, 2021A. San Diego County Food Vision 2030

San Diego Food System Alliance, 2021B. Exploring Community Wealth Building in San Diego County's Food System

University of California Cooperative Extension, 2018. Grower Needs Assessment for Sustainable Food Production

University of California Davis Agricultural Sustainability Institute, 2010. Assessing the San Diego County Food System

United States Department of Agriculture, 2012. 2012 Census of Agriculture

United States Department of Agriculture, 2015. Organic Farming Fact Sheet

United States Department of Agriculture, 2017. 2017 Census of Agriculture

United States Environmental Protection Agency, 2023. Greenhouse Gas Equivalencies Calculator

US Department of Labor, 2022. California Findings from the National Agricultural Workers Survey

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