



June 17, 2019

Ventura County Planning Commission
County Government Center
800 S. Victoria Ave.
Ventura, CA 93009

RE: GPU Policy and Program Recommendations for Agriculture Element Relating to Climate Change

Dear Planning Commissioners,

The 350 Ventura County Climate Hub wishes to point to the deep connections between agriculture and climate.

The goal for mitigation and adaptation is not to just produce more with less, but that integrated agricultural systems function as the resilient cornerstone of the local economy. The goal is not to just pollute a little less, but to make more sustainable and affordable management decisions.

Hunger and poor nutrition are not from lack of food, but a lack of access to affordable healthy food, especially in disadvantaged communities, and from a lack of support and access to resources for small local farmers to grow and market food locally. Ventura County needs greater engagement of institutional buyers and consumers to buy local.

Climate change is no joke; it is going to affect local agriculture. A paradigm shift is required to achieve the agriculture and climate goals of the General Plan Update. We hope to foster a sense of urgency to create new possibilities.

**These shifts in the agricultural sector of our local economy
is how we will build resiliency.**

The Ag Element would be improved by reordering of the goals putting top priorities first.

Our proposed outline:

1. Agricultural Land Preservation
2. Agricultural Resilience
3. Sustainable **and Regenerative** Farming and Ranching
4. Food Security
5. Niche and Specialty Crops (the word “crops” replacing the word “agriculture”)
6. Agricultural and Urban Area Compatibility

Proposed changes to Goals using our proposed numbering (in outline above):

- **Goal 3:** Add “regenerative” to the title and wording of the goal.
- **Goal 4:** Add “increasingly organically grown”. Change the term “Niche and Specialty Agriculture” to “Niche and Specialty Crops” to align with the conventional term.
- **Goal 5:** Edit the actual goal to include the words “new” and “adaptable” and change “to include” to “including.” These changes will broaden the meaning of “expanded agricultural activities.”

“We need to incentivize farming systems that help farmers both mitigate climate change and build resilience to its impacts. Pass comprehensive legislation to address climate change that includes a transition to regenerative, independent family farming practices.”

– Sen. Bernie Sanders, “Revitalizing Rural America” May 15, 2019

We feel very strongly about the need for this element to encompass these new possibilities to address the challenges ahead.

In our attached comments we followed Commissioner White’s example, and underlined our proposed new language and put [brackets] around moved or deleted language.

Our recommendations give us so much hope for a strong future through the themes of inclusion and interconnectedness - especially with our youth and community health. Thank you for considering the possibilities.

Sincerely,

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Ron Whitehurst, PCA, Co-Owner Rincon-Vitova Insectaries, Coordinating Team 350 VC Climate Hub

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Steve Sprinkle, Farmer/Owner, Farmer and the Cook, Meiners Oaks; President, Ecological Farming Assoc.

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Marlene D. Breitenbach, Educator, former administrator Oxnard School District, Homeowner, Seabridge area

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AGRICULTURE POLICIES & PROGRAMS

8.1 Agricultural Land Preservation

GOAL 1: To preserve and protect agricultural lands as a nonrenewable resource to assure the continued availability of such lands to produce food, fiber, and ornamentals. [Source: Existing GPP Goal 1.6.1.1, modified, SOAR]

Note: plain text is staff recommended. Underlined is suggested by 350 VC Climate Hub, [bracketed is suggested deletion].

- 1.1 Agricultural Land Protection and Preservation** The County shall continue to protect and preserve agricultural land by directing growth away from productive agricultural lands into cities, unincorporated urban areas, or existing communities and by supporting the acquisition or voluntary dedication of agriculture conservation easements. (RDR, MPSP) [Source: New Policy]
- 1.2 Agricultural Land Use Designation** The County shall ensure that discretionary development located on land designated as Agricultural on the General Plan Land Use Diagram and identified as Prime Farmland or Farmland of Statewide Importance on the State's Important Farmland Inventory is planned and designed to remove as little land as possible from potential agricultural production and to minimize impacts on topsoil. (RDR, MPSP) [Source: Existing GPP Policy 1.6.2.1, modified, SOAR]
- 1.3 Greenbelt Agreements** The County shall preserve agricultural land by retaining and expanding existing Greenbelt Agreements and encouraging the formation of additional Greenbelt Agreements. (MPSP, IGC) [Source: Existing GPP Policy 1.6.2.5, SOAR]
- 1.4 Land Conservation Act Contracts** The County shall encourage Land Conservation Act (LCA) contracts on farmlands and Open Space lands. (MPSP, IGC, PI) [Source: Existing GPP Policy 1.6.2.3, SOAR]
- 1.5 Facilities and Programs to Support Local Agriculture** The County shall encourage the continuation and development of facilities and programs that support agricultural production and enhance the marketing of county grown agricultural products. [Source: Existing GPP Goal 1.6.1.2, modified; SOAR]

- 1.6 Facilities and Programs to Support Local Small Organic Farms** The County shall support the development of facilities and programs that help small local organic farmers sell organically grown food in disadvantaged communities and be able to compete by direct marketing with large and non-local farms. *(new policy suggested by 350 VC Climate Hub)*
- 1.7 Support Economic Viability of Agriculture** The County shall work to improve the economic viability of agriculture through policies that support agriculture as an integral business to the County. [Source: Existing GPP Goal 1.6.1.3, modified; SOAR]
- 1.8 Promote Marketing [Encourage Purchase] of Local Agricultural Products** The County shall promote [encourage] increased direct marketing of locally grown products [for Ventura County residents] by helping facilitate opportunities, such as through incentives to expand access to produce stands selling locally grown produce, well-equipped Community Kitchens where local small farmers can process and preserve (chop, grate, juice, can, dry, ferment) for extended shelf life of their products and added value following the same requirements as for Home Kitchens under the Cottage Food Act, and through support of marketing assistance and incentives, such as a Buy Local label and model preferential purchasing specifications. [Source: Existing GPP Goal 1.6.1.1, modified, SOAR]
- 1.9 Supply Local Produce to Schools** The County shall facilitate local farmer access to school districts to increasingly buy locally grown food. *(new policy suggested by 350 VC Climate Hub)*
- 1.10 Local Food Purchasing by County** The County shall require that county-owned food service institutions increasingly buy locally grown food: 25% by 2023, 35% by 2030 and 45% by 2040. *(new policy suggested by 350 VC Climate Hub)*
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8.2 Agricultural Resilience

A resilient agricultural sector is key to the longevity of agricultural production in Ventura County. Recent and projected shifts in weather patterns and surface temperatures because of climate change have created vulnerabilities that can affect the success of

Agricultural Resilience cont.

agricultural production. Farmers must also be resilient to changes in the economy and costs inherent in the transition away from fossil fuels. [An agricultural sector] A farm that is resilient and able to adapt[s] to anticipated climatic changes, including extreme weather events, wildfires, and other possible disasters, has a greater potential to continue to remain a primary economic driver for the County. The policies in this section seek to enhance the resilience of agriculture in Ventura County to changes in the environment.

GOAL 2: To increase the resilience of the agricultural sector. [Source: New Goal] (formerly Goal 6)

- 2.1 **Monitor Climate Change Research** The County shall support and monitor research and extend information to farmers about the effects of a changing climate on the agricultural industry within Ventura County. (PSR) [Source: New Policy]
- 2.2 **[Drought-Tolerant] Understand and Encourage Practices for Resilience** The County shall engage the agricultural sector to understand resilience [tolerance] to probable climate change impacts through trials, varietal selection, and diversification of current crop mixes to [withstand increased temperatures], and explore [options] how to diversify and shift to new crops, varieties, and cropping systems. (JP) [Source: New Policy]
- 2.3 **Disaster Preparedness** The County shall consider participating with the Cooperative Extension and other organizations in programs to educate farmers about how they might mitigate projected climate impacts and [and] be able to continue farming after a disaster with attention to diversified production and marketing plans. *(new policy suggested by 350 VC Climate Hub)*
- 2.4 **Economic Resilience** The County shall seek expert advice about how the possibility of factors in the overall economy, including a rising price of fossil fuels and incentives for carbon farming, will affect local farmers. *(new policy suggested by 350 VC Climate Hub)*
- 2.5 **Seed-Saving** The County shall promote the gathering and free sharing of rare, heirloom, and culturally significant seeds among farmers and gardeners in regions throughout the world with similar growing conditions to Ventura County to diversity farms for resilience and explore opportunities for niche and specialty crops. *(new policy suggested by 350 VC Climate Hub)*

3 Sustainable and Regenerative Farming and Ranching

Sustainable farming and ranching involve integrated practices that will over the long term achieve environmental health, economic profitability, and social and economic equity. Regenerative agricultural systems concentrate on building biodiversity, enriching soils, and enhancing ecosystem services with attention to capturing carbon in soil and above ground biomass. These principles help ensure that the viability of the land for future agricultural use can continue into the future.

Regarding the use of fertilizer in Ventura County, it accounted for approximately 60 percent of countywide agricultural greenhouse gas (GHG) emissions in 2015. Fertilizers commonly used in commercial agriculture decompose over time in soil to produce nitrous oxide (N₂O) gasses, which are harmful GHGs. The addition of these GHGs contribute to the overall pollution emissions in the County. Truly sustainable farming and ranching also requires agricultural practices and operations that are less dependent on fossil fuels, an energy source that is typically used to run most agricultural related equipment. In 2015, gasoline- and diesel-powered off-road agricultural equipment other than irrigation pumps accounted for 27 percent of countywide agricultural GHG emissions. For existing diesel equipment, renewable diesel is a cost-effective alternative fuel option. This reduces the need for equipment modifications or replacements. Although the supply of renewable diesel is currently far exceeded by that of conventional diesel, the state is already making efforts to increase the supply of renewable diesel in the short- and long-term through the Low Emission Diesel regulation and the Low Carbon Fuels Standard.

Integrated Pest Management (IPM) strategies focus on long-term prevention of pests through a combination of techniques including modification of cultural practices, use of resistant crop varieties, habitat manipulation, and use of biological control and biopesticides and the avoidance of chemical pesticides except as a last resort. [revised more accurate order according to common priorities] Chemical pesticides are used only after monitoring indicates they are needed according to established guidelines, and treatments are made with the goal of removing only the target organism. Pest control materials are selected and applied in a manner that minimizes risks to human health, beneficial and nontarget organisms, and the environment. Biologically based IPM supports regenerative systems through increases in biodiversity and ecosystem services including protection of soil ecology to better sequester carbon. Organic farms are identified by their use of approved methods in accordance with the United States Department of Agriculture (USDA) National Organic Program. Organic operations must demonstrate that they are protecting natural resources, conserving biodiversity, and using only approved material derived from natural substances. In addition to increasing economic competitiveness, organic farming practices can result in fewer environmental impacts and help to maintain soil health. Organic farming emphasizes sustainable practices, including mixed-cropping patterns and crop rotation, which reduces water usage and maintains the soil structure. The policies in this section seek to enhance the sustainability of agriculture in the county by transitioning away from fossil fuels to renewable energy sources and toward increasingly regenerative systems and put a value on the benefits when farmers choose organic certification.

GOAL 3: To encourage sustainable farming and ranching practices that promote resource conservation and reduce greenhouse gases. [Source: New Goal]

Change the order of these policies to put highest priority first.

- 3.1 **Alternative Irrigation Techniques** The County shall encourage farmers to use the water-saving irrigation techniques designed to reduce water consumption.
- 3.2 **Diversified Cropping Systems** The County shall encourage farmers to include 1 - 5% of beneficial insect attracting plants in a planted crop, and other methods, such as crop rotation, perennial mowed cover crop in orchards, and integrating multiple species or varieties to enhance the biological and economic stability by spreading economic risk and buffering against pest invasions and extreme weather events. (new policy suggested by 350 VC Climate Hub)
- 3.3 **Integrated Farming Systems** The County shall encourage farmers to integrate crops and livestock in the same operation for multi-benefits of reduced soil erosion on pastured slopes, enhanced soil quality and carbon sequestration from managed distribution of animal manure, turning drought-damaged crops into fodder, cushioning against trade and price fluctuations, and creation of more diversified, efficient and enjoyable jobs.
- 3.4 **Carbon Farming Practices** The County shall support activities to achieve a five-fold increase in the number of agricultural acres using carbon farming practices by working with farmers, resource conservation districts, and other stakeholders to expand carbon farming practices, such as reduced tilling, cover cropping, composting, biochar, and other activities that both reduce greenhouse gas (GHG) emissions and increase carbon sequestration and storage. (JP) [Source: New Policy]
- 3.5 **Climate-Friendly Food Service** The County shall require that its food service operations decrease purchase of meat and dairy products by 70% by 2023 and 90% by 2030 and encourage similar goals for hospitals, day care centers, public schools, colleges and universities, and disseminate public information to drive market shifts and consumption toward fewer and better animal products and healthier, plant-forward, sustainable food.
- 3.6 **Inorganic Nitrogen Based Fertilizers** The County shall encourage optimized use of organic and inorganic fertilizer for greatest efficiency in closed nutrient cycles, monitor for nutrient runoff from fields and encourage the use of cover crops and green manure crops to reduce or avoid nitrous

oxide (N₂O) emissions and nutrient runoff. (MPSP) [Source: Source: Existing El Rio/Del Norte Program 1.2.3.1, modified]

- 3.7 **Electric- or Renewable-Powered Agricultural Equipment** The County shall encourage and support the transition to electric- or renewable-powered or lower emission agricultural equipment in place of fossil fuel-powered equipment.
- 3.8 **Electric- or Renewable- Powered Irrigation Pumps** The County shall encourage farmers to convert fossil fuel-powered irrigation pumps to systems powered by electric or renewable energy sources,
- 3.9 **Incentives for Organic Producers** The County shall recognize and support local certified organic producers by a 75% waiver of the property tax for farms in transition and first five years of certification for their contribution to local economic vitality and healthy communities.
- 3.10 **Recognition of Regenerative Organic, Real Organic Project, and Biodynamic Labels.** The County shall recognize the potential added value for the community and the environment by farmers who meet the higher standards of certified Regenerative Organic, Real Organic Project and Biodynamic production.
- 3.11 **Incentives for resilient crop production** The County shall create a program to subsidize investments in water conservation, infiltration and carbon farming practices to complement and fill gaps in state grants programs and water infiltration as part of carbon farming practices with attention to cover cropping to restore marginal farmland.
- 3.12 **Reduce waste throughout food chains** The County shall require that the agriculture and food marketing sector participate in creating and implementing a program to achieve zero organic waste to the landfill by 2028. *(new policy suggested by 350 VC Climate Hub)*
- 3.13 **Integrated Pest Management Practices** The County shall encourage and support the use of Biologically Based Integrated Pest Management that relies on monitoring, natural biological controls, cultural practices, and soft pesticides with the use of regulated pesticides bearing the poison label as a last resort [to reduce pesticide use and human health risks]. *(new policy suggested by 350 VC Climate Hub)*
- 3.14 **Least Toxic Alternatives** The County shall monitor and support the consideration of biologically-based and organic alternatives before approving permit applications for use of high-risk pesticides that have the

signal word “Warning” or “Danger” on the EPA Label. (new policy suggested by 350 VC Climate Hub)

- 3.15 **Dangerous Pesticides** The County shall take such actions that foster an end to permit applications by 2030 for the use of highest risk pesticides that have the signal word “Danger” on the EPA Label. *(new policy suggested by 350 VC Climate Hub)*
- 3.16 **Public Education for Agricultural Products and Integrated Pest Management** The County shall collaborate with the agricultural community to provide information on Integrated Pest Management and agricultural products and practices in Ventura County. (JP, PI) [Source: New Policy]

4 Food Security

GOAL 4: To ensure equitable access to fresh, locally grown, and healthy agricultural products for residents throughout the county.
[Source: New Goal]

- 4.1 **Connections to Local Produce** The County shall strive to enhance access to and consumption of fresh, local produce by encouraging direct connections between local farmers/ranchers and markets, restaurants, institutions, schools, hospitals, food banks, and other businesses through support for local and regional Food Hubs and expansion into new possibilities. (JP) [Source: New Policy]
- 4.2 **Growing Food on Public Land** The County shall work with other agencies and institutions to encourage the use of available public land for non-commercial growing of produce, including on college campuses, schools, parks, and public easements. *(new policy suggested by 350 VC Climate Hub)*
- 4.3 **Technological Innovation** The County shall encourage the use of technology that supports agricultural production, decision-making and marketing, while enhancing environmental sustainability and natural resource conservation. (JP) [Source: New Policy]
- 4.4 **Certified Farmers’ Markets and Community Supported Agriculture** The County shall support certified farmers’ markets featuring county grown products, community supported agriculture (CSAs) operations, and other direct marketing [similar activities], by working with local communities, local

agricultural groups, and the California Department of Food and Agriculture (CDFA) Certified Farmers Market Program, particularly in communities that are underserved by healthy food purveyors, to create facilities and programs that help local small farmers compete with food grown on large and non-local farms. (IGC) [Source: New Policy]

[Move this policy under Goal Section 3 to the Sustainable and Regenerative Goal: Pest Management The County shall continue to monitor and extend leading research findings on methods and technologies for reducing harm to the agricultural sector from invasive plants, pests, and diseases and modify agricultural practices when appropriate and feasible.]

5 Niche and Specialty Crops [Agriculture]

GOAL 5: To promote the expansion of agricultural practices and products for new growing conditions and niche and specialty markets [Source: New Goal]

Ventura County's agricultural sector is a leading economic driver. The County has an opportunity to continue to support innovation and vitality in this sector through increased production of niche and specialty crops [agriculture]. With the challenge of climate impacts and the need to transition to new, more adapted crops, varieties and cropping systems, the opportunities in niche and specialty crops will increase. While Ventura County has a successful agricultural economic sector, the County's agricultural lands can also be used to grow specialty agricultural crops, especially those aimed at the growing popularity of locally grown crops and animal products.

*[and utilization of Integrated Pest Management Strategies. Organic farming is a specialty agricultural sector regulated by the United States Department of Agriculture (USDA). According to the USDA, organic operations must demonstrate that they are protecting natural resources, conserving biodiversity, and using only approved substances. In addition to increasing economic competitiveness, organic farming practices can result in fewer environmental impacts and help to maintain soil health. Organic farming emphasizes sustainable practices, including mixed-cropping patterns and crop rotation, which reduces water usage and maintains the soil structure. Integrated Pest Management is an ecosystem-based strategy that focuses on long-term prevention of pests through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistant crop varieties. Pesticides are used only after monitoring indicates they are needed according to established guidelines, and treatments are made with the goal of removing only the target organism. Pest control materials are selected and applied in a manner that minimizes risks to human health, beneficial and

nontarget organisms, and the environment.] * Suggest moving this entire portion to Section 3 Sustainable and Regenerative Farming & Ranching.

The following two policies should be moved from the “Niche and Specialty Crops” section to the “Sustainable and Regenerative...” section as they should apply to all agricultural sectors/practices.

- AG-3.2 Integrated Pest Management Practices The County shall encourage and support the use of Integrated Pest Management practices to reduce pesticide use and human health risks. (JP, PI) [Source: New Policy]
- AG-3.3 Public Education for Agricultural Products and Integrated Pest Management The County shall collaborate with the agricultural community to provide information on Integrated Pest Management and agricultural products and practices in Ventura County. (JP, PI) [Source: New Policy]

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- 5.1 **Small Farms and Specialty Products** The County shall support locally owned and operated small farms and ranches, the growing of specialty products and innovative and high-value crops, and specialized animal facilities and rearing methods through programs that enable them to compete with large and non-local farms. (RDR, JP) [Source: New Policy]
- 5.2 **Restoration Economy** The County shall recognize and support local businesses and organizations contributing to the restoration economy through the management of working lands, forests, peatland and grassland for economic and environmental benefits including carbon sequestration. (new policy suggested by 350 VC Climate Hub)
- 5.3 **Maritime Economy** The County shall recognize and support local businesses and organizations contributing to the maritime economy for their many contributions to the community and, because of the capacity of the oceans to sequester twice as much carbon as on land, to the future of the planet. (new policy suggested by 350 VC Climate Hub)
- 5.4 **Small Farms and Specialty Products** The County shall support small and locally owned farms and ranches, the growing of specialty products and innovative and high-value crops, and specialized animal facilities and rearing methods.
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6 Agricultural and Urban Area Compatibility

GOAL 6: To minimize conflicts between agricultural operations and urban land uses. [Source: New Goal] (formerly Goal 2)

It should be noted that conflicts associated with conventional agricultural practices may be reduced as sustainable and regenerative practices are adopted. In fact, creative land use and shifts in planning norms around zoning, paired with incentives for regenerative agricultural practices, will facilitate overall resiliency of the agricultural sector, leading to more diversification, local markets, value-adding enterprises and increasing compatible land use.

- 6.1 **Discretionary Development Adjacent to Agriculturally Designated Lands** The County shall ensure that discretionary development adjacent to Agriculturally designated lands does not conflict with agricultural use of those lands.
- 6.2 **Impacts from Transportation Capital Improvements** The County shall plan transportation and other County capital improvements so as to avoid or mitigate impacts to important farmland to the extent feasible.
- 6.3 **Right-to-Farm Ordinance** The County's Right-to-Farm Ordinance shall be maintained and updated as needed to protect agricultural land uses from conflicts with non-agricultural uses, as well as to help land purchasers and residents understand the potential for nuisance, (e.g., dust, noise, odors) that may occur as the natural result of living in or near agricultural areas.

IMPLEMENTATION PROGRAMS

- A. **Public Outreach on Land Conservation** The County shall develop and implement a public outreach program to inform farmers, ranchers, and the public to encourage participation in Land Conservation Act (Williamson Act) or privately funded conservation easements and incentives for small organic farm uses. [Source: New Program]
- B. **Right-to-Farm Ordinance** The County shall periodically review and update the Right-to-Farm Ordinance when necessary to raise public awareness (including within the local real estate industry) of the Right-to-Farm provisions. [Source: New Program]

C. Locally-Grown Products Sales Incentives The County shall create a program to assure that county-owned food service institutions increasingly buy locally

Implementation Programs cont.

grown food: 25% by 2023, 35% by 2030 and 45% by 2040 and encourage sales and distribution of locally grown produce at produce stands and to local retailers, restaurants, and markets. The program will levy a tax or fee on the sales by produce stands selling non-local produce that reflects the VMT used to transport the produce into the county. The program will encourage residents to select locally grown food products for freshness, local economic development benefits, and reduced greenhouse gas (GHG) emissions. [Source: New Program]

- a. **Food Hub Community Kitchens** The County shall facilitate the development of Community Kitchens as part of Food Hubs where people can process, chop, juice, can, dry, ferment their produce. The requirements shall be the same as for Home Kitchens under the Cottage Food Act and provide more suitable places than home kitchens for small local farmers to process and preserve produce to meet the needs of direct markets like school kitchens. Analysis of any barriers raised by the environmental health department will be conducted as necessary and reasonable decisions encouraged. (See VC purchases 8.7D)

D. County Procurement The County shall develop a program to identify opportunities to provide organic and regenerative locally grown foods into cafeteria services, the jail, hospitals, colleges, and other County sponsored services and events that provide food service, to the extent feasible. [Source: New Program]

- a. **Incentives for Locally Grown Products at Farmers' Markets** The County shall require that all certified Farmers' Market levy an appropriate fee or tax on applicants from outside the county according to their Vehicle Miles Traveled and create a VC Grown logo to help local farmers compete with non-local farmers. (new program suggested by 350 VC Climate Hub)

E. Agricultural Tourism Development Standards The County shall revise the Non-Coastal Zoning Ordinance to include regulations and development standards for agricultural tourism. Ordinance revisions may also include additional development standards for agricultural promotional uses, if necessary. [Source: New Program]

E.2 Urban Agriculture Incentives The County shall work with stakeholders to identify needs, opportunities and challenges to the development of urban agriculture, by defining various types of urban agriculture, deciding where they can take place, and determining which practices will be allowed "by right" and which will require special permits, including pre-approval of plans for up to four low-cost mobile or permanent tiny houses per acre to house farmers and farm labor. Urban farmers may receive discount water rates along with training on efficient irrigation and water conservation practices, assistance to conduct soil tests and develop remediation plans if

elevated levels of lead are found, and assistance with marketing and production planning.

Implementation Programs cont.

E.3 Seagrass Farming Development Standards The County shall encourage the California Department of Fish and Wildlife and the California Coastal Commission to streamline regulations and development standards for an expanded maritime economy with commercial activity related to restoration of seagrass to support testing species beneficial to large-scale carbon sequestration, commercially valuable fisheries, and species that are less sensitive to ocean acidification.

- F. **Specialty Farming Education** The County shall continue to collaborate with and support the UC Cooperative Extension Office and work with the schools and college district to expand youth education programs that inform and assist local farmers, ranchers, and agricultural managers in diversifying and establishing expertise in specialty agricultural products. [Source: New Program]
- G. **Nutrient Management Plans** The County shall continue to collaborate with the UC Cooperative Extension Office and UC Agriculture and Natural Resources to implement Nutrient Management Plans for commonly grown local crops featuring best management practices [for] closed nutrient cycles to reduce nitrous oxide (N₂O) emissions [reductions]. [Source: New Program]
- H. **Fossil Fuel-Powered Equipment Replacement** The County shall coordinate with the Air Pollution Control District to develop a program to establish a countywide fossil fuel-powered equipment conversion target, track progress on conversions to renewable energy sourced electric powered systems and provide technical assistance to users considering replacement of pumps. [Source: New Program]
- I. **Alternative Fuel Funding for Agricultural Operations** The County shall coordinate with the Air Pollution Control District to develop a program to identify funding sources or develop financial or regulatory incentives to encourage the switch to electric or alternatively fueled agricultural equipment. [Source: New Program]
- J. **Water-Saving Irrigation Techniques Program** The County shall continue to collaborate with and support the UC Cooperative Extension Office on educational programs [on irrigation techniques] about irrigation systems and systems management to maximize water conservation. [Source: New Program]
- K. **Encourage and Facilitate Carbon Farming** The County shall develop a program to encourage and facilitate carbon farming projects, including development of demonstration projects, site-specific carbon farm plans, and incentives that complement the California Healthy Soils Program to guide implementation of

carbon farming practices throughout the county and including adequate incentives to plant deep-rooted cover crops on marginal farmland. [Source: New Program]

Implementation Programs cont.

- L. **Biogas Control Systems** [delete this program since we have almost no animal agriculture creating manure for biogas production] The County shall develop a program to coordinate public-private local investment in biogas control systems. [Source: New Program]
- M. **Research on Effects of Climate Change** The County shall research the potential effects of climate change on the county's existing agricultural industry as well as the resulting challenges and opportunities associated with these changes. Research partners may include the California Climate and Agriculture Network (CalCAN), University of California Cooperative Extension, and Ventura County Farm Bureau. The research shall address, but may not be limited to, loss of chill hours, increased populations of or new species of pests, loss of pollinators, long durations of no rainfall, extreme heat days, higher rates of evapotranspiration, and opportunities created by warmer climate to grow crops that were previously unsuitable based on historic climate conditions. [Source: New Program]
- N. **Subsidies for Resilient Crop Production** The County shall develop a program and seek funding to subsidize soil conservation practices including use of cover crops and reduced tillage, development and transition to varieties that are resilient to extreme heat, and agroecological practices, such as crop rotations, intercropping, planting taller trees to shade crops, and education for farmers to increase resilience [efforts to breed crops that are resilient to high heat, shade crops and installation of light reflectors, and reduce rates of tilling to promote soil health and combat increased temperatures] as recommended by the Climate Change Consortium and CalCAN. [Source: New: Program].

GLOSSARY

Biodynamic means a system of farming that follows a sustainable, holistic approach which uses only organic, usually locally-sourced materials for fertilizing and soil conditioning, views the farm as a closed, diversified ecosystem including livestock, and often bases activities on lunar cycles. The biodiversity of the farm is organized so that the waste of one part of the farm becomes the energy for another, increasing the farm's capacity for regeneration. Biodynamic farms are certified under the Demeter Biodynamic® Farm and Processing Standards.

Biological Control is the action of natural enemies (predators, parasites, diseases and antagonists) that reduce populations of pest insects, mites, weeds and diseases, generally through human intervention and often targeting specific life stages and during

a particular season. It can be an important component of **Integrated Pest Management (IPM)** programs.

Glossary cont.

Biopesticides (sometimes called Biorational Pesticides) means pesticides derived from natural materials that are relatively non-toxic to people and animals with few environmental side effects. Three categories defined by the US Environmental Protection Agency are 1) biochemical pesticides, such as pheromones that may confuse and disrupt pests during their mating cycles, or to draw them into traps, botanicals or scented plant extracts that repel or attract insect pests to traps, such as rotenone, neem, and pyrethrum, soaps, and minerals, including sulfur, copper, diatomaceous earth, and clay-based materials like Surround, 2) microbial pesticides, in which a bacterium, fungus, virus or protozoan is the active ingredient, and 3) plant-incorporated-protectants (PIPs), in which pesticidal substances are produced by crop plants through genetic engineering (e.g., *Bt* insecticidal protein in corn and cotton). Most biopesticides are permitted in organic farming with PIPs, soaps, and salts of phosphorous acid being notable exceptions. 'Minimum risk' pesticides is another category defined by EPA as exempt from federal registration and allowed in organic farming.

California Healthy Soils Program (HSP) Incentives Program provides financial assistance to growers and ranchers for implementation of conservation management practices that improve soil health, sequester carbon and reduce greenhouse gas (GHG) emissions. It is coordinated by the California Department of Food and Agriculture and the California Air Resources Board with local coordination by the Ventura County Resource Conservation District.

Chemical fertilizer is defined as any inorganic material of wholly or partially synthetic origin that is added to soil to sustain plant growth, such as ammonium sulfate, ammonium phosphate, ammonium nitrate, urea, ammonium chloride and the like that contain three essential nutrients: phosphorous, nitrogen, potassium.

Climate change impacts refers to the following changes modeled for Ventura County through 2070: intensification and concentration of rain into winter season, increased potential for post-fire flash flooding and/or debris flows due to more frequent short-duration, high intensity rainfall, increased evaporative demand affecting what crops can be grown economically, altering ecosystem function, and/or increasing drought susceptibility, increasing temperatures and more frequent extreme (hot) temperatures that may have negative impacts on plants and worker health, increases in maximum temperatures and overnight minimum temperatures as well as frequency of extreme temperatures likely to have negative impacts on human health and ecosystems, disproportionate impact on disadvantaged communities and on species extent and abundance, and likely extension of wildfire season earlier into the spring and later into early winter due to drying, increased temperature, and greater evaporative demand (considerable uncertainty in predicting the future frequency, size and intensity of wildfires).

Glossary cont.

COMET-Planner is a tool described at <http://comet-planner.com/> containing information on conservation practices that are eligible for grants under the California Healthy Soils Program. It provides a measure of potential for practices to reduce greenhouse gas emissions and/or provide carbon sequestration benefits on farms and ranches. There is a co-benefits calculator available. This list of conservation practices is [based on the qualitative greenhouse benefits ranking of practices prepared by NRCS.](#)

Food Hub is an integrated food distribution system that coordinates agricultural production, and the aggregation, storage, processing, distribution and marketing of locally or regionally produced food products. (From USDA)

Integrated Pest Management (IPM) is an ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistant varieties. Pesticides are used only after monitoring indicates they are needed according to established guidelines, and treatments are made with the goal of removing only the target organism. Pest control materials are selected and applied in a manner that minimizes risks to human health, beneficial and nontarget organisms, and the environment. (UCIPM)

Maritime Economy (sometimes called Blue Economy) is the economic activity associated with developmental and regenerative use of the ocean, such as for seagrass and kelp forest restoration, with activities resulting in jobs creation for kelp farmers and shellfish farmers and people who catch fish and shellfish whose activities restore ecosystems that sequester carbon, reduce ocean acidity in the surrounding area to protect endangered species, bring economic growth, employment in other industries, localized community benefits and enduring social and environmental value.

Marginal Farmland means land that has little or no potential for profit, and often has poor soil or other undesirable characteristics, often located near degraded areas or it may be a prohibitive distance from roads and other means of transportation to be commercially productive.

Natural Control is the action of naturally occurring organisms and environmental factors that reduce pest populations with no human intervention.

National Organic Program (NOP) develops the rules & regulations for the production, handling, labeling, and enforcement of all USDA certified organic products. This process, referred to as rulemaking, involves input from the National Organic Standards Board (a federal Advisory Committee made up of fifteen members of the public) and the public. The NOP maintains a Handbook of guidance, instructions, policy memos, and other documents that communicate the national organic standards.

Organic is a labeling term that indicates that the food or other agricultural product has been produced through approved methods that protect natural resources, conserve biodiversity, and use only approved substances. The organic standards describe the specific requirements that must be verified by a USDA-accredited certifying agent before products can be labeled USDA organic. The organic standards are captured in the Organic Food Production Act, USDA organic regulations, and the National Organic Program Handbook.

Organic Pesticides are biopesticides and minimum risk pesticides derived from natural substances and allowed in organic farming to control pests and diseases without resorting to conventional regulated chemical pesticides with caution, warning or danger labels. Some fungicides approved for use in organic production systems are not biopesticides, including mineral oils, copper, and sulfur. Organic pesticides can be as damaging to the fauna/flora in the environment as conventional chemical pesticides. However, in comparison to chemical pesticides, organic pesticides more easily decompose and are relatively non-toxic to people and animals.

OMRI is a 501(c)(3) nonprofit organization that provides an independent review of products, such as fertilizers, pest controls, livestock health care products, and numerous other inputs that are intended for use in certified organic production and processing. When companies apply, OMRI reviews their products against the organic standards. Acceptable products are OMRI Listed® and appear on the *OMRI Products List*®

Organic fertilizer is defined as a substance derived from the remains or byproducts of natural organisms which contain the essential nutrients for plant growth, such as cottonseed meal, blood meal, fish emulsion, and manure and sewage sludge, etc. that adds natural nutrients to soil, increases soil organic matter, improves soil structure and tilth, improves water holding capacity, reduces soil crusting problems, reduces erosion from wind and water, and slowly and consistently releases a relatively less defined distribution of essential nutrients.

Plant-forward describes dietary choices towards eating more plant-based foods and fewer animal ones.

Real Organic Project is a new add-on label for certified organic farms that was developed by organic farmers in collaboration with scientists and advocates wanting to support the organic farming standard that requires that crops are grown in soil (not hydroponics) and that livestock are raised on pasture-based systems. Organic farmers using this label are often smaller, family-owned farms focused on direct local marketing as opposed to large, corporate and international organic food producers. The need for the add-on label arose in 2017 when the USDA National Organic Standards Board

approved that hydroponic crops come under organic and that livestock producers did not have to follow the intent of the organic standards requiring minimum time in open pasture.

Glossary cont.

Regenerative Agriculture is a system of farming principles and practices that increases biodiversity, enriches soils, improves watersheds, and enhances ecosystem services. By capturing carbon in soil and aboveground biomass, Regenerative Agriculture aims to reverse global climate change. At the same time, it offers increased yields, resilience to climate instability, and higher health and vitality for farming communities. The system draws from decades of scientific and applied research by the global communities of organic farming, agroecology, holistic grazing, and agroforestry. (From Terra-Genesis International)

Regenerative Organic Certification (ROC) is a new program for certified organic farms that further certifies that a farm complies with the three pillars of Regenerative Organic Certification: Soil Health and Land Management, Animal Welfare and Farmer and Worker Fairness. The pilot process through 2019 is developing a greater understanding of how the ROC standards can be implemented on farms.

Restoration Economy is the economic activity associated with regenerative land use, such as ecological restoration, including reforestation and sustainable forest management, and particularly reverse land degradation at the watershed level with activities resulting in jobs creation for ranchers, farmers, and foresters, economic growth, employment in other industries, localized community benefits and enduring social and environmental value.

Restricted Use Pesticides "RUP" are pesticides not available to the general public in the United States. Their label includes one of the following signal words: Danger, Warning and Caution or the skull and crossbones symbol and the word Poison. The signal words relate to the type of EPA toxicity category corresponding to tests for oral and dermal LD50, inhalation LC50, and eye and dermal irritation respectively. They can be used by a certificated pesticide applicator or under the direct supervision of a certified applicator.

Seed saving is the practice of saving seeds or other reproductive material (e.g. tubers) from vegetables, grain, herbs, and flowers for use from year to year for annuals and nuts, tree fruits, and berries for perennials and trees.

Small farms means for the purposes of this plan farms owned and operated by local residents who grow and sell between \$1,000 and \$250,000 per year of agricultural products (USDA definition) with a preference for technical assistance from the UC Small Farm Program for those with limited resources, who market direct and not through a wholesale distribution chain, who do not monocrop, and who may be ethnic minority or hobby farmers, retirement farmers or lifestyle farmers on up to 99 acres, i.e. on parcels that do not qualify under the Williamson Act to take 20 to 75 percent off their property tax bill for not developing their land for ten years.

Glossary cont.

Soil health or soil quality refers to how it functions to support clean air and water, bountiful crops and forests, productive grazing lands, diverse wildlife, and beautiful landscapes. The principles of soil health are: soil armor or cover, minimizing soil disturbance, plant diversity, continual live plant/root, and livestock integration (USDA Natural Resources Conservation Service).

Sustainable Agriculture is legally defined as an integrated system of plant and animal production practices having a site-specific application that will over the long term achieve environmental health, economic profitability, and social and economic equity or more specifically to:

- Satisfy human food and fiber needs.
 - Enhance environmental quality and the natural resource base upon which the agricultural economy depends.
 - Make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls.
 - Sustain the economic viability of farm operations.
 - Enhance the quality of life for farmers and society as a whole.
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