

## Agriculture & Conservation



**The Climate Action Plan Update** (CAP Update) project team held a virtual workshop on September 29, 2021, to solicit feedback on development of greenhouse gas (GHG) emissions reduction measures related to the agriculture & conservation sector. 53 stakeholders participated in this workshop by answering five poll questions and asking 21 questions via the Q&A feature on Zoom. Poll questions covered measure development considerations, equity considerations, and solicited any other considerations or ideas not yet covered.

**Major themes identified by participants** included organic and regenerative farming, water-wise solutions, carbon sequestration, learning from indigenous peoples, preserving agricultural and open space, and incentivizing sustainable agricultural practices. Additionally, participants stressed the importance of aggressive emissions reductions targets, especially as they relate to equity, because frontline communities will be the first and worst hit by climate change impacts. The tables below take a closer look at each poll question presented and specific responses from participants.

### Measure Development Considerations

*What should be considered for the agriculture & conservation sector to achieve a net-zero emissions future?*

#### **Carbon Farming / Sequestration & Composting**

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Provide funds for pilot projects to adapt carbon farming strategies to our bioregion

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Farmer network to share carbon farming information

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Add and options to the Purchase of Agricultural Conservation Easement (PACE) program that further incentivize carbon sequestration on agricultural easements

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Incentivize urban food forests with carbon sequestering fruit and nut trees

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Nurseries are the hugest industry by far, but carbon farming largely doesn't apply to them - address carbon sequestration and renewable energy in nurseries and floriculture

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Quantify the carbon sequestered through new applications of carbon farming techniques and apply that to the CAP's GHG reduction target

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Only allow pastured cattle, which sequesters carbon

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New farmer training programs that teach carbon farming

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Reduce loss of our carbon sequestering orchards by making water more affordable

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Create an incentive program to provide grant dollars to farmers who want to implement more carbon farming techniques, such as compost application or use of cover crops

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Increasing carbon sequestration practices in nurseries

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Consider incentivizing carbon-farming practices (Ex: no till, cover crops, and compost applications in area farms and ranches)

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Quantify carbon sequestered as a new application of carbon farming techniques

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Incentivize farmers and ranchers to use carbon-farming practices like no-till, cover crops, and compost application

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Incorporating county wide composting from all sectors would be necessary to support carbon sequestration

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Incorporate nurseries into climate planning, as a huge part of the ag sector! carbon farming practices largely do not apply to them (not growing in soil)

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Track agricultural conservation easements to ensure agriculture is still occurring to keep up the sequestration

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County wide composting service

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Partner with industries to increase compost and mulch use.

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Community composting of all "spoiled" crops

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Curbside organics to compost to farm

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Compost/methane recapture

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Permaculture

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Mulch food waste for fertilizer

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Reduction in food waste

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### **Energy & Agriculture**

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Survey the market for electric farm machines and figure out if the County can speed things along

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Biomass or biogenic plant or animal products, material such as clippings and mulch Can be utilized to create renewable natural gas. Farm equipment can be fuel through renewable natural gas such as our trash trucks and buses we have around the county and is clean

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Replace ICE County vehicles with EVs

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Buy back for gas farm and lawn equipment

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Change programs for gas powered engines to electric or solar powered

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More EV charging stations

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EV farm equipment

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Electrify landscaping equipment

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Using EV farming equipment and mass transit with 1st and last mile options. Install more EV charging stations to promote more EV cars

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Shut down methane production

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Reducing energy usage in controlled environments (greenhouses)

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Loan programs to assist growers to replace fossil fuel burning equipment with electric equipment

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Study the effects of combining solar and wind energy production with row crops, pasture, and/or rangelands

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Ban sales of ICE farm equipment

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Electric agricultural vehicles

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Biodiesel and waste to energy. Plants are biomass can be used to create electricity

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More Electric vehicles

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Utilize the manure for biofuel

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Use cow waste as biofuel

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### **Community Support and Local & Native Practices**

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Teach people how to eat the indigenous food

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Restrict crops which are not indigenous or appropriate for the environment, such as almonds

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Incentivize local markets to buy local ag vs. Shipping out externally

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Keep ag LOCAL

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Increase native tree plantings

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Increase community/school gardening and farming opportunities, show people how to grow their own food indoors and outdoors

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Support community gardens

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It would be nice if the trees were fruit trees. Also, Community trees that are planted would be nice to be in Community Gardens throughout the cities and unincorporated parts of San Diego

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More urban farming to reduce food to table time and distance

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Develop an education and outreach program that promotes the adoption of healthier and low-emission diets in households, schools, and other institutions.

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Land management to reduce wildfire risk, including cultural burning

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Carpool/vanpool/etc. incentives for farm workers

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Continue rebate program for equipment

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Planting more trees in urban areas.

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Tree planting

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Plant trees

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Plant more trees

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Trees should be dual-purposes, just as chickens can be dual-purposes meat and eggs

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### **Regenerative Agriculture, Organic Farming, and Small Farms**

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Regenerative agriculture

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Allow only appropriate regenerative agriculture

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Incentivize regenerative agriculture by compensating farmers for the climate resilience and mitigation services they provide

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Regenerative agriculture practices including rotational grazing, cover crops and use of mulch so methane production is reduced and carbon sequestration increased

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Use horse manure with worms to create worm castings which are needed for organic farming

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Organic farming

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More incentives for organic farming

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Stop using toxic synthetic pesticides and fertilizers on County leased lands. Toxic pesticides do not allow for healthy soils

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Stop petroleum chemical based farming

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Stop pesticide use to increase soil health

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Pollinator friendly gardens

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Smaller farms that produce plants for food and have livestock

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Consider aquafarming and its emission levels

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Not sludge application on Ag land

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### **Grey Water / Water Use**

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Enable grey water to be used for agricultural purposes and sold to farmers/ranchers at much lower prices than an acre-foot currently costs

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Source water locally via grey/black water purification and stormwater capture systems

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Capture rainwater in our landscapes, less stormwater being sent to the ocean

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Use Gray water

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Use grey water

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Better incentives for homeowners to capture rainwater and recycle greywater for growing food and trees to sequester backyard carbon

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Expand recycled water to all ag areas and make that water more affordable

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### **Regulations & Incentives**

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Update building and zoning codes to support urban agriculture

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Right to farm legislation to preserve farmland

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Incentivize the ban/reduction of pesticides

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Funds/incentives for the equipment necessary to implement practices

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Incentivize urban food forests

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Incentives for farming practices

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Grant programs from the county - to upgrade equipment, purchase compost and mulch, etc.

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We need a broad sweep of actions; we can't afford to focus on one or two

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Utilizing an existing model of measurement such as Comet Planner

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### **Other Considerations**

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Reduce sprawl by building in already devolved areas

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Biodiesel can be used on current equipment

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Green infrastructure using curb cuts and include bike lanes to have multiple benefits

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Use seaweed in diet of cows

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Land acquisition for conservation

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Reduce population of beef and dairy cattle through encouraging more plant-based options

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*What should NOT be considered for the agriculture & conservation sector?*

**Approach**

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Stop considering conservation as being in opposition to agriculture

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No offset credits

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All of the above approach is necessary

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A narrow focus on measures that address food-producing farms, without considering the huge role that nursery and floriculture plays in county ag

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Pitting regenerative against conventional... We can all do better and be part of the solution

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**Compost**

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Horse stables could provide their manure for creating worm castings

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Don't try to compost in a way that produces methane.

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Worm castings

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**Fossil Fuels & Energy**

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I disagree that electrification will drive up costs if solar power is installed locally.

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No more fossil fuels

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No fossil fuel use

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Stop diesel

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Diesel

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Electric farm equipment is far too expensive and not as durable or longer lasting for the local farmer

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Farming and burning trees for energy (biomass)

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An increase in using "natural gas" because it is methane, which is a GHG

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Natural gas

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**Food**

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Imported foods until we can transport them with 0 emissions

Foods should be exported less

Electric equipment will drive up food cost

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**Labor**

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Worker exploitation

Corporate farming needs to be avoided

Big corporate farms

Factory farms

No factory farms

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**Land Use**

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Converting ag to housing

Land use change from native ecosystems to agriculture

Less urban sprawl to preserve agriculture and habitat

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**Pesticides & Synthetic Materials**

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Pesticides harming nearby communities and schools!

Stop all pesticide use on county lands...including lands leased for farming

Organic farming, discontinuing toxic pesticides and synthetic fertilizers.

Synthetic fertilizers and synthetic pesticides

End the use of glyphosate on county lands

No synthetic pesticides

Continued use of pesticides that are unhealthy

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Plastics

No synthetic turf

Plastics, petrochemical products

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**Regulations**

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Regulations... keep carbon farming voluntary

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**Natural Environment**

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Any practice that harms soil health

Limit water-intensive trees like almonds

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## Equity Considerations

*How can equity be considered for the agriculture & conservation sector, while still achieving net-zero emissions?*

### **Training & Education**

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Training for non-toxic methods

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Provide organic mentorship

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Allow adequate time to comply with new regulations

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Farmer to farmer mentorship

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Provide free training on carbon farming techniques to current participants in community gardens

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Educational outreach (PSAs?) about the value of keeping your trees instead of cutting them down or topping them

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Address bipoc farmers' needs in rural areas, not just urban

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Prioritize training for bipoc farmers

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Hold a workshop about the effects of rodenticides.,

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Hold a workshop about ideas and current legislation to protect pollinators.

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Plant a tree workshops

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Show visual examples at workshops of how trees and plants can be grown in cities

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Host a collaboration between neighbors and farmers to discuss toxic pesticides used on county lands.

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Community outreach on healthy environments and education on toxic chemicals

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Regular, consistent outreach to communities

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Provide a workshop showing toxic pesticides used on county lands

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Equitable access to education for net zero learning opportunities

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How healthy soils and plants clean the air

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Provide County workshops for Permaculture and stopping synthetic pesticides and fertilizers

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Educate residents on dangers of pesticides on healthy alternatives

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More training and outreach opportunities.

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Training programs in organic land management

### **Labor & Environmental Justice**

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Fair labor practices...prevent exploitation of farm workers...especially migrant workers

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Address the rising numbers of hate groups in SDC

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Quality farmworker housing

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Look at farm worker housing incentives, reduce barriers in the zoning ordinance

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Affordable rural housing

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Use Trackingcalifornia.org. and EnviroScreen4.0 from OEHHA.

North county San Diego is incredibly pesticide intensive compared to the rest of the state! this harms workers, the public, our food our water and our soil.

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If we fail, then low income folks will be the first to not be able to buy scarce food.

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Using the CalEnviroScreening offer more outreach and training opportunities in those areas of most need.

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The county should not lease land to any farms or businesses that have worker violations.  
(The county leases to West Coast tomatoes. They had worker violations in 2019.)

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Consideration of the health impact to those who work to produce our food is paramount. Healthy air quality is not possible with unhealthy airborne chemicals. The health of our farm workers must be included in any plan.

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If an important sector like Ag fails to conform to climate stabilization requirements, it will be contributing to mass starvation because that is part of what climate destabilization will look like. Low income folks will be the first to not be able to buy scarce food.

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Show how community voices are heard and implemented in policy

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Climate destabilization is the opposite of equity. We can't fail.

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No worker exploitation

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### **Direct Assistance**

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Program for distribution of local farm products

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Develop a program for homeless people to volunteer in community gardening projects

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Providing organic foods for low income communities/ families

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Provide gardens and natural areas in underserved communities

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Encourage grocers, etc. to buy from local farmers

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Provide appropriate drought-resistant plants

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Require support of local farmers' crops in larger grocery markets

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Farmers markets

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Offer targeted support to small farmers

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Lift up farmers who have been early adopters.

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Ensure food produced with carbon farming techniques is made available in urban neighborhoods through incentives to reduce the costs of joining a CSA or purchasing at a farmers market

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Help provide Organic Foods for all

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Set up a program for collection of usable vegetables, etc. from markets that will otherwise be disposed of and distribute to disadvantaged communities.

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**Financing, Incentives, & Economic Considerations**

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Expense is number one. Utilize current equipment, change and clean up the fuel.

Meet the farmers were their at most farmers can't afford new electrical equipment

Trade-in programs

Rebate/buy back programs for fossil fuel equipment

Financing and land access for bipoc farmers

Making farm startup and operation loans accessible to allow under-served groups to begin farming (Hispanic and Black San Diegans farm at much lower rates compared to population #, very few Hispanic farm owners despite huge participation of Hispanic farmworkers, few non-white farmers have family land to inherit)

Grants for farmers to provide directly to food banks

Grants to farmers to provide organic produce to grocery outlets in "food desert" communities

Incentives to move away from animal farming to growing crops.

Incentives for hiring and training people of lower income communities.

Extra incentives for carbon farmed food sold in communities of concern

Financial incentives need to account for historical inequities and poverty. They also need to be carefully crafted to maximize carbon sequestration while not leaving any farmers behind who would be otherwise interested.

Incentivize farms for people of color in urban areas

Provide incentives/subsidies

Some measures may need to be subsidized

Offer subsidies to convert from gas to electric motors

The County may have to subsidize what it requires. By the way, we do need ENFORCEABLE measures that will do its part to achieve climate stabilization

Can carbon emitting uses pay a fee that helps offset new ag technology that reduces GHG?

Reduce government fees, taxes, excess permit requirements in order to make organic farming possible to more farmers.

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**Access**

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Access to organic food should not be limited to the wealthy

Incorporate climate justice in farming  
Food accessibility

Equitable distribution of fresh food access

Translation of information

Equal access to organic food

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Simplified participation guidelines

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**Community Gardens & Open Space**

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Develop areas in urban centers for community gardens

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Expand community and urban gardens

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Community gardens.

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Lots of community gardens; programs to get them started and for more people to participate

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Allow people to harvest local plants on public lands within reason:  
<https://www.kqed.org/bayareabites/111808/the-wild-and-native-foods-we-should-be-eating>

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Local food farms/ more community gardens.

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Allow more neighborhood gardens

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Natural parks open green spaces

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Equal access to green spaces... People in El Centro should have the same % of green spaces as La Jolla

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Green spaces reduce heat in urban areas

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How will community gardens feed the millions of San Diegans?

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Community gardens will use more water than the existing farms

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**Water-Efficient Agricultural Practices**

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Encourage water wise crops

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Plant only food-plants and trees

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Encourage crops that can grow here with minimal resource use

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Use drip systems to get more water for larger crops.

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Discounted use of recycled water

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Urban gardens. Smart water controllers, sprinklers. More rebates/incentives

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Recycle water and water capture

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Change crops to more native plant species and develop a market for these kinds of crops

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Grow crops that require only water and nutrients in warehouses.

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**Other Sustainable Agricultural Practices**

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Ban use of harmful chemicals on crops, which helps to protect workers and everyone

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Seasonal production

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Enriched carbon soil creates bigger crops. Use carbon capture

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Incorporate carbon capture and storage systems to further reduce CO<sub>2</sub> omissions. CO<sub>2</sub> in rich soil creates larger crop yields

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Learn from natives, as these people have done, before the knowledge is lost:  
<https://www.makamham.com/cafeohlone>

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Indigenous people in this County hold incredible knowledge. That knowledge should be respected in order to help all people no matter their race

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Include an IPM as a part of the climate action plan.

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No use of used tire crumb rubber or rubber mulch in residential or, commercial, ag land

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Having healthy environments for our communities/ banning toxic pesticides and using renewable energy

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Grow crops on rooftops

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Protect farmworkers from toxic pesticides

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### **Energy**

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Animal waste can be converted into clean renewable natural gas

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Endorse national carbon pricing with dividend

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Waste to energy systems produces Energy. That same amount of material that would probably be buried in Landfills

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MicroGrids

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Utilize animal waste for renewable natural gas

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Use of microgrids for power

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## **Other Considerations**

*Is there anything else that should be considered for the agriculture & conservation sector?*

### **Education**

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Support programs like Encinitas School District farm lab where kids have an organic salad option for lunch

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Encinitas farm lab... schools grow their own organic produce

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Incentives for youth to start farming... training and workshops

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More information to youth about food that is delicious but uses less resources

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Again. Create resource teachers to send to Community Schools to teach how to create Community Gardens and school Gardens. Also teach them how to use the food that they grow in these Gardens

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Community service for youth at community gardens, composting centers, tree planting . . .

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Training programs in schools re: organic land management

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Youth education programs and volunteer farming projects

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Lift up/publicize existing local models

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Programs to get youth involved

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Workshops and educational programs are needed for community members who want to be involved but don't have the knowledge

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Education on connection between regenerative farming and climate resilience

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Utilize local farmers in media relations to spread the word on implementing these measures (j. Mraz)

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### **Aggressive Targets**

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The County should always state that we have a Code Red Climate Emergency. The IPCC is correct about that.

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2045 is too late. 2035 May even be too late.

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The 2030 requirement is 80% NOT 40%. Zero by 2045 is OK. But if we fail to achieve the 2030 target, we fail. The 2045 target won't matter.

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Since climate destabilization is the opposite of equity, the County should NOT ASSUME that state mandates are enough. The 2030 requirement is 80% NOT 40%. Zero by 2045 is OK. But if we fail to achieve the 2030 target, we fail. The 2045 target won't matter.

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State waste reduction goals boost our RNG development SB 1383 set comprehensive requirements for organic diversion and establishment of methane establish reduction targets

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### **Sustainable Agricultural Practices & Compost**

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Have county facilities/contractors source local food

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Healthy organic foods, healthy soils, banning toxic pesticides, protecting our environment and people's health

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No over spraying of pesticides (planes, helicopters)

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Everyone's concerns regarding healthy environments and availability of healthy organic foods/  
banning toxic chemicals and pesticides.

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Organic IPM!

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Human health before profits...no more pesticides!

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Manure management must not add to air quality problems.

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Crop imports such as avocados killed local groves as the imported crop prices ignored the externalized costs of fossil fuels used in transport, etc. A reason to limit imports.

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Pollinator / butterfly sanctuaries

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What uses are complimentary uses with AG? Wind farming?

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Nurseries and floriculture! it's a huge sector but what we consider "carbon farming" doesn't often apply to those operations!

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More olive oil

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Look at crops for our climate...don't force crops that are hard to grow here

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Make county hub for organic farming

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The price of water is the biggest reason for loss of our sequestering tree crops. This has to be addressed in the long term if we are to conserve the soils and perennial crops that we do have.

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Slo County sustainable wine trail is a good example; mapping out sustainable farms, making info easily accessible the buyer. LODI does this.

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County wide compost and fertilizer programs

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Making compost more available to farmers addresses food waste issues (SB 1383) while also supporting carbon farming (less fertilizer need, better water infiltration)

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Move County compost regs (and policies like it) faster!!!

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Some people (my relatives) object to collecting their food waste for collection with their green waste because of the smell. There is a method used by the Solana Center in Encinitas, the Bokashi method, which virtually eliminates the smell! Investigate it

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### **Incentives & Policy**

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Incentives for farmers to install solar and battery storage for community micro grids

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Keep an eye on carbon offset markets (e.g. Nori, Indigo Ag) where farmers can get paid for sequestering carbon in soil - can help inform quantification of local carbon farming benefits

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Encourage restaurants to use local foods

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Encourage more certified sustainable farming practices

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Update zoning / building codes to support urban agriculture

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Help good farms to transport their food to other neighborhoods if they produce excess. For example, Sage Hill Ranch Gardens is a No-Till Ecological Market Garden.

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The County should lead by example by making sure in the food it serves in its institutions is climate friendly.

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Is there grant money available for any of these programs?

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### **Indigenous Knowledge**

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Fund programs for indigenous cultural burning and development of native plant nurseries

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Land uses a big deal and should be set aside for natural and indigenous restorative agriculture

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### **Conservation & Open Space**

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Programs to plant and grow trees canopies

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Purchase additional lands for open space

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Protect open spaces from developers... no sprawl. infill only

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Preserve the last remaining Mediterranean farmland in the US...South Morro Hills, Oceanside

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Hep create an independent agricultural land trust to oversee, enforce, and add additional climate solutions to the PACE lands

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PACE program makes a lot of sense - please keep expanding it

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Protect natural lands from land use change and invest in research of carbon storage and sequestration in natural lands.

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Create wetland corridors with permaculture farming

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Increase and expand wetlands

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Develop wetlands

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County should purchase land for conservation/remediation

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Love the wildlife corridor idea

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### **Energy**

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US environmental protection agency apply stricken by urban rules to waste to energy plants which requires waste to energy plants to use air pollution control devices such as scrubbers fabric filters and electro static preceptors to capture air pollutants.

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Offshore wind

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Divesting from fossil fuels

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Divest from fossil fuels. Climate Action Now. Educate.

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Stop diesel and gas powered equipment.  
Natural gas is methane gas! harmful! not renewable!

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Eliminate all fossil fuel use...of any kind. engines, pesticides/fertilizer, etc

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GeoThermal like Lithium Valley

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More microgrids

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Utilize biomass, biofuel, biodiesel

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### **Waste to Energy (pro)**

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Waste to energy plants make steam which turns a turbine to create electricity. That electricity can then help us power our city and state in this new world of electrification

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Animal waste into renewable natural gas. Cattle are the number one agricultural source of greenhouse gases worldwide. Each year, a single Cow produces about 220 pounds of methane. Methane from cattle is shorter lives in carbon dioxide by 28 times more potent. Renewable natural gas from Manure removes a noxious source to produce electricity, heat homes, or fuel vehicles

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In Imperial County cow patties were burned to create power. and wet manure was piled and covered to capture the methane which they burned for a power plant.

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### **Waste to Energy (against)**

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Waste energy means methane leaks.

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Reject waste to energy.

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**Natural Gas (pro)**

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Renewable natural gas projects capture this methane from existing food waste, animal manure, waste water sludge, garbage and redirects it away from the environment repurposing it as a clean green energy source

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A recent study by capital matrix consulting shows that jobs from sources like renewable natural gas pay 30% to 45% more than other so-called green jobs. The experts believe renewable natural gas will produce tens of thousands of good paying careers in the next two decades. Let's uplift our communities

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Renewable natural gas is not a fossil fuel

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Renewable natural gas production removes sources of pollution

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Renewable natural gas takes some of the most destructive greenhouse gas sources and turns them into a tremendous net positive in a fight against climate change

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Renewable natural gas is the next frontier in green energy.

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**Natural Gas (against)**

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Renewable gas is a red herring. Forget about it. We need to shut down all types of gas. Electrify.

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Natural gas is destroying our planet...has no place here or anywhere else

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There is NO such thing as renewable natural gas. natural gas is methane...an incredibly powerful greenhouse gas. worst thing we could do is burn "natural" gas

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