**July 14, 2020**

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

**RE: GPU Recommendations Related to the Final EIR—Priority Impacts, Significance and Feasible Mitigations**

**Dear Planning Commissioners,**

**The 350 Ventura County Climate Hub submits comments on how to strengthen the General Plan in areas where we believe there are significant impacts with feasible mitigations.**

We are interested in improvements in eight policy areas and how they all intersect with environmental justice. Rising consciousness about institutional environmental racism and the further intersection with vulnerability to Covid-19, makes it incumbent on everyone to open our minds to a major paradigm shift to stop treating some people as disposable and set them up to live, learn and work in sacrifice zones.

We are focusing on the policy area of air pollution control. Almost all improvements in air quality are also climate change/GHG emissions mitigations. We demand much more robust, enforceable policy about air pollution from farms, from oil and gas production, from cumulative effects of those. We have a heightened concern after studying the data about health harms from gas stoves. We must focus on helping families replace gas stoves and acquire and use adequate ventilation.

We have a concern about the NASA Methane Maps. It is unacceptable that they were dismissed in the EIR. In addition to our comment below we have more information about negative health impacts from gas stoves on children and vulnerable older people and about the methane super-emitters on the following websites.

County Must Help Replace Gas Stoves to Reduce Air Pollution

Ventura County Plan EIR Says Methane Super Emitters Don't Count!

## I. THE DRAFT GENERAL PLAN DOES NOT CONTAIN THE ROBUST AND ENFORCEABLE POLICY REQUIRED FOR A CLIMATE ACTION PLAN

There is insufficient accountability and policy to ensure that the county can achieve net-zero emissions in the urgent timeline we want. Policies must be promises of what we will achieve together. Policies that "encourage", "promote" and "support" convey a weakness in leadership when we require clear, immediate, courageous, measurable action with benchmarks.

We want Ventura County to be a leader in the state and show how a modern, visionary Climate Action Plan should be written. Much more real, effective community engagement is required especially including those most impacted. This can be the mandate to the Climate Emergency Council to develop a Climate Action Plan for climate mitigation with an equal emphasis on a realistic visioning for climate adaptation in a process that ensures full community engagement.

We appreciate that there are many excellent new climate and environmental justice policies and programs in the General Plan that we can all now pull together and achieve in the General Plan. BUT, as a Climate Action Plan, this doesn't work.

## II. COVID-19 IS A NEW IMPACT EXACERBATING IMPACTS FROM AIR POLLUTION AND OTHER IMPACTS

Because of this new understanding and experience about the impacts from Covid-19, we want a mitigation schedule included to reverse by 2025 the inequities in exposure and risk from air pollution that compromises individual response to Covid-19 and access to immune-boosting preventive health programs, especially community health workers in Disadvantaged Communities (DACs) and to help other marginalized populations.

Covid-19 has a disproportionate impact on marginalized populations, especially those with compromised health associated with air pollution, poor nutrition and service jobs where there is risk from community exposure, including on immigrant essential farm workers living in dense housing. Air quality goals should be strengthened to establish larger buffers between polluting sources and sensitive receptors including elimination of air pollution in homes with gas stoves as described below. Public health goals must include much more investment in community public health outreach.

## III. INTERSECTION OF PESTICIDE EXPOSURE, TOXICS FROM OIL WELLS, AND VULNERABILITY IN PANDEMICS

The EIR recognizes that low-income and people of color live in areas with greater air pollution from oil and gas production and pesticide use. This review of the literature shows that pesticides weaken the immune system: "Pesticides and the Immune System--The Public Health Risks", Repetto and Baliga (1996).
https://www.wri.org/publication/pesticides-and-immune-system.

"Effects of air pollutants on innate immunity", Bauer, et al, J Allergy Clin Immunol. (2012) explains some of the biochemical mechanisms going on and there are many more references and hypotheses being studied. We know enough. We do not need more studies. We reject any statement in the EIR analysis that data gaps make it impossible to agree on the significance of the impacts of air pollution.

We know that air pollution around oil and gas wells weakens the immune and respiratory systems. Benzene, toluene, ethylbenzene, and xylene (BTEX) and other toxic hydrocarbons, such as formaldehyde, released from oil and gas operations and equipment can lead to health impacts ranging from irritation of eyes, nose, mouth, and throat to aggravated asthma and other respiratory conditions, blood disorders, harm to the developing fetus, immune system-related diseases, and cancer and childhood leukemia summarized in a 2014 NRCD report containing 71 citations. Cumulative effects from pesticides and oil and gas air pollution may predispose to greater susceptibility and worse outcomes from Covid-19.

We reject that significant unmitigated air pollution is an unavoidable overriding consideration in this new era of potential ongoing crises and disregarding the directive from the State Attorney General in his comment on the Plan:

**Aug 2, 2019 Comment from Attorney General Xavier Becerra to the County.**

"We especially encourage Ventura County to consider additional policies that would reduce disadvantaged communities' exposure to pesticides, such as requirements for adequate buffer zones between farms and sensitive receptors and a system to notify communities of pesticide applications near homes and schools before they occur."

A mitigating program is suggested in the AG's comment. It includes community education and a system that will send an email or text notification to parents, teachers and community members prior to a fumigant application near a pilot project school. People have a right to know when pesticides are going to be applied near where they live, learn or work. The pilot program in Monterey County should be adopted to help people try to avoid some of the risk to Covid-19 from pesticide spraying. https://farmingsafelynearschools.com/

## IV. REGENERATIVE AGRICULURE AS A POLICY AND PROGRAM TO MITIGATE SIGNIFICANT EFFECTS OF POLLUTION FROM FARMS AS WELL AS PROVIDE MITIGATION AND RESILIENCE BENEFITS TO CLIMATE CHANGE

Regenerative agriculture practices are being increasingly recognized as the first step of Integrated Pest Management—pest prevention—that farmers are beginning to learn and practice. We are happy that Regenerative Agriculture is defined in the glossary and named in Goal 3 of the Ag Element and that job training in Regenerative Agriculture is included in the Economic Vitality Element. Part of the benefit of regenerative agriculture is increased farm profitability and most often local food security.

To have those references to regenerative agriculture as a system in the General Plan make sense, there must also be policy and a program that names Regenerative Agriculture in Goal 3 of the Ag Element. The policy we want is to encourage and promote regenerative farming practices that produce pest and disease-resistant crops, mitigate air and water pollution, and that (always) increase farm profitability and resilience to climate impacts. A program is required that encourages collaboration on research, development, and demonstration of regenerative agriculture practices and its benefits.

## V. AN ENVIRONMENTAL JUSTICE LENS MUST ANTICIPATE THAT COVID-19 IMMUNITY IS NOT ASSURED AND THAT THERE IS EMERGING EVIDENCE OF RESIDUAL HEALTH PROBLEMS FOR THOSE WHO WERE SICK FROM COVID-19

The importance of taking air pollution very seriously is apparent in how scientists are forecasting the potential long-term Covid-19 threat. While a General Plan cannot anticipate every disaster that is likely to befall the county, while you are making this General Plan, you must consider the implications of what is being reported about what our future could look like. We cannot plan that there will be a vaccine or a cure. We have to focus on strengthening public health for innate immunity and protection from exposures that harm innate immunity.

A July 9, 2020, Ventura County Star report warns about very long-term impacts from Covid-19 to people of all ages. The data are not even being collected yet because people with residual health problems who did not seek medical treatment when they were sick with Covid-19 are experiencing new categories of long-term impact. Some now have prospects of permanent damage to organs and/or life-long debilities from the infection. These risks are higher for low-income and people of color living near multiple sources of air pollution. Science is now saying long-term immunity after an illness is variable and may be short-lived. This is a highly significant new impact layered on the findings in CalEnviroScreen 3.0, such as the elevated asthma rates in the 93030 zip code in Oxnard.

Pandemic forecasters say:

> A. On July 2, 2020 Bertozi et. al. published “The challenges of modeling and forecasting the spread of COVID-19” in which they conclude that they are “capable of measuring and forecasting the impacts of social distancing” and that “these models highlight the dangers of relaxing nonpharmaceutical public health interventions in the absence of a vaccine or antiviral therapies.” There are public health experts recommending the expansion of staff with community public health workers from the communities and speaking the people’s language to provide clear information for preventive health.
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> B. In an article on June 11, 2020 by Ionnidis, et. al. “Forecasting for COVID-19 has failed” the authors state: “Let’s be clear: even if millions of deaths did not

happen this season, they may happen in the next wave, next season, or with some new virus in the future. A doomsday forecast may come handy to protect civilization, when and if calamity hits."

## VI. AIR POLLUTION AND HEALTH IMPACTS NEAR OIL AND GAS INFRASTRUCTURE INCLUDING MORE RIGOROUS LANGUAGE ABOUT FLARING

In light of the significant impact from Covid-19 and an acute need to ensure every possible policy and program for Environmental Justice, which should be at the level of reparations in our view, one obvious and sensible decision is to restore the 2,500 feet setback from oil wells that was reduced to 1,500 feet. Living within a mile (5,280 feet) of oil or gas operations is a risk factor for premature birth, the leading cause of infant mortality. Babies born to mothers who are Black, Hispanic, or are not high school graduates are most at risk in these locations. As the state has provided guidance regarding pesticide drift that every home is a sensitive site with children, teachers and parents on staggered schedules, the definition of sensitive sites or receptors must be revised to be wherever there are people living, learning and working seven days a week.

The requirement for a 2,500 foot setback should not just apply to new wells but also to the over 3,000 existing active wells out of 3,800 that are closer than 2,500 feet from the currently defined "sensitive sites" and to the over 1,500 out of 2,250 idle wells that are closer than 2,500 feet to "sensitive sites".

We have stated over these years that oil and gas production must be phased out to achieve net zero carbon as soon as possible as a necessary mitigation of climate change. We now fully understand that JUST achieving net zero carbon does not prevent catastrophic climate consequences. It will have to be achieved truly AS SOON AS POSSIBLE along with aggressive Carbon Dioxide Removal (CDR).

A comprehensive systemic view of climate change mitigation is simply the right thing to do, your CEQA framework notwithstanding. It can be organized through a program for improving air quality that immediately improves mitigation of the impact from Covid-19 by staging the decommissioning of active and idle wells. The work on this type of policy in Los Angeles should be a guide. Begin immediately for all active, idle and orphaned wells within 500 feet, then by 2025 within 1,000 feet, and then by 2030 all wells within 2,500 feet from any place where people live, learn or work.

Regarding the policy on flaring, the importance and feasibility of stopping release of methane in the oilfields is addressed in this paper "Environmental Implications of Flaring and Venting in Crude Oil and Natural Gas Production" (Ngene, 2016) and in the report "Fossil Fumes: A public health analysis of toxic air pollution from the oil and gas industry" by the Clean Air Task Force (2016). There are significant negative impacts from release of toxic gases and methane to the atmosphere.

A January 7, 2019, letter from the City of Ojai argues the importance of impacts from flaring at a single local project (to the Board of Supervisors re: CUP No. LU11-0006). The prohibition of flaring should be with more specific limited exceptions in terms of the latest science and available technology rather than generic references to various categories of infeasibility. In light of the new public health vulnerabilities, it is essential to make a stronger policy about flaring with stiff fines for any flaring.

**VII. CLIMATE FORCING POTENTIAL OF METHANE PLUMES MEASURED BY NASA-JPL MUST BE STUDIED AND FIXED WHEREEVER THEY CAN BE FIXED AND A PROGRAM CREATED BE CREATED FOR MONITORING, REPORTING, VERIFICATION AND MITIGATION**

**More information on our webpage: https://world.350.org/ventura/2020/07/13/ventura-county-plan-eir-says-methane-super-emitters-dont-count/**

The NASA observations and findings cannot be dismissed! We know that methane is a very potent, though relatively short-lived, GHG. It is almost certain that actual emission factors exceed those that are assumed by the APCD, that we have leaks in natural gas delivery lines that are not controlled by the APCD but should be addressed by the County, and that there are many 'hot spots' of methane release throughout the County that have not been included in the inventory, may or may not be regulated by the APCD, and may be controllable through repair and/or capture techniques.

The County compounds this omission by continuing to refuse to use science for measuring this extremely significant environmental impact. It is incredible that the County refuses to assign a very low value for GWP of methane (based on a 100-year timeframe) when the atmospheric half-life of methane is less than 10 years. We need to adjust upward our emission factor for this pollutant as only by being honest and using the science can we make plans and policies and programs for control measures that as mitigations. This significant impact can and must be mitigated as much as possible.

The Ventura County General Plan must acknowledge the science from aerial surveys of methane plumes that allow precise attribution of past or potential sources of methane emissions in the county. The County can and must create a program to use best practices for top-down and bottom-up measurement of methane emissions and a reasonable process to synthesize the data in order to find and easily mitigate at least a third of such sources. Scientists do this using an uncertainty analysis which is possible in this situation because there can easily be multiple values to synthesize. A Methane MRV (Monitoring, Reporting and Verification) Program would enable the county to first acknowledge the verifiable existence of large, sometimes sporadic, but sometimes very large methane leaks and find ways to fix them. There are many cases of “low-hanging fruit” as explained on the NASA webpage about Methane Mapping.

The recently released Environmental Impact Report (EIR) for the Ventura County General Plan states that the County will not count the leaked methane documented from the NASA-JPL aerial surveys "because there is lack of consensus among scientific experts on a technical definition for "super emitter" sources. " It then provides citations that appear to support this reason. But those references in the Master Responses page 2-11 do not support the argument in the EIR. It makes us want to know what evasion of truth is buried in other parts of the EIR.

This decision to not count super emitter methane plumes from fixed sources or to launch a process to mitigate them results in under-counting them in the Greenhouse Gas Inventory in the EIR. The EIR analysts are so audacious as to use their unsupported argument to reduce the GHG's when scientists say that methane emissions are hugely underreported. For the County to reduce that part of the inventory based on only using the models from CA Air Resources Board is an obvious refusal to accept responsibility to achieve net-zero emissions and NO policy and program for cleaning up documented methane leaks.

The reason given is semantic and not substantive. It misleads the reader into assuming that nothing can be done about documented methane plumes so we should ignore this significant negative environmental impact. It dismisses the ample description in the United Nations Best Practices reference cited in the EIR that it is possible and necessary to make attempts even with limited technology. Just because scientists are struggling with the best ways to synthesize the data does not mean that we can ignore a substantial potential impact of climate forcing methane gas that also is also a huge and serious risk to health and safety!

This is an example where the lack of trustworthy scientists in the development of this plan make it unacceptable as a Climate Action Plan. It's an excellent step forward over the last General Plan. However, to do a necessarily honest, robust, measurable, enforceable Climate Action Plan, you must be advised by independent scientists who are reliable to tell the truth. That has not happened with regard to methane emissions or setbacks from oil wells where the reference does not support the conclusion made. We have only barely had time to read and research the references used in the EIR for a few policy areas we are most concerned about. We are shocked to see these misleading dismissals of impacts, significances and feasible mitigations with obfuscating references that when you actually read them DO NOT SUPPORT what the EIR claims. You need more competent advisers for an honest EIR for an honest Climate Action Plan.

## VII. INDOOR AIR POLLUTION FROM GAS STOVES

**More on our website https://world.350.org/ventura/2020/07/14/county-must-help-replace-gas-stoves-to-reduce-air-pollution/**

We appreciate the mitigation to prohibit natural gas infrastructure in *new* residential and commercial projects.

However, the Environmental Justice aspect of this is glaringly absent. The new website for the county's 3C-REN program does not mention any consideration for environmental justice in its programs. Inquiry to staff has provided no evidence of any attempt to target low-income homeowners with a focus on health and safety as well as energy efficiency. Whether as part of the 3C-REN or a new program, the County must target the replacement of gas stoves and indoor air pollution exposure from natural gas in existing structures, starting with low-income and people of color.

These emissions significantly add to cumulative effects from multiple sources. There is urgent and critical need for a program to implement a health-based indoor air quality guideline that protects the most sensitive populations, including children, the elderly, and those with existing respiratory ailments.

**Impacts from gas stoves:**

1. Indoor air is largely unregulated and is more polluted than outdoor air.

2. Toxic pollutants are at levels that would be illegal outdoors.

3. Increased risks to respiratory health well documented.

4. Children are at higher risk because of their higher breathing rates and levels of physical activity, higher lung surface to body weight ratios and smaller bodies, and immature respiratory and immune systems. (See our webpage link shown above for a more complete explanation of the impacts on children.)

5. Lower-income households are at higher risk.

6. Ventilation and other strategies are critical to protect vulnerable segments of the population.

7. Electric cooking is cleaner.

**Air pollutants from gas stoves include:**

1. Particulate Matter (PM2.5) in the absence of cooking food (i.e. from the flames) can be 2X higher from gas than from electric.

2. NO2 and NO (NOx) associated with combustion sources. NOx levels are close to zero in electric homes. Average levels in homes with gas stoves are from 50% to over 400% higher than in homes with electric stoves.

3. Nitric Oxide (NO) a precursor to NO2; there are significant levels only from gas stoves.

4. Carbon Monoxide (CO) risk is substantially elevated in homes with gas stoves.

5. Formaldehyde (CH2O or HCHO) is a known human carcinogen. Exposures at levels that occur in homes have been associated with infections in the lower respiratory tract. Simmering food on low heat for multiple hours can produce significant levels of formaldehyde fumes if ventilation is lacking (or the hood fan is not turned on).

Further evidence and references to these negative impacts can be found in the April 2020 publication "Effects of residential gas appliances on indoor and outdoor air quality and public health in California," from the UCLA Fielding School of Public Health https://ucla.app.box.com/s/xyzt8jc1ixnetiv0269qe704wu0ihif7 .

Another publication this May 2020 by the Rocky Mountain Institute https://rmi.org/insight/gas-stoves-pollution-health/ includes suggested mitigation policy for every level of government from which we derived the following recommended mitigations. Mitigations are of heightened importance in light of the connections between lung health, Covid-19 outcomes and marginalized populations.

Such mitigations will contribute to a measurable decrease in GHG emissions to help the county achieve what should be a goal of net zero carbon as soon as possible and no later than 2030.

**Recommendations to mitigate significant health problems from gas stoves:**

The State has strong goals to decarbonize all structures as rapidly as economically feasible. Meanwhile the following mitigations of indoor air pollution from gas stoves should be added as feasible policies and programs in the General Plan:

-- The County shall provide residents with access to knowledge in all appropriate languages about the risks and available protections to be safe from harmful levels of gas stove pollution.

-- The County shall remove gas stove pollution in all publicly funded buildings as soon as practical, with a focus on buildings that house children and other at-risk populations. Public funds, including for schools and low-income housing, should not be used to purchase or install indoor appliances that expose occupants to harmful levels of gas stove pollution.

-- The County shall provide assistance to access financial incentives, such as tax credits or rebates, are provided to enable low-income homeowners to eliminate gas stove pollution, including adding plug-in induction stovetops or switching from gas to electric stoves. Prioritize homes with children and other at-risk populations.

-- The County shall require that landlords provide notice to new and existing tenants about the risk of gas stove pollution, including options to minimize gas stove pollution

such as offering induction cooktops, gas stove replacement, and stovetop ventilation to the outdoors.

-- The County shall seek a REACH code that includes prohibition of gas stoves in renovation projects.

## VIII. FUNDING SOURCES FOR AMBITIOUS MITIGATION TO REVERSE NEGATIVE IMPACTS IN DISADVANTAGED COMMUNITIES

The above mitigations can be economically feasible from two funding sources: a sufficient level of Excise Tax on Oil and a separate and much higher Fugitive Methane Tax. We want to see a high rate of tax and most of the revenues of the Oil and Gas Excise Tax be available to mitigate impacts of environmental racism and injustices that put low-income and people of color at higher risk of cumulative exposures to air pollution, such as living near oil wells and/or near pesticide sprays and dust from farms, busy roads and freeways, and often with unvented or poorly vented natural gas stoves, and in dense living conditions with others infected with Covid-19.

To ensure enough funds for these programs, the Excise Tax on Oil and Gas production should be specified to be in substantive proportion to the social cost of oil and gas emissions, with methane properly weighted (USEPA values CO2 in 2030 between $50 and $152/tonne and methane between $1600 and $4200/t (https://19january2017snapshot.epa.gov/climatechange/social-cost-carbon_.html).

Once again for the record, it is essential to recognize the climate forcing of methane and tax it accordingly. Methane is a short-lived climate pollutant with an atmospheric lifetime of about 12 years. According to the 5th Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) its ability to trap heat in the atmosphere, also known as the global warming potential (GWP), is 28 times greater than that of carbon dioxide (CO2) over a 100-year time horizon, and 84 times higher than CO2 when measured over a 20-year period.

We agree with CFROG's demands to round up to a factor of 100, because on an instantaneous basis, methane's GWP is actually 120 times greater than that of CO2. Methane emissions are responsible for at least one fourth of manmade global warming, they continue to rise and must be counted as is done throughout the scientific literature .

Reducing methane emissions presents an important near-term opportunity to address climate change. Release of unburnt fugitive methane must be taxed at 100 percent of the baseline value of $4,700 of damages per ton of methane (CH4). This calculation is the recognized best science. "The social cost of atmospheric release", Drew T. Shindell, Climatic Change (2015) 130:313–326, DOI 10.1007/s10584-015-1343-0, page 319, Table 2. A tax for agriculture and landfill methane super-emitter sites can start in 2024 reach the full social cost by 2030.

## IX. CONCLUSION: ERADICATION OF ENVIRONMENTAL RACISM AND INJUSTICE AND RELATED CLIMATE ADAPTATION ARE ESSENTIAL PARTS OF AN ACCEPTABLE CLIMATE ACTION PLAN

We have waited too many years for the creation of the Climate Emergency Council (CEC) to start providing coherent, ambitious leadership to address the existential threat of climate change. The longer the wait the more costly to achieve climate mitigation, sufficient adaptation, and environmental justice goals

Please proceed with haste and ensure that the CEC's work prioritizes programs addressing the significant impacts of environmental racism and justice.

Mitigation of injustices must consider the role of past and present racial, religious, ethnic, or economic discrimination in the development of unjust situations, and a plan for healing or reversing that discrimination as part of the mitigation. We are no longer living in a world where local officials can safely deny the connection between institutional and systemic racism, community well-being and environment.

Marginalized populations have not had influence in local government. Our most polluting industries are almost always placed in their neighborhoods, often with cumulative negative impacts. Access to purchase of real property by virtue of price or redlining has been limited to polluted neighborhoods.

Cal Enviro Screen shows the disproportionate number of low income people of color that have been unable to acquire property or afford to live away from sources of pollution. It is time to call it what it is--environmental racism--treating people of color as disposable and relegated to living and working in sacrifice zones.

The negative impacts of climate change derive from an ethos that creates sacrifice zones for those treated as disposable people. An ethos that normalizes sacrifice zones for disposable people results in atmospheric and oceanic pollution and the existential threat of global warming. A just transition requires clean-up around oil producing infrastructure, factories, waste handling facilities, farms and highways – all while we wind down the production and use of fossil fuels. It requires that the institutional racism that rationalized the siting of those activities be eradicated.

We need a VC2040 vision of transition from polluting activities to clean regenerative ones with a process that puts justice for those who have suffered in the sacrifice zones of the County at the center of climate action planning and mitigations.