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Board Agenda Item

TO: Air Pollution Control District Board

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SUBJECT: Greenhouse Gas Mitigation Opportunities in Santa Barbara County

RECOMMENDATION:

Receive an update on potential greenhouse gas (GHG) mitigation options to address California Environmental Quality Act (CEQA) requirements for proposed projects throughout the county.

DISCUSSION:

CEQA Requirements and the Pursuit of Local Mitigation

Under CEQA, the District typically acts as either a responsible agency or a concerned agency. As a responsible agency the District reviews and comments on environmental documents prepared by lead agencies for projects that will require District permits. As a concerned agency the District reviews and comments on environmental documents for projects that may impact air quality but do not require District permits. In some cases, for projects that require District permits but do not require discretionary permits from other agencies, the District may act as a lead agency under CEQA and be responsible for preparing an environmental document prior to issuing an Authority to Construct permit.

As required by CEQA, the District has prepared *Environmental Review Guidelines* for projects where it has a lead agency role. These *Environmental Review Guidelines* include thresholds of significance that are also recommended for CEQA lead agencies that have not developed their own significance thresholds. The District also provides assistance to other lead agencies in the assessment of potential impacts, and in the evaluation of proposed mitigation measures. The District has decades of experience implementing mitigation for criteria pollutants, when necessary using mitigation fees to fund projects such as tractor replacements, marine vessel

repowers, electric vehicle charging infrastructure, and school bus retrofits and replacements. However, GHG mitigation poses different challenges, especially when undertaken in a CEQA context.

Senate Bill 97, adopted by the California legislature in 2007, required CEQA lead agencies to address and mitigate the effects of GHG emissions. The state CEQA Guidelines were revised by the Governor's Office of Planning and Research (effective March, 2010) to address SB 97¹, and provide approaches for assessing GHG impacts. They also provide guidance for tiering and streamlining the analysis in the context of program-level plans for the reduction of GHGs (e.g., climate action plans).

For projects that occur in unincorporated areas of the county, the County of Santa Barbara uses two separate approaches to address SB 97 requirements. For commercial and residential projects, the County typically relies on its *Energy and Climate Action Plan*, which identifies a range of measures to programmatically mitigate the GHG impacts of new development. Commercial and residential projects that are addressed in, and consistent with, the County's *Energy and Climate Action Plan* are presumed to have GHG emissions with a less than significant impact. For industrial sources, the County has established a bright line threshold of 1,000 metric tons CO₂ equivalent per year (MTCO₂e/yr). Industrial source projects that emit more than the bright line threshold must implement on-site measures and/or provide off-site mitigation to reduce their emissions below the threshold. The emission reductions are subject to verification by the County.

Other lead agencies may adopt their own thresholds and their own approaches to mitigating GHG emissions. The City of Santa Barbara has adopted a climate action plan that serves as a mechanism for mitigating GHG impacts from residential and commercial projects. The other jurisdictions in the county generally take a case-by-case approach to evaluating and mitigating GHG impacts.

Ideas for Local Mitigation Measures

The District recommends that lead agencies and project proponents prioritize on-site measures to mitigate GHG emissions increases. Off-site measures should only be considered after all feasible on-site measures have been implemented. If off-site mitigation is necessary, priority should be given first to mitigation that occurs near the project site then next to mitigation within California. Mitigation from further away should only be pursued after opportunities nearer to the project site have been exhausted. Because GHG impacts are global and cumulative in nature, mitigation to reduce the impacts does not necessarily have to occur locally. However, investments in GHG reduction in close proximity to the project provide co-benefits such as reducing emissions of other air pollutants and stimulating the local economy.

The goal of this letter is to identify local mitigation options to be considered by project proponents and lead agencies as they move through the CEQA review process. The District's role in this effort is to ensure sound mitigation is identified and, depending on the type of

¹ For additional information on the SB 97 CEQA Guidelines amendments, visit the Resources Agency's website at resources.ca.gov/ceqa/guidelines/proposed_guidelines_amendments_and_related_materials.html.

mitigation measure, to oversee implementation of the measure. If the District was responsible for implementing a mitigation measure, your Board would be presented with that measure prior to implementation.

District staff have discussed potential GHG mitigation measures with county planning staff and with project proponents, and have also worked with county planning staff on GHG mitigation monitoring and reporting plans required under CEQA. In general, mitigation measures must reduce the amount of GHGs in the atmosphere to bring the project to a level of insignificance. They must also be quantifiable and enforceable and they must be measures that go beyond regulatory requirements and common practice.

In order to support the County and other CEQA lead agencies in pursuing feasible GHG mitigation, and to provide an opportunity for discussion and consideration of local GHG mitigation projects and programs, the District developed a list of potential measures for further evaluation. A number of measures were explored and are included in an abbreviated “matrix” provided as an attachment to this letter. The measures include existing District programs that could be expanded, measures identified by the California Air Pollution Control Officers Association (CAPCOA) as appropriate for GHG mitigation, and potential measures listed in California Air Resources Boards’ proposed *2017 Climate Change Scoping Plan Update*. The measures listed in the attachment to this letter are not intended to be exclusive; it is a list of ideas that could be expanded upon, changed, or added to.

The following is a brief discussion of each GHG mitigation measure.

- *Battery Electric Vehicle Charging Infrastructure*

This measure would fund additional charging infrastructure to support wide-spread adoption of battery electric vehicles. This is consistent with statewide efforts to support the adoption of zero emission vehicles. The District currently has an incentive program that could be expanded if additional mitigation funds are available. Such a program would also provide the co-benefits of reducing emissions of criteria and toxic air pollutants.

- *Zero-Emission Vehicle Rebates*

This measure would fund additional rebates to the local community for the purchase of zero emission vehicles such as fuel cell electric vehicles, battery electric vehicles, and plug-in hybrid electric vehicles. Additional purchase incentives are expected to accelerate the adoption of these types of vehicles, which would provide GHG, criteria and toxic air pollutant reductions. Also, as the state’s electricity grid becomes more renewable, the GHG reductions from electric cars are expected to increase over time.

- *Zero-Emission Busses*

This measure would fund the replacement of a traditional diesel bus with a zero emission bus, or the expansion of a bus fleet with zero emission busses. These projects could be done for either school bus fleets or municipal bus fleets with appropriate routes and duty cycles. This program would also provide the co-benefits of reducing emissions of criteria and toxic air pollutants. Busses require large capital investments, as well as maintenance and fueling infrastructure;

mitigation funding can help bridge the gap for fleets with funding constraints and many competing priorities.

- *Urban Forest Projects*

This measure would support the planting and maintenance of trees in urban areas. The growth of the trees would sequester carbon. This concept was listed in the California Air Resources Board proposed scoping plan update as a potential local measure to mitigate GHG emissions. This program would require an agency to implement and monitor it, and to ensure that trees planted under the program continued to grow and remain healthy.

- *Fuel Cell Electric Vehicle Infrastructure*

This measure would fund additional infrastructure to support fuel cell electric vehicles. The lack of regional infrastructure has been identified as an obstacle to the expansion of their use within the county. This program would be structured to provide funding to station developers and operators, and would most likely be modeled on the statewide funding program administered by the California Energy Commission. Such a program would also provide the co-benefits of reducing emissions of criteria and toxic air pollutants.

- *Carbon Farming*

This measure would increase the carbon stored in working lands. This can be done through a range of measures, including applying compost to rangelands and croplands, changing grazing practices, planting hedgerows, and restoring riparian areas. Several ranches in Marin County have demonstrated management practices that increase carbon sequestration; one ranch in Santa Barbara County is currently participating in another demonstration project. The ranches have seen improvements in soil quality, forage production, and drought resilience, and there are opportunities to expand these practices in Santa Barbara County. The cost of implementation, and especially the cost of obtaining high quality compost, is an obstacle to further expansion of these practices, so mitigation funds that facilitate these projects could lead to greater adoption throughout the county.

- *Building Retrofits for Energy Efficiency*

This measure would provide incentive funding to help Santa Barbara County residents add a variety of energy efficiency and weatherization retrofits to their homes. Specific retrofits/improvements could include insulation, window upgrades, upgrades to heating, cooling and air filtration equipment, energy efficient appliances, and other energy efficiency improvements. Home improvements can be very costly, and incentive funding can help reduce the economic burden and allow more projects to proceed. Long-term energy savings also have long-term GHG reduction implications, as well as long-term savings to local homeowners.

- *Building Retrofits for Solar Power*

This measure would provide incentive funding for residential and/or commercial rooftop solar. Helping to fund local renewable energy projects will help achieve the state's renewable energy goals identified in the revised scoping plan, and solar energy is a good fit for the Central Coast climate. Solar photovoltaic prices have dropped in recent years, and this sector offers opportunities for local jobs and long-term energy cost savings for residents.

- *Vessel Speed Reduction*

This measure would provide incentive funding to reduce the speed of large container ships transiting offshore of Santa Barbara County. The District has implemented a voluntary vessel speed reduction program to reduce ozone precursors (primarily nitrogen oxides, or NO_x). However, it is difficult to demonstrate that GHG emission reductions obtained while the vessel is transiting through the speed-reduction zone can be shown to be permanent, as the vessel may speed up outside the zone. In order to consider this option for GHG mitigation, additional caveats would need to be included in the voluntary effort to ensure the emissions are real and quantifiable, and not offset by increased speed once the vessel moves beyond the incentive range.

Process and Next Steps

The District intends to provide this information as a resource for CEQA lead agencies in the County, and to the public. After allowing for a review period, the District plans to hold a public workshop in order to solicit public input into the mitigation options. After the workshop, the District will provide the revised information on its website, and will work with CEQA lead agencies to further develop local mitigation options. If there is a clear role, the District may assist in implementing the mitigation measures. Before embarking on any project implementation that is outside of the District's approved programs and budget, District staff would provide a report to your Board and request approval to proceed with GHG mitigation project implementation.

FISCAL IMPACT:

If the District is identified in a final environmental impact report as the implementing agency for a mitigation measure, the funding and mitigation program would be presented to your Board for approval. Similar to other grant programs managed by the District, any mitigation program would require administrative costs to be included in the cost of the mitigation, to support the costs to administer or oversee the program.

ATTACHMENT:

- Potential Local GHG Mitigation Measures

Potential Local GHG Mitigation Measures*

Type	Description	Possible Implementing Agency	Benefits	Risks/Challenges
Battery Electric Vehicle Charging Infrastructure	Provide funding for EV charging station(s)	APCD	~Criteria/toxic pollutant reductions ~State focus on transportation electrification	~Public accessibility ~Standards (fast charging) ~How to address low income needs
Zero-Emission Vehicle Rebates	Provide rebates/vouchers to purchase or lease zero emission vehicles	APCD	~Criteria/toxic pollutant reductions ~Potential low income focus ~Link with Old Car Buy Back ~Fleet focus	~When do incentives become unnecessary? ~Adoption of new technology ~Surplus to other incentive programs
Zero-Emission Busses	Replace traditional diesel bus or expand fleet with zero emission busses	APCD	~Criteria/toxic pollutant reductions ~Children's health ~Potential low income focus	~Align with fleet operator needs and timing ~Technology and infrastructure constraints
Urban Forests	Plant trees to sequester carbon	Santa Barbara County or cities	~Community enhancement, shade ~Can improve energy efficiency of buildings	~Water needs ~Monitoring, maintenance ~Survival/replacement mechanism
Fuel Cell Electric Vehicle Infrastructure	Fund installation of fueling station for public, fleets, heavy-duty vehicles	APCD	~Remove critical obstacle ~Connect regions, service local vehicles ~Provide redundancy ~Criteria/toxic pollutant reductions	~High cost per station ~Stranded assets ~Lack of renewable hydrogen
Carbon Farming	Managing farms and ranches to increase CO2 in plants and soil organic matter	Resource Conservation District	~Partnership with agricultural sector ~Farm productivity improvements ~Drought resiliency ~Success in other regions	~Compost quality and quantity ~Monitoring practices ~Restriction on operations – perceived or real
Building Retrofits - Energy Efficiency and/or Solar	Incentive funding for residential retrofit to improve energy efficiency and/or rooftop solar installation	Santa Barbara County or cities	~Direct consumer benefit ~Added home value ~Potential low income focus ~Group purchasing potential ~Local contractors	~High cost of remodels ~Permit process ~Surplus to other energy efficiency programs ~Demonstration of payback ~Timing with consumer needs, economy
Vessel Speed Reduction	Incentivize large container ships to slow down, reducing fuel use	APCD or Marine Sanctuary	~Criteria/toxic pollutant reductions ~Whale protection	~Unknown if shipping co's would agree to slow speed throughout route and not speed up ~Need for ongoing revenue stream

* Mitigation measures require additional investigation to implement or to verify GHG reductions.