



1515 CLAY STREET, 20<sup>TH</sup> FLOOR  
P.O. BOX 70550  
OAKLAND, CA 94612-0550

Public: 510-622-2100  
Telephone: 510-622-2145  
Facsimile: 510-622-2270  
E-Mail: [sandra.goldberg@doj.ca.gov](mailto:sandra.goldberg@doj.ca.gov)

January 3, 2008

By Electronic Mail and Telecopy

Pamela A. Tuft  
Director of General Plan Administration  
City of Petaluma  
P.O. Box 61  
Petaluma, CA 94953

RE: Comments on Revised Draft EIR (Greenhouse Gas Emissions Section) and Revised Draft General Plan (Air Quality: Greenhouse Gas Emissions Section)

Dear Ms. Tuft:

The Attorney General submits these comments on the Revised Draft Environmental Impact Report (Greenhouse Gas Emissions Section) ("Draft EIR") and Revised Draft General Plan (Air Quality: Greenhouse Gas Emissions Section) for the City of Petaluma.

We know that Petaluma is a City that takes very seriously the threat of global climate change. Petaluma has demonstrated a commitment to reduce climate change by joining the U.S. Mayors' Climate Protection Agreement and participating in the Cities for Climate Protection program. The City has completed a greenhouse gas (GHG) emissions inventory and adopted GHG reduction targets of 25% below 1990 levels by 2015 and 20% below 2000 levels by 2010 for municipal operations. The City has also devoted substantial time and effort to identifying policies to include in the General Plan that are intended to reduce GHG emissions.

Climate Change Background

Emissions of GHG on the Earth's surface accumulate in the atmosphere: the increased atmospheric concentration of these same gases in turn adversely affects the climate.<sup>1</sup> According to NASA's James Hansen, proceeding at the emissions rate of the past decade will result in "disastrous effects, including increasingly rapid sea level rise, increased frequency of droughts

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<sup>1</sup> Intergovernmental Panel on Climate Change, Fourth Assessment Report (IPCC 4<sup>th</sup>) (2007), Working Group (WG) I, Frequently Asked Question 2.1, *How do Human Activities Contribute to Climate Change and How do They Compare with Natural Influences?* [http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1\\_Pub\\_FAQs.pdf](http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1_Pub_FAQs.pdf).

and floods, and increased stress on wildlife and plants due to rapidly shifting climate zones.”<sup>2</sup> The atmospheric concentration of carbon dioxide (CO<sub>2</sub>), the leading GHG, is now 379 parts per million (ppm), higher than any time in the preceding 650,000 years.<sup>3</sup> According to some experts, an atmospheric concentration of CO<sub>2</sub> “exceeding 450 ppm is almost surely dangerous” because of the climate changes it will effect, “and the ceiling may be even lower.”<sup>4</sup> Experts are clear that if we continue our “business as usual” emissions trend, atmospheric concentrations of CO<sub>2</sub> will likely exceed 650 ppm by the end of the century.<sup>5</sup>

The need to make substantial cuts in emissions drives the global targets embodied in the Kyoto Protocol and the State’s targets established by Governor Schwarzenegger’s Executive Order S-3-05, and AB 32, California’s Global Warming Solution Act of 2006. In California, by these authorities, we are committed to reducing emissions to 1990 levels by 2020, and 80% below 1990 levels by 2050. Achieving the 2020 target will require California to reduce emissions by 29% below projected levels.<sup>6</sup>

In short, our past and current GHG emissions have pushed us to a climatic “tipping point.” If we continue our business-as-usual emissions trajectory, dangerous climate change will become unavoidable. The recent Bali accord recognized that we must cut greenhouse gas emissions from 25 to 40% *below* 1990 levels by 2020 to avoid the most catastrophic impacts of climate change, which is even more aggressive than the reductions required in California under AB 32. And, the experts tell us, we have very little time to take decisive action.<sup>7</sup> Rajendra Pachauri, Chairman of the United Nations Intergovernmental Panel on Climate Change (“IPCC”) recently declared: “If there’s no action before 2012, that’s too late. What we do in the next two to three years will determine our future. This is the defining moment.”<sup>8</sup>

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<sup>2</sup> <http://www.giss.nasa.gov/research/news/20070530/>; see also Hansen *et al.*, *Dangerous Human-Made Interference with Climate* (2007) 7 Atmos. Chem. Phys. 2287–2312 [http://pubs.giss.nasa.gov/docs/2007/2007\\_Hansen\\_et\\_al\\_1.pdf](http://pubs.giss.nasa.gov/docs/2007/2007_Hansen_et_al_1.pdf).

<sup>3</sup> IPCC 4th, WG I, Frequently Asked Question 7.1, *Are the Increases in Atmospheric Carbon Dioxide and Other Greenhouse Gases During the Industrial Era Caused by Human Activities?* <http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-faqs.pdf>.

<sup>4</sup> [http://www.nasa.gov/centers/goddard/news/topstory/2007/danger\\_point.html](http://www.nasa.gov/centers/goddard/news/topstory/2007/danger_point.html).

<sup>5</sup> <http://www.epa.gov/climatechange/science/futureac.html>.

<sup>6</sup> California Energy Commission, 2007 Integrated Energy Policy Report, December 2007, at p. 16.

<sup>7</sup> *Id.* For further discussion of dangerous climate change, see IPCC 4<sup>th</sup>, WG III, Ch. 1 at pp. 6-7 [http://www.mnp.nl/ipcc/pages\\_media/FAR4docs/chapters/CH1\\_Introduction.pdf](http://www.mnp.nl/ipcc/pages_media/FAR4docs/chapters/CH1_Introduction.pdf).

<sup>8</sup> Rosenthal, *U.N. Chief Seeks More Leadership on Climate Change*, N.Y. Times (November 18, 2007).

### CEQA Requirements

As the legislature has recognized, global warming is an "effect on the environment" as defined by the California Environmental Quality Act ("CEQA"), and a project's contribution to global warming can be significant.<sup>9</sup> CEQA was enacted to ensure that public agencies do not approve projects unless they include feasible alternatives or mitigation measures that substantially reduce the significant environmental effects of the project.<sup>10</sup> CEQA requires that "[e]ach public agency shall mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so."<sup>11</sup> This requirement is extremely important and is recognized as "[t]he core of an EIR ... ."<sup>12</sup> The City has determined in the Draft EIR that the global warming-related effects of the General Plan are cumulatively significant. This triggers the lead agency's obligation to require feasible mitigation. (Pub. Res. Code, § 21002.1(b)). The City must ensure that the measures adopted to mitigate or avoid these significant effects "are fully enforceable through permit conditions, agreements, and other measures."<sup>13</sup> Accordingly, where there are goals and policies in the proposed General Plan that "support" or "encourage" measures that would reduce GHG emissions, these should be strengthened wherever possible, to establish enforceable requirements.

### Potential Mitigation Measures

The proposed General Plan includes policies to employ "smart growth" principles and "mixed use development" as a way to reduce vehicle trips, and therefore reduce GHG emissions resulting from new development. While these are laudable policies, in some respects it appears that the City could strengthen the land use designations in the draft General Plan to insure that "smart growth" development principles are actually carried out and that "mixed use" development actually occurs. Modifications to the proposed land use designations could ensure a mix of uses, with higher residential density near existing commercial areas and public transit, that will allow a shift from driving trips to alternative transportation choices including walking, biking, use of transit and ridesharing. In addition to facilitating a shift in transportation choices,

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<sup>9</sup> See Pub. Res. Code section 21083.05, subd. (a); see also Sen. Rules Com., Off. of Sen. Floor Analyses, Analysis of Sen. Bill No. 97 (2007-2008 Reg. Sess.) Aug. 22, 2007.

<sup>10</sup> Public Resources Code § 21002.

<sup>11</sup> Public Resources Code §§ 21002.1(b) and 21081; see also, *Mountain Lion Foundation v. Fish and Game Commission*, 16 Cal.4th 105, 134 (1997).

<sup>12</sup> *Citizens of Goleta Valley v. Board of Supervisors of Santa Barbara County* (1990) 52 Cal.3d 553, 564-65.

<sup>13</sup> Pub. Res. Code, § 21081.6; *Federation of Hillside and Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261.

mixed uses and higher densities are typically a prerequisite to increasing transit opportunities and other options such as car sharing programs. Some potential modifications to the proposed General Plan land use designations to further reduce GHG emissions include the following:

- **Mandatory Mixed Uses:** modify mixed use policies and land use designations to require a mix of uses (rather than to merely allow a mix, with no assurance that it will occur). The City could establish a ratio for residential to non-residential uses on these parcels.
- **Identify Additional Mixed Use Sites:** change proposed single-use commercial, business park, and medium and high density residential land use designations to “mixed use.” Some examples of this are the Pleasanton Hacienda Business Park which is incorporating housing into a pre-existing Business Park (see <http://tod.hacienda.org/SP/home.html>) and a new Whole Foods in Novato with residential units above the market (see [http://ci.novato.ca.us/docs/Whole\\_Foods\\_Views.pdf](http://ci.novato.ca.us/docs/Whole_Foods_Views.pdf)).
- **Incentives for Mixed Use Development:** increase the intensity of development by providing a mixed use density bonus – where compatible with neighborhood constraints – for mixed use projects that incorporate high quality design, a grid street pattern, a mix of non-residential and residential uses, a specified percent of affordable housing, shared parking and other features that increase the opportunities for walking and biking, reduce vehicle use, and increase transit accessibility.
- **Existing Single Family Residential:** increase density in single family residential areas located near transit routes or commercial areas. For example, allow duplexes in residential areas and increased height multi-unit buildings on main arterial streets.
- **Land Use/Growth Management Element:** add a policy to require the high end of the density and intensity range for residential and mixed use projects, where compatible with surrounding uses.

In addition to the suggestions related to the land use designations, there may be additional opportunities to include policies in the General Plan, or modify proposed goals and policies, to further reduce greenhouse gas emissions, including the following:

- adopt and implement a Heat Island Mitigation Plan that requires residential buildings to have “cool roofs” with the highest commercially available solar reflectance and thermal emittance; adopt a program of building permit enforcement for re-roofing to ensure compliance with existing state building code “cool roof” requirements for non-residential buildings; evaluate and pursue options for using lighter colored, more reflective pavement;<sup>14</sup> plant trees for strategic

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<sup>14</sup> See <http://eetd.lbl.gov/HeatIsland/> and [www.epa.gov/heatisld/images/extra/level3\\_pavingproducts.html](http://www.epa.gov/heatisld/images/extra/level3_pavingproducts.html). Using lighter-colored pavement could also be part of the “green streets standards” that the City will develop. (See General Plan, Policies and Programs 3-P-104 B., at p. 3-27).

shading.

- strengthen the policies contained in Policies and Programs 5-P-32 and 7-P-15 (draft General Plan, at pp. 5-25 and 7-13) that support efforts to increase walking, biking and carpooling to schools and reduce congestion around schools. According to some estimates, parents driving their children to school account for 20-25% of the morning commute. While the draft General Plan includes a policy to “Participate in and support recommendations of the Safe Route to Schools program” (5-P-22 J. at p. 5-24; see also 7-P-15 B., at p. 7-13), more specific actions are needed. The City could implement a citywide Safe Routes to Schools Program (which could be the responsibility of the City Pedestrian and Bicycling Coordinator) that will: identify and prioritize, for each school, the improvements needed to facilitate walking and biking; identify potential funding sources; include a schedule for completing the improvements; provide education and incentives to increase walking, biking, carpooling and school bus use; monitor the results of the program and make appropriate updates and revisions.<sup>15</sup> Add a policy to give priority for city funding of the planning and construction of the street improvements that are identified.
- under Policies and Programs 7-P-12 (draft General Plan at p.7-13), add a requirement that new schools are sited in locations that maximize opportunities for access by walking and biking.
- develop and implement a comprehensive parking management program to encourage walking, biking, carpooling, and transit use.<sup>16</sup> The City should evaluate use of the parking management options listed at page 5-14 of the General Plan, including, but not limited to, the following: employ “unbundled” parking (where rent for residential or commercial space does not include parking spaces; parking is paid for separately); eliminate minimum parking requirements; adopt appropriate on-street parking fees to reduce time spent searching for spaces in locations where off-street paid parking is available; use parking revenue to improve walkability in the area where the fees are collected. The draft General Plan requires the City to study feasibility of a citywide Transportation Demand Management Program (which includes parking management) funded by development fees (Policies and Programs 5-P-13 A., at p. 5-15), but does not require that the feasible parking management measures (either citywide or for the downtown area) are implemented.

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<sup>15</sup> See Safe Routes to School Toolkit, National Highway Traffic Safety Administration (2002) at [www.nhtsa.dot.gov/people/injury/pedbimot/bike/Safe-Routes-2002](http://www.nhtsa.dot.gov/people/injury/pedbimot/bike/Safe-Routes-2002); see also [www.saferoutestoschools.org](http://www.saferoutestoschools.org).

<sup>16</sup> For examples, see Reforming Parking Policies to Support Smart Growth, Handbook/Toolkit at: [http://www.mtc.ca.gov/planning/smart\\_growth/parking\\_seminar/Toolbox-Handbook.pdf](http://www.mtc.ca.gov/planning/smart_growth/parking_seminar/Toolbox-Handbook.pdf); City of San Buenaventura Downtown Parking Management Plan at: [www.ci.ventura.ca.us/depts/comm\\_dev/planning\\_communities/resources/downtown/DPMP.pdf](http://www.ci.ventura.ca.us/depts/comm_dev/planning_communities/resources/downtown/DPMP.pdf); Todd Littman, “Parking Management: Strategies, Evaluation and Planning, Victoria Transport Policy Institute (August 24, 2007) at [www.vtppi.org/park\\_man.pdf](http://www.vtppi.org/park_man.pdf).

- add a policy/program to implement Goal 5-G-4 : Transportation Demand Management and Parking (draft General Plan at p. 5-15) that requires evaluation of actions the City could take to increase ridesharing and transit use by City residents who commute to work outside of the City and requires the City to adopt and implement the feasible measures.
- add a policy to give priority to funding infrastructure improvements and public amenities in and around the areas with mixed use and high density residential land use designations;
- modify the policy for a climate action plan by requiring a climate action plan with implementation measures to meet the city’s municipal GHG reduction target within 6 months; and requiring a climate action plan with implementation measures to meet the city-wide GHG reduction target within one year (the proposed Policies and Programs appear to make this optional, by stating: “The City *may* prepare a Community Climate Action Plan...” Revised Draft General Plan, Policies and Programs 4-P-22, at p. 4-23).
- instead of a goal to “provide leadership and guidance to encourage” sustainable site planning and green building practices, these should be *required*. (See draft General Plan, Goal 3-G-18: Sustainable Building, at p. 3-27) (this will make the goal consistent with the policies and programs in Chapters 3 and 4 that require such measures).
- specify the time-frame for adopting a mandatory green building ordinance (this is required in Policies and Programs 3-P-125 (Revised Draft General Plan at p. 4-25) but no time-frame is specified).
- require recycling in all buildings (rather than just “encourage waste reduction and recycling... .” See draft General Plan, Policies and Programs 4-P-19, at p. 4-16).
- expand Policies and Programs 4-P-13 C (Revised Draft General Plan at p. 4-27) by adding that sources of renewable power that the City will investigate and implement include: installing solar photovoltaic systems to generate electricity for city buildings and operations; using methane to generate electricity at the City wastewater treatment plant; and installing combined heat and power systems.
- add the following policies to implement Goal 4-G-4: Energy (draft General Plan at p. 4-14):
  - require energy efficiency and water conservation upgrades to existing non-residential buildings at the time of sale, remodel, or additions;<sup>17</sup>
  - require new residential development to participate in the California Energy Commission New Solar Homes Partnership and include onsite solar photovoltaic systems in at

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<sup>17</sup> See Berkeley’s building efficiency ordinance at <http://www.ci.berkeley.ca.us/sustainable/buildings/ceco.html>.

least 50% of the residential units (see <http://www.gosolarcalifornia.ca.gov/nshp/index.html>);

- require onsite solar generation of electricity in new retail/commercial buildings and parking lots/garages (solar carports);

- develop a program to provide innovative, low-interest financing for energy efficiency and renewable energy projects. For example, allow property owners to pay for energy efficiency improvements and solar system installation through long-term assessments on individual property tax bills.<sup>18</sup>

- adopt stronger requirements for use of recycled and reclaimed water. For example, modify or add to the Policies and Programs that implement Goals 8-G-1, 8-G-2 and 8-G-3 to:
  - require installation of graywater systems in new buildings, if feasible, to allow use of recycled water for irrigation (see: [www.owue.water.ca.gov/docs/graywater\\_guide\\_book.pdf](http://www.owue.water.ca.gov/docs/graywater_guide_book.pdf));
  - require new buildings to include plumbing for graywater systems;
  - require new development to provide the infrastructure needed for the City to deliver reclaimed water to the property for use in irrigation, if feasible.

Thank you for your consideration of these comments. We would appreciate the opportunity to meet with you at your convenience if you would like to discuss these issues. If you have any questions, please contact me at the number above, or Deputy Attorney General Cliff Rechtschaffen, at 510-622-2260.

Sincerely,

/S/

SANDRA GOLDBERG  
Deputy Attorney General

For EDMUND G. BROWN JR.  
Attorney General

cc: Mayor Pamela Torliatt

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<sup>18</sup> The City of Berkeley is in the process of instituting a “Sustainable Energy Financing District.” See: <http://www.cityofberkeley.info/Mayor/GHG/SEFD-summary.htm>