Association of Bay Area Governments
Bay Area Air Quality Management District
Bay Conservation and Development Commission
Metropolitan Transportation Commission

Joseph P. Bort MetroCenter
101 Eighth Street
P.O. Box 2050
Oakland, CA 94607-4756
(510) 464-7942
fax: (510) 433-5542
tedd@abag.ca.gov
www.abag.ca.gov/jointpolicy

JOINT POLICY COMMITTEE — REGIONAL PLANNING PROGRAM

Date: May 4, 2007

To: Joint Policy Committee

From: Regional Planning Program Director

Subject: Bay Area Regional Agency Climate Protection Program—CONSOLIDATED RECOMMENDATIONS

Attached to this memo is a longer memo, "Bay Area Regional Agency Climate Protection Program," which details the conclusions of a six-month program to study the issue of climate change and to recommend an initial set of actions to be pursued jointly by the four regional agencies: ABAG, BAAQMD, BCDC, and MTC. This memo provides a very brief summary of the longer memo and consolidates its recommendations in one list.

The longer memo notes that individually the four agencies are already taking a number of actions related to climate change (global warming). The memo concludes that the agencies can be more effective by combining resources and working together—with one another and with others dealing with the climate-change issue. To direct this work, the memo recommends a key goal and supporting goals and then organizes initial actions by six strategy elements:

1. Establish priorities;
2. Increase public awareness and motivate action;
3. Provide assistance;
4. Reduce unnecessary driving;
5. Prepare to adapt;
6. Break old habits.

The memo's recommendations, which I am submitting for the JPC's approval, are as follows:

A. THAT the Bay Area regional agencies build their Joint Climate Protection Strategy in service of this Key Goal: ***To be a model for California, the nation and the world***.

B. THAT the Key Goal be pursued through four Supporting Goals:

    1. Prevention: To employ all feasible, cost-effective strategies to meet and surpass the State's targets of reducing greenhouse-gas emissions to 1990 levels by 2020 and to 80% below 1990 levels by 2050;

2. Adaptation: To prepare the Bay Area for the consequences of climate change by planning cost-effective adaptations which safeguard health and safety and protect the region's environment, economy and equity;

3. Learning: To measure and evaluate our results, continuously striving to improve;

4. Communication: To document and publicize our actions and their impacts so that others may follow our lead.

C. THAT each of the regional agencies assign staff resources to a continuing Bay Area Climate Protection Team to refine, implement, and evaluate the Joint Climate-Protection Strategy and assist in the selection of initiatives for inclusion in the Strategy.

D. THAT, to assist in evaluating alternative initiatives, the Climate Protection Team test the feasibility of constructing a shared project assessment capability (e.g., a Bay Area climate-protection model) from existing and planned intra- and inter-agency models, inventories and analysis tools.

E. THAT the Climate Protection Team actively seek opportunities to partner on climate-protection initiatives with others from the public, private and voluntary sectors.

F. THAT the JPC sponsor workshops with relevant experts and stakeholders to identify the potential equity consequences of climate change and of mitigating strategies and to develop mechanisms to compensate for these consequences if required.

G. THAT, pending the completion of a comprehensive taxation and fee strategy (See Recommendation N), the regional agencies seek legislation permitting a small surcharge on an existing carbon-related fee or tax (most likely related to transportation); that surcharge to fund a program identified by the Climate Protection Team and approved by the JPC and member agencies and including, at minimum, technical assistance, planning and capital for prevention and adaptation, demonstration grants and extensive efforts to increase climate-protection awareness and behavior change.

H. THAT the Climate Protection Team, together with communication and public-information staff from each agency and in coordination with other organizations undertaking public climate programs, develop a climate-change awareness and action campaign—initially piggy-backing on existing communication efforts, but ramping up as new resources become available.

I. THAT the regional agencies commission a study of protocols and best practices for incorporating greenhouse gas impacts into CEQA activities.

J. THAT the Climate Protection Team, together with staff from existing regional technical assistance programs, explore assistance needs in detail with local governments and other relevant clients and develop a proposal for a consolidated regional assistance program which most efficiently meets collective needs.

K. THAT, as part of the 2009 Regional Transportation Plan, staff identify the additional transportation measures, beyond implementation of Pavley vehicle standards, which will be required to reduce regional transportation-sector greenhouse-gas emissions to 1990 levels by 2020.

L. THAT climate change issues be integrated into the multi-agency FOCUS program and THAT climate-change criteria be included in the ranking of priority areas for incentive funding.

M. THAT ABAG build upon its Federal and CEQA clearinghouse functions and upon its connections with local-government planning agencies to provide an early-warning system, identifying proposed private developments and public investments which are potentially inconsistent with regional climate-protection objectives and THAT these be brought to the attention of JPC for regional review and comment.

N. THAT the regional agencies study and propose a comprehensive taxation and fee strategy to fund climate-protection efforts and to encourage travel behavior and location decisions sensitive to climate-protection objectives (Potential tax and fee elements include gasoline taxes and surcharges, vehicle fees, tolls and road pricing mechanisms, and indirect-source development fees.).

O. THAT the Climate Protection Team assess and quantify the potential impacts of climate change on the Bay Area and develop a coordinated plan of actions to prepare for these; that plan to include at minimum infrastructure-investment and land-use-control strategies relevant to sea-level rise; air-pollution-control strategies relevant to air temperature increases and increased wild-fire incidence, and water storage and conservation strategies relevant to reduced snow pack and salt-water intrusion.

P. THAT the regional agencies maintain a continuing, publicly accessible inventory of potential climate change initiatives with current information on their evaluation or implementation status.

Q. THAT the Climate Protection Team form *ad hoc* task forces to study and develop recommendations relative to some of the shorter-range, more obvious and less expensive initiatives (e.g., incorporating greenhouse-gas considerations into CEQA) and THAT the longer-term, more contentious, more difficult, and more expensive strategies be subjected to modeling and other analysis to evaluate their relative feasibility and efficiency and to assess any equity impacts.

R. THAT the agencies structure climate innovation ideas as packages, including both actions closely related to their existing formal authorities (i.e., ABAG with regard to housing development, BAAQMD relative to the regulation of stationary sources, BCDC with particular reference to the shoreline, and MTC pertinent to transportation finance) and as more speculative initiatives relying on more informal and potential joint authorities.

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JOINT POLICY COMMITTEE — REGIONAL PLANNING PROGRAM

Date: May 4, 2007

To: Joint Policy Committee

From: Regional Planning Program Director

Subject: Bay Area Regional Agency Climate Protection Program

At its meeting of November 17th, 2006, the JPC commenced a six-month program to study the issue of climate change and to recommend an initial set of actions to be pursued jointly by the four regional agencies: ABAG, BAAQMD, BCDC, and MTC. This memo signals the completion of the six-month study program and provides a set of recommendations for a continuing joint action program.

We expect that the regional agencies' approach to climate change will evolve from the initial recommendations contained in this memo. Climate change is a relatively simple physical phenomenon, but effectively addressing the issues associated with climate change will require very complex and contentious choices. There remain many technical, social, economic and political questions to be answered. Vice Present Gore is correct: "The will to act is a renewable resource." But we expect that resource may need to be renewed repeatedly over the next several years. Inevitably this region's climate-protection actions shall encounter a variety of real and imagined challenges, requiring not only renewed willpower but also a high capacity to learn and adapt. Thankfully much of that learning and adaptation is already happening as evidenced by the high and growing public interest in the climate-change issue, by an increased openness to unconventional solutions, and by many Bay Area initiatives presently underway.

Regional Action on Climate Change: Strong Parts Combining for a Stronger Whole

Even before the JPC program, the Bay Area regional agencies, both individually and collectively, had begun to address climate protection:

- ABAG's Green Business and Energy Watch programs conserve energy resources and therefore help reduce carbon emissions; and ABAG's Earthquake and Hazards program, its efforts at water resources planning, and the San Francisco Estuary program are helping to prepare the region for adaptation to and mitigation of climate-change impacts;

- The Air District is integrating climate protection into all its activities, reviewing and modifying its regulations to address greenhouse gases along with other pollutants, inventorying regional greenhouse gas emissions and studying mitigation strategies, incorporating climate protection considerations into its CEQA reviews and grant programs,

promoting a multi-sector approach to climate beginning with its Climate Protection Summit last November, starting a new $3 million climate innovation grant program, providing technical assistance to local governments and other organizations, and initiating a public education program;

- BCDC is studying the potential effects of sea-level rise on the Bay shoreline and is assessing strategies to mitigate impacts on public infrastructure and lowland development.

- MTC's emphases on transit investments and the maintenance of existing infrastructure seek to moderate growth in private vehicle usage, its TLC, HIP and TOD programs encourage increased transit ridership and more walking and biking for short trips, and its congestion-management and intelligent transportation system programs seek to reduce emissions through smoother, more efficient traffic flow;

- The multi-agency smart-growth efforts, currently pursued through FOCUS, aim at a long-term reduction in vehicle travel demand, a mode shift away from personal automobiles, and a shift of development direction back to those parts of the region where less energy is required.

The recommendations in this memo build upon this foundation, identifying areas where the four agencies can be most effective by combining resources and working together.

Our approach to a joint regional climate-protection strategy and our action recommendations rely heavily on ideas contributed by government and business leaders, key stakeholders, and members of the general public from throughout the Bay Area—first at the Air District's Climate Summit in November and then at two JPC-sponsored workshops in February. Staff from the four regional agencies reviewed this rich resource of ideas and suggestions and participated in crafting the recommendations in this memo.

The recommendations are organized relative to a central goal and six strategy elements. The strategy elements constitute a set of exploratory paths along which a number of potential actions can be arrayed. As in a hiking guide, some of the paths can be categorized as "easy or moderate" in difficulty. Others may be identified as "treacherous," or "only for the adventurous." However, even the easy paths may have a few trip hazards, and some of the treacherous paths will have sections of level and stable ground.

<u>The Goal: To Set an Example Which Others Will Follow</u>

Regardless of the path, there is remarkable consensus around the destination. This destination is best captured in Jack Broadbent's opening remarks at the November Climate Summit. JPC members will remember this as his final key message: "Working together, the Bay Area will be a model for California, the nation and the world." This message resonated throughout our two February workshops. There was an explicit recognition that if all the Bay Area did was limit its own carbon emissions, this would have a negligible impact on the global problem. This region's real power over global climate change will rest in its ability to innovate and to set examples which others will rush to emulate. The regional agencies can lead in setting and disseminating those examples. If the Bay Area can continue to establish world-class models—as it has in

technology, commerce, the arts and other areas of human endeavor—then it can have impact on the global environment far beyond its nominal emission reductions or climate adaptations.

Several Bay Area local governments have set very high objectives for greenhouse gas reduction, well in excess of the aggressive State of California targets, and some of these cities and counties are making very promising progress, both in terms of tangible actions and actual carbon reductions. It may be more difficult for the region as a whole to match the achievements of some of its individual jurisdictions. Nevertheless, demonstrated local commitment and our desire to be a model suggest it is not unreasonable to aim high. As a goal, we should try to do better than the State target.

We also need to explicitly recognize that, regardless of what we do, some consequences of climate change are now unavoidable and it is prudent to set examples for preparation and adaptation as well as prevention.

RECOMMENDATIONS

A. THAT the Bay Area regional agencies build their Joint Climate Protection Strategy in service of this Key Goal: ***To be a model for California, the nation and the world***.

B. THAT the Key Goal be pursued through four Supporting Goals:

1. Prevention: To employ all feasible, cost-effective strategies to meet and surpass the State's targets of reducing greenhouse-gas emissions to 1990 levels by 2020 and to 80% below 1990 levels by 2050;

2. Adaptation: To prepare the Bay Area for the consequences of climate change by planning cost-effective adaptations which safeguard health and safety and protect the region's environment, economy and equity;

3. Learning: To measure and evaluate our results, continuously striving to improve;

4. Communication: To document and publicize our actions and their impacts so that others may follow our lead.

<u>Strategy Element 1: Establish Priorities</u>

Participants in our climate-change discussions submitted a veritable catalog of ideas covering a wide range of subjects and sectors. They were also candid in acknowledging that if we tried to pursue every good idea all at once, we would inevitably fail. It may be a climate crisis, but our resources are still limited, and we need to carefully choose those initiatives which will have the greatest impact relative to the monetary—and political—capital expended. While there is some obvious low-hanging fruit, many initiatives will require either significant expenditures or significant tradeoffs relative to other objectives. It is imperative that the regional agencies do our

homework and select these with caution, applying at least a rudimentary, and in some cases a rigorous, benefit/cost calculus.

In making our selection, we would be wise to look at those initiatives which offer "co-benefits," that not only reduce carbon emissions or facilitate adaptation but simultaneously advance other regional objectives. An obvious example is source control which mitigates CO_2 coincidentally with reducing particulate matter or ozone. A less obvious example is smart growth, which can reduce carbon by reducing the need to travel while also helping to revitalize distressed communities and improving public health by providing more opportunities to walk and bicycle. However, co-benefits must be clearly differentiated from greenhouse-gas reductions when choosing our initiatives. We will make the most informed and best choices if we do not co-mingle benefits and can separately assess greenhouse and other benefits.

It is also imperative that we look for initiatives on a variety of fronts across all sectors. There is no single silver bullet that will achieve the required reductions and adaptations, and we will need to develop a comprehensive suite of initiatives. In addition, effective action requires extension well beyond the regional agencies to cooperative efforts with other state, federal and local governments, private-sector organizations and voluntary associations.

Our participants reminded us that we needed to not just be conscious of effectiveness and efficiency; that, as we identified climate-protection initiatives, we also had to be fully aware of and responsive to equity issues. As in New Orleans after Katrina, those most affected by climate change will be those with the fewest resources to cope. As well, many of our well-intentioned mitigations may have differential impacts on the poor. For example, increased fuel prices are frequently advocated as a way of reducing unnecessary and inefficient driving. For most of us, higher prices might cause us to reduce discretionary driving or switch to a more efficient vehicle. To the poor family, which depends on an older car to get to a distant work location, more difficult choices may be required.

As well, the equity impact of our climate protection choices on the developing third world cannot be ignored. Many of the most severe impacts of global warming will be visited first on low-lying tropical and island nations where the wherewithal required for adaptation is often lacking. The size of our existing per capita carbon footprint relative to the developing world gives us a special responsibility to set an example for regions like our own. We and similar regions have the luxury of choice. The choices that we make should not have unacceptable consequences for those in less-wealthy nations who have many fewer choices.

RECOMMENDATIONS

C. THAT each of the regional agencies assign staff resources to a continuing Bay Area Climate Protection Team to refine, implement, and evaluate the Joint Climate-Protection Strategy and assist in the selection of initiatives for inclusion in the Strategy.

D. THAT, to assist in evaluating alternative initiatives, the Climate Protection Team test the feasibility of constructing a shared project assessment capability (e.g., a

Bay Area climate-protection model) from existing and planned intra- and inter-agency models, inventories and analysis tools.

E. THAT the Climate Protection Team actively seek opportunities to partner on climate-protection initiatives with others from the public, private and voluntary sectors.

F. THAT the JPC sponsor workshops with relevant experts and stakeholders to identify the potential equity consequences of climate change and of mitigating strategies and to develop mechanisms to compensate for these consequences if required.

G. THAT, pending the completion of a comprehensive taxation and fee strategy (See Recommendation N), the regional agencies seek legislation permitting a small surcharge on an existing carbon-related fee or tax (most likely related to transportation); that surcharge to fund a program identified by the Climate Protection Team and approved by the JPC and member agencies and including, at minimum, technical assistance, planning and capital for prevention and adaptation, demonstration grants and extensive efforts to increase climate-protection awareness and behavior change.

Strategy Element 2: Increase Public Awareness and Motivate Action

This is the "beginner" hiking path. It builds on initiatives already underway among the regional agencies, particularly at the Air District, it acknowledges that aggregated individual and organizational behaviors can make a big difference, and it recognizes that for most media the Bay Area is a single communications market, where information may be most effectively and efficiently delivered at the regional level and through the regional agencies. It also notices that that are many opportunities to work with other government and voluntary organizations to coordinate messages and media so as to achieve maximum impact. Public communication is such an obvious and urgent regional action that it may proceed in advance of other strategy elements.

Workshop participants urged us to deliver two principal messages:

1. Climate change is an urgent issue, both globally and locally (Our slide show on local implications seemed to be revelatory to many.);

2. There are many actions which we can take as individuals, as businesses, as groups and associations, as cities and counties, and as a region. These range from the simple and easy, like replacing our light bulbs or inflating our tires, to the more difficult, like reshaping the way the region grows.

However, workshop participants also cautioned us against being too clever, too preachy and too monochromatic. They encouraged us to build relevant messages from a grassroots, inclusive process, noting the diversity of communities and interests in the Bay Area. And they suggested

putting an emphasis on young people and the schools. The next generation really has a vested interest in this issue, and it may be easier to build new habits than extinguish old ones.

Among the most compelling awareness ideas was the suggestion that we should be providing people with nearly real-time feedback on the carbon emission implications of their choices and behaviors. Imagine, for example, the morning radio traffic report which totals potential carbon emissions based on congestion conditions; or the 511 response that goes something like this: "That trip should take you forty minutes and will result in about forty pounds of carbon dioxide," or more positively "By choosing to take the bus for that trip, you will reduce your potential carbon impact by forty pounds."

RECOMMENDATION

H. THAT the Climate Protection Team, together with communication and public-information staff from each agency and in coordination with other organizations undertaking public climate programs, develop a climate-change awareness and action campaign—initially piggy-backing on existing communication efforts, but ramping up as new resources become available.

Strategy Element 3: Provide Assistance

This, too, is nearly a no-brainer. It is based on regional economies of scale and on avoiding duplication of effort and invention. The regional agencies can collectivize a number of activities to assist local governments and other organizations in assessing and undertaking climate initiatives. Examples of regional assistance include:

- The standardization of carbon inventory procedures and the dissemination of inventory data and tools (as underway at the Air District);
- The establishment and maintenance of a clearinghouse for ideas, experiences and best practices;
- The recognition of carbon reduction plans (building on ABAG's Green Business program);
- The development of model codes and other tools for climate protection and for adaptation;
- The collective retention and delivery of specialized consultant services;
- The funding of demonstration projects (as through the Air District's nascent climate innovation grant program or a variation on MTC's TLC program).

One interesting suggestion was the coordination of innovation among multiple local governments so that new local climate practices or laws appear nearly simultaneously across the region or at least across sub-regions. This would pool some of the risks of being first and would mitigate the tendency of affected parties to shop among jurisdictions for the most favorable climate-related regulations.

One area in which assistance requirements are urgent and the need obvious is a set of protocols and best practices for incorporating greenhouse-gas considerations into CEQA practice. Recommendation I pursues work in this area. Before embarking on other new assistance efforts, however, it is best to confirm market needs with actual potential clients. Recommendation J starts this process.

RECOMMENDATIONS

I. THAT the regional agencies commission a study of protocols and best practices for incorporating greenhouse gas impacts into CEQA activities.

J. THAT the Climate Protection Team, together with staff from existing regional technical assistance programs, explore assistance needs in detail with local governments and other relevant clients and develop a proposal for a consolidated regional assistance program which most efficiently meets collective needs.

Strategy Element 4: Reduce Unnecessary Driving

Participants at both the Climate Summit and at our workshops were acutely aware that fully one-half[1] of the Bay Area's greenhouse gas emissions result from transportation sources and mostly from private on-road vehicles. They also understood that technological improvements (e.g., new engines, smaller and lighter cars, emission control devices, and alternative fuels) were likely at best to take us only half way toward the State's aggressive greenhouse-gas targets for this sector. Therefore, there was a high emphasis on changing driving behavior, particularly on decreasing unnecessary trips and reducing excessively long trip lengths.[2] A number of suggestions were proffered; two general categories of regional policy stand out: (1) smart growth and (2) price signals.

Most participants acknowledged that smart growth was a relatively slow, incremental solution and was unlikely to have a significant impact on the State's shorter-term emission targets. However, they did persuasively contend that redistributing growth to promote accessibility via transit and via propinquity could be immensely powerful in the longer term (say over fifty years). They also argued that smart growth was one of a few potential solutions which promised to help reduce greenhouse gases without significant compromises to our present quality of life. Indeed, smart growth offers many co-benefits (e.g., more housing choices, more lively and vital neighborhoods, and a generally more secure environment) which could actually improve the livability of the Bay Area. We were also reminded that just because smart-growth was a long-term proposition did not mean that urgent action on this front was not required now. Because smart-growth occurs cumulatively, actions taken today are more important than actions taken twenty years from now. Current actions set positive examples which then play out in expanding

[1] Estimate based on Air District greenhouse-gas inventory, subject to refinement as our analytic tools are improved, but clearly by far the largest source of CO_2 emissions in the Bay Area.

[2] Other changes in transportation behavior, such as enforcing moderate speed limits on our freeways, also hold considerable promise and merit serious consideration in our arsenal of emission-reduction strategies (see Strategy Element 6)

emulations over multiple years. There was a great deal of support exhibited for the regional agencies' *FOCUS* efforts and encouragement for accelerating these through regional incentives.

The climate imperative may also require that we be less shy about pointing out and seeking changes in less-than-smart growth, particularly location decisions that may have been appropriate in the mid-twentieth century but are less appropriate in the twenty-first century. It may be timely for the regional agencies to actively question the continued location of expensive and high-profile developments in flood prone areas or in areas difficult to service with high-quality transit.

To complement and encourage the redistribution of growth, many encouraged the region to send stronger price signals to vehicle drivers. Pricing was identified as a strategy which might have very substantial effects even in the short term. The idea came in many flavors: increased gas taxes and fees ("public goods charges"); vehicle registration fees, surcharges and rebates (applied differentially by vehicle type and use); higher tolls; congestion pricing (including congested area entrance charges as in London and HOT lanes as in Southern California); and higher parking rates (perhaps implemented through a regional parking space tax). Most of these ideas would require State legislation permitting the region to take the appropriate action.

In the ideal world as envisioned by our workshop participants, road pricing and similar disincentives to driving would be accompanied by measures which made the alternatives, particularly transit, more competitive and attractive. Many suggested free transit, but we suspect that fare price may be one of the least powerful impediments to transit ridership. Convenience factors, such as those being addressed by MTC through TransLink® and other connectivity efforts, may be way more important. Nevertheless, we agree that transit, along with pedestrian and bike improvements, will need to play a significant part in how we confront climate change in this region.

As we consider alternatives in the area of pricing and mode competitiveness, it is critically important to remember that not all segments of society will be affected equally. Consumption taxes and fees on basic commodities, like access, can be highly regressive and we do not yet provide the full range of choices that will allow everyone to respond without some hardships, particularly for many of the currently disadvantaged. The economics of transportation and development are highly charged with equity issues; and if the Bay Area is to be a model, it needs to continue to develop policy with high sensitivity to these issues.

RECOMMENDATIONS

K. THAT, as part of the 2009 Regional Transportation Plan, staff identify the additional transportation measures, beyond implementation of Pavley vehicle standards, which will be required to reduce regional transportation-sector greenhouse-gas emissions to 1990 levels by 2020.

L. THAT climate change issues be integrated into the multi-agency FOCUS program and THAT climate-change criteria be included in the ranking of priority areas for incentive funding.

M. THAT ABAG build upon its Federal and CEQA clearinghouse functions and upon its connections with local-government planning agencies to provide an early-warning system, identifying proposed private developments and public investments which are potentially inconsistent with regional climate-protection objectives and THAT these be brought to the attention of JPC for regional review and comment.

N. THAT the regional agencies study and propose a comprehensive taxation and fee strategy to fund climate-protection efforts and to encourage travel behavior and location decisions sensitive to climate-protection objectives (Potential tax and fee elements include gasoline taxes and surcharges, vehicle fees, tolls and road pricing mechanisms, and indirect-source development fees.).

Strategy Element 5: Prepare to Adapt

Regardless of what we do over the next several years to reduce carbon emissions, global warming is well underway, some consequences are inevitable, and the Bay Area *will* experience moderate to severe impacts. While neither attendees at the Climate Summit nor participants at the workshops emphasized adaptation as a priority, many did acknowledge that we will still need to begin preparing at minimum for changes in sea level, average temperatures, and potable water supply. We will also have to start anticipating other potential impacts which are not presently on our radar.

Adaptation will require new and more severe ground-level air-pollution strategies, as higher temperatures will cook more ozone. Our local governments and water districts may have to implement very restrictive water conservation measures to compensate for the loss in snow pack. And we will have to reassess our whole approach to development and capital investment near the shoreline.

BCDC has commenced a reconsideration of its mandate under conditions of sea-level rise. Its thoughts and processes are illustrative of the potential magnitude of the adaptation task. Using GIS data, BCDC has prepared maps which show that a one-meter increase in the level of the Bay could flood over 200 square miles of land around the Bay. The value of the development threatened with inundation could exceed $100 billion. The Bay Commission next proposes to determine more precisely the monetary value of all economic and environmental resources within the area expected to be impacted; estimate the cost of protecting these resources through the construction of levees, sea walls or raising the elevation of infrastructure; decide whether it might be more cost-effective to remove or relocate some developed areas rather than protect them; and develop a regional vision for San Francisco Bay that would accommodate projected sea level rise and protect the most significant economic, environmental, aesthetic, social, cultural and historic resources from flooding while continuing to enhance the biological productivity of the estuary. That is a lot of consequential and expensive work.

RECOMMENDATION

O. THAT the Climate Protection Team assess and quantify the potential impacts of climate change on the Bay Area and develop a coordinated plan of actions to prepare for these; that plan to include at minimum infrastructure-investment and land-use-control strategies relevant to sea-level rise; air-pollution-control strategies relevant to air temperature increases and increased wild-fire incidence, and water storage and conservation strategies relevant to reduced snow pack and salt-water intrusion.

Strategy Element 6: Break Old Habits

In our hiking guide, the description of this strategy path might contain words like "largely unexplored territory; may include some steep inclines, dangerous drop-offs, loose footing, and rattle snakes—but may also lead to some worthy and occasionally spectacular vistas." This is the strategy element that more than any other recognizes that "business as usual" will not be good enough, that some paradigm shifts or a sea changes may be required to model truly effective climate protection—that the traditional notions by which we plan and govern this region may have to be fundamentally altered. Some, but not all, of these changes are likely to be difficult and controversial; others are mostly just different; many will come to be regarded as positive opportunities. Regardless of degree of difficulty or unconventionality, now is the time to begin reconsidering how we as a region deal with many common and not-so-common notions. We may find some ideas which, with some planning, are more doable and acceptable than they at first appear—and some that are real improvements, not just to our climate, but to other aspects of our lives as well.

There was a myriad of habit-change ideas presented at the Summit and at our workshops. Not all are appropriate to the regional agencies, some may be more attractive in the long term but are not doable now, many are worthy of evaluation by the Climate Protection Team. The attachment to this memo provides a long list of some of the ideas we received at our workshops. Here are a very few examples presented without judgment to illustrate the range of possibilities:

- Make CO_2 impact a more prominent criterion in CEQA reviews (The regional agencies that engage in CEQA-document review might be able to readily trigger this requirement by all including a critical question in their comment letters or by seeking changes in initial study criteria);

- Apply life-cycle costing to all capital projects (i.e., include the societal costs of long-term operation—particularly those related to energy consumption—in the calculation and reporting of project costs);

- Encourage energy-efficient development with sliding-scale permit fees and rebates and expedited permit processes;

- Return the region's freeways to a maximum fifty-five-mile-per-hour speed limit, as it was following the seventies' energy crisis, and enforce freeway speed limits;

- Universalize multi-modal level-of-service (LOS) standards (based on people moving capacity) as an alternative to those based purely on automobile traffic;

- Develop regional green building standards;

- Remove the fiscal impediments to energy-inefficient development through regional tax-base sharing and other fiscal reforms;

- Condition transportation project funding on CO_2 emissions impact;

- Impose an indirect-source development fee as in the San Joaquin air basin.

One of the most substantive breaks from business as usual may concern the exercise of regional authority. Many of the participants at the Summit and at our workshops seemed to assume that the regional agencies have more authority than they actually do. There are some very substantial and powerful regulatory and spending powers granted the regional agencies. However, many levers that will affect greenhouse-gas emissions or which will prepare the region to adapt to climate change rest with other levels of government: federal, state or local. Relative to those other governments and their levers, our authority is largely indirect and informal. We promulgate ideas, advocate policies and legislation, provide technical assistance, coordinate joint efforts and provide some incentives. We have shown that we can be remarkably effective in using both our formal and informal authorities, and we will be effective in addressing climate change. Still, we need to acknowledge that much of what we need to do as a region will occur through indirect means.

In the longer term the region and the regional agencies, working together, may need to play a more direct and aggressive role in both emissions and adaptation. We all live and work around a regional resource, the Bay, which will be profoundly affected by global warming and associated sea-level rise. We share a regional air shed. Many of the systems which generate greenhouse gases and which will be affected by climate change are regional systems: for example, transportation infrastructure. Most importantly, our residents are regional residents, who may live in one local jurisdiction, work in another, and recreate in a third; and our businesses are regional businesses with locations and operations all over the Bay Area. Our residents and businesses generate carbon emissions and experience climate change regionally. In this context, over time we can imagine an increased collective climate-protection mandate for the regional agencies.

As well, because of our unique geography and cultural history, few metropolitan areas in the United States have as strong a regional identity as the Bay Area. Around the nation and the world, “Bay Area” enjoys nearly as much name recognition as our central cities, and the people who live and work here have a unique affinity to the entire region. Initiatives structured around the Bay Area as a special place are likely to have considerable traction.

RECOMMENDATIONS

P. THAT the regional agencies maintain a continuing, publicly accessible inventory of potential climate change initiatives with current information on their evaluation or implementation status.

Q. THAT the Climate Protection Team form *ad hoc* task forces to study and develop recommendations relative to some of the shorter-range, more obvious and less expensive initiatives (e.g., incorporating greenhouse-gas considerations into CEQA) and THAT the longer-term, more contentious, more difficult, and more expensive strategies be subjected to modeling and other analysis to evaluate their relative feasibility and efficiency and to assess any equity impacts.

R. THAT the agencies structure climate innovation ideas as packages, including both actions closely related to their existing formal authorities (i.e., ABAG with regard to housing development, BAAQMD relative to the regulation of stationary sources, BCDC with particular reference to the shoreline, and MTC pertinent to transportation finance) and as more speculative initiatives relying on more informal and potential joint authorities.

Conclusion

While some skeptics remain, few of us now doubt that the world's climate is changing—and changing very rapidly. Changing even more quickly is the climate of public interest and policy discourse on this matter. Global warming now commands a level of intensity, urgency and seriousness which a few months ago would have been nearly unthinkable. Public support to take decisive action is growing. While ultimately a global problem requires global solutions, through the examples they set, the Bay Area's regional agencies are uniquely poised to lead the region, the state, the nation and the world. The recommendations in this report are fairly general, consistent with our present level of knowledge and confidence. However, they set the stage and prepare the Bay Area's regional agencies to play an important leadership role—now and in the future.

ATTACHMENT

Joint Policy Committee
Climate Protection Workshops February 16 and 23
Summary of Written Questionnaires

Question 1: Help for cities, counties, businesses and community groups
How can these four regional agencies—ABAG, BAAQMD, BCDC and MTC—specifically help your city, business or community group to move forward with climate protection? What do you need to succeed? What can't you do on your own? What partnerships can we form to work together?

General:

1. Develop strong regional initiatives that will give courage to locals to take more action.
2. Create a sense of urgency.
3. Provide consistent messages from all 4 agencies.
4. Align agency goals. No more congestion relief that conflicts with climate change goals.
5. Build consensus for serious change.
6. It is better for counties and regional agencies to address climate change since smaller cities have too few resources.
7. Provide funding for staff because most cities do not have staff for climate change. Fund staff with regional $$ and/or provide tech transfer.
8. Help secure funding for local programs, e.g. public goods funds administered by CPUC
9. Provide grants and loan guarantees.
10. Advocate for climate protection at the state and federal levels that will support local actions.
11. Provide tools to local governments so they can educate other decision makers.
12. Provide resources for education for planners, policy makers, and school administrators on green practices.
13. Conduct education for decision-makers.
14. Provide education and training on best practices.
15. Provide technical assistance for large-scale projects that cities would like to do.
16. Expand services like ICLEI and ABAG's Energy Watch and Green Business.
17. Create 1-stop shopping for information and technical assistance.
18. Develop a climate protection website.
19. Implement a 1-stop electronic database for resources, actions, inventories, etc.
20. Create umbrella support to local GHG programs—best practices, updates, etc.
21. Help locals by showing how and where to plug into helping resources.
22. Develop guidelines for including climate protection in general plans.

23. Provide publicity for best practices. Get recognition for those who are doing the right thing.
24. Develop a regional clearinghouse on solutions for cities.
25. It is better to work at large-scale, not at city or county level.

Buildings:

26. Create ordinances, incentives and pricing to encourage innovative building design (beyond LEED).
27. Change building codes to promote green practices and eliminate inefficient practices.
28. Develop regional green building standards.
29. Conduct LEED training for cities, counties, and businesses.
30. Create partnerships with utilities to improve energy efficiency.
31. ABAG should provide good examples of energy solutions and energy retrofit.
32. Help local governments shift their own operations to solar and wind. Provide grants and very low-interest loans, plus bulk discounts.
33. Create accelerated permitting for green home/business projects like solar, retrofitting, etc.

Inventory/Reporting/Feedback

34. Provide feedback and data on how we are doing.
35. Coordinate data collection to make it easier for cities.
36. Provide support for Regional Sustainability Dashboard project that would provide real-time feedback and data on how we are doing. (Money, data, access, endorsement needed.)
37. Provide data on transportation regularly to cities and counties.
38. Make tools available to cities and counties to estimate their emissions.
39. Give data to cities on CO2 producers so locals can target them.
40. Provide free, reliable consistent data for cities.
41. Work with PG&E and others to make available and publicize GHG emissions figures (reduce burden on cities).

Public Information, Education and Involvement

42. Provide info that cities can give to residents.
43. Create messages on what businesses and individuals can do.
44. Conduct campaign to raise awareness.
45. Help to tailor messages for low-income communities. How to do GHG reduction and good economic development.

46. Conduct education on water conservation.
47. Present global warming info to low-income families by partnering with community groups.
48. Implement a campaign to publicize best practices and what people can do.
49. Build public support for climate protection.
50. Create broad, consistent messaging that can be linked to existing local services like recycling and energy efficiency programs.

Smart Growth, Development, Housing

51. Provide planning resources to help green housing development move forward.
52. Conduct education and info on Smart Growth and why density is so important.
53. MTC and BAAQMD should get involved in ABAG's RHNA program as a global warming strategy and take some of the heat off ABAG.
54. Provide more help for cities to build livable, walkable communities.
55. Create policies and funding for more affordable housing.
56. Locals must cede some zoning authority to region. Region can guarantee equitable tax revenues.
57. Help bridge the gap between transit and development.
58. Tie MTC funds to smart growth criteria.
59. Educate locals about sustainable land use.
60. Develop guidelines for including climate protection in general plans.
61. Help create green jobs for low-income youth.

Transportation

62. Put an end to having so many transportation "empires."
63. Provide support for better vehicles like plug-ins and car sharing.
64. Get employers to support carpooling.
65. Change the design standards for roads to put green first, not cars.
66. Pay more attention to viable alternatives to autos.
67. Develop a regional goal for VMT reduction.
68. Shift transportation to a true market.
69. Develop incentives for biodiesel shuttles.
70. Raise gas taxes that can fund other green transportation.
71. Use regional policies to make transit more affordable.
72. Tie together transportation and land use policies.

73. Create big gas tax to help fund other strategies.
74. JPC should partner with local transportation advisory committees to promote greener transportation.
75. Create new policies to improve transit access.
76. Reduce fares on public transit.
77. Reduce congestion through signal synchronization, bike lanes, FSP, bike lanes and no transit fare increases.
78. 4 agencies should work with transit agencies (planning and facilitating) to provide travel time advantages.
79. Investigate and create London-style disincentives to driving.
80. Fund and market mass transit.

Other

81. Promote telecommuting.
82. Help churches to create green economic development.
83. Encourage state government to support nuclear power.
84. Provide resources for EPA's youth job projects.
85. Publicize EPA's series of programs to help cities including Energy Star and Smart Growth/Urban Heat Island programs.
86. Provide support for urban forestry and urban food gardens.
87. Provide support for mobilizing youth.
88. Work with Association of General Contractors (small and family owned contractors).

Question 2: Leadership

"Regional leadership" can mean many things. What is the most important kind of regional leadership that we need from the four regional agencies?

General

1. Identify and implement very high level strategies—trading, Smart Growth, state-region-local joint ventures.
2. Start with a few critical issues. Work with each other and have success.
3. Conduct long-term planning for region and GW.
4. Provide umbrella thinking.
5. Create a 50-year vision. Policies for long-term.
6. Build strategic consensus in the region. Ensure collaboration not competition for resources.
7. Articulate both a long-term and short-term vision.

8. Be a convener.
9. Air District should be the leader in the region.
10. Develop a regional framework for critical regional thinking.
11. Prepare for regulation.
12. Manage the regional effort to a specific lower carbon footprint target, i.e. 450-550 ppm.
13. Provide visionary leadership and strategic leadership.
14. Implement important strategies.
15. Lead by example.
16. Pick big spots. Regulate where it makes a difference.
17. Provide bold leadership.
18. Start speaking boldly and clearly and persistently and positively about the subject.
19. Provide visionary leadership. The region needs it.
20. Provide command and control leadership.
21. Rigorous evaluation and analysis of investments.
22. Provide visionary leadership.
23. Create regional goals.
24. Provide vision with implementation.
25. Lots of things: Vision, $$, implementation.
26. $$ important but plan needed 1st
27. Lead by example.

Advocacy

28. Speak with one voice on state and national matters. The region provides input and the 4 agencies do something with it.
29. Push state and feds to do one thing—get the prices right.
30. Support state legislation—incentives and disincentives for automobile purchases.
31. Lobby the state on behalf of the region.

Information/Education

32. All roles are important, but education is most important.
33. Conduct public education.
34. Conduct public education (over and over).
35. Coordinate messaging.
36. Help the public to participate.

37. Conduct a big public information campaign.
38. Tell the public: This is what happens if we do nothing!
39. Provide clear, forceful communication.
40. Call an emergency—the Climate Crisis.

Land Use

41. Prevent development in flood playing and sea level rise danger areas.
42. Don't allow building by cities in low-lying areas.
43. Implement Indirect Source Review regulation. Evaluate developments and levy fees on trips.

Support for Others

44. Provide accurate information.
45. Encourage and support ICLEI CCP program.
46. Be conveners and compilers of data.
47. Provide positive market incentives to individuals and businesses.
48. Provide resources to those who don't have them.
49. Provide practical options. Strategic implementation.
50. Follow the Carl Moyer grant program model. Incentives to do more.
51. Help form partnerships that will be badly needed.
52. Provide information and data for CEQA analysis.
53. Facilitate regional coordination among locals.
54. Convene diverse stakeholders.
55. Link the agencies together.
56. Facilitate public/private sector cooperation.
57. Provide the best green programs like TLC/HIP that will help locals.
58. Provide support for local governments—materials, ordinances, etc.
59. Create model ordinances for locals.
60. Cities know best—they are closer to people—so regional agencies should support cities.

Transportation

61. Develop regional transit solutions.
62. Make public transportation really work.
63. Provide transportation leadership: Gas tax
64. Provide $$ for public transit. Make it work.

65. Create a real feeder system to BART.
66. Set policies for VMT reduction.
67. Fight back against NOOMA's.
68. Create one transit agency ASAP.

Question 3: Land Use and Transportation
What role should the four regional agencies play to develop more climate-friendly communities? How can these agencies best work with local governments to link transportation and land use?

Building/Zoning

1. Help to develop cutting edge building design.
2. Develop building codes that require energy-efficient homes.
3. Integrate GHG impacts into permit process. Require developments to meet local standards.
4. Build reduction and mitigation requirements into zoning and permitting processes. Provide premiums for developments that reduce vehicle use.
5. Make sure that new projects are required to reduce GHG emissions.

Education/Information

6. Provide public education on these issues. Essential for public to better understand regional perspective.
7. Educate the public that transit is best.
8. Help persuade public that densities are needed and if they are well done they will be tolerable.
9. The 4 agencies should lead on educational forums across the region. Provide consistent strong messages.
10. Provide education for the public.
11. More education in various languages—Spanish, Mandarin, Vietnamese, etc.—on the benefits of Smart Growth.
12. Conduct local workshops on these issues.

Equity

13. These efforts must support social equity and environmental perspectives. Develop the green economy to benefit all.
14. Don't let high-end housing replace green job industry.

15. Make sure that low-income communities are included in planning.

Fees/Funding/Taxation

16. Use regional discretionary $$ to guide local land use decision-making.
17. Provide incentives for locals to comply with Smart Growth plans.
18. ARB should implement CO2 impact fees for new developments.
19. Allow flexibility by locals on use of grant funds. Have fewer restrictions and encourage innovation.
20. Advocate for gas tax or carbon tax.
21. Give $$ to cities that are committed to real fundamental change.
22. Shift subsidies—hidden and obvious—to transit, smart growth, etc.
23. Lobby on behalf of the region for carbon tax at the federal level.
24. Coordinate taxes and fees at regional level so they don't just shift "bad" development to other cities. Stop the "race to the bottom."

Planning

25. Adopt a nine-county regional plan that the counties can then follow.
26. Adopt urban growth boundaries.
27. Develop more urban growth boundaries.
28. Regionalize policies and regulations to reduce complaints about cities.
29. Provide limits to urban sprawl.
30. Develop regional plans, then locals match with their needs. Put local plans "on the table" to see if they support regional goals.
31. Require all new housing tracts to be environmentally friendly.

Support for Locals

32. Provide guidelines to locals for air quality and climate protection in general plans and CEQA reviews.
33. Provide political backing to locals so they can ask the hard questions. There are great development pressures on locals, so give them some help.
34. Provide model language for climate change for cities' general plans.
35. Send representatives from regional agencies to local meetings to present on the regional importance of local decisions. Help the locals.
36. Help locals work with residents. Provide messages and data.

37. Provide education for locals. “Raise the floor” on building and planning standards.
38. Provide forum for regional education and collaboration among cities. Provide them with leadership, vision and resources. Incentives are powerful.
39. Spotlight efforts of local governments to foster competition among them.
40. Use RHNA more. Air District and MTC should help ABAG position RHNA as a global warming solution. Reduce hostility.
41. Help local with info, support and outreach.
42. Help locals get tougher on developers.
43. Show best practices for balancing residential and commercial.
44. Support info sharing among governments.
45. Educate local officials and electeds about the vision for the region. Then, locals implement that vision in their own ways.

Transportation

46. Develop a regional network of bus rapid transit to link neighborhoods.
47. Eliminate the separate transportation empires.
48. Make cars more expensive and public transit less expensive.
49. Reduce highway funding and increase transit funding.
50. Support TOD. Housing is great but we need reliable, convenient transportation.
51. Set regional parking regulations.
52. Support better feeder service to BART to link with Smart Growth.
53. Make it cool and safe to ride/walk.
54. Ensure development includes a variety of transportation options, not just driving.
55. Make transit facilities more desirable—safe and clean.
56. Encourage more work at home.
57. Coordinate transit schedules so services are more reliable.
58. Reduce transit costs so habits begin to change.
59. Lower parking ratios. Provide support for locals.
60. Fund real-time transit info at every stop so transit more useful.
61. Integrate transit with growth. Focus growth on transit corridors.
62. More TOD very close to transit. Develop self-sufficient communities that are affordable and safe.
63. Lower LOS on purpose.
64. Support High Speed Rail so Bay Area is linked to rest of state easily.

Other

65. Clearly define sustainable neighborhoods so we know what we are planning and building. Lots of different definitions now.
66. Evaluate existing neighborhoods. How can we make them more sustainable? Many more existing neighborhoods than new neighborhoods.
67. Follow positive examples of inter-agency planning.
68. Support more local food production.
69. May need a new multi-county administrative structure. Current one may not work for this.
70. Coordinate. There are many disconnects between jurisdictions.
71. Balance needed: Local government zoning and finance. Both are important.
72. Invest in Smart Growth prototypes that show Smart Growth can work and can be attractive.
73. Facilitate public/private development.

Question 4: Adaptation

What is the proper balance of regional resources devoted to (a) reducing greenhouse gas emissions and (b) adaptation strategies? What role should the regional agencies play in adaptation work?

Focus on emissions reduction

1. Regional $$ should go for reductions. Regional $$ for adaptation helps 7 million, but regional $$ for reductions helps 6 billion.
2. Put the priority on reductions.
3. 75/25 in favor of reductions.
4. Reductions should be the focus. If not, there will be impacts we cannot adapt to.
5. 90/10 in favor of reductions and use the 10 for public safety issues.
6. Spend $$ now and we won't have to adapt as much.
7. Adaptation is only good in the short term. Long term we must reduce emissions.
8. Focus on reductions.
9. 70/30 in favor of reductions.

More resources for reductions, but plan for adaptation

10. 5% of $$ for adaptation and make it a part of the long-term vision. Next 5-10 years or more must focus on reductions.

11. Priority now is reductions. Long range planning should include adaptation.
12. Stop CO2 first. Build more dams 2nd.
13. Both, but be very aggressive now about reductions.
14. Shift over time. Now focus on rapid reductions. Plan adaptation and implement with funds from reductions and carbon taxes.
15. Reduce 1st, then plan adaptation.
16. Majority of $$ for reductions, but put plan in place for major disaster (Katrina lesson).

Focus on Adaptation

17. Fully fund adaptation. Use remaining $$ for reductions.
18. Pay significantly more attention to adaptation.

Both—Integrate

19. Like eating and drinking—both are required. Think of this as 2 aspects of addressing climate change. Look for solutions that both reduce and adapt—green buildings, tree planting, etc.—not things like water desalinization that fix one problem but increase GHGs.
20. Avoid false dichotomy between A and B. Planning and programs should focus on reduction projects that will be robust in the face of changes.

Leave adaptation to land owners

21. Regional $$ = reduction strategies. Adaptation should be done by landowners.
22. Expect private owners to solve the problems.

Building

23. Discontinue low-density housing and promote higher density housing in safe places.
24. Make zoning or building changes such as requiring raised foundations.
25. Don't adapt, that is business as usual. Green building requirements and other changes should be the priority.
26. Be really tough about building close to sea level.
27. 50/50. Adapt by building higher density in safe areas.
28. Develop regional guidelines to prohibit building in flood zones.
29. Building guidelines and zoning can do both.

Education

30. Educate decision makers so they can make good land use decisions now (avoid impacts).
31. Invest 1st in getting the word out to public so they will act to minimize damage.
32. Regional agencies bring together forums on these issues.
33. Publicize adaptation needs and use that to get attention of the public and decision-makers on the great need to reduce emissions.
34. Make people aware of adaptation needs. Compare costs with emissions reduction costs.

Water

35. Coastal cities should plan for adaptation.
36. Develop regional policies on landscaping with native plants and other water (and energy) saving ideas.
37. Take on water conservation, poor farming practices, etc. that can do both.
38. Small % on adaptation. Make the prices right on water.
39. Invest in water rationing and conservation.
40. Start planning now for sea level rise.
41. Plan in advance for impacts like drought.
42. Involve water agencies much more in these discussions. EBMUD has done a lot to reduce GHGs.
43. Work with FEMA to adjust flood insurance and set future flood zones.
44. More water conservation (both).

Other

45. Work with the State adaptation group. Do not reinvent the wheel.
46. Ground adaptation strategies in EJ principles. Look at communities that will hardest by hot weather, poor air quality, etc.
47. Look at heat health effects and increased problems from disease-carrying vectors.
48. More regional planning since problems cross city lines.
49. Do more reforestation and afforestation.
50. Localize. Good for both.
51. Avoid positive feedback loops that will make things worse locally.
52. Develop a contingency plan that looks beyond the Bay Area. Include Central Valley and Sierra.
53. Change the attitude of consumerism.

54. Answer depends on the city or county in question. What impacts will they have?

Question 5: Near-term strategies
What are your top two near-term actions that the regional agencies could implement in the next one to three years? What are some of the first things we can do to implement these actions?

General

1. Conduct education for locals so they make changes that are meaningful.
2. Coordinate local GW programs with regional GW programs.
3. Create Bay Area targets and track progress towards achievement of those targets.
4. Conduct climate education and action conferences.
5. Make GHG reduction a requirement for BAAQMD's grant programs and MTC's funding programs.
6. Promote meeting more local needs with local resources.
7. BAAQMD should offer CO2 analysis of projects to local planners.
8. Convene cross-city peer forums for city staff to learn and share ideas, etc.
9. Create an on-line database of green projects.
10. Support and promote community-based pilot projects.
11. Identify incentives that will help individuals make changes.
12. Lead by example. Public agencies should be showing the way—no free or very cheap parking, transit subsidies, green building practices, etc.
13. Educate local policy makers. Engage communities to reach consensus.
14. Create prizes for new technologies.
15. Educate local decision-makers about problems and specific policies. Give them models.
16. Provide financing for communities that have detailed plans in place.
17. Provide funding and loans to help cities.
18. Provide best practices for cities.
19. Implement strong system of incentives for individuals, businesses, etc.
20. Make sure communities of color and communities of concern are included in GW plans and benefits.

Buildings

21. Create expedited permitting for green projects.
22. Require that all new buildings be greener.
23. Create an expedited permit processes in cities.
24. Provide rebates for retrofitting homes.

25. Create higher permit fees for hotter roofs and lower permit fees for cooler roofs. Same for green windows vs. non-green windows or large homes vs. small.
26. Change permit structure to favor green construction.
27. Require solar for 50% of all new home energy.
28. Support group purchasing of solar panels.
29. Provide additional rebates for solar.
30. Better permitting process for developers who do PV.
31. Implement large-scale PV projects at Port of Oakland, Airports, Coliseum, Giants park, etc.
32. Start putting solar on all schools.
33. Conduct a major solar installation campaign. Provide $$ and messages.

Energy Efficiency and Generation

34. Support the implementation of Community Choice Aggregation.
35. Promote purchases of efficient bulbs, appliances, etc.
36. Help cities create collaborations for efficient street lighting.
37. Modify CPUC regulations to include businesses that buy renewables (to supplement slow progress of RPS).
38. Create easier permitting for waste recycling projects.
39. Expand LED lighting for cities and counties.
40. Increased consumer and businesses incentives for energy efficiency.

Public Information

41. Conduct “emergency” education campaign.
42. Follow good examples of public education campaigns on other subjects (learn from them).
43. Conduct big public information campaign.
44. Implement education campaign to develop consensus for serious action.
45. Conduct a massive public education campaign by leveraging resources of various campaign and partners.
46. Create PSAs for top 3 things public can do.
47. Start Spare the Snowpack Days.
48. Use ads and actions to engage the collective effort like we did in World War II.
49. Set up a best practices info clearinghouse.
50. Conduct company education programs for employees.

51. Conduct public awareness campaign.
52. Conduct public education.
53. Build public support.

Transportation

54. Implement Location Efficient Mortgages.
55. Stop all highway expansion.
56. Take actions to reduce diesel emissions and GHGs.
57. Design and implement ways to improve efficiency of existing vehicles (fleet turnover is slow).
58. Provide GHG labeling on cars.
59. Make BART 24/7.
60. Create bike-only cars on BART.
61. Increase bike use now.
62. Subsidize e-bikes for low-income youth to participate in green job market.
63. Cut transit fares or make transit free.
64. Employers should promote carpooling among employees.
65. Get state to remove super-majority requirement for major new rail projects.
66. Make reduced auto ownership more viable through more car sharing.
67. Subsidize EcoPass to expand program.
68. Expand alternative fuels use through incentives and requirements.
69. Increase gas tax and parking charges.
70. Change “congestion relief” policy.
71. Accelerate the turnover of vehicles through incentives.
72. Implement paid parking.
73. Implement congestion pricing.
74. Encourage more biodiesel use.
75. Make public transportation cleaner and safer.
76. Reduce the cost of public transit.
77. Start charging for parking.
78. Tie all new projects to VMT reduction.
79. Develop a climate change transit tax.
80. Develop free electric vehicle charging in public parking lots.

81. Reduce transit fares.
82. Score all transit projects for climate change.
83. Fund more buses and shuttles for longer trips and more walking for short trips.
84. Provide matching dollars for local transit agencies that convert buses to hybrids.
85. Reverse public transit reductions in service.
86. Complete the HOV lane network by converting existing lanes.
87. Make HOT lanes for compact, fuel-efficient vehicles only.
88. Increase registration fees on bigger cars.
89. Create a demand shuttle for West Oakland.
90. Link the RTP to regional climate goals.
91. Tie MTC $$ to Smart Growth plans.
92. Implement new gas tax.