From: Clay Larson [mailto:clayl@comcast.net]
Sent: Monday, January 04, 2010 8:01 AM
To: Joanne Wile (E-mail); caryl_okeefe@comcast.net; David Arkin; pmoss@sbcglobal.net; Robert Lieber; fjavandel@ci.berkeley.ca.us; Marge Atkinson (E-mail); 'Peggy_Thomsen (E-mail)
Cc: Jeff Bond
Subject: Comments on Climate Action Plan

Mayor Wile, City Council, and Sustainability and P&Z Commission members;

I would like to comment on the public review copy of the Climate Action Plan (CAP). On the surface, the CAP represents a very laudable effort to use science to provide the metrics that would then drive public policy. The effort was laudable, but the execution fell far short of the mark. The emission sparing numbers in the CAP appear to be very soft, in some cases capricious. The problem starts with the baseline emission data. The discussion in the report states that the baseline data were based on Albany's 2004 ICLEI inventory (published December 2006). In fact, there are significant differences between the CAP and ICLEI data for all emission sectors. For residential emissions, the CAP lists a 2004 baseline of 20,495 MT CO2e. The corresponding ICLEI figure was 23,788 MT CO2e. For the commercial sector, the values were 20,788 (CAP) vs. 24,178 (ICLEI). There are also significant differences in the projected increases in these baseline levels by the year 2020. The CAP report projects increases of 15% and 4% respectively for the residential and commercial sectors. The ICLEI projected growths were 6.5% for both sectors. Apparently the baseline values have changed in the two years since the ICLEI study was published, but there is no discussion of this in the CAP report.

The data projected for 2020 have apparently changed over an even shorter time span. There are significant differences in the impact of the projected emission sparing strategies between the July 2009 administrative draft of the CAP and the October public review draft. In the administrative draft, Albany was able to fully meet its 25% reduction target (19,600 MT CO2e GHG). In the current draft, we come up 4,070 MT CO2e short. Some of the difference here can be explained by changes in the proposed reduction measures (e.g., commercial parking fees were dropped in the October CAP). In other cases, however, the emission reduction ascribed to a given measure was simply arbitrarily reduced. None of this is explained in the CAP report.

Taking a careful look at the calculations used to quantify the emission sparing strategies revealed that they often didn't appear to be soundly based. In some cases they appeared to be almost whimsical. I don't believe that any of the CAP emission numbers are solid. The fact that the consultant (EDAW) expresses these values to five significant figures is laughable. I don't believe that that there's enough substance in the CAP for it to be considered as a "core principle for Albany's land use planning" as suggested by the P&Z Commission None of the land use strategies proposed in the CAP is new and for the most part they're quite formulaic. The City of Albany needs to have a conversation about these land use strategies when it updates its general plan. I don't believe that the CAP will do much to inform this conversation.

In addition to the my general comments, I would like to offer several specific observations concerning certain assumptions and strategies presented in the CAP:

<u>Population Growth</u>

In projecting the 2020 GHG levels, the CAP incorporated ABAG population growth projections. For some reason, this lead to several different growth estimates. On page II-4, the City's

population is projected to increase by 4% by 2020. Hoverer, on page B-8, in the description of the expected increase in density, Albany's 2020 population was projected to increase by 7.4 % to 18,043. An additional 489 new households are projected to house all the new denizens (p. B-10). Historically, Albany has never met the ABAG goals. In fact, the projected growth in population and new households for the next 10 years would equal or exceed that of the last 25 years! It is highly unlikely that Albany will actually achieve these projected increases, and as a consequence the 2020 residential and transportation sector emission data are likely inflated.

Transportation Sector

The CAP summary of baseline GHG emissions (p. I-8) notes that, "two-thirds of these emissions resulted from residential, commercial, and industrial building energy consumption. Transportation contributed just under a third of the total…" This statement is repeated several times in the report. It's important to remind ourselves that the CAP eliminated transportation sector emissions from State Highways (Highway 80 and San Pablo Avenue). Without this adjustment, transportation emissions would represent 72% of Albany's total. It is not clear that completely ignoring travel on San Pablo Avenue was appropriate. There is obviously a lot of local travel on this thoroughfare, and City polices and actions will affect this travel. We can certainly anticipate future reductions in transportation emissions with improvements in vehicle efficiency and reductions in fuel carbon intensity. Accordingly, including more of the transportation sector in the baseline would have easily improved Albany's bottom line. The most important reason for properly representing the transportation sector emissions is to remind Albany residents that reducing automobile travel, in and out of Albany, is in most cases the best individual strategy for reducing GHG.

State and Federal Initiatives

The CAP briefly discuses potential new state regulations, which will reduce the generation of GHG emissions statewide. There are also Federal programs being put in place. The CAP summarily dismisses these initiatives noting that its focus is on actions the City can take to reduce community-wide emissions independent from statewide reductions. In terms of a straightforward, systems analysis it's difficult to justify this exclusion.

Residential Energy Conservation Ordinance

The CAP (p. III-15) proposes that the City adopt a Residential Energy Conservation Ordinance (RECO) that would require energy efficiency upgrades when selling a house. The costs to homeowners for these upgrades would be $7,500 - $10,000. The CAP claims that a RECO ordinance would reduce emissions by 1045 MT CO2e. The report doesn't adequately describe the basis for this claim and the number should be carefully vetted. Because of Albany's very mild climate, most residents probably don't utilize any heating or cooling throughout much of the year. As a consequence, the benefits derived from improved insulation/weatherization would appear to be quite small.

In-fill Development

The CAP (p. III-40) calls for in-fill development as a means of reducing energy consumption. This appears to be a completely formulaic recommendation based on the assumption that such development is more transportation efficient. This assumption is untested in Albany. Infill development creates special problems for Albany because there is very little land that is zoned multifamily. In 1978, Measure D down-zoned about 40 blocks of Albany to R-1. As a

consequence, we have very few multifamily-zoned districts. The impacts of the call for increased infill development will be felt primarily in our San Pablo commercial district and the immediately surrounding neighborhoods. Such development would change the character of the City.

Pedestrian-and-Transit-Oriented Development

The CAP (p. B-8) calls for updates to "specific plans, design guidelines, zoning regulations, development standards to promote high-quality, mixed-use, pedestrian-and-transit-oriented development in the neighborhood commercial districts along San Pablo Avenue and Solano Ave." The report clams that such development would reduce emissions by 700 MT CO2e. In describing how this figure was determined, the CAP states only that the "literature supports a 3% reduction in vehicle miles traveled for every 100% improvement in design." Besides the obvious question of what constitutes a "100% improvement in design," the more important flaw here is that the 3% reduction to the vehicle miles traveled is applied throughout the City, not just in an around neighborhood commercial districts. I found nothing in the cited literature to support this calculation.

Pedestrian and transit-oriented development has become the golden child of modern urban planning and it enjoys is own acronym, PTOD. Unfortunately, this type of commercial/residential mixed use development hasn't worked well in Albany along San Pablo Avenue. There are probably many reasons for this. The most important reason is that without exception, none of the projects in Albany have included sufficient ground floor commercial space necessary to provide valuable, community serving businesses. More generally, the mixed-use projects represent large developments, which threaten to change the character of Albany. Such developments have proven controversial. Undaunted, the CAP recommends that the City now promote even bigger, more dense development by eliminating the current height limits and setback requirements. The consultant further suggests that City should authorize $900,000 in staff resources to facilitate this process.

Albany Strollers & Rollers
943 Kains Avenue
Albany, CA 94706

July 15, 2009

Sustainability Committee
Care of: Environmental Resources
City of Albany
405 Kains Avenue
Albany, CA 94706

Re: Administrative Draft Climate Action Plan

Dear Sustainability Committee and Environmental Resources Staff-

Albany Strollers & Rollers (AS&R) has reviewed the portions of the administrative draft Climate Action Plan (CAP) that relate to human-scale transit. AS&R is pleased that its previous input regarding including the implementation of the current Bicycle Master Plan as a target has been incorporated as the first stage of cycling infrastructure development, with implementation of the consultant's recommended cycling infrastructure as the second stage. AS&R is also pleased to see incorporation of its concept of setting targets for implementing certain percentages of the network.

At this time, AS&R's main feedback is to further tune the implementation targets. AS&R suggests setting separate targets for Stage 1 and Stage 2 implementation. The Stage 1 targets could be 70% by 2015 and 90% by 2020. This recognizes that most of this network consists of paint and signs, and can therefore be quickly implemented given the political will. Stage 2 targets could be 30% by 2015 and 50% by 2020. This recognizes that some of Stage 2 will be implemented as part of Stage 1 and perhaps a small additional portion could be implemented by 2015. The additional implementation target by 2020 is modest based on historic timelines for implementing the type of infrastructure specified in Stage 2. Implementing individual segments of such infrastructure has often taken six or so years.

The values of the targets specified above are approximate. The actual targets should be based on measurements and consideration of the proposed networks.

More detailed comments in sequence with the document concerning cycling and walking are located on the following pages.

Thank you for your consideration.

Amy Smolens
Preston Jordan
Albany Strollers & Rollers

Chapter V

Transportation and Land Use Strategy

Pedestrian Infrastructure

Please change this title to “Walking Infrastructure” to preclude the impression that one must identify as a pedestrian in order to choose walking for trip completion.

Bicycle Infrastructure

Please change this title to “Bicycling infrastructure” as the purpose of this infrastructure is to enhance the activity not the vehicle.

Pg. V-13: There is no cycling path west of Golden Gate Fields. The Buchanan cycling path is present only west of Pierce Street, the I-580 adjacent cycling path is present only north of Buchanan, and the Marin cycling lanes are present only east of Cornell Avenue.

Pg. V-16, Objective TL-1: Consider each instance of “bicycle” for replacement with “bicycling,” and “pedestrian” with “walking.” The purpose of these substitutions is to make clear that the desire is to support the activities rather than the machine in the first case and only individuals who identify as pedestrians in the second case. The implicit requirement to identify as an alternative transit use before engaging in the activity creates an activation barrier to making these choices.

Pg. V-17, Measure TL-1.1: What is a cycle track? This term is not commonly understood. Please define.

Pg. V-18: Stage 1 should show the prospective cycling path along Marin Extension/Buchanan from San Pablo to Pierce and prospective cycling lanes on Marin from San Pablo to Cornell.

Pg. V-19, Measure TL-1.3: The first sentence should include “cycling master plan update” (note that the City’s Transportation Planner has indicated her intention to change the name of this plan from “Bicycle Master Plan” to “Cycling Master Plan”). Subsequent changes should be made as appropriate.

Chapter VI

Implementation Matrices

Pg. VI-3, Measure TL-1.1, Action B: The deadline for the Cycling Master Plan update under the ACTIA Measure B grant funding is likely July, 2011. Responsibility lies with the Transportation Division, the Cycling Advisory Committee that will be formed, and the Traffic and Safety Commission. Adoption of the Plan into the General Plan should be a separate action that is the responsibility of the Planning and Zoning Commission.

Pg. VI-3, Measure TL-1.1, Action F: Preparation of the Walking Master Plan is actually the responsibility of the Transportation Division, the Walking Advisory Committee that will be formed, and the Traffic and Safety Commission.

Pg. VI-3, Measure TL-1.1, Progress Indicator i: Please alter to about 70% of Stage I and 20% of Stage 2 by 2015 and 90% of Stage 1 and 50% of Stage 2 by 2020. The early Stage 1 target should be set assuming implementation of all “paint and sign” only routes. These should be achievable in short order, and seem to comprise a majority of the planned Stage 1 network. As uptake may lag infrastructure development, it is important to get in as much infrastructure early as possible. Emphasizing the paint and sign routes allows for this. The early Stage 2 target should be set largely based on overlap with Stage 1 as likely implemented by 2015 (Ohlone Greenway path, Marin extension/Buchanan path, etc.). The late Stage 2 target should be the same, but also include the addition of some more complete street segments.

Appendix 2

Pg. A-2, Measure TL-1.1: According to pg. V-8, 8% of commute trips from Albany are by biking or walking. Progress Indicator iii for Measure TL-1.1 indicates a rise to 15%. This is a 7% rather than 4% difference. This suggests a correction is needed. If so, the emission reduction should be checked for accuracy given a 7% increase.

Carbon Neutral Albany
524 Talbot Avenue
Albany, CA 94706

July 15, 2009

Sustainability Committee
Care of: Environmental Resources
City of Albany
405 Kains Avenue
Albany, CA 94706

Re: Administrative draft Climate Action Plan

Hello Sustainability Committee and Environmental Resources Staff-

Carbon Neutral Albany (C0A) commends City government and its consultant for taking another significant step toward emissions reduction with the issuance of the administrative draft Climate Action Plan (CAP). At 226 pages, the CAP is rich with information and ideas for moving forward on this paramount issue of our time.

C0A is pleased that draft CAP focuses upon removing barriers to the implementation of Albany's current zoning with regard to housing density and mixed-use development on the main San Pablo and Solano commercial corridors, as well as taking steps to improve the design of future projects. C0A appreciates that the Sustainability Committee agreed with and independently supported these recommendations to focus on implementing currently allowed density on these corridors, rather seeking density increases on a wider area as initially suggested.

A number of other adjustments appear to have been made, either in response to or in synchronicity with C0A input. C0A is gratified by the evolution of the CAP.

Review of the current draft indicates there is much work yet to be done. Unfortunately it appears that the balance of errors in emissions reduction calculations is toward a few thousand tonnes lower reduction than stated.

Below are comments appropriate for the Sustainability Committee's consideration generally in order of priority, followed by more detailed comments appropriate for City staff and consultant consideration. The latter are in sequence with the document.

Please note that rather than reiterating input regarding cycling and walking in this document, C0A supports Albany Strollers and Rollers input as the appropriate advocacy organization for this issue.

Thank you for your consideration. C0A appreciates the opportunity to provide input on the CAP, and looks forward to assisting in its implementation.

Preston Jordan

General Comments

Building Energy Efficiency Participation Overstatement

The residential energy efficiency participation rate is 56%, which matches the sum of the projected 32% turnover in single family and 24% turnover in multifamily properties. If the intent of this participation rate was to match the projected point-of-sale turnover, then the participation rate should be a weighted average of the single and multi family rates, which would be somewhere between 24% and 32%. The commercial energy efficiency participation rate is 24%, which is less than the projected 30% CAP period turnover. The projected turnover should be used. Using these values would reduce these measures' aggregate contribution by about 1,100 tonnes.

Air Conditioning Accounting Overstatement

Building energy reduction measures based upon urban heat island reduction significantly overstate emissions reductions by overestimating use of air conditioning in Albany. The calculation for Measure BE-4.2 seems to assume 69% of residential electrical use is due to air conditioning. The calculation for GI-1.1 seems to assume over half of residential electrical use is due to air conditioning. More realistic assumptions would reduce the contribution these measures' aggregate contribution by perhaps 600 tonnes.

A counter argument might be that a relatively greater rise in coastal area temperatures will lead to greater installed air conditioning capacity, which can be mitigated somewhat by these measures. While this may be true, it is not in accord with the inventory projection methodology. This methodology used historic trends to predict future growth. An increase in future air conditioning installation is not predicted by historic trends alone. Consequently, while these measures can reduce this unaccounted for trend, the unmitigated portion of this trend would increase emissions above that projected. Consequently these measures can not contribute nearly as much if anything to emissions reductions relative to the projected trend.

Transit-Oriented Development Emission Reduction Overstatement

Measures TL-3.1 and 3.2 overstate the emission reduction capacity of higher density development along the commercial/transit corridors. The first measure posits such development can reduce transportation emissions by 3%. From 1990 to 2000 Albany's population increased by 3%. In order for another 3% increase in population during the CAP period (in line with the trend projection employed elsewhere in the document) to account for such a large decline in transportation, no one in this population could drive. This is extremely unlikely.

Measure TL-3.2 posits a 7% increase in population will cause an approximately 0.5% decline in vehicle mileage in the City against the 2020 baseline. Such a population increase would be about twice historic trend. Consequently these members of the population would have to drive considerably less than half as much as would 3% of Albany's citizens on average.

Measure TL-3.1 and 3.2 also seem to largely overlap in their focus on the transportation habits of new residents along San Pablo and Solano. While the first regards design and the second density, it is not clear to what extent these are actually additive or only partially cumulative.

A more likely emissions reduction scenario for these measures is that posited by Measure TL-3.2, which accounts for a larger than historic trend population increase, but an increase ameliorated by location along transit corridors and design. Consequently the 700 tonne reduction calculated for Measure TL-3.1 would not materialize.

Irrigation Water Substitution Overstatement

Substitution of rainwater for delivered water does not reduce emissions because the document states water delivery by EBMUD is almost emissions free. Consequently, while alternative storm water handling is potentially laudable in terms of filtration and increasing creek base flow, the rainwater aspect of Measure WW-2.3 and 2.4 should be eliminated from the CAP due to lack of an emissions nexus. This might eliminate on the order of 300 tonnes of emissions reduction.

Top Down Verification

The CAP builds emission reductions from the bottom up. This means the reductions attendant upon specific approaches are added together into a total reduction. Problems of overlap and overreach with many of the measures suggest a top down approach should also be employed.

Targets should be set for the four main emissions source indices to provide feedback on the progress of the bottom up approach. Specifically, targets should be set for these four indices: non-highway motorized vehicle mileage within Albany, energy utility imports into Albany, waste disposal by Albany, and water usage by Albany. These indices are apparently available on an annual basis, and so annual or biannual targets should be established to provide perspective on progress.

Vertical Integration of Plan

Emission reduction approaches in the draft CAP can be difficult to fully understand because their description is arranged into chapters by hierarchical level rather than vertically integrated description. Consequently garnering a complete perspective on a particular emission reduction approach requires finding information in several separate places in different chapters and appendices, with questions raised at one level of the hierarchy often answered much later in the document at lower levels of the hierarchy. Some consideration should be given to either rearranging the document according to vertical integration, or to providing a reference to table to direct the reader to all pages concerning each emissions reduction approach.

Cost Calculation/Presentation

The cost units and calculations are not clear as they don't seem to readily match a division of the cost listed in the appendix tables by the associated emissions reduction.

Residential Parking Permit Program

Eliminate the commercial parking fee program in favor of a city-wide residential permit fee program. The portion of Albany's commercial base that relies on public parking spaces would like have additional competitive difficulty if a fee were imposed. On the other hand, Albany's residential properties are highly desirable and so their value, and the property taxes based thereon, is unlikely to be significantly diminished by a residential parking permit program. Such a program would put a cost on a currently free resource, and so provide an incentive for either not owning a car or moving off City property. Either way, clearing street space would be synergistic with Phase II of Measure TL-1.1 as it would provide space for complete street implementation.

A residential parking permit program could perhaps be made more palatable if it is financially connected to implementation of more cycling and walking infrastructure, enhance public transportation, and/or increase car share opportunities. This could be done by setting the permit price above the program cost, and using the excess to fund the other efforts.

In order to make this proposal more educational, it should be connected to statistics regarding how much land the City owns and what percentage of that land is being provided for free residential parking. This would elucidate how the City is working against its own express interest in subsidizing a transit mode that it at the same time is trying to reduce through the CAP program.

Urban Garden Objective Elimination

Objective GI-2 should be eliminated because it does not quantifiably reduce emissions, and if it were quantified the reduction would be insignificant. Further this objective does not significantly increase community food security within a climate change context (such as increasing water scarcity throughout the State). While there are many good reasons to support urban agriculture in Albany, emissions reduction or climate change adaptation are not among them. Including this measure will potentially lead to distracting from the actually effective measures.

Material Stream Reduction Focus

The focus of the waste measures is apparently on diverting waste to recycling. It appears recycling is taken to be emissions free in the inventory, while in actuality reprocessing materials does take energy and so create emissions. Making this manifest in the inventory would reduce the emissions reduction attendant on waste diversion, and provide some impetus to pursue measures that reduce the amount of material flowing through Albany as a whole (the first of the dictum "reduce, reuse, recycle").

Recommended Individual Actions

Many of the actions that you can do actually have negative cost over time (meaning savings), and should be so stated. For instance transition from incandescent to compact fluorescent bulbs is shown to have a cost, when in fact this transition rapidly pays for itself and starts generating savings.

Detailed Sequential Comments

Chapter I

Effects of Climate Change in Albany

Pg I-5: This section doesn't mention the relatively greater warming in coastal areas. While this is conveyed in Chapter II, it is sufficiently important and motivating with regard to Albany to include here.

Albany GHG Reduction Target

Pg. I-7: Business as usual projection seems to be simply a projection of historic linear trend. If so, it does not account for rising temperatures leading to air conditioner uptake. This would lead to a more rapid increase in electricity use than historic trends.

According to the DEIR, emission from the proposed UC San Pablo development would be more than double the total estimated "business-as-usual" increase between 2004 and 2020. This may be due to a difference in inventory strategy between the DEIR and the CAP, but the possibility of one development having this impact suggests either the DEIR emission analysis is flawed or the "business-as-usual" projection is flawed.

Albany Achievements to Date

Pg. I-8: Safe Routes to School – The City has not implemented improvements to the State Safe Routes to School program, but rather garnered a State Safe Routes to School grant to make infrastructure improvements around Ocean View School and to implement a Safe Routes to School program throughout the City. Albany has leveraged this grant to attract support from TransForm's Safe Routes to School program, which is funded by Alameda County through ACTIA.

Pg. I-8: PV on City Hall not mentioned.

City Action Plan Strategies

Transportation and Land Use

Pg. I-12, Measure TL-4.6: eliminate school bus recommendation. School buses are not appropriate for Albany given its small size, although it is remotely possible that there are some sufficiently dense clusters of interdistrict transfer student that could ride a bus. Even so, it is unlikely the school district would provide school bus services for students outside the district (and doing so may not be legal).

Pg. I-12, Measure TL-5.1: Create a residential parking permit fee, instead of or in addition to a commercial parking permit fee.

Buildings and Energy

Pg. I-13 – 14, Objectives BE-2 and BE-3: These include renewable energy here, but not as explained in Chapter V. The Chapter V definition seems better as renewable energy installation is included in Objective BE-5.

Waste and Water

Pg. I-15, Measure WW-2.3 and 2.4 – These measures could lead to negative consequences attendant upon a water table rise depending upon whether they lead to an increase in recharge. These measures could also lead to degradation of soil quality over time depending upon the quality of the gray water that is used. Consequently, these measures require more detailed analysis in order to implement them with care to avoid these negative effects. The CAP should condition their adoption on preparation of such a study.

Green Infrastructure

Pg. I-16, Measure GI-1.2: The nexus of this measure with the emissions reduction component of expanded urban forestry needs to be stated. Specifically that reduction of impermeable paving around trees increases their health and allows larger plantings.

Everyday Actions You Can Do

Pg. I-19: Many of these actions actually save money, as opposed to having no cost or some cost. For instance the cost of switching from incandescents to CFLs is listed as low, but a CFL in a four-hour a day position will save its own cost in less than a year, after which it generates revenue through cost savings. This table is an opportunity to educate the public about these monetary opportunities in order to encourage undertaking them for their own financial sake aside from climate protection. Listing them as cost neutral to having a low cost is inaccurate and creates a disincentive to pursue them.

Chapter II

Sea Level Rise and Flooding

Pg. II-7: The statement that a 1-foot rise in sea level increases the 100-year flood frequency tenfold should be qualified with regard to geographic area of impact. Presumably this only applies to coastal flooding and flooding along the portion of a stream's course near sea level.

Water Supply

Pg. II-8: The statement that Albany must prepare for increased water supply competition whether climate change is responsible is probably correct, but is not backed up by the surrounding document context. Further, this statement indicates that a goal of the CAP is prepare Albany for this competition, climate change or not. While this reasonable, it should perhaps be cast as a prudent side benefit of the CAP rather than an implied goal of the CAP.

Effects of Climate Change in Albany

It would be useful to include a Temperature section to reiterate and expand on the information in the general section that temperature rise in temperate coastal areas is expected to be relatively larger than average temperature increases. This suggests Albany, with its historic summer fog cover, may be particularly prone to larger than average temperature increases.

Water Supply

Pg. II-11: Does EBMUD really draw water from the Delta? Is EBMUD water quality really dependent upon the Delta?

Chapter III

Assembly Bill 1493 (2002)

Pg. III-4: "Court" should be "United States Supreme Court."

California Greenhouse Gas Emissions Reduction Targets

It seems this section should discuss California's 2050 target.

Pg. III-8 and III-9: The first two paragraphs seem out of place here. These might be more in context in the Global Projections-Global Imperative section on pg. II-4.

Pg. III-9: This section indicates that AB 32 in effect requires a 10% cut relative to today's emissions, while the Local Government Role and Responsibilities section below indicates a 15% cut. Which is it?

Chapter IV

Energy Consumption

Pg. IV-2: Implies that generation of a kilowatt hour by PG&E results in one pound of carbon dioxide emitted. While this is likely not the intent of the included language, it could be read this way.

Transportation

Pg. IV-2: Alameda County vehicle emission factors were used, but private vehicles in Albany are almost certainly more fuel efficient in aggregate than the County average. While it may be impossible to rectify this, it should at least be recognized. Also, it seems it may be possible to rectify this as indicated by an Albany-specific study of vehicle mix from registration records performed as part of a green market analysis conducted by the business school at UCLA.

Solid Waste

Pg. IV-2: It is unclear how emissions factors vary for waste versus recycled materials. Are emissions factors only applied to waste and not to recycled materials? Recycling itself requires energy and consequently emissions.

Emissions Baseline

Pg. IV-4: The facilities constituting “State Highways” should be clarified. These are presumably I-80/580 and San Pablo Avenue. Not all readers will be aware the latter is a State highway unless it is so specified.

Transportation

Pg. IV-5: Same comment as last.

Water Consumption

Pg. IV-5: Does a northern California specific factor mean the same factor applies in Sacramento as Albany, even though more pumping, and therefore energy use, is likely required for the latter than the former? Please clarify.

Projections

Pg. IV-6: As suggested above, the emissions section of the UC San Pablo project DEIR suggests that the 2020 projection is too low. This may be due to differences in emissions accounting between the two documents, though, with the DEIR accounting for all project related transportation emissions while the draft CAP only accounts for those miles in Albany. Also the DEIR may count all trips as new trips rather than substituting for trips to other destinations. If this is the case, the new project may either increase or decrease transportation emissions depending on trip substitution distance differences. Please research and clarify.

Energy

Pg. IV-8: Table 4-5 indicates commercial/industrial natural gas is combined and electricity separated while the text indicates the opposite. Please clarify.

Waste

Pg. IV-10: This seems to answer the question above about pg. IV-2 concerning emissions factors for recycling. It appears recycling is taken to be zero emission, whereas recycling materials certainly requires energy and therefore at this time emissions. For instance, much recycled paper is shipped to Asia and processed. Please clarify.

Chapter V

Thfe GHG Reduction Potential of CAP Strategies and Objectives

The reporting units must be made clear. GHG reduction potentials are mass/year in 2020.

It is not clear what cost/tonne is exactly or how it was calculated. For instance, dividing any of the values in the cost table for Measure TL-1.1 by the emissions reduction in 2020 does not give the cost/tonne value shown.

Pg. V-2: Text recognizes that relationship among strategies makes them more effective overall than individual. The following text does not identify these relationships (for instance there appears to be an unrecognized relationship between Measures TL-1.5 and TL-3.1). This information is important to prioritizing strategies, objectives, measures and actions for implementation as groups rather than individually. If they are prioritized individually in the absence of this information, then the City's actions will be less effective. A subtext of this comment is that it is unlikely the City will implement all the actions indicated. While this may seem pessimistic, it is based on experience implementing 10% or less of the cycling network in the current Bicycle Master Plan in the 12 years since it was first drafted and the six years since it was adopted. This is not meant to be a criticism of staff, who have done a great job moving difficult projects forward, but rather a reality check on the ambition of the CAP in expecting so many actions to be taken in such a short time frame. From this perspective, either the proposed actions must be prioritized so that the most effective are undertaken first, or the proposed actions must be pared down to a more realistic number.

Green Infrastructure Strategy

Pg. V-4, Objective GI -2: Why is this included in the CAP if it does not quantifiably contribute to emissions reduction? Please quantify, eliminate or provide another basis for its inclusion, taking into account that increasing urban agriculture will increase water use and so likely increase emissions under the accounting scheme in the CAP due to assignation of a single water factor despite significant emission differences between water used for gardening versus water that enters the sewer system. Of course in the larger actual context urban agriculture does slightly reduce emissions by eliminating food transportation. This is what should be quantified and presented. The table in the appendix to http://www.foodsecurity.org/california/CFJC-SubmissionToBerkeleyClimateActionPlan.pdf provides some guidance, although the truck payload used appears to be about two times actual standard payloads, and so the emission reduction factor is about twice that presented.

Transportation and Land Use Strategy

Pg. V-10: Figures on this page are repeated on pg. V-12. That location seems more appropriate than this one, so eliminate this page.

Residential Density

Pg. V-11: The allowable density for the zoning on the west side of Albany Hill should be stated.

Pg. V-12: It seems the west side of Albany Hill should be shaded for whatever the zoning is for this area and colorized according to how the structures present compare to allowable. This is the highest residential density area of the City, and to not show it on this map would be an over sight, and perhaps insulting to the residents of that area, who constitute a large portion of the City's population.

Pg.V-12: Relatively new mixed use projects on the east side of San Pablo between Washington and Portland and the west side of San Pablo south of Solano are shown in red. This may be because these are mixed use developments, but only the commercial space counts toward the FAR calculation for this

figure. If so, this would seem to be a mistake as it is difficult to imagine these projects being much bigger. Please clarify.

Pg. V-20, Objective TL-2: Transit also needs to be fast. Please add this to the list.

Pg. V-21, Objective TL-3: This objective should be discussed relative to SB 375 requirements in this section.

Pg. V-24, Measure TL-4.6: Delete reference to school buses as adding this burden to the school district really doesn't make sense given the small size of Albany.

Pg. V-27, Measure TL-5.1: Consideration should be given to converting this measure to a City-wide residential parking permit program rather than commercial parking fee district. Albany's businesses already are less of a draw than neighboring commercial districts in Berkeley and El Cerrito. The latter in particular has free parking, and instituting a commercial parking fee in Albany will be one more reason to shop there instead of Albany. In contrast, the City is provided a significant percentage of its land for free to those residents who park on the streets. The percentage of total land in the City, and land owned by the City, that is being provided free for this purpose should be calculated. The City should charge a fee for use of this land. This permit fee will increase the cost of private car ownership, providing an incentive not to own a car, or will lead people to park their cars off the street. The advantage of the former in the context of the CAP is obvious. The advantage of the latter less so, but it would free up street space for other uses, such as creating complete streets and planting larger street trees, both called for by the CAP. The parking permit price could also be set sufficiently high to generate funds above the cost of the permit program for implementing other measures, such as cycling and walking infrastructure improvements and subsidized car sharing and public transit. Linking all these measures would provide a clearly linked package of disincentives and incentives both in terms of action and financing. While parking permit fees will be politically difficult, they should be viewed as akin to tobacco taxes in that society should tax activities that it has deemed harmful to itself.

Building and Energy Strategy

Renewable Energy

Pg. V-30 and V-31: States 13% of PG&E electricity is generated by renewables whereas on pg. V-29 this number is 14%.

Pg. V-33, Objective BE-2: What does "point-of-sale improvement" mean?

It is unclear if BE-2.2 and 3.2 have the same breadth as BE-5.1 and 5.2. Measure BE-5.1 specifies property tax increments as a payback mechanism for financing that is not presented in BE-2.2 and 3.2. It would probably be useful to present the financing mechanisms in tabular form with associated text descriptions rather than only in text form in order to communicate these mechanisms more clearly. The first column could be financing mechanism, the second column could be financing agency (or agencies), the third column could list payment method, the fourth column could list advantages and the fifth

column disadvantages. Such a table could be referenced by all the financing measures: BE-2.2, BE-3.2, BE-5.1 and BE-5.2.

The progress indicators for BE-2.2 and 3.2 suggest they are focused only on point-of-sale properties whereas BE-5.2 is available across all properties. BE-2.2 and 3.2 should be structured to reach beyond point-of-sale properties as efficiency upgrades have a greater cost-benefit than renewables on the private side, even though they appear worse for some reason on the City side.

Pg. V-34, Measure BE-2.1: This measure includes water efficiency here, but not as described in Objective BE-2 in Chapter I. As water efficiency is covered separately in Measure WW-2.2 and no emissions reduction due to water efficiency for this measure is shown in the Appendix A calculations, it appears that water efficiency should not in fact be listed as a part of this measure.

Pg. V-34, Measure BE-2.2: What is AB 811? It is neither explained here or in Chapter III.

Pg. V-34 to V-35, Measure BE-2.2: "Local Improvement District" does not appear to be explained.

Pg. V-39, Objective BE-5: There seem to be stronger programs proposed for implementing renewables on existing buildings beyond the point-of-sale target for implementing efficiency upgrades. For instance, the latter has financing through property tax payments and establishing community benefit districts. Property tax payments are not mentioned under the efficiency upgrade measuress, and it is unclear if community benefit districts are mentioned. Efficiency upgrades are more cost effective than renewable installation, and so it would seem the measures proposed for efficiency upgrades should clearly include all those proposed for renewable upgrades and then some.

Pg. V-43, Measure BE-6.4: Many of the other measures cite PG&E as a partner or possible partner. Would creating or joining a CCA eliminate PG&E from Albany, and if so what would be the impact on these other measures? One particular consideration is whether a CCA with its smaller scale, would be able to deliver the services envisioned in these other measures as cost-effectively. In other words, if a CCA only narrowly reduced emissions, this could come at a greater emissions cost.

Pg. V-44, Measure BE-6.5: The intent of "comparative metrics" is a bit unclear, and so this term should be more closely described/defined. For instance, PG&E and EBMUD bills already include comparative metrics, but they are self-comparative on an annual basis. This measure probably envisions providing a comparison to the district average for the appropriate customer type. As indicated by some of the contention over water rationing, comparative metrics should be per capita rather than per account to allow more accurate and meaningful comparisons.

Waste and Water Strategy

Waste

Background

It is not clear how recycling is handled from this section. Do the waste diversion emission factors consider that recycling materials takes energy as well?

Pg. V-47, Objective WW-1: It seems the focus of this objective is to divert more waste to recycling. This is certainly laudable and must be pursued. Recycling requires energy as well though (transportation, processing, reforming), and so there should be an additional objective that clearly states as a goal reducing the total amount of materials flowing through the City in accord with the first dictum of "reduce, reuse, recycle." As the document stands the focus is on the third of these. Measures should be developed to advance the first as well. One possible measure might be called "smart" pickup. This is envisioned as a system whereby customers are only charged for the bins picked up, and could be based on GPS, bar code or RFID technology. Currently customers are charged for a set number of pickups whether they need it or not. For instance many prefer to compost on site rather than use the green waste pickup. The City, through its waste/recycling bid and contracting process, could put out an RFP on this measure when the current contract expires. Such a program would have to be carefully crafted, though, so as to create an incentive to minimize waste/recycling production, but not such a strong incentive that could create public health issues.

Water

Stormwater

In addition to the sewer inflow issue, infiltration of storm water could raise the water table causing some impacts. This issue also requires close analysis before proceeding with infrastructure and code alterations that encourage increase infiltration.

Graywater and Rainwater Collection

Continual use of graywater for irrigation may cause deleterious soil chemistry changes. Please provide peer reviewed literature references demonstrating that this will not occur in the soils present in Albany before recommending this practice.

This section indicates that use of rainwater for irrigation would have minimal emissions impact due to the small amount of emissions attendant upon water delivery. This is of course true, but not so given the inventory methodology employed. This methodology uses one water emission factor and so using rainwater for irrigation would result in a more significant reduction of emissions. This of course is an artifact of the inventory methodology and so argues for separating water delivered for irrigation from that delivered for indoor use and providing each it own emission factor.

Pg. V-53, Measure WW-2.2: The measure states 20% above State Code but the text states 40% over State Code. Which is it? Give some examples why going above the State Code is economically feasible.

Green Infrastructure

Urban Forest Carbon Sequestration and GHG reductions

This states that the majority of a tree's emission reduction in Albany is due to sequestration. This does not correlate with the calculations in the appendix, which maintains the majority of a tree's emission reduction is due to shading reducing building energy use for cooling.

Community Food Production

Enough food cannot realistically be grown in Albany to contribute to food security, particularly given that the most likely food security scenario under climate change arises due to water constraints that will affect Albany just as it will most of the agricultural areas in the State. While there are many laudable reasons to support urban agriculture, climate change in the context of California is not one of them. Consideration of urban agriculture should be eliminated from the CAP.

Pg. V-58, Measure V-58: Some of the broader aspects of this measure seem to be at odds with the elimination of alternative stormwater handling from earlier in the CAP due to sewer inflow concerns, specifically discussion of permeable paving on local streets.

Chapter VI

Implementation Matrices

Please repeat emissions reduction and cost for each measure here to allow rapid assessment of which measures have the greatest impact so that those actions can be prioritized.

A number of measures have no implementation matrix, giving the impression they will not be implemented. For each measure without a matrix, please include a comment or two of explanation.

Pg. VI-6, Measure TL-4.4, Progress Indicator i: The 2020 target in this indicator does not match the target stated in the measure.

Pg. VI-8, Measure BE-3.1, Progress Indicator i: the 2020 target should reference commercial rather than single-family units.

Pg. VI-11, Measure WW-1.1, Action A: The waste reduction and diversion percentage in this action is different than in the measure.

Pg. VI-12, Measure WW-2.2, Progress Indicator i: The implementation target is higher than the expected point-of-sale turnover and the renewable installation target. Why, particularly as the actions do not include outreach and financing program development? The target is also precise to two significant figures. Why?

Pg. VI-12, Measure WW-2.3, Progress Indicator i: The implementation target is higher than the expected point-of-sale turnover and the same as the renewable installation target. Why, particularly given the lack of financing program development in the measures or actions?

Funding Strategies

Self-Financing Strategies

This mentions a tiered residential parking fee that is not mentioned elsewhere in the administrative draft CAP. As mentioned above, a city-wide residential parking permit program should be implemented.

Appendix A

Please calculate and present the overall reduction planned per emission sector. For instance from the calculations it appears a reduction of about 30% in the transportation sector is planned. Such aggregate calculations can provide a reality check.

The TL objective calculations show transportation as responsible for 31.99% of Albany's emissions. This is in contrast to the chart on pg. I-7, which shows transportation as responsible for 34% of emissions. The next earlier CAP documents had the even higher number of 43%. Please determine the correct number and use it consistently.

Pg. A-3, Measure TL-3.1: Population from 1990 to 2000 only increased by 3%. Presuming this is representative of the trend period, it is difficult to impossible for better design of the living space for the next 3% increase to reduce transportation emissions by 3%. This would require all these new residents to have zero (or less) transportation emissions.

Pg. A-4, Measure TL-3.2: This calculation holds that a 7% increase in population is going to cause a decrease in total transportation emissions. This is highly unrealistic. For instance, at the extreme, this implies that Manhattan has lower total transportation emissions than an equivalent area in a suburb like Union City. In light of this, it is probable that the literature reference referred to a decrease in per capita vehicle miles traveled rather than an decrease in the total for a geographic area.

Pg. A-6, Measure TL-4.4: This measure only affects commute trips to jobs in Albany. Due to Albany's jobs/housing imbalance, the share of these trips must be less than the County average. Multiplying the County average (33%) by Albany's jobs/housing ratio (0.68) gives a better estimate of the percentage of trips in Albany targeted by this measure (22%).

Pg. A-7, Measure TL-4.5: Based on comparisons of Albany per capita retail revenue to County per capita retail revenue in recently issued economic development documents, it appears applying the County average to Albany is valid. This measure is applied to all commercial shopping related trips in Albany, though, which is unrealistic. It should be applied to only that fraction that requires public parking. For instance, there will be no fee for private parking at Target, and so all these trips will not be subject to the shift.

Pg. A-8, Measures BE-2.1, BE-2.2 and BE-2.3: The participation rate is equal to the sum projected turnover percentage for single family (32%) and multi-family (24%) residential units during the CAP period. The participation rate should actually be a weighted average of these values.

Pg. A-8, Measures BE-3.1 and 3.2: The participation rate is 24%, but the projected turnover during the CAP period is given as 30% in Chapter V. It seems the participation rate should be 30%.

Pg. A-9, Measure BE-4.2: First, this would seem to apply to more than just new development. For instance if it is a condition of a roofing permit, then a significant percentage of existing structures will be retrofit with high albedo roofs. On the other hand, this one measure is claimed to reduce residential electricity usage by a somewhat incredible 69%. This is presumably due to a reduction in air conditioning usage as a result of lower ambient air temperatures. This is problematic on two bases. First, it is highly doubtful that 69% of residential electricity use is due to the urban heat island effect this measure addresses anywhere, even areas where a high proportion of residential units have air conditioners. Second, there is no way air conditioning in new Albany residential construction accounts for 69% of electricity usage in these residences because most Albany structures will not even have air conditioning.

Pg. A-12, Measure WW-1.1: Does this measure assume that there are no emissions from recycling? In other words does it assume that waste associated emissions are completely negated if diverted to recycling?

Pg. A-12, Measure WW-2.2: The second instance of "efficiency" in the sentence, "This measure's water efficiency actions would reduce indoor water faucet efficiency by 40% and eliminate all indoor leaks," appears incorrect. The sentence should probably read something like, "This measure's water efficiency actions would reduce water usage by indoor water faucets by 40% and eliminate all indoor leaks." As to the measure itself, the feasibility of achieving a 40% indoor water usage reduction relative to the California Building Standards Code should be discussed and proven.

Pg. A-13, Measure WW-2.3 and 2.4: According to the text, the rainwater portion of these measures should make negligible difference because water associated emissions are almost entirely due to waste water treatment, which doesn't apply to outdoor water usage. Consequently only the graywater portion of these measures has an emissions reduction nexus because its use for irrigation reduces wastewater treatment, which cause almost all water associated emissions.

Pg. A-13 to 14, Measure GI-1.1: Sequestration is given as 50 MT, but from prose this seems to be total for trees planted in 2009 for 2009 to 2020 period. If this is the case, sequestration integrated across all the trees planted from 2004 to 2020 (500/year from 2010 to 2020) would be much greater. Clarification is needed. This said, only the emissions reduction due to shading is accounted in the body of the report. The reduction due to sequestration needs to be included. The reduction due to shading is based on over half of residential electricity usage and over a third of commercial electricity usage due to air conditioning. While it is possible the commercial portion is correct, it is extremely doubtful the residential portion is this high. Hardly any homes in Albany even have air conditioning currently. Consequently the emission reduction attendant upon shade trees would be much less. While it is understood Albany will warm up, it is doubtful that enough air conditioners will be installed to use half of the residential electricity by 2020. If they did use this much electricity, this would cause an unaccounted for emissions increase against the business-as-usual trend, rather than causing a decrease even if mitigated by this measure.

Pg, A-14, SB 107: It seems that in the sentence, "It was assumed that GHG emissions associated with electricity consumption in Albany would be reduced by 20% between the base year (2004) and 2020 associated with the implementation of this legislation." This presumably should read, "It was assumed

that GHG emissions associated with electricity consumption in Albany would be reduced by 6% between the base year (2004) and 2020 associated with the implementation of this legislation," in order to match the rise in renewably sourced electricity in PG&E's portfolio from 14% to 20% as mandated by SB 107.

Pg. A-14 to 15, AB1493: Statement that EPA granted waiver appears grafted onto previous text that bill cannot be implemented due to lack of waiver. Paragraph needs rewriting to state history if necessary in context that waiver has now been granted.

It is not clear from the transportation tables if State Highway mileage and associated emissions have been removed as indicated in the text. If they have, there should be a footnote to the appropriate table indicating this.

Regarding waste reduction tables, the associated emissions reduction implied by subtracting emissions value in the second column from the first column in the first table does not match the values shown in the second table. Also, the 2004-2020 reduction in the second table does not match the implied addition of the 2004 to 2009 and 2009 to 2020 reductions. The 2009 waste disposed value in the third table matches the 2020 waste disposed in the first table, which doesn't seem correct. It appears the tons waste reduced in the second table should be larger based upon a comparison of total waste in 2004 and 2020 in the third table.