Natural Resources Commission Minutes
October 26, 2015

Present:	Mark Braly, Kristin Burford, Matt Holland, John Johnston, Anya McCann (Alt), Michelle Millet, Alan Pryor, Steven Westhoff
Absent:	
Staff:	Kellie Bruton, Administrative Analyst; Dani Hester Administrative Aide
Council Liaison:	Rochelle Swanson

1. **Approval of Agenda -** Allen Pryor moved to switched the order of agenda items number 7 and 8, seconded by Michelle Millet; approved unanimously

2. **Approval of Minutes**- September 28, 2015 minutes, Steven Westhoff moved to approve the minutes with make minor correction item number 8 Mace Ranch Innovation enter should be MRIC; Allen Prior second, approved unanimously.

3. **Commission and Staff Announcements –** None.

4. **Council Liaison Comments –** None.

5. **Public Communications –** None

6. **Consent Calendar –** None

7. **Nishi/Gateway Project - Sustainability Implementation Plan and Draft Environmental Impact Report (DEIR)**
Steven Westhoff suggested a procedural change to organize commissioner comments by subcommittee. Each subcommittee reviewed their specific sections of the DEIR, comment, and recommendations, which were discussed within the commission. See the attached comments by the commission.

   Public comments:
   - Rodney Robinson - comment regarding the VOCs levels and building standards need to be set by University. Consider TDM efforts such as car-sharing or car storage approaches being used on UC Davis campus.

8. **Mace Ranch Innovation Center (MRIC)**
Josiah Cain from Cain Consulting Group provided an overview on of the draft Sustainably Implementation Plan (SIP). After the presentation, it was agreed to view the DEIR for MRIC by subcommittee. Each subcommittee reviewed their specific sections of the DEIR, comment, and recommendations, which were discussed within the commission. See the attached comments by the commission.

   Public comments:
   - Rodney Robinson comment to add to the DEIR housing and mix use alternatives with restrictions regarding living and working Innovation Center. Consider TDM efforts such as car-sharing or car storage approaches being used on UC Davis campus.
   - Leslie Crowl had several comments regarding water at the Innovation Center including; portable water source, recycle water; off-site sewer treatment; capturing rain water, grey water pumps and capturing run off during draught years , and Chromium levels.

9. **Water Conservation Program**
Kellie Bruton Administrative Analyst from the City of Davis provide an update on water production for the month of September 2015.

11. Subcommittee Updates

a) **Energy –** PG&E meeting in mid-November
b) **Water** – No update.
c) **Hazardous Materials** – No update.
d) **Solid Waste** – Jenifer Gilbert, Conservation Coordinator, Public Works will be presenting the Solid Waste Annual Report, including updates on organics and composting.

12. Long Range Calendar/Future Agenda Items

Commissioners reviewed the draft long range calendar. The Commission scheduled the November's meeting to be held on November 30, 2015. Move Nishi/Gateway Project review with pictures and policy documents to November meeting. Add the MRIC SIP project review at the meeting in January.

13 . Adjourn: 10:00 p.m.

Natural Resource Commission Comments on the Nishi/Gateway Draft EIR

Approved October 26, 2015

Reference	Topic	Comment/Recommendation
Nishi/Gateway DEIR		
Cross References: Executive Summary, Table 2-3, page 2-21	AQ	Comment: In the Executive Summary, Table 2-3, the Air Quality section, it does not spell out that they are talking about NOx, PM10 and ROG at all. Misleading for people who are only reading the Executive Summary. Recommendation: Create clarifying text in that section.

Cross References: 4.3-2 AQ section, pg 4.3-28 Executive Summary, Table 2-3: p. 2-21	AQ	<u>Comments:</u> The ROG and NOx levels proposed almost double the YSAQMD, creates regional impacts, creates ozone *Stated Mitigation # 4.3-2: Prior to issuance of any building permits, the project applicant shall show on project plans via notation that only zero-VOC paints, finishes, adhesives, and cleaning supplies shall be used for all buildings on the project site. Project plans shall be subject to review and approval by the Department of Community Development and Sustainability.* That addresses ROG (VOCs), but does not address NOx. What about PM10 (diesel, construction equipment, tires, brakes)? It appears that they are passing the buck - the next builder/project in the area will have to overcompensate to keep the regional levels down **The document underestimates the impacts because it assumes office buildings and not manufacturing or labs (such as venting).** <u>Recommendation</u>: If it is significant and unavoidable: perhaps the applicant might purchase emission credit offsets? Ideas for Mitigation Measures: Have the applicant pay to electrify the Yolo Short Line. It is short enough to make it happen. Or purchase new locomotives that are meeting the 2008 emissions standards. Newest models have large drops in emissions. The City could build in permitting requirements for future operations/tenants for air quality issues (It is unclear whether future occupants may be manufacturing, which could generate ROGs or toxics. It is unclear what they might be producing or using. For instance solvents or fertilizer.) The applicant could pay into a fund for the City or County to create a car scrappage program for pre-2004 automobiles (in the YSAQMD). (Such a voluntary accelerated vehicle retirement program could be a regional program because NOx and ROG are airshed impacts.)

Impact 4.3-5, Land use compatibility with off-site sources of TACs and UFPs	Air Quality	Comment: The text points out diesel particulate matter (DPM) as a potentially serious health issue. As noted in the MRIC EIR, the California ARB recommends not siting any sensitive receptors closer than 500 ft. from the freeway. In its current configuration, most of the southern residential building and about half of two others fall inside this limit. The 500 ft. line is a guide rather than a regulation, but it does suggest that inside this zone, health impacts should be looked at with some extra care. Two different estimates of cancer risk are presented, one based on measurements and one based on the SMAQMD Roadway Protocol. Neither seem to be based on local dispersion modeling, which would presumably yield a more accurate estimate. In the EIR for McKinley Village (City of Sacramento, Nov 2013), an infill project sandwiched between I-80 and the UPRR in Sacramento, the SMAQMD Roadway Protocol was used as well, but it was felt in that case that a separate health risk assessment (Appendix C) based on local dispersion modeling was needed. One result was a contour map of cancer risk. Recommendation: Given that many project facilities fall within an area of potential concern, a closer examination of the issue is warranted. A health assessment based on dispersion modeling like that done for McKinley Village may provide more reliable risk estimates than those contained in the current document. In particular such an effort would clarify the mitigating effects of the freeway rising on the southern end of the project site, potential side-of-road measures such as trees or sound walls, and building filtration measures (which sound good until one considers how often people open their windows in this climate). A contour map of risk would be valuable for deciding the final placements of structures on the site. Such modeling should allow quantification of Mitigation Measures 4.3-5a and 5c, which the EIR states cannot be quantified now (p 4.3-33). This should be helpful to decision makers.
Impact 4.3-5, Land use compatibility with off-site sources of TACs and UFPs	Air Quality	Comment: As noted, the YSAQMD does not specify a cancer risk threshold, but that the BAAQMD specifies a 100 per million threshold. According to the McKinley Village EIR, the SMAQMD specifies an evaluation criterion of 276 per million. It may be difficult for the public to appreciate the magnitudes of these risks. Recommendation: Provide some comparisons between the cancer risks anticipated in this project and those estimated for various other environmental settings. Of particular value would be a comparison with the drinking water standards. Knowing that the cancer risks estimated for this project are several (or multiple) times the cancer risks of consuming the drinking water would offer valuable perspective, especially given the recent turmoil in some quarters over closing wells due to Cr(VI) concentrations. On the other hand, knowing that the cancer risks associated with this project are in the same ballpark (if true) as other air pollution risks would also provide perspective.

Impact 4.3-5, Land use compatibility with off-site sources of TACs and UFPs	Air Quality	Comment: In Mitigation Measure 4.3-5b, tree planting is proposed as a mitigation measure, but growth rate is very conservative (…"be at least 3 meters tall within 15 years of when the first residential dwelling unit on the site is inhabited.") Trees that reach only 10 feet in 15 years are probably not going to provide much mitigation, especially to second- and third-story residences. Recommendation: Revise the parameters of this mitigation measure to offer more protection.
Section 4.7 GHG Emissions, Climate Change, and Energy	GHG	Comment: Energy GHG, Objective 3.3: From the outset, design the Nishi development to achieve ZNE such that all site energy use is offset with renewable energy generation on an annual basis. Recommend following edits: ~~To the extent possible,~~ on-site generation will be used to meet this objective~~; however, off-site generation and purchase of renewable energy offsets will also be considered~~. Technical appendix C of the Nishi Sustainability Plan shows that additional areas for siting on the project would be enough to provide the needed amount of PV: "If the three additional areas discussed above (and summarized in Table 7 below) are considered for siting PV arrays, and these areas are utilized to the capacities assumed in this analysis, the project can meet zero net energy with on-site production. Total production would be 18% greater than estimated community electricity consumption and would fall just short of meeting 100% of predicted TDV energy consumption." Comment: Delete the finding that stationary battery and demand response strategies should not be evaluated immediately, but as the project progresses. The reasons given for this finding (current utility rate structures and no methodology for crediting storage of DR strategies with TDV) are not valid. EIR analysis should not rely on utility rates which we know are going to change. The EIR should instead base some of its findings on the possibility that Davis will be served by a community choice aggregation entity. Comment: Table 4.7-6Nishi Gateway project should be designed for ZNE on some basis from the beginning. The following Policy Energy 1.3, setting out an interim goal of 30% over Title 24 should be deleted. Recommend following edit: Design and construct high-performance buildings, public lighting, and on-site renewable energy systems that work towards achieving ZNE by Nishi development build-out. Following edit is proposed: Objective 3.1: ~~Achieve high-performance buildings at a minimum 30 percent compliance margin relative to the 2013 Title 24 Building Energy Efficiency Standards, or equivalent.~~ High-performance buildings will also incorporate energy consumption feedback mechanisms in order to encourage resident and employee engagement and minimize wasted energy use.

4.7-2 **Cross references:** Mitigation Measure 4.7-2 GHG Section	GHG	Mitigation Measure 4.7-2a establishes a priority scheme for GHG emission reductions when the particular development activity does not meet the GHG target according to the modeling. It is unclear how these priorities will be enforced and the mechanism for evaluating cost and feasibility. In addition, some of the reductions may not be able to be implemented before the issuance of the permit. Commitments to implement those reductions should be addressed in the Measure. <u>Commission Recommendation</u>: This mitigation measure should be amended to ensure that the priority scheme is enforceable and the applicant is required to provide the analysis supporting its chosen reductions. This mitigation measure could provide clarity as to when lower priority reductions might be appropriate (i.e., cost/feasibility). Mitigation Measure 4.7-2b requires 5 year GHG Reports for the Innovation Center to be prepared. This mitigation measure seems to require only performance data to be reported in the document <u>Commission Recommendation</u>: This mitigation measure should be amended to require that the projected GHG emissions from the phases of the project that are now operating to be included in the report (from the Technical Memorandum of Compliance required in the prior Mitigation Measure).
Cross References: General	GHG	<u>Comment:</u> Water-related GHG emissions (the DEIR does not mention the new water supply in Davis as of 2017). What are the assumptions about Davis' water supply? Do calculations assume the current system or the new system which will rely on surface water? For the 80% of the irrigation water, which comes from an on site well, there will be electricity usage, which creates a GHG impact. Has this been calculate? <u>Recommendation</u>: (To mitigate, need to reduce their irrigation demand – better landscaping.) NOTE: These issues appear to be addressed in the updated draft Sustainability plan.

Cross References:	GHG	Comment: 10% decrease in VMT is a low bar as a mitigation for a project of this magnitude. What else can be done specifically? Need more accountability and coordination with the city's overall plans to get to zero carbon. **(This project will increase the demand for housing – growth inducing impacts are large.)** Suggestions for mitigation measures: ▪ AB32 Allowance Auction to mitigate emissions – buy allowances/emission credits elsewhere (secondary or state market) – perhaps out of the transportation side; or ▪ Stipulate that the Applicant buys credits inside of Davis (Perhaps via a Green Revolving Fund which could be established and used in the future for a variety of purposes that serve the CAAP's goals.) ▪ Build out the solar panels more in the project design. (How much of the capability is actually planned? Install the below-ground wiring for additional solar panels for the future even if they do not build additional solar panels now. It saves emissions from construction later.) ▪ Electrifying building energy for heating and hot water (not using natural gas, which causes methane and CO2 emissions) ▪ Maximize energy efficiency measures in the building ("Incorporate LEED Silver/Gold building standards." –NOTE: This seems to be the goal in the Sustainability plan and may be addressed. ▪ Construct EV charging wire in every parking space (build the infrastructure for future use, the costs are huge after the fact), ▪ Work with technology for using EV vehicles to smooth out electricity discharge from solar panels. Or 3-way flow between buildings, solar panels, and EV charging.--- need to codify these things, put them on paper as mitigation measures

Impact 4.7-2 (p 4.7-17 to 21)	Green-house Gases	Comment As stated, implementation of Mitigation Measure 4.7-2a meets the city's carbon reduction goals at the time of construction, but not later. Under this MM, the development's GHG contribution is frozen at set value. MM 4.7-2b requires monitoring of whether the development maintains the allowed level, but does not appear to require any further reductions after the date of construction. Meanwhile the rest of the city is attempting to reduce its aggregate emissions. Viewed in this light, the project is a step backwards for the city because emissions will increase compared to pre-project conditions, regardless of whether the project's GHG are x% below its hypothetical 1990 values as specified on page 4.7-20. The EIR calls this significant and unavoidable. It is significant, but does it have to be unavoidable? Recommendation: The applicant should propose a more aggressive mitigation measure to reduce anticipated emissions. The strategies listed on page 4.7-20 should be applied to a greater extent than just meeting the required percent reduction. Analysis of the feasibility of reducing GHGS beyond the values presented on page 4.7-20 should be included in the DEIR.
Impact 4-7.2 as applied to West Olive Dr. (p 4.7-22)	Green-house Gases	Comment: In the discussion of significance after Mitigation, the text says "Implementation of Mitigation Measures 4.7-2a and 4.7-2b sets GHG reduction targets and accountability for the Nishi Development, but…" This appears to be a typo because since the paragraph is directed at the West Olive Dr. area. Recommendation: Fix the typo and check the paragraph for accuracy. Implementing Mitigation Measures 4.7-2a and 4.7-2b seem reasonable for a district with a single land owner. Address whether these measures can be applied as well to a neighborhood, in which every property is held by a different party. Who, for example, will submit the GHG Accounting and Effectiveness Program report?
Impact 4.8-5, p. 4.8–23-24 & p. 2-37 (summary) Cross References: Project Description; pp. 3-5 and 3-16 Mitigation Measure 4.8-5	Hazards and Hazardous Materials – emergency response and evacuation	Comment: Descriptions of emergency vehicle access do not appear to match up: "however, during Phase 2 of construction and under Access Scenario 1, only one emergency vehicle access point may be available" (p. 4.8-23) "However, under Access Scenario 2 and prior to Phase 2 of construction, there may only be one EVA point to and from the Nishi site, which could hinder emergency response." (p. 4.8-24.) Recommendation: Revise for consistency. I believe the sentence on p. 4.8-23 was intended to say, "prior to Phase 2 and under Access Scenario 2"

4.08 Cross References:	Hazards	Comment: Typo. 4.08–19 – first paragraph after summary: "As discussed above for the *Nish* site…" Recommendation: Revise to "Nishi."
7.4.2 Evaluation of Alternatives	Alternatives	Comment: Alternative 2 was defined as replacing the mixed use with 1.2 M SF of R&D. In the analysis it was pointed out that this development would generate more vehicle trips with associated air pollution, traffic congestion, and GHG emissions. On the other hand, the subjection of sensitive receptors to air pollution and noise would be avoided. The conclusion stated was that Alternative 2 is inferior to the project. What was not considered, however, was an alternative that simply eliminated the residential development from the site and maintained the R&D level currently proposed (or only slightly larger). Such an alternative would remove the sensitive receptors and generate no more trips than those currently anticipated by the R&D facilities. An advantage would be that significant space would be available onsite for PV facilities which could provide project energy needs and offset mobile GHG emissions. Recommendation: Add this alternative to the discussion in Section 7.4.2. If a connection cannot be made to the campus beneath the UPRR tracks, this alternative might be an attractive alternative to the project, and having an environmental assessment would aid decision makers.

Natural Resource Commission Comments on the Mace Ranch Innovation Center Draft EIR (DEIR)

Approved October 26, 2015

Reference	Topic	Comment/Recommendation
Mace Ranch Innovation Center DEIR		
4.7-2 **Cross references:** Mitigation Measure 4.7-2 GHG Section	GHG	Mitigation Measure 4.7-2a establishes a priority scheme for GHG emission reductions when the particular development activity does not meet the GHG target according to the modeling. It is unclear how these priorities will be enforced and the mechanism for evaluating cost and feasibility. In addition, some of the reductions may not be able to be implemented before the issuance of the permit. Commitments to implement those reductions should be addressed in the Measure. <u>Commission Recommendation</u>: This mitigation measure should be amended to ensure that the priority scheme is enforceable and the applicant is required to provide the analysis supporting its chosen reductions. This mitigation measure could provide clarity as to when lower priority reductions might be appropriate (i.e., cost/feasibility). Mitigation Measure 4.7-2b requires 5 year GHG Reports for the Innovation Center to be prepared. This mitigation measure seems to require only performance data to be reported in the document <u>Commission Recommendation</u>: This mitigation measure should be amended to require that the projected GHG emissions from the phases of the project that are now operating to be included in the report (from the Technical Memorandum of Compliance required in the prior Mitigation Measure).
p. 4.8 - 16 Cross References:		<u>Comment:</u> Footnote 12 is used as citation to a Cal. Office of Emergency Services interactive map of high hazard zones. The link provided (http://www.caloes.ca.gov/HazardousMaterials/Pages/Oil-By-Rail.aspx) does not send the reader to the interactive map, although it may have as of March 2015. <u>Recommendation</u>: Update citation to provide current link, if any. (http://california.maps.arcgis.com/apps/OnePane/basicviewer/index.html?appid=928033ed043148598f7e511a95072b89 ?)

Chapter 8	Mixed-Use Alternative	Comment: The analysis of the Mixed-Use Alternative should be robust enough to support serious consideration by the City Council. Minimally, this would require an analysis of the sensitivity of transportation and GHG impacts to the assumption of 1.62 employees per household.
pp. 4.8 – 4-16 & pp. 8 – 87-88 (mixed-use alternative) Cross References:	Hazards and Hazardous Materials – Nearby Uses, UPRR	Comment: According to the DEIR, the Union Pacific Railroad line is 66 feet from the southern edge of the Mace Triangle site and 106 feet from the southeastern border of the MRIC site. The DEIR states that the nearest MRIC buildings are to be located 256 feet from the tracks. Thus, a portion of the project area will be within a half-mile of the Union Pacific Railroad tracks and Interstate 80, which other documents suggest is the area of mandatory evacuation in the event of a release of an explosive or flammable material. Recommendation: The MRIC DEIR's discussion of physical and regulatory factors that minimize potential risks to the site are relevant. However, recommend amending analysis for consistency with points raised in the City's Nishi Gateway DEIR (see pp. 4.08 – 21-22), for example: -"Although the risk of upset conditions is moderated through compliance with various federal, state, and industry regulations, there is a hazard associated with the potential for train accidents and spill, as well as possible ignition, of hazardous materials." -"As a result, should accident conditions occur along the UPRR line [. . .], potential hazards to on-site residents [at least under mixed-use alternative and to others on-site in any case], as well as residents of the City in general, would be substantial." -"Development of the [MRIC and Mace Triangle] site would result in construction of [populated buildings, residences under mixed-use alternative] in proximity to major transportation corridors that are used to transport hazardous and flammable materials. However, construction and operation of the project would not increase the hazard associated with operation of the highway and railroad."
p. 4.8 - 16 Cross References:		Comment: Footnote 12 is used as citation to a Cal. Office of Emergency Services interactive map of high hazard zones. The link provided (http://www.caloes.ca.gov/HazardousMaterials/Pages/Oil-By-Rail.aspx) does not send the reader to the interactive map, although it may have as of March 2015. Recommendation: Update citation to provide current link, if any. (http://california.maps.arcgis.com/apps/OnePane/basicviewer/index.html?appid=928033ed043148598f7e511a95072b89 ?)

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Cross References: Executive	AQ	Comment: In the Executive Summary, Table 2-3, the Air Quality section, it does not spell out that they are talking about NOx, PM10 and ROG at all. Misleading for people who are only reading the Executive Summary.

Summary, Table 2-3, page 2-21		<u>Recommendation</u>: Create clarifying text in that section.
Cross References: General	GHG	<u>Comment:</u> Water-related GHG emissions (the DEIR does not mention the new water supply in Davis as of 2017). What are the assumptions about Davis' water supply? Do calculations assume the current system or the new system which will rely on surface water? For the 80% of the irrigation water, which comes from an on site well, there will be electricity usage, which creates a GHG impact. Has this been calculate? <u>Recommendation</u>: (To mitigate, need to reduce their irrigation demand – better landscaping.) NOTE: These issues appear to be addressed in the updated draft Sustainability plan.
Cross References:	GHG	<u>Comment:</u> 10% decrease in VMT is a low bar as a mitigation for a project of this magnitude. What else can be done specifically? Need more accountability and coordination with the city's overall plans to get to zero carbon. This project will increase the demand for housing and growth inducing impacts are significant. Suggestions <u>for mitigation measures</u>: ▪ AB32 Allowance Auction to mitigate emissions – buy allowances/emission credits elsewhere (secondary or state market) – perhaps out of the transportation side; or ▪ Stipulate that the Applicant buys credits inside of Davis (perhaps via a Green Revolving Fund which could be established and used in the future for a variety of purposes that serve the CAAP's goals.) ▪ Build out the solar panels more in the project design. (How much of the capability is actually planned? Install the below-ground wiring for additional solar panels for the future even if they do not build additional solar panels now. It saves emissions from construction later.) ▪ Electrifying building energy for heating and hot water (not using natural gas, which causes methane and CO2 emissions) ▪ Maximize energy efficiency measures in the building ("Incorporate LEED Silver/Gold building standards." –NOTE: This seems to be the goal in the Sustainability plan and may be addressed. ▪ Construct EV charging wire in every parking space (build the infrastructure for future use, the costs are huge after the fact),

		▪ Work with technology for using EV vehicles to smooth out electricity discharge from solar panels. Or 3-way flow between buildings, solar panels, and EV charging.--- need to codify these things, put them on paper as mitigation measures
Section 4.3-2, p 4.3-25	Air Quality	Comment: Stationary sources cited for the development (p 4.3-25) seem to be those of a typical office development. There is significant manufacturing proposed. Research labs have hoods. How are they counted? (Report cites hair spray but ignores 884k SF of proposed manufacturing.) Recommendation: DEIR should discuss potential emissions from manufacturers and R&D facilities.
Section 4.3-3, p 4.3-28	Air Quality	Comment: Potential development of vacant land seems to have been ignored. Report says closest sensitive receptor is 660 ft away and does not allow for future development in places like the inside of the Mace curve. Recommendation: Revisit the conclusion that the impact is less than significant in light of the smaller distances to potential development.
Impact 4.7-2	Green-house Gases	Comment: The schedule of GHG targets for the project that are listed in Mitigation Measure 4.7-2(a) is not consistent with the city's CAAP targets listed in Table 4.7-6. The city's goals for 2020, for instance, are "28% below 1990". What is intended is that total city emissions be 28% below actual 1990 emissions. The project target, as specified in the table, is 28.3% below a hypothetical 1990 level of emissions as determined by CalEEMod. Consequently, at a time when the city is attempting to ratchet down its emissions from current levels, the project proposes to increase city emissions by 24,199 $MTCO_{2e}$/yr (Table 4.7-4). Viewed in this light, the project is a step backwards from achieving the CAAP goals. The EIR calls this a significant and unavoidable. It is significant, but does it have to be unavoidable? Recommendation: The applicant should propose a more aggressive mitigation measure. In theory, new projects should produce "negative" emissions to avoid increasing city emissions and interfering with its progress toward the CAAP targets. So the mitigation measure should include provisions for minimizing the project emissions plus offsetting its emissions by facilitating source reductions elsewhere in the city.

		The DEIR should present an analysis of the feasibility of reducing GHG emissions below those presented in Table 4.7-4. Table 4.7-6 should be revised to reflect the correct interpretation of the CAAP.
Impact 4.3-5, Land use compatibility with off-site sources of TACs and UFPs	Air Quality	Comment: The text points out diesel particulate matter (DPM) as a potentially serious health issue. As noted in the MRIC EIR, the California ARB recommends not siting any sensitive receptors closer than 500 ft. from the freeway. In its current configuration, most of the southern residential building and about half of two others fall inside this limit. The 500 ft. line is a guide rather than a regulation, but it does suggest that inside this zone, health impacts should be looked at with some extra care. Two different estimates of cancer risk are presented, one based on measurements and one based on the SMAQMD Roadway Protocol. Neither seem to be based on local dispersion modeling, which would presumably yield a more accurate estimate. In the EIR for McKinley Village (City of Sacramento, Nov 2013), an infill project sandwiched between I-80 and the UPRR in Sacramento, the SMAQMD Roadway Protocol was used as well, but it was felt in that case that a separate health risk assessment (Appendix C) based on local dispersion modeling was needed. One result was a contour map of cancer risk. Recommendation: Given that many project facilities fall within an area of potential concern, a closer examination of the issue is warranted. A health assessment based on dispersion modeling like that done for McKinley Village may provide more reliable risk estimates than those contained in the current document. In particular such an effort would clarify the mitigating effects of the freeway rising on the southern end of the project site, potential side-of-road measures such as trees or sound walls, and building filtration measures (which sound good until one considers how often people open their windows in this climate). A contour map of risk would be valuable for deciding the final placements of structures on the site. Such modeling should allow quantification of Mitigation Measures 4.3-5a and 5c, which the EIR states cannot be quantified now (p 4.3-33). This should be helpful to decision makers.

Impact 4.3-5, Land use compatibility with off-site sources of TACs and UFPs	Air Quality	Comment: As noted, the YSAQMD does not specify a cancer risk threshold, but that the BAAQMD specifies a 100 per million threshold. According to the McKinley Village EIR, the SMAQMD specifies an evaluation criterion of 276 per million. It may be difficult for the public to appreciate the magnitudes of these risks. Recommendation: Provide some comparisons between the cancer risks anticipated in this project and those estimated for various other environmental settings. Of particular value would be a comparison with the drinking water standards. Knowing that the cancer risks estimated for this project are several (or multiple) times the cancer risks of consuming the drinking water would offer valuable perspective, especially given the recent turmoil in some quarters over closing wells due to Cr(VI) concentrations. On the other hand, knowing that the cancer risks associated with this project are in the same ballpark (if true) as other air pollution risks would also provide perspective.
Impact 4.3-5, Land use compatibility with off-site sources of TACs and UFPs	Air Quality	Comment: In Mitigation Measure 4.3-5b, tree planting is proposed as a mitigation measure, but growth rate is very conservative (…"be at least 3 meters tall within 15 years of when the first residential dwelling unit on the site is inhabited.") Trees that reach only 10 feet in 15 years are probably not going to provide much mitigation, especially to second- and third-story residences. Recommendation: Revise the parameters of this mitigation measure to offer more protection.
7.4.2 Evaluation of Alternatives	Alternatives	Comment: Alternative 2 was defined as replacing the mixed use with 1.2 M SF of R&D. In the analysis it was pointed out that this development would generate more vehicle trips with associated air pollution, traffic congestion, and GHG emissions. On the other hand, the subjection of sensitive receptors to air pollution and noise would be avoided. The conclusion stated was that Alternative 2 is inferior to the project. What was not considered, however, was an alternative that simply eliminated the residential development from the site and maintained the R&D level currently proposed (or only slightly larger). Such an alternative would remove the sensitive receptors and generate no more trips than those currently anticipated by the R&D facilities. An advantage would be that significant space would be available onsite for PV facilities which could provide project energy needs and offset mobile GHG emissions. Recommendation: Add this alternative to the discussion in Section 7.4.2. If a connection cannot be made to the campus beneath the UPRR tracks, this alternative might be an attractive alternative to the project, and having an environmental assessment would aid decision makers.

	GHG	Comment: The schedule of GHG targets for the project that are listed in the mitigation measures is not consistent with the city's CAAP targets (Table 4.7.1). The city's goals for 2020, for instance, are "28% below 1990". What is intended is that total city emissions be 28% below actual 1990 emissions. The project target, as specified in the mitigation measure is based on reductions below a hypothetical 1990 level of emissions as determined by CalEEMod. Consequently, at a time when the city is attempting to ratchet down its emissions from current levels, the project proposes to increase city emissions by 10,664 MTCO2e/yr (Table 4.7-5). Viewed in this light, the project is a step backwards from achieving the CAAP goals. The EIR calls this a significant and unavoidable. It is significant, but does it have to be unavoidable? Recommendation: The applicant should propose a more aggressive mitigation measure. In theory, new projects should produce "negative" emissions to avoid increasing city emissions and interfering with its progress toward the CAAP targets. So the mitigation measure should include provisions for minimizing its own emissions and offsetting its emissions by reductions from sources elsewhere in the city. The DEIR should present an analysis of the feasibility of reducing GHG emissions below those presented and the text should be revised to reflect the correct interpretation of the CAAP.