July 10, 2020

Andrea Gilbert
Senior Planner
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Development Services Department
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Submitted via email: agilbert@cityofchino.org

Dear Andrea Gilbert:

Thank you for providing the California Air Resources Board (CARB) with the opportunity to comment on the Majestic Chino Heritage (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2019039133. The Project consists of the construction and operation of 2 warehouse buildings totaling 2,082,750 square feet on 96.9 acres of land. The proposed warehouse buildings would include approximately 100,000 square feet of cold storage space. Once in operation, the Project would introduce 4,440 daily vehicle trips, including 824 daily heavy-duty truck trips, along local roadways. The Project is located within the City of Chino (City), California, which is the lead agency for California Environmental Quality Act (CEQA) purposes.

CARB submitted comments on the Notice of Preparation (NOP) for the DEIR released in March 2019, which is included as Attachment A of this letter. CARB's March 2019 comments highlighted the need for a health risk assessment (HRA) to be prepared for the Project and encouraged the City and applicant to implement all existing and emerging zero-emission technologies to minimize exposure to diesel particulate matter (diesel PM) and nitrogen oxides (NO_x) emissions for all neighboring communities, as well as minimize the greenhouse gases that contribute to climate change. Furthermore, CARB's comments emphasized the potential cumulative health impacts should the City allow the construction of the proposed industrial buildings near communities that score within the top 2 percent of California census tracts on the California Communities Environmental Health Screening Tool Version 3.0 (CalEnviroScreen).[1] CARB has reviewed the DEIR and has the following concerns:

[1] "CalEnviroScreen 3.0." California Office of Environmental Health Hazard Assessment, June 2018, https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30.

I. The Health Risk Assessment Used Inappropriate Assumptions When Modeling the Project's Health Risk Impacts

The Project's description states that approximately 100,000 square feet of the proposed warehouse building space would be used for cold storage. Warehouses containing cold storage require trucks with transport refrigeration units (TRU) to transport frozen goods to and from the facility.[2] Based on CARB's research, TRUs on trucks and trailers can emit large quantities of diesel exhaust while operating within a facility. Residences and other sensitive receptors (e.g., daycare facilities, senior care facilities, and schools) located near the Project would be exposed to diesel exhaust emissions that would result in significant cancer risk. CARB has reviewed the Project's HRA and has concerns regarding the assumptions used to estimate the Project's health impacts.

The HRA assumed all heavy-duty trucks with TRUs visiting the Project site would not idle longer than 30 minutes. Data obtained by CARB indicates that trucks with TRUs can operate for as long as 2 hours per visit, which is well above the 30-minute duration assumed in the HRA. Unless the applicant and City restrict TRU idling duration to less than 30 minutes, the Project's HRA should be revised.

The HRA assumed 35 of the Project's 824 total daily heavy-duty truck traffic (approximately 4 percent) would consist of trucks equipped with TRUs. It is unclear in the HRA how this estimate was derived. Due to the large size of the proposed warehouse development, CARB is concerned that the number of TRUs visiting the Project site is underestimated in the HRA. CARB urges the City and applicant to revise the HRA to assume a conservative percentage of the Project's total daily heavy-duty truck traffic include trucks equipped with TRUs, supported by substantial evidence.

The HRA states that diesel PM emissions from on and off-site TRU activities were accounted for in the Project's air dispersion modeling. To estimate the emissions from Project-related TRUs, the HRA assumed 60 percent of the TRUs accessing the Project site would have a power rating of 34 horsepower (hp) and the other 40 percent would have a power rating of 23 hp. Based on this mix, the City calculated the average idling emission factor of Project-related TRUs to be 0.62 grams per brake horsepower-hour (g/bhp-hr). Table 2-5 (DPM Emission from Project Trucks (2022 Analysis Year)) of the HRA summarizes the combined diesel PM emission rates from on and off-site heavy-duty trucks and TRUs. However, it is unclear how the 0.62 g/bhp-hr TRU emission factor was used to calculate the diesel PM emission rates presented in the table. Due to the lack of clarity in the HRA, CARB urges the City and applicant to revise the HRA to include specific details of the assumptions used to calculate the cancer risk impacts, supported by substantial evidence.

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[2] TRUs are refrigeration systems powered by integral diesel engines that protect perishable goods during transport in an insulated truck and trailer vans, rail cars, and domestic shipping containers.

The HRA used diesel PM mobile emission factors obtained from CARB's 2014 Emission Factors model (EMFAC2014) in the Project's dispersion modeling. Project-related air pollutant emissions from mobile sources should be modeled using CARB's latest EMFAC2017.[3] One of the many updates made to EMFAC included an update to the model's heavy-duty emission rates and idling emission factors, which results in higher particulate matter (PM) emissions as compared to EMFAC2014. Since EMFAC2017 generally shows higher emissions of PM from trucks than EMFAC2014, the Project's mobile source diesel PM emissions are likely further underestimated. CARB urges the City and applicant to model and report the Project's air pollution emissions from mobile sources using emission factors found in CARB's latest EMFAC2017 in the HRA.

II. Recommend Mitigation Measures

The DEIR includes a list of eight mitigation measures (MM-4.2-1 through MM-4.2-8) to reduce the Project's significant impact on air quality. These mitigation measures include best practices in reducing on-site fugitive dust emissions, using off-road equipment with Tier 3 engines in reducing diesel PM exhaust during Project construction, restricting heavy-duty truck idling duration to 3 minutes, and installing electrical hookups at all dock doors designated for the loading/unloading of trailers holding refrigerated/frozen goods. Although these mitigation measures would reduce the Project's air pollutant emissions, the DEIR concludes that the Project's impact on air quality would remain significant after mitigation. Even where impacts will remain significant and unavoidable after mitigation, CEQA requires that all feasible mitigation measures be incorporated (see California Public Resources Code§ 21081; 14 CCR§ 15126.2(b)). To meet this requirement, CARB urges the City and applicant to add the emission reduction measures listed below in the Final Environmental Impact Report (FEIR).

- Ensure the cleanest possible construction practices and equipment are used. This includes eliminating the idling of diesel-powered equipment and providing the necessary infrastructure (e.g., electrical hookups) to support zero and near-zero equipment and tools.

- Implement, and plan accordingly for, the necessary infrastructure to support the zero and near zero-emission technology vehicles and equipment that will be operating on site. Necessary infrastructure may include the physical (e.g., needed footprint), energy, and fueling infrastructure for construction equipment, on-site vehicles and equipment, and medium-heavy and heavy-heavy duty trucks.

[3] The United States Environmental Protection Agency (U.S. EPA) approved the use of EMFAC2017 for SIP and conformity purposes effective August 15, 2019.

- In construction contracts, include language that requires all off-road diesel-powered equipment used during construction to be equipped with Tier 4 or cleaner engines, except for specialized construction equipment in which Tier 4 engines are not available. In place of Tier 4 engines, off-road equipment can incorporate retrofits such that emission reductions achieved equal or exceed that of a Tier 4 engine.

- Include contractual language in tenant lease agreements that requires all TRUs entering the project site be plug-in capable.

- Include contractual language in tenant lease agreements that requires all service equipment (e.g., yard hostlers, yard equipment, forklifts, and pallet jacks) used within the project site to be zero-emission. This equipment is widely available.

- Include contractual language in tenant lease agreements that requires all heavy-duty trucks entering or on the project site to be model year 2014 or later, expedite a transition to zero-emission vehicles, and be fully zero-emission beginning in 2030.

- Include contractual language in tenant lease agreements that requires the tenant be in, and monitor compliance with, all current air quality regulations for on-road trucks including CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation,[4] Periodic Smoke Inspection Program (PSIP),[5] and the Statewide Truck and Bus Regulation.[6]

- Include rooftop solar panels for each proposed warehouse to the extent feasible, with a capacity that matches the maximum allowed for distributed solar connections to the grid.

III. Conclusion

CARB is concerned about the potential public health impacts should the City approve the Project. As discussed above, the DEIR may not have accounted for diesel PM emissions from heavy-duty trucks with TRUs when evaluating the Project's cancer risk

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4. In December 2008, CARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty tractors that pull 53-foot or longer box-type trailers. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation is available at: https://www.arb.ca.gov/cc/hdghg/hdghg.htm.

5. The PSIP program requires that diesel and bus fleet owners conduct annual smoke opacity inspections of their vehicles and repair those with excessive smoke emissions to ensure compliance. CARB's PSIP program is available at: https://www.arb.ca.gov/enf/hdvip/hdvip.htm.

6. The regulation requires that newer heavier trucks and buses must meet PM filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent. CARB's Statewide Truck and Bus Regulation is available at: https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm.

impacts. CARB recommends that the City and applicant revise the Project's HRA, assuming a conservative percentage of the trucks visiting the Project site are equipped with TRUs and report the findings in the FEIR. Furthermore, the revised HRA analysis presented in the FEIR should be based on the latest EMFAC2017, and include all feasible mitigation measures listed under Section II to reduce the Project's significant and unavoidable impact on air quality.

Given the breadth and scope of projects subject to CEQA review throughout California that have air quality and greenhouse gas impacts coupled with CARB's limited staff resources to substantively respond to all issues associated with a project, CARB must prioritize its substantive comments here based on staff time, resources, and its assessment of impacts. CARB's deliberate decision to substantively comment on some issues does not constitute an admission or concession that it substantively agrees with the lead agency's findings and conclusions on any issues on which CARB does not substantively submit comments.

CARB appreciates the opportunity to comment on the DEIR for the Project and can provide assistance on zero-emission technologies and emission reduction strategies, as needed. If you have questions, please contact Stanley Armstrong, Air Pollution Specialist, at (916) 440-8242 or via email at stanley.armstrong@arb.ca.gov.

Sincerely,

Richard Boyd, Chief
Risk Reduction Branch
Transportation and Toxics Division

Attachment

cc: See next page.

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Attachment A

CALIFORNIA
AIR RESOURCES BOARD

Mary D. Nichols, Chair
Jared Blumenfeld, CalEPA Secretary
Gavin Newsom, Governor

April 22, 2019

Ms. Andrea Gilbert
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13220 Central Avenue
Chino, California 91710

Dear Ms. Gilbert:

Thank you for providing the California Air Resources Board (CARB) with the opportunity to comment on the Notice of Preparation (NOP) for the Majestic Chino Heritage Project (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2019039133. The Project consists of the construction and operation of two warehouse buildings totaling 2,082,750 square feet on 96.9 acres of land in the City of Chino (City). Implementation of the Project would require a change to the existing land use designation from "Agriculture" and "Recreation/Open Space" to "General Industrial".

CARB staff is concerned about the air pollution impacts that would result should the City approve the Project, and the land use change from agriculture and recreational/open space to general industrial, to build two large warehouses. Freight facilities, such as warehouse and distribution facilities, can result in high daily volumes of heavy-duty diesel truck traffic and operation of onsite equipment (e.g., forklifts, yard tractors) that emit toxic diesel emissions, and contribute to regional air pollution and global climate change.

Residences are located east and west of the Project site, with the closest residences situated approximately 2,600 feet east of the Project's eastern boundary. Schools are located within two miles of the Project, which include Chino Hills High School and Egan Lyle High School. The community is surrounded by existing toxic diesel emission sources, which include warehouses, the Chino Airport, and a major freeway (SR 71). Due to the Project's proximity to residences and schools already disproportionately burdened by multiple sources of pollution, CARB staff is concerned with the potential cumulative health risks associated with the construction and operation of the Project.

The State of California has placed additional emphasis on protecting local communities from the harmful effects of air pollution through the passage of Assembly Bill 617 (AB 617) (Garcia, Chapter 136, Statutes of 2017). AB 617 is a significant piece of air quality legislation that highlights the need for further emission reductions in communities

with high exposure burdens, like those in which the Project is located. Diesel emissions generated during the construction and operation of the Project would negatively impact the community, which is already disproportionally impacted by air pollution from existing freight facilities.

The California Environmental Protection Agency (CalEPA) defines a disadvantaged community as a community that scores within the top 25 percent of the census tracts, as analyzed by the California Communities Environmental Health Screening Tool Version 3.0 (CalEnviroScreen). CalEnviroScreen uses a screening methodology to help identify California communities currently disproportionately burdened by multiple sources of pollution. The census tract containing the Project is within the top 2 percent for Pollution Burden.[1] Therefore, CARB urges the City to ensure that the Project and land use change does not adversely impact neighboring disadvantaged communities.

The NOP does not state whether the proposed warehouses would include cold storage. The operation of cold storage warehouses would include trucks with transport refrigeration units (TRU) that emit significantly higher levels of toxic diesel emissions, oxides of nitrogen (NO_x), and greenhouse gases than trucks without TRUs. Since it is unclear whether the Project would include cold storage warehouse space, any modeling done in support of the air quality analysis of the DEIR and associated health risk assessment (HRA) should assume that a conservative percentage of the truck and trailer fleet that would be serving the Project are equipped with TRUs.

In addition to the health risk associated with operations, construction health risks should be included in the air quality section of the DEIR and the Project's HRA. Construction of the Project would result in short-term diesel emissions from the use of both on-road and off-road diesel equipment. The Office of Environmental Health Hazard Assessment's (OEHHA) guidance recommends assessing cancer risks for construction projects lasting longer than two months. Since construction would very likely occur over a period lasting longer than two months, the HRA prepared for the Project should include health risks for existing residences near the Project site during construction.

The HRA prepared in support of the Project should be based on the latest OEHHA guidance (2015 Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments),[2] and the South Coast Air Quality Management District's CEQA Air Quality Handbook.[3] To reduce the exposure of toxic diesel emissions in disadvantaged communities already disproportionally impacted by air pollution, the final

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[1] Pollution burden represents the potential exposures to pollutants and the adverse environmental conditions caused by pollution.

[2] Office of Environmental Health Hazard Assessment (OEHHA). Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. February 2015. Accessed at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

[3] SCAQMD's 1993 Handbook can be found at http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook

design of the Project should include all existing and emerging zero-emission technologies to minimize NO_x and diesel emission exposure to all neighboring communities, as well as the greenhouse gases that contribute to climate change. CARB encourages the City and applicant to implement the measures listed in Attachment A of this comment letter to reduce the Project's construction and operational air pollution emissions.

The HRA should evaluate and present the existing baseline (current conditions), future baseline (full build-out year, without the Project), and future year with the Project. The health risks modeled under both the existing and the future baselines should reflect all applicable federal, state, and local rules and regulations. By evaluating health risks using both baselines, the public and City planners will have a complete understanding of the potential health impacts that would result from the Project.

CARB appreciates the opportunity to comment on the NOP for the Project and can provide assistance on zero-emission technologies and emission reduction strategies, as needed. Please include CARB on your State Clearinghouse list of selected State agencies that will receive the DEIR as part of the comment period. If you have questions, please contact Stanley Armstrong, Air Pollution Specialist, at (916) 440-8242 or via email at stanley.armstrong@arb.ca.gov.

Sincerely,

Richard Boyd

Richard Boyd, Chief
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Attachment

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ATTACHMENT A

Recommended Air Pollution Emission Reduction Measures for Warehouses and Distribution Centers

California Air Resources Board (CARB) staff recommends developers and government planners use all existing and emerging zero to near-zero emission technologies during project construction and operation to minimize public exposure to air pollution. Below are some measures, currently recommend by CARB staff, specific to warehouse and distribution center projects. These recommendations are subject to change as new zero-emission technologies become available.

Recommended Construction Measures

1. Ensure the cleanest possible construction practices and equipment are used. This includes eliminating the idling of diesel-powered equipment and providing the necessary infrastructure (e.g., electrical hookups) to support zero and near-zero equipment and tools.

2. Implement, and plan accordingly for, the necessary infrastructure to support the zero and near-zero emission technology vehicles and equipment that will be operating onsite. Necessary infrastructure may include the physical (e.g., needed footprint), energy, and fueling infrastructure for construction equipment, onsite vehicles and equipment, and medium-heavy and heavy-heavy duty trucks.

3. In construction contracts, include language that requires all off-road diesel-powered equipment used during construction to be equipped with Tier 4 or cleaner engines, except for specialized construction equipment in which Tier 4 engines are not available. In place of Tier 4 engines, off-road equipment can incorporate retrofits such that emission reductions achieved equal or exceed that of a Tier 4 engine.

4. In construction contracts, include language that requires all off-road equipment with a power rating below 19 kilowatts (e.g., plate compactors, pressure washers,) used during project construction be battery powered.

5. In construction contracts, include language that requires all heavy-duty trucks entering the construction site, during the grading and building construction phases be model year 2014 or later. All heavy-duty haul trucks should also meet CARB's lowest optional low-NO_x standard starting in the year 2022.[1]

[1] In 2013, CARB adopted optional low-NO_x emission standards for on-road heavy-duty engines. CARB staff encourages engine manufacturers to introduce new technologies to reduce NO_x emissions below the current mandatory on-road heavy-duty diesel engine emission standards for model years 2010 and later. CARB's optional low-NO_x emission standard is available at https://www.arb.ca.gov/msprog/onroad/optionnox/optionnox.htm.

6. In construction contracts, include language that requires all construction equipment and fleets to be in compliance with all current air quality regulations. CARB staff is available to assist in implementing this recommendation.

Recommended Operation Measures

1. Include contractual language in tenant lease agreements that requires tenants to use the cleanest technologies available, and to provide the necessary infrastructure to support zero-emission vehicles and equipment that will be operating onsite.

2. Include contractual language in tenant lease agreements that requires all loading/unloading docks and trailer spaces be equipped with electrical hookups for trucks with transport refrigeration units (TRU) or auxiliary power units (APU). This requirement will eliminate the amount of time that a TRU powered by a fossil-fueled internal combustion engine can operate at the project site. Use of zero-emission all-electric plug-in TRUs, hydrogen fuel cell transport refrigeration and cryogenic transport refrigeration are encouraged and can also be included lease agreements.[2]

3. Include contractual language in tenant lease agreements that requires all service equipment (e.g., yard hostlers, yard equipment, forklifts, and pallet jacks) used within the project site to be electric or powered by compressed natural gas.

4. Include contractual language in tenant lease agreements that requires all heavy-duty trucks entering the project site to be model year 2014 or later.

5. Starting in the year 2022, include contractual language in tenant lease agreements that requires all trucks entering the project site to meet CARB's lowest optional low-NO_x standard.

[2] CARB's Technology Assessment for Transport Refrigerators provides information on the current and projected development of TRUs, including current and anticipated costs. The assessment is available at https://www.arb.ca.gov/msprog/tech/techreport/tru_07292015.pdf.

6. Include contractual language in tenant lease agreements that require the tenant be in, and monitor compliance with, all current air quality regulations for on-road trucks including CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation,[3] Periodic Smoke Inspection Program (PSIP),[4] and the Statewide Truck and Bus Regulation.[5]

7. Include contractual language in tenant lease agreements restricting trucks and support equipment from idling longer than five minutes while onsite.

8. Include contractual language in tenant lease agreements that limits onsite TRU diesel engine runtime to no longer than 15 minutes. If no cold storage operations are planned, include contractual language and permit conditions that prohibit cold storage operations unless a health risk assessment is conducted and the health impacts mitigated.

9. Include rooftop solar panels for each proposed warehouse to the extent feasible, with a capacity that matches the maximum allowed for distributed solar connections to the grid.

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[3] In December 2008, CARB adopted a regulation to reduce greenhouse gas emissions by improving the fuel efficiency of heavy-duty tractors that pull 53-foot or longer box-type trailers. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. CARB's Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation is available at https://www.arb.ca.gov/cc/hdghg/hdghg.htm.

[4] The PSIP program requires that diesel and bus fleet owners conduct annual smoke opacity inspections of their vehicles and repair those with excessive smoke emissions to ensure compliance. CARB's PSIP program is available at https://www.arb.ca.gov/enf/hdvip/hdvip.htm.

[5] The regulation requires newer heavier trucks and buses must meet PM filter requirements beginning January 1, 2012. Lighter and older heavier trucks replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent. CARB's Statewide Truck and Bus Regulation is available at https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm.