Memorandum

Date: October 18, 2022

To: Joanna Julian, Thompson-Dorfman Partners, LLC

From: Philip Ault, Director of Noise and Air Quality

Subject: Response to Comments Memorandum for the Mallard Pointe Redevelopment Project

FirstCarbon Solutions (FCS) completed an environmental analysis and supporting technical reports that summarized the results of criteria air pollutants, greenhouse gas (GHG) emissions, noise impacts, and biological assessment for the proposed Mallard Pointe Redevelopment Project (proposed project) located along Mallard Road, in Belvedere, California. There are several comments and questions regarding the descriptions and key assumptions of various subjects and methodologies, the data, and the calculations presented in the report. FCS is providing comments to proposed questions to allow for efficient subsequent reviews of the applicable documents. Detailed comments are presented below.

5566 Mallard Point Noise Analysis, Biological Site Assessment, and Air Quality and Greenhouse Gas (GHG) Emissions Analysis

Air Quality and Greenhouse Gas (GHG) Emissions Analysis

Comment 1: Page 1

BAAQMD guidance related to "consistency with air quality plans" threshold question specifically directs agencies and CEQA document preparers to evaluate whether the project is consistent with the control measures in the Clean Air Plan and whether or not the project would hinder Clean Air Plan implementation, not just the General Plan. In this case, it seems the project would not hinder implementation because the project is near parks and City Hall (i.e., walkable), and will include green building measures (LEED, drought tolerant landscape). These are all consistent with the Clean Air Plan, but these features are not discussed. This threshold discussion should be expanded upon consistent with BAAQMD guidance.

Response 1

Thank you for pointing it out. The Air Quality and GHG memorandum was revised according to this comment. Specifically, a Clean Air Plan Consistency Table was added to the memorandum that addresses the proposed project's consistency with the implementation of the BAAQMD's Clean Air Plan.

Comment 2: Page 3, Table 1

Confirm all construction modeling is based on CalEEMod defaults.

Response 2

Land use summary, cut and fill volume, and construction schedule are based on applicant-provided information. It is now clarified in the memorandum before Table 1. In addition, detailed assumptions are provided in the "CalEEMod Notes" page included in Attachment A of the Air Quality and GHG memorandum. Rather than including remarks directly within CalEEMod, this "CalEEMod Notes" document contains detailed assumptions and justifications for the inputs used in the emissions modeling prepared using CalEEMod.

Comment 3: Page 4, Table 2

It is unclear if the analysis accounts for (i.e., nets out) emissions associated with operation of the 22 existing single-family units. Please clarify.

Response 3

The Air Quality and GHG memorandum was revised according to this comment. Operational air pollutant emissions in Table 2 do not account for existing emissions (which provides a conservative estimate of emissions for the purpose of comparing to the applicable thresholds of significance). The memorandum was revised to clarify that the operational emissions summary tables do not account for existing emissions (meaning existing emissions were not subtracted from the proposed project's generation of emissions).

Comment 4: Page 4

This is the first time "stationary sources" comes up. It is unclear why the generators are included because residential uses do not typically require backup generators. Regardless, it is unclear without digging into the appendices how often the modeling assumed they would be tested, their size, and if a specific emissions tier was assumed. Please clarify the modeling assumptions in the report and why generators were included.

Response 4

Originally, the analysis assumed that each building could contain a backup generator, as specifics were unknown at the time modeling was performed in April of 2022. The project applicant has confirmed that no generators or stationary sources are included as part of the proposed project. The references to backup generators were removed from the memorandum, as no stationary sources or diesel backup generators are proposed as part of the proposed project.

<u>Specific comments related to the Health Risk Assessment (HRA) (comments 5–13):</u>

Comment 5: Page 7

Confirm that the RMP method was not adjusted, and 95th percentile breathing rates through age 2 and 80th percentile breathing rates beyond age 2 were assumed.

Response 5

The calculations were performed in HARP2, and the assessment used the "high-end" breathing rate values. The "high-end" breathing rates apply the 95th percentile breathing rates, and no adjustments were made. The HARP2 output file used to estimate cancer risk was added as part of Attachment A and show that the "high-end" calculation method was applied, and no adjustments were made. As the construction period is less than 2 years, there is no activity assumed to occur in age bins beyond age 2. In addition, the HRA used residential factors for all receptor types, which provides a conservative of cancer risks at nonresidential receptors.

Comment 6: Page 3

Confirm haul trucks were modeled in the HRA to the freeway only.

Response 6

Roads within 1,000 feet of the project site were modeled as off-site sources. As noted in the updated memorandum, line volume sources include Beach Road, San Rafael Avenue, Community Road, and Leeward Road that are within 1,000 feet of the project site. In addition, Attachment A shows these same assumptions.

Comment 7: Page 10–11, Table 4

Table 4 and paragraph above it on page 10 conflict, Table 4 shows cancer risk is highest at Belvedere Park even though the text indicates the highest risk is at the residence. Please confirm where the highest risk is.

Response 7

The discrepancy has been reconciled, and the text and Table were updated accordingly. A review of the calculations completed in April 2022 showed that the calculations for the Park receptors were adjusted, but they also assumed exposure to construction emissions for 3 years (while the total construction duration is under 2 years). The health risk calculations were updated by performing the calculations in HARP2 with all receptors assumed to be residential receptors. After these revisions were made, the MIR was determined to be an existing residence. The reference to park receptors were removed from Table 4. An exhibit of the location of the MIR was added to Attachment A. In addition, the rest of the memorandum was reviewed to ensure that the MIR was referred to consistently throughout the document.

Comment 8: Page 11

Risk at Belvedere Park is unusually high. It is uncommon to see DPM-related risk higher at recreational uses than residential uses because exposure duration should be much lower. Does the HRA assume the same exposure at the park as the residential uses (30 years, 350 days/year)? If so, that is not appropriate and greatly exaggerates risk at the parks.

Response 8

In the previous model (AERMOD run completed in April 2022), the park's southwest boundary was drawn right next to roadway source and almost touching the project site (only 13 feet to the construction area source at the project site). On the other hand, the closest residential land use is 36 feet from the project boundary and even further away from the construction center and roadway sources. In addition, the cancer risk calculations used in the previous analysis assumed a longer exposure duration than what was assumed for residential receptors (see Response 7). The analysis was revised to address these issues. First, the receptors at the park were placed in a similar fashion as the other discrete receptors in AERMOD. Second, the health risk calculations were re-run using HARP2. Please see Response 7 for details. The memorandum (including Attachment A of the memorandum) was updated to reflect these changes.

Comment 9: Page 45

Related to modeling (PDF page 66/100), please identify what the 3.33-meter area source (equipment) and 2.83 meter volume source (truck) release height are based on. These seem reasonable but are not explained or cited.

Response 9

Since the lot is small, it was assumed that a small bulldozer (approximately 3 meters tall) would be used. Adding a small height for the exhaust pipe extending out, 3.33 meters was used for the release height in the model.[1]

It was assumed that dump trucks would be used for construction hauling trips, which are assumed to contribute to the DPM levels more than other construction vehicles. Based on a review of dump truck specifications, a dump truck could be 2.7 to 3.3 meters tall from the ground; therefore, 2.83 meters was used in the modeling for the release height.[2]

[1] Caterpillar Inc. Small Dozer D3. Website: https://www.cat.com/en_US/products/new/equipment/dozers/small-dozers/106100.html. Accessed October 7, 2022.

[2] Best Mulch Equipment and Services. Website: https://www.bestmulch.com/newpage#:~:text=Height%3A%209'10%22,Front%20compartment%3A%209%20cubic%20yards. Accessed October 7, 2022.

Comment 10: Page 3

It is unclear if the annual $PM_{2.5}$ concentrations include fugitive dust or just exhaust. It should include both. Please clarify and adjust modeling if dust is not included.

Response 10

In the previous memorandum, only exhaust $PM_{2.5}$ was modeled. The analysis has been updated to include both exhaust and dust $PM_{2.5}$.

Comment 11: Page 40

Related to AERMOD inputs in the appendix, specifically the grams per hour (g/h) calcs for on-site emissions (PDF page 61/100), this 1.12 g/h number seems to be based on 18,279.6 grams divided by 16,296 elapsed hours. This is the annual average emission rate spread out over all hours of the year (24/7/365). Construction is typically a daytime-only activity. It is unclear if the "variable rates" (daytime-only) function in AERMOD was used to only model daytime uses and meteorology, or if the AERMOD modeling is based on all meteorology assuming this annual average rate. This seems to be inappropriate because daytime winds are typically higher and more representative of actual construction activity, but again, it is unclear what was assumed.

Response 11

Thank you for pointing it out. the text of the memorandum and Attachment A of the memorandum have both been updated to explain that the variable rates function was used in AERMOD. As explained in more detailed in the revised memorandum, an adjustment factor of 4.2 was used in the “variable rates” AERMOD option to reflect an 8-hour day, 5 days per week construction schedule.

Comment 12

It is unclear how HARP was used because the inputs are not included in the appendix. Please provide.

Response 12

The complete HARP2 inputs were added to Attachment A. In addition, Page 9 of the memorandum was updated to clarify how HARP2 was used in the assessment.

Comment 13: Page 13

Under the Criterion 3 heading, the fact that BAAQMD permits stationary sources does not absolve the lead agency from analyzing said sources. There are 15 speculative backup diesel generators assumed, each tested (running) for 50 hours per year, totaling 750 hours of diesel engine testing. All of this testing is near homes. This amount of testing and associated DPM right next to homes needs to be discussed because this may not be an insignificant amount of diesel exposure.

Response 13

As detailed in Comment 4, stationary sources were removed entirely from the memorandum.

Specific comments related to GHG analysis (Comments 14 and 15):

Comment 14: Page 16

Related to the GHG approach and threshold, emissions are small, and would likely result in less than significant impacts regardless of the approach. That said, this is not an appropriate use of the bright line, nor is the adjusted bright line math correct. The proposed project is a residential use. The more appropriate numerical threshold would be the efficiency metric, which can be adjusted with some caveats. Assuming 2.86 people per unit (from Appendix D of CalEEMod), this comes to 120 capita (or service population). Then, the math is as follows: 290 MT CO_2e/120 service population = 2.41 MT CO_2e/service population. If BAAQMD's efficiency metric is adjusted to 2025 (not 2030, as assumed in the bright line adjustment), the project is then likely to be below the 2025 efficiency metric. This adjustment to the efficiency metric is not perfect (does not account for "new" development), but it is more appropriate because both the numerator and denominator are adjusted (rather than just adjusting the "capture rate" in the numerical bright line), and this approach is used frequently for residential or mixed-use projects in BAAQMD. The analysis should disclose these caveats so the reader understands the methodology and results and should be supplemented with more discussion about the nature of the project (small, replaces similar uses, consistent with general plan, green building likely beyond code) and the fact that modeling likely overestimates emissions (seems default trip lengths and building utility consumption were used).

Response 14

The GHG emissions summary table was updated to include per capita emissions. In addition, the text was updated to reference the City of Belvedere Climate Action Plan 2030 (CAP) that was adopted in June 2022. As explained in the revised memorandum, the threshold applied to determine significance is consistent with the GHG reduction goals cited in the City's current CAP. The proposed project only needs to be under one of the thresholds to be considered less than significant; therefore, the proposed project's efficiency metric was added for informational purposes only.

Comment 15: Page 16

Unclear why construction emissions are summed, amortized, and added to operational emissions. This is not consistent with BAAQMD guidance.

Response 15

BAAQMD does not specify how construction GHG emissions are addressed, but they do recommend that construction emissions are quantified and disclosed. While we agree that the BAAQMD does not require the analysis to include amortized construction emissions, we disagree that the practice is inconsistent with BAAQMD guidance. The paragraph above Table 7

(Construction Greenhouse Gas Emissions) explains why construction GHG emissions are summed, amortized, and added to the operational emissions.

Biological Site Assessment

Comment 16: Page 5, First Paragraph

Species of special concern and watch list species are not exactly equivalents. Species of special concern generally have a more limited distribution, higher threat level, and/or lower overall abundance statewide than watch list species. CDFW watch list species are generally not treated as special-status species in CEQA analyses and the threshold for significant impacts would be higher than for species of special concern. Impacts to watch list species may be considered significant pursuant to CEQA Section 15065 or 15380 on a case-specific basis.

Response 16

The Biological Site Assessment (BSA) was revised according to this comment.

Comment 17: Page 5, Second Paragraph

In March 2010, CDFW changed the name of "CNPS List" or "CNPS Ranks" to "California Rare Plant Rank" (or CRPR). This was done to reduce confusion over the fact that CNPS and DFG jointly manage the Rare Plant Status Review groups (300+ botanical experts from government, academia, NGOs and the private sector) and that the rank assignments are the product of a collaborative effort and not solely a CNPS assignment.

Response 17

The BSA was revised according to this comment.

Comment 18: Page 5, Fourth Paragraph

The last two sentences here do not apply to fully protected status but to CESA-listed species.

Response 18

The last two sentences the reviewer refers to are clearly identified as applicable to CESA by starting with the statement "To comply with the requirements of CESA (. . .)". Nowhere in this paragraph is it implied that any content of this paragraph is applicable to fully protected species. Therefore, no revisions to the BSA are necessary.

Comment 19: Page 6, First Paragraph

Page 6, first paragraph–Strictly speaking, there is no geographical extent to CDFW jurisdiction under 1602. As defined, their jurisdiction is over activities that may affect lakes, streams, or rivers, not over areas. Activities that may affect lakes, streams, and rivers are not restricted to the drip line or top of bank.

Response 19

The BSA was revised according to this comment.

Comment 20: Page 6, Second Paragraph

As noted above, the ranking is done in collaboration with CSFW and technical experts. The rarity ranks are officially recognized by CDFW so they should not be described as an artifact of CNPS (an NGO) alone. They are sanctioned by the resource agency charged with the protection of plant and wildlife resources in the state. Also consider the relevancy of this regulation and the potential for habitat for special-status plants to occur. It can be stated in the text that it does not occur on-site.

Response 20

The reviewer refers to "CSFW," which is undefined and not used in the BSA. However, assuming this was a typo, the BSA paragraph in question was revised to include a clarification that the CNPS and CDFW collaborate on the CRPR designations.

Regarding the second issue mentioned by the reviewer, the paragraph the reviewer refers to here is intended to summarize the Regulatory Background (as indicated by the Section header "Regulatory Background"), and does therefore not address site-specific conditions or results, such as presence/absence of habitat for special-status plants. Please refer instead to the Results section addressing special-status plant species and presence/absence of suitable habitat.

Comment 21: Page 14, Second Paragraph

Is all this necessary as there are no natural vegetation communities or native plant habitats on-site?

Response 21

This is a description of the methods used. These methods are necessary to first determine which vegetation communities are present (or absent) in order to then make a determination whether they would qualify as "sensitive" and "native plant habitats."

Comment 22: Page 15, Last Paragraph

Page 15, Section 3.2.3 Wildlife Movement Corridors–is the second paragraph necessary as it is clear the site is fully developed and surrounded by more development, so it does not serve as a wildlife movement corridor?

Response 22

One of the BSAs purposes is to formally document the extent (or absence) of wildlife corridors present, and a disclosure of the methods used. Please note that developed site conditions and surrounding urban land uses do not automatically preclude the presence of a wildlife corridor, even if it is assumed that all readers know of the developed site conditions and surrounding urban land uses of this specific project site.

Comment 23: Page 17, First Paragraph

More context and information related to fill needs to be provided. Was the fill placed into San Pablo Bay to connect Belvedere Island to Tiburon Point?

Comment 24: Page 18, First Paragraph

Clarity around the work that will be performed on the docks is needed. Would the project include strictly replacement of one-for-one replacement in the same location as existing docks? Would any new docks be constructed where none exist currently? Would replacement docks be in different locations and possibly require more piles?

Comment 25: Page 18, First Paragraph

It is our understanding that runoff and water discharge from the site into the lagoon would no longer occur by sheet flow and is proposed through a new system that would discharge through the bulkhead. Provide more clarity around the amount of runoff that would be discharged and if it would be an increase from the existing condition. Also, are there any other properties on the lagoon that discharge runoff through the bulkhead?

Comment 26: Page 18, First Paragraph

Clarity around improvements to the bulkhead are needed. Would the project be replacing the bulkhead or the entire site? Or performing upgrades/repairs in specific locations? If it is in specific locations, they need to be identified.

Response 23-26

Comments 23–26 will be addressed separately as agreed upon during 10/12/2022 call with Ascent and City team members.

Comment 27: Page 27, First Paragraph

Some level of nest monitoring with performance standards should be added for determining whether the buffer distance is sufficient as well as when the young have fledged, and the avoidance buffer can be removed.

Response 27

AMM-1 was revised to include the performance standard related to the buffer distance and added minimum buffer distances. The performance standard for when the young have fledged and the avoidance buffer can be removed is defined by the statement “until the young have fledged and are foraging independently,” which is language used by the CDFW for similar situations and is therefore sufficient for the purpose of this measure.

Comment 28: Page 27, Third Paragraph

A requirement to determine species (can use acoustic identification) should be added as well as type of use (e.g., maternity) and base buffer on rarity and sensitivity of species present and type of use.

Response 28

AMM-2 was revised to include a requirement to determine the species through acoustic or other means. The requirement to determine the type of use (e.g., maternity) was added; as well as the requirement to base the buffer on rarity and sensitivity of species present and type of use.

Noise Analysis

Comment 43: Pages 9–12

Mitigation Measures NOI-1 and NOI-2 limit construction activities and provide measures to reduce impacts associated with pile driving, should pile driving occur. However, City policy already limits construction times for all activity including pile driving and requires a vibration control plan if pile driving were to occur. If adherence to City policies would avoid potential impacts, the analysis should describe that, rather than include mitigation, and explain how the policies would avoid potential impacts. Would compliance with City policies avoid impacts and mitigation measures?

Response 43

It has now been determined that impact pile driving of any kind would not be used for the proposed project. Therefore, the analysis has been revised accordingly, and compliance with the City's policies limiting construction activities to daytime hours would ensure construction noise impacts would be less than significant.

Comment 44: Page 8

Related to the above comment, the study states pile driving would not occur but then evaluates pile driving in the event that pile driving would occur. Can we determine now if pile driving would be required to include the most relevant analysis now?

Response 44

It has now been determined that impact pile driving of any kind would not be used for the proposed project. Therefore, the analysis has been revised accordingly.

Comment 45

The project proposes additional residential uses, thus, operational increases in noise needs to be addressed.

Response 45

This is only a Construction Noise Impacts Constraints Analysis. Our Scope of Work does not include operational noise impact analysis. However, the proposed project would replace existing

residential land uses with similar residential development and would not result in doubling of any stationary noise sources or daily traffic trips. Therefore, implementation of the proposed project would not result in a substantial noise increase of 3 dBA or greater related to these operational noise sources. Therefore, operational noise impacts would be less than significant.

Comment 46: Page 6–7

It is stated that "Project-related construction trips would not be expected to double the hourly traffic volumes along any roadway segment in the project vicinity." This statement needs more substantiation. Increases in traffic on currently existing quiet/local roadways could result in perceptible increases, possibly substantial increases (note that recent court decisions have transitioned the focus of noise analysis from consistency with agency noise-related standards, policies, and ordinances to increases in ambient noise). Additional analysis should be included to support the conclusion.

Response 46

The Construction Noise Impacts Constraints Analysis was revised according to this comment.

Comment 47: Page 7

Reference noise levels for front loaders are stated to be 85 dBA Lmax but Table 1 shows this equipment with a reference level of 80 dBA. Please correct text and associated modeling, if necessary.

Response 47

The Construction Noise Impacts Constraints Analysis was revised according to this comment.

Comment 48: Page 7

Text discussing equipment reference levels is provided for trucks, loaders, and excavators but it is not clear if the modeling added noise from these three pieces together. Please explicitly state what equipment were combined together to result in the worst-case noise estimate.

Response 48

The Construction Noise Impacts Constraints Analysis was revised according to this comment, and calculation data was provided in Attachment B.

Comment 49: Page 7

Noise/vibration calculations that show modeling inputs and outputs needs to be included. Suggest including as appendices/attachments.

Response 49

The Construction Noise Impacts Constraints Analysis was revised according to this comment, and calculation data was provided in Attachment B