

Appendix C: Southern Los Cerritos Wetlands Restoration Project – Air Quality/Greenhouse Gas Study

MEMORANDUM

To: Chris Webb and Stephanie Oslick
From: John Thomason
Date: 3/27/2023
Subject: Southern Los Cerritos Wetlands Restoration Project Air Quality/Greenhouse Gas Study
M&N Job No.: 210644

Background

The Southern Los Cerritos Wetland Restoration Project is focused on restoring 103.5-acres of tidal wetlands in Los Cerritos Wetland, Seal Beach California (Figure 1). Moffatt & Nichol (M&N) and its team partners have contracted with Los Cerritos Wetlands Authority (LCWA) to provide environmental compliance for the project, among other services.



Figure 1: Southern Los Cerritos Wetlands Restoration Project (LCWA, 2021)

Introduction

The Southern Los Cerritos Wetlands Restoration Project (project) is part of a larger program on approximately 400 additional adjacent acres that was analyzed in a Program Environmental Impact Report (PEIR) by ESA in 2020. An Air Quality/Greenhouse Gas Emissions (AQ/GHG) study was conducted by ESA to determine environmental impacts per the California Environmental Quality Act (CEQA) as they relate to AQ and GHG

questions in the CEQA Appendix G checklist. ESA used the California Emissions Estimator Model (CalEEMod) to determine criteria pollutant and GHG emission levels during program construction and operations activities over the entire 500+ acre program area.

The PEIR, based on the AQ/GHG study, concluded that Potentially Significant Impacts could occur for the overall program area with respect to NO_x construction emissions and sensitive receptors. Specifically, that NO_x emissions during program area construction would exceed South Coast Air Quality Management District (SCAQMD) thresholds even with mitigation measures incorporated, and that construction activity directly adjacent to the homes on the southern border of the program area would violate SCAQMD Local Significance Thresholds (LSTs), although this was not specifically quantified due to future project features in that area being unknown at the time.

Methodology

The project analyzed in Moffatt & Nichol's Initial Study/Mitigated Negative Declaration (IS/MND) represents 20.5% of the total program area analyzed in the PEIR (based on area), including CalEEMod outputs for both construction and operations. Because the previous AQ/GHG was found to be accurate, complete, and is part of a certified PEIR, there is no need to re-run CalEEMod for this project. To quantify AQ and GHG emissions for this project to determine any impacts under CEQA, a total of 20.5% of both criteria pollutant and CO_{2e} emissions were based on the PEIR Air Quality study previously performed, which is incorporated by reference into the IS/MND.

Discussion

What follows summarizes our findings per the methodology described above and will be included in the IS/MND. The PEIR identified AQ/GHG mitigation measures for the overall program, and they are also included in the IS/MND. For this project, no mitigation is necessary to achieve less than significant impacts.

Air Quality

The project would not conflict with any applicable air quality plans. The Final PEIR found that the only non-attained threshold for construction emissions for the larger Los Cerritos Wetlands Restoration Plan is NO_x, and this project should contribute less than significant impacts for regional air quality standards, as multiple mitigation measures are already in place from the PEIR that would bring these effects down to a less than significant level. In addition, the Air Quality Study completed for the full program analyzed 503 acres. The project analyzed in this document has a footprint of 103.5 acres, meaning emissions for the proposed project are approximately 20.5% of the totals found in the program-wide EIR. The anticipated number of pieces of construction equipment, the standard types of equipment, the amount of grading, and duration of construction for this project is therefore lower than what was anticipated and analyzed in the PEIR (LCWA, 2021).

As stated above, the only criteria pollutant for which the overall program was found to exceed relevant thresholds was NO_x for construction emissions only, and that it could be mitigated below the regional threshold for NO_x. Specifically, Table 6 of the Air Quality Study performed by ESA (and incorporated into this document by reference) found that the maximum NO_x emissions for construction would be 268 lbs./day, exceeding the SCAQMD threshold of 100 lbs./day. As the proposed project analyzes only 20.5% of the total acreage calculated for the exceedance, it is expected that the proposed project analyzed herein would emit a maximum of 54.94 lbs./day of NO_x, substantially below the SCAQMD threshold and without need for mitigation.

The South Coast Air Basin is in non-attainment of the NAAQS for O₃ and PM_{2.5} and also in non-attainment of the CAAQS for O₃, PM₁₀, and PM_{2.5}. As discussed above, there would not be exceedances to the SCAQMD daily regional threshold for NO_x or any other criteria pollutant during either construction or operational phases of the proposed project.

The Air Quality Study referenced above found potentially significant impacts to sensitive receptors at the program level based on SCAQMD Localized Significance Thresholds (LSTs) in Source Receptor Areas (SRAs) 4 and 18. Construction screening LSTs were used for a 5-acre area at a distance of 50 meters for SRA 4 and 25 meters for SRA 18. The analysis found that LSTs were exceeded due to residences found near the southern border of the program area. This analysis, however, was done for the full program of over 500 acres which is approximately five times larger than the footprint of the proposed project analyzed herein. As a result, it is not expected that construction operations would affect the residences adjacent to the southern boundary of the project site, in addition to the fact that construction would be temporary in nature. Operations impacts do not have the potential to affect sensitive receptors due to the fact that the project proposes to restore natural wetlands.

Greenhouse Gases

The PEIR Air Quality Study used CalEEMod to calculate criteria pollutant emissions as well as CO₂e emissions for both construction and operation, which can be used to determine if the program would exceed SCAQMD standards for GHG emissions. Maximum unmitigated construction CO₂e emissions were found to be 9,929.36 lbs./day, or 1,813.31 tons/yr. Amortized over 30 years per SCAQMD, this is equivalent to 60.44 MT CO₂e. Maximum unmitigated operational emissions were found to be 10,126.86 lbs./day, or 1,849.37 tons/yr. By adding the amortized construction emissions to the operational emissions, a total of 3,662.68 MT/yr. would be created by the program in its entirety, which is above the SCAQMD threshold of 3,000 MT/yr.

As discussed above under Air Quality, the footprint of the project that is analyzed in this document is 20.5% of the total analyzed in the PEIR Air Quality Study. Therefore, the expected GHG emission for the proposed project would be 750.84 MT/yr., below SCAQMD's threshold. Impacts would be less than significant.

Summary

Air Quality and Greenhouse Gas emissions for the project site were calculated based on the AQ/GHG study previously completed for the program area as part of the PEIR. No significant impacts would occur in either topic area for this project.

References

ESA, Los Cerritos Wetlands Restoration Plan Air Quality/Greenhouse Gas Study, 10/2020.

LCWA, Los Cerritos Wetlands Restoration Plan Final Program EIR, Air Quality and Greenhouse Gas sections, 10/2020.