
APPENDIX K

Establishing the Proper Baseline
for the Proposed Dairy Expansion Project

ESTABLISHING THE PROPER BASELINE FOR THE PROPOSED DAIRY EXPANSION PROJECT

Defining the Environmental Setting and Establishing the Baseline in an EIR

To determine whether an impact is significant, a “baseline” set of environmental conditions is required against which agencies can assess the significance of project impacts. As established by California Environmental Quality Act (CEQA) Guidelines Section 15125(a), the existing environmental setting, usually established at the time a Notice of Preparation is issued, should normally constitute the baseline. In this case, “the impacts of a proposed project are ordinarily to be compared to the actual environmental conditions existing at the time of CEQA analysis, rather than to allowable conditions defined by a plan or regulatory framework” (*Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 158 Cal.App.4th 1336). Essentially, prior operating permits or permit levels do not in themselves establish a baseline for CEQA review of a new project. As set forth in *Communities for a Better Environment v. South Coast Air Quality Management District*, a long line of California Court of Appeals decisions has upheld this line of reasoning. These decisions have included cases where a plan or project allowed for greater development or more intense activity than had so far actually occurred, as well as cases where actual development or activity had, by the time CEQA analysis was begun, already exceeded that allowed under the existing regulations.

The purpose of defining the environmental setting is to give decision-makers and the public an accurate picture of the project’s likely impacts, both near-term and long-term. In some cases, “[e]nvironmental conditions may vary from year to year and ... it is necessary to consider conditions over a range of time periods” (quoting *Save Our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 125). For projects involving ongoing operations and continuations of past activity, “the established levels of a particular use and the physical impacts thereof are considered to be part of the existing environmental baseline.” (*North Coast Rivers Alliance v. Westlands Water Dist.* (2014) 227 Cal.App.4th 832). The existing operations at a dairy are a dynamic and varying set of physical conditions. CEQA allows the lead agency discretion and flexibility to determine what temporal “snapshot” provides the best representation of actual physical conditions (*Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 158 Cal.App.4th 310; *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439). Lead agencies should choose the baseline that most meaningfully informs decision-makers and the public of the project’s possible impacts.

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Determining Existing Conditions at the Project Dairy

The Nutrient Management Plan (NMP) and Waste Management Plan (WMP) as required by the Reissued Waste Discharge Requirements General Order for Existing Milk Cow Dairies (Order R5-2013-0122) describe the operational requirements for a dairy facility and associated land application areas, and together they serve as the primary tool to prevent groundwater contamination and poor operations. NMPs and WMPs may be appropriate sources of some existing conditions in combination with other data sources. NMPs and WMPs are also updated over time as operations change or as planning documents with forward-looking projections of dairy operations.

According to dairy operators and engineers, in most instances the existing conditions NMP and WMP are near to representative of existing conditions at most dairy farm operations. There are some exceptions in which an operator is housing animals above the permitted limit in that operation year. In these cases, the Annual Report submitted to the Central Valley Regional Water Quality Control Board (CVRWQCB) as required by the Dairy General Order combined with the existing conditions NMP/WMP may be a better representation of existing operational conditions. Even still, in these circumstances, using the existing conditions NMP/WMP to establish a baseline for comparison with the proposed project would generally provide a more conservative analysis in the EIR, since the magnitude of impacts assessed using a smaller herd (as included in the NMP/WMP) would generally be greater than those calculated using a larger existing herd and associated operations (as may be included in the Annual Reports).

In the case of the Antonio Azevedo Dairy #2, the NMP and WMP prepared for the dairy operations (dated 4/18/2018 and 8/13/2018, respectively) were provided by the project applicant as representative of existing conditions on the dairy farm, and were used in the EIR to describe existing conditions for the project and establish a baseline for analysis. The dairy herd and associated operations set forth in the existing conditions NMP and WMP are generally representative of the existing Azevedo Dairy #2 operations at the time of circulation of the NOP (July 2022). Since the existing operations at a dairy are a dynamic and varying set of physical conditions, the EIR also reviewed the previous five years (years 2019 – 2023) of Annual Reports submitted to the CVRWQCB as required by the Dairy General Order. The herd counts reported in most of the Annual Reports are very similar to the 2018 Existing Conditions NMP, with total cow numbers for 2020 and 2021 reported as 2,735 and 2,760 animals (see Table 1 below). The Annual Reports also showed varying practices for dairy farm operations, such as total exported solid manure and/or wastewater (nutrient exports), total land application areas (acres), dry manure applied to cropland in the form of Total N, and process wastewater applied to cropland in the form of Total N (see Table 2 below). Interestingly, the Annual Reports have shown a lower applied to removal ratio than the 2018 NMP, with all numbers within the allowable limit. Operational deviations from the NMP occur on the farm as a result of weather-related conditions, market conditions, changes in cropping due to cost of seed, among other factors. For the Azevedo Dairy #2, while there has been variation shown in the Annual Reports submitted over the past five years, the median values could be considered in the range of that reflected in the 2018 Existing Conditions NMP for a dynamic dairy farm operation.

Therefore, as determined by Merced County in accordance with CEQA, the baseline herd to be used in this environmental analysis is the herd count at the time that the NOP is circulated, which is approximately 1,135 mature cows and 1,600 support stock, or a total of 2,735 cows, as generally reported in the 2018 Existing Conditions NMP and facility Annual Reports. This herd size and dairy configuration accurately depicts the environmental baseline with which to identify the changes in the physical environment caused by the proposed project pursuant to Section 15064(d) of the State CEQA Guidelines.

Appendix K Table 1: Azevedo Dairy #2 Existing Herd – Existing Conditions NMP and Annual Reports

	Existing NMP (4/18/2018)	Annual Report (2019)	Annual Report (2020)	Annual Report (2021)	Annual Report (2022)	Annual Report (2023)	Median Annual Report (2019- 2023)
Milking Cow	1,100	1,135	1,135	1,200	1,200	1,300	1,200
Dry Cow	1	0	0	0	0	0	0
Heifer (15-24 mo)	450	542	450	460	450	480	460
Heifer (7-14 mo)	575	118	575	550	570	560	560
Calves (4-6 mo)	575	337	575	550	500	520	520
Calf (under 3 mo)	0	0	0	0	0	0	0
Total Mature	1,101	1,135	1,135	1,200	1,200	1,300	1,200
Total Support Stock	1,600	997	1,600	1,560	1,520	1,560	1,540
Total Cows	2,701	2,132	2,735	2,760	2,720	2,860	2,740

Appendix K Table 2: Azevedo Dairy #2 Selected Operations – Existing Conditions NMP and Annual Reports

	Existing NMP (4/18/2018)	Annual Report (2019)	Annual Report (2020)	Annual Report (2021)	Annual Report (2022)	Annual Report (2023)	Median Annual Report (2019- 2023)
Exported Material	DM	DM	DM	DM	DM/WW	DM	--
Nutrient Exports (lbs N)	345,530	215,980	439,699	174,754	358,619	308,485	215,980
<i>Summary of Crop Application</i>							
Dry Manure Total N (lbs)	-	18,107	16,341	7,587	-	-	-
Process WW Total N (lbs)	43,824	26,133	36,085	39,412	48,164	34,000	-
Total N Applied (lbs)	43,824	44,240	52,426	46,999	48,164	34,000	46,999
Land Application Areas (acres)	87	87	87	87	87	87	87
Applied to Removed Ratio (N)	1.39	1.21	1.26	1.27	1.37	1.37	1.27

Note: DM = Dry Manure; WW = Wastewater

Sources: Azevedo Dairy #2 Existing Conditions Nutrient Management Plan (4/18/2018); Azevedo Dairy #2 Annual Reports Years 2019-2023.