
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.

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 Silva Dairy, the NMP and WMP prepared for the dairy operations (dated May 2021 and February 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 Silva Dairy Farm operations at the time of circulation of the NOP (August 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 2018 – 2022) of Annual Reports submitted to the CVRWQCB as required by the Dairy General Order. The herd counts reported in these annual reports are very similar to the 2021 Existing Conditions NMP, with total cow numbers ranging from 2,714 cows in 2018, and 3,339 cows in 2022 (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). Operational deviations from the NMP occur on the farm as a result of weather-related conditions, market conditions, or changes in cropping due to cost of seed, among other factors. For the Silva Dairy, while there has been variation shown in the Annual Reports submitted over the past five years, the average values could be considered in the range of that reflected in the 2021 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 was circulated, which is 1,605 mature cows and 1,348 support stock, or a total of 2,953 cows, as reported in the 2021 Existing Conditions NMP. 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 Silva Dairy Farms Expansion project pursuant to Section 15064(d) of the State CEQA Guidelines.

Appendix K Table 1: Silva Dairy Farms Existing Herd – Existing Conditions NMP and Annual Reports

	Existing NMP (2021)	Combined Annual Report (2018)	Combined Annual Report (2019)	Combined Annual Report (2020)	Combined Annual Report (2021)	Combined Annual Report (2022)	Median Annual Report (2018-2022)
Milking Cow	1,420	1,350	1,428	1,420	1,400	1,401	1,401
Dry Cow	185	140	183	185	200	350	185
Heifer (15-24 mo)	337	519	379	337	350	433	379
Heifer (7-14 mo)	438	339	646	438	420	593	438
Calves (4-6 mo)	177	206	243	177	200	213	206
Calf (under 3 mo)	396	160	230	396	385	349	349
Total Mature	1,605	1,490	1,611	1,605	1,600	1,751	1,605
Total Support Stock	1,348	1,224	1,498	1,348	1,355	1,588	1,355
Total Cows	2,953	2,714	3,109	2,953	2,955	3,339	2,955

Appendix K Table 2: Silva Dairy Farms Selected Operations – Existing Conditions NMP and Annual Reports

	Existing NMP (2021)	Combined Annual Report (2018)	Combined Annual Report (2019)	Combined Annual Report (2020)	Combined Annual Report (2021)	Combined Annual Report (2022)	Median Annual Report (2018-2022)
Exported Material	DM	WW	WW	DM/WW	DM/WW	DM/WW	--
Nutrient Exports (lbs N)	215,323	28,701	21,584	212,307	90,167	95,258	90,167
<i>Summary of Crop Application</i>							
Dry Manure Total N (lbs)	59,123	71,410	49,412	48,925	50,472	67,604	50,472
Process WW Total N (lbs)	148,104	86,025	144,295	120,731	132,390	133,182	132,390
Land Application Areas (acres)	364	308	308	346	366	366	346
Applied to Removed Ratio (N)	1.38	1.23	1.32	1.28	1.29	1.27	1.28

Note: DM = Dry Manure; WW = Wastewater

Sources: Silva Dairy Farms Existing Conditions Nutrient Management Plan (05/14/2021); Silva Dairy Farms Annual Reports Years 2018-2022.