
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 Correia Family Dairy, the NMP and WMP prepared for the dairy operations (both dated 08/12/2020) 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 Correia Family Dairy operations at the time of circulation of the NOP (January 2024). 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 if not a little higher than the 2020 Existing Conditions NMP (2,130 total cows), with total cow numbers for 2022 and 2021 reported as 2,409 and 2,268 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), 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 2020 NMP, with all numbers within the allowable limit. Also, Annual Report cropping patterns indicate some changes in crop-types planted, and no wastewater or dry manure applied to fields in pasture (see Table 3 below). 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 Correia Family Dairy, 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 2020 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 1,170 mature cows and 960 support stock, or a total of 2,130 cows, as generally reported in the 2020 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: Correia Family Dairy Existing Herd – Existing Conditions NMP and Annual Reports

	Existing NMP (8/12/2020)	Annual Report (2019)	Annual Report (2020)	Annual Report (2021)	Annual Report (2022)	Annual Report (2023)	Median Annual Report (2019- 2023)
Milking Cow	1,050	1,050	1,050	1,058	1,065	1,144	
Dry Cow	120	120	120	111	105	167	
Heifer (15-24 mo)	375	373	415	435	486	332	
Heifer (7-14 mo)	475	470	581	560	317	283	
Calves (4-6 mo)	110	105	207	215	176	213	
Calf (under 3 mo)	0	0	284	272	260	129	
Total Mature	1,170	1,170	1,170	1,169	1,170	1,311	
Total Support Stock	960	948	1,487	1,482	1,239	957	
Total Cows	2,130	2,118	2,657	2,651	2,409	2,268	2,409

Appendix K Table 2: Correia Family Dairy 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)	179,810	67,122	146,894	106,694	111,969	109,813	109,813
<i>Summary of Crop Application</i>							
Dry Manure Total N (lbs)	272,373	-	39,399	43,082	52,308	30,780	-
Process WW Total N (lbs)	115,970	113,177	88,128	79,389	101,535	80,492	-
Total N Applied (lbs)	388,343	113,177	127,527	122,471	153,843	111,272	122,471
Land Application Areas (acres)	398	349	287	287	287	287	287
Applied to Removed Ratio (N)	1.39	1.31	1.33	1.30	1.28	1.35	1.31

Note: DM = Dry Manure; WW = Wastewater

Sources: Correia Family Dairy Existing Conditions Nutrient Management Plan (08/12/2020); Correia Family Dairy Annual Reports Years 2019-2023.

Appendix K Table 3: Correia Family Dairy Cropped Fields – Existing Conditions NMP and 2023 Annual Report

Project Fields		2020 Existing NMP			2023 Annual Report		
Field	Cropped Acreage ¹	Crop Type	Total Harvests	Nutrients Applied ²	Crop Type	Total Harvests	Nutrients Applied ²
CFD 1-1	7	Oats, silage/ Sudangrass, silage	3	WW	Ryegrass silage	2	WW
CFD 1-2	12	Oats, silage/ Sudangrass, silage	3	WW	Wheat, silage/ Corn, silage	2	WW
CFD 1-3 ³	80	Oats, silage/ Sudangrass, silage	4	WW	Ryegrass silage/ Sudangrass, silage	4	WW
*Frontella	40	Oats, silage/ Sudangrass, silage	3	WW	Wheat, silage/ Corn, silage	2	WW/DM
Pavao	90	Oats, silage/ Sudangrass, silage	3	WW	Wheat, silage/ Corn, silage	2	WW
Pavao Pasture	34	Irrigated Pasture	1	DM	Irrigated Pasture	0	none
*Pereira	72	Irrigated Pasture	1	DM	Irrigated Pasture	0	none
*Vieira	63	Oats, hay/ Sudangrass, silage	2	DM	Wheat, silage/ Corn, silage	2	DM
	398		20			14	

Notes: WW = wastewater. DM = Dry Manure.

* Starred fields are leased.

1 Approximate acreage. Cropped acreage is based on the Existing Conditions NMP dated 08/12/2020.

2 The existing NMP cited irrigation sources include CCID surface water and groundwater from two irrigation wells (Well Big and Well Little). In addition, the NMP and Annual Report materials indicate liquid manure is applied to most cropped fields, and dry manure to a few fields, but both liquid and/or solid manure can be applied at the dairy operator's discretion as long as nutrient planning targets are met.

3 In 2017, a fresh water pond was constructed at the east end of Field CFD 1-3. The existing NMP did not reflect the reduced acreage from the pond and was modified above.

Source: *Correia Family Dairy Existing Conditions Nutrient Management Plan (08/12/2020). Correia Family Dairy 2023 Annual Report.*

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