RESPONSE TO COMMENTS

Sorrento Lactalis Inc.
NPDES Permit ID0020837
February 6, 2018

On August 12, 2016 the U.S. Environmental Protection Agency (EPA) issued a public notice for the reissuance of the Sorrento Lactalis, Inc. (Sorrento) National Pollutant Discharge Elimination System (NPDES) Permit No. ID0020837 (2016 Draft Permit).

After consideration of the comments received on the 2016 Draft Permit, the EPA revised the draft permit (2017 Draft Permit). On March 22, 2017, the EPA reopened the public comment period to provide the opportunity to comment on the following changes to the 2016 Draft Permit:

- Re-calculated BOD_5 and total suspended solids (TSS) mass limit increases for each of the four production-based tiers;
- Revisions to the Existing Use Data Collection requirements;
- Clarification of the surface water monitoring location for alkalinity;
- Change to the dissolved oxygen (DO) monitoring method to allow for sampling with a flow meter;
- Addition of a superscript "1" to the quarterly sampling frequency of DO to reference the footnote identifying the quarterly monitoring periods.

This Response to Comments document provides a summary of significant comments received and corresponding EPA responses.

During both the 2016 and 2017 public comment periods, the EPA received comments from

- Preston N. Carter, Givens Pursley, LLP, Attorney Representing Sorrento Lactalis, Inc. (Sorrento)
- Austin Hopkins, Conservation Assistant, Idaho Conservation League (ICL)

The following changes to the Final Permit have been made as a result of the comment period:

- The BOD_5 and TSS mass limits are increased for each of the four Tiers.
- A new Tier 0 is added
- A typographical error superscript [5] is removed in Table 3.
- Table 5 in the row for "Total Suspended Solids (TSS), in the column labeled Sample Type stating "Input: Calculation[1] 24-hour composite" is replaced with "24-hour composite".
- For continuity, the Table 7 is relabeled Table 6
- The Existing Use Data Collection requirement is removed.
- Surface water monitoring for turbidity is removed.

Comments Received on 2016 Draft Permit

1. **Comment (Sorrento): TBELs for BOD and TSS should be based on a "building block" approach using historic and projected product volumes.**

   The Draft Permit contains technology-based effluent limits ("TBELs") for BOD and TSS. Draft Permit at 7-8. EPA recognized that Lactalis's Facility produced several products that were subject to different effluent limit guidelines ("ELGs"). Draft Fact Sheet at 14-15. According to EPA policy, where a facility with a commingled waste-stream is subject to multiple ELGs, the permit writer should use the "building block approach" to calculate a TBEL for the facility. Permit Writers' Manual at 5-35. The building block approach "combines the allowable pollutant loadings from each set of requirements or from each set of effluent guidelines to arrive at a single TBEL for the facility." *Id.*

   Instead of using the building block approach in Lactalis's Draft Permit, EPA "applied the most stringent of the subparts in the applicable ELGs . . . in calculating the tiered limits." Draft Fact Sheet at 15. EPA made this decision because "it was infeasible to account for the facility's planned growth while also accounting for all of the possible ratios of production among the various products over time with any certainty." Draft Fact Sheet at 15. However, the Permit Writers' Manual does not provide for selection of the most stringent ELG under these circumstances. And EPA regulations do not require that TBELs be calculated using precise production ratios but, instead, provide that production-based limits should be calculated based "upon a reasonable measure of actual production of the facility." 40 CFR § 122.45(b)(2)(i) (emphasis added).

   Lactalis submitted information regarding historic and projected volumes for each product in its Permit Application, and EPA used information regarding milk constituents and corresponding BOD values in calculating the TBELs in the Draft Permit. Permit Application, Table 1; Draft Fact Sheet at 30-31. However, EPA applied this information only to the most stringent ELGs. The historic and projected product volumes are reasonable measures of production that can and should be used to develop TBELs based on the building block method recognized in the Permit Writers' Manual. If more information is required, Lactalis respectfully requests that EPA clarify the type of information it needs and extend the comment date to accept and consider any necessary additional information.

   Response: This comment was addressed by the revised draft permit issued for public review and comment in 2017.

2. **Comment (Sorrento) Monitoring Locations:** Page 10 of the Draft Permit states two surface monitoring "stations" must be established, but the Draft Fact Sheet mentions both monitoring "locations." The 2005 permit requires monitoring "stations," though Lactalis has not set up permanent facilities in the Purdam Drain. Lactalis does not own the Purdam Drain or Mason Creek, does not have access rights from the title-owners to the Purdam Drain or Mason Creek, and does not have the right to construct or install a permanent structure or monitoring assembly in either waterway. Lactalis requests that the reference to monitoring "stations" be replaced with reference to monitoring "locations" or that EPA clarify any distinction between monitoring stations and monitoring locations.

   Response: For the purposes of the Sorrento permit monitoring stations and monitoring locations are synonymous and no distinction is attached to the words.

   This is consistent with Sorrento's June 19, 2013, Application, Attachment 1 Surface Water Monitoring Report, page 29 and in Appendix B, Sampling and Analysis Plan, June 2013, page 1.

   Sorrento is not required to establish permanent facilities or structures in Purdam Drain or Mason Creek to comply with the monitoring requirements of the permit.

   Monitoring locations in Purdam Drain are accessible to Sorrento as demonstrated in the Surface Water Monitoring Report that reported results of sampling where Sorrento's contractor, Forsgren, accessed

upstream and downstream monitoring locations. In any unforeseen instance where access is denied the permit states:

> "If the permittee is unable to obtain access to establish the monitoring station, the permittee must send written notification to EPA and IDEQ. The notification must summarize the steps taken to obtain access and the reason(s) that access was denied."

The permit is unchanged.

3. **Comment (Sorrento) Annual Reporting:** Page 10 of the Draft Permit states Lactalis is required to submit an annual report of surface monitoring to EPA and DEQ. In the past Lactalis has submitted surface monitoring data with the next permit application as is appropriate to consider data for inclusion in the next permit. An annual reporting requirement is onerous, is not justified in the Draft Permit or Draft Fact Sheet, and if reviewed by EPA and DEQ will consume agency resources with little or no apparent benefit. Lactalis requests that the annual reporting requirement for surface water monitoring be removed.

   Response: The primary benefit of annual reports is to insure the surface water monitoring is conducted at the required frequency and meets the requirements of the permit. The EPA frequently receives NPDES permit applications without the required surface water monitoring. Since monitoring must be representative of the receiving water over seasons and years, insuring the monitoring is conducted each year and season is critical to writing the next permit. Requiring annual reports is now a typical NPDES permit requirement.

   The permit is unchanged.

4. **Comment (Sorrento) Subscripts Typographical Error:** Table 3 in the Draft Permit contains several number "5" in superscripts that appear to be errors.

   Response: The EPA agrees. The superscript 5 has been removed in Table 3.

5. **Comment (Sorrento) Sample Type:** In Table 5 of the Draft Permit, in the row for "Total Suspended Solids", the column titled "Sample Type" states "Input: Calculation[1]", implying that Lactalis must sample TSS input. This appears to be an error, possibly due to carrying over the "Input: Calculation" language from the adjacent BOD row. 40 CFR § 405.65 does not require sampling TSS input, and sampling TSS input is not discussed in the Draft Fact Sheet. Moreover, BOD is the relevant constituent of concern given the cheese-making process. Lactalis requests that the "Input: Calculation" language be deleted from the TSS row in Table 5.

   Response: The EPA agrees. Table 5 in the row for "Total Suspended Solids (TSS), in the column labeled Sample Type stating "Input: Calculation[1] 24-hour composite" has been replaced with "24-hour composite".

6. **Comment (Sorrento):** Table 7 in the Draft Permit and Table 9 of the Draft Fact Sheet both set forth Surface Monitoring Requirements. Yet the tables are not consistent. Table 7 of the Draft Permit contains monitoring for Turbidity, which is not discussed in the Draft Fact Sheet, and requires an upstream location for monitoring dissolved oxygen, also not discussed in the Draft Fact Sheet. Lactalis requests that Table 7 in the Draft Permit be updated to match Table 9 of the Draft Fact Sheet.

   Response: Surface water monitoring for turbidity upstream of the outfall in Purdam Drain was to support the Existing Use Data Collection requirement. Since the Existing Use Data Collection requirement has been removed from the permit, the upstream monitoring requirement for turbidity has been removed.

   As explained in the Fact Sheet, surface water monitoring for DO is required in order to characterize the receiving water and to determine impacts to Mason Creek. Fact Sheet at p. 22.

The Fact Sheet Table 9 mistakenly did not include upstream DO monitoring. As with the upstream monitoring in Purdam Drain of ammonia, temperature and pH, upstream monitoring of DO is required to characterize the receiving water for DO. Quarterly monitoring for DO, usually conducted instrumentally and at the same time as ammonia and pH, is reasonable.

The comment resulted in the removal of the requirement of surface water monitoring for turbidity.

7. **Comment (Sorrento) Sample Frequency:** Table 9 in the Draft Fact Sheet correctly uses capitalization and the subscript "1" after quarterly samples to indicate the definition of "quarter," while Table 7 in the Draft Permit does not.

   Response: This comment was addressed by the revised draft permit issued for public review and comment in 2017.

   A superscript [1] has been added to the quarterly sampling frequency of DO and turbidity to reference the footnote of quarterly monitoring periods. Table 7 is changed to Table 6 for continuity.

8. **Comment (Sorrento) Alkalinity Sampling:** Table 7 in the Draft Permit does not indicate whether the Alkalinity sampling location is in the Purdam Drain or Mason Creek, while Table 9 of the Draft Fact Sheet indicates that the sampling location is in Mason Creek upstream of the confluence with the Purdam Drain. Lactalis requests that Table 7 in the Draft Permit be updated to match Table 9 of the Draft Fact Sheet.

   Response: This comment was addressed by the revised draft permit issued for public review and comment in 2017.

9. **Comment (Sorrento) Alkalinity Sampling:** The effluent monitoring requirements for Alkalinity are not consistent. Table 8 in the Draft Fact Sheet requires quarterly sampling, while Table 5 in the Draft Permit requires monthly sampling. Lactalis requests that EPA clarify the frequency of Alkalinity sampling and make the Draft Fact Sheet and Draft Permit consistent in this regard.

   Response: The Fact Sheet mistakenly stated the effluent monitoring frequency of alkalinity is once per quarter. The monitoring frequency of alkalinity in the permit remains at monthly. Fact Sheets are not changed based on public comments. This Response to Comments states the clarification.

10. **Comment (Sorrento) 2014 Inspection:** On Page 10 of the Draft Fact Sheet, EPA notes it conducted an inspection in 2010. Lactalis requests the Draft Fact Sheet note that EPA conducted an inspection in 2014 and temperature logs were improved after the 2010 inspection.

    Response: Fact Sheets are not changed based on public comments. EPA records show no inspection was conducted in fiscal year 2014.

11. **Comment (Sorrento) Certification Comments:** On Page 12 of the Draft Fact Sheet EPA states, "IDEQ's CWA Section 401 Certification does not identify the existing uses of the Purdam Drain." However, the Draft 401 Certification states that the Purdam Drain is a man-made waterway protected for agricultural uses; that "the Purdam Drain is protected only for agricultural water supply, and there is no evidence to date regarding other existing uses;" and that "DEQ has determined that the permit will protect and maintain existing and designated beneficial uses in the Purdam Drain in compliance with the Tier 1 provisions of Idaho's WQS." Lactalis request this sentence on page 12 of the Draft Fact Sheet be removed or amended.

    Response: The EPA acknowledges that the Draft 401 Certification contains the statements set forth in Sorrento's comments. Fact Sheets are not changed based on public comments

12. **Comment (Sorrento) Fact Sheet Comments BOD_5:** Table 7 in the Draft Fact Sheet contains three errors. The values in the column labeled "Draft Permit" in the BOD_5 row should read as follows:

    - AML - tier 3 should be "49", not "62"

- MDL - tier 1 should be “70”, not “84”
- MDL - tier 3 should be “98”, not “122” dischargers.

Comment (ICL) Fact Sheet Comments BOD_5 Typo in Table 7 of Fact Sheet:

Draft permit limits for BOD_5 tier 3 thresholds for AML reads 62 lbs/day whereas it should state 49 lbs/day and tier 3 for MDL reads 122 lbs/day whereas it should state 98 lbs/day. This error is not present in the draft permit, but we wanted to bring it to your attention in case Table 7 from the Fact Sheet was utilized in any future documents.

Response: These comments were addressed by the revised draft permit issued for public review and comment in 2017.

13. **Comment (Sorrento) Dissolved Oxygen:** Table 8 of the Draft Fact Sheet requires effluent monitoring for Dissolved Oxygen (“DO”). Lactalis requests this requirement be removed. The BOD monitoring of the effluent will determine the effluent’s oxygen demand, while DO monitoring of the surface water is sufficient to determine whether DO in the effluent has an impact on the DO in the receiving water. Moreover, monitoring using a DO meter and sensor is more practical than taking a grab sample. If DO monitoring of effluent is required, the DO sampling point should, at a minimum, be downstream of the stepped slope outside the water treatment facility; the most accurate sampling point would be at the outfall just prior to the effluent entering the receiving water.

    Response: As the Fact Sheet states, DO monitoring is necessary to characterize the effluent for DO. To clarify the monitoring requirement, the monitoring sample type was changed from grab to grab or meter in the 2017 Draft Permit

    Regarding the sample location, the permit requires:

    > “The permittee must collect effluent samples from the effluent stream after the last treatment unit prior to discharge into the receiving water.”

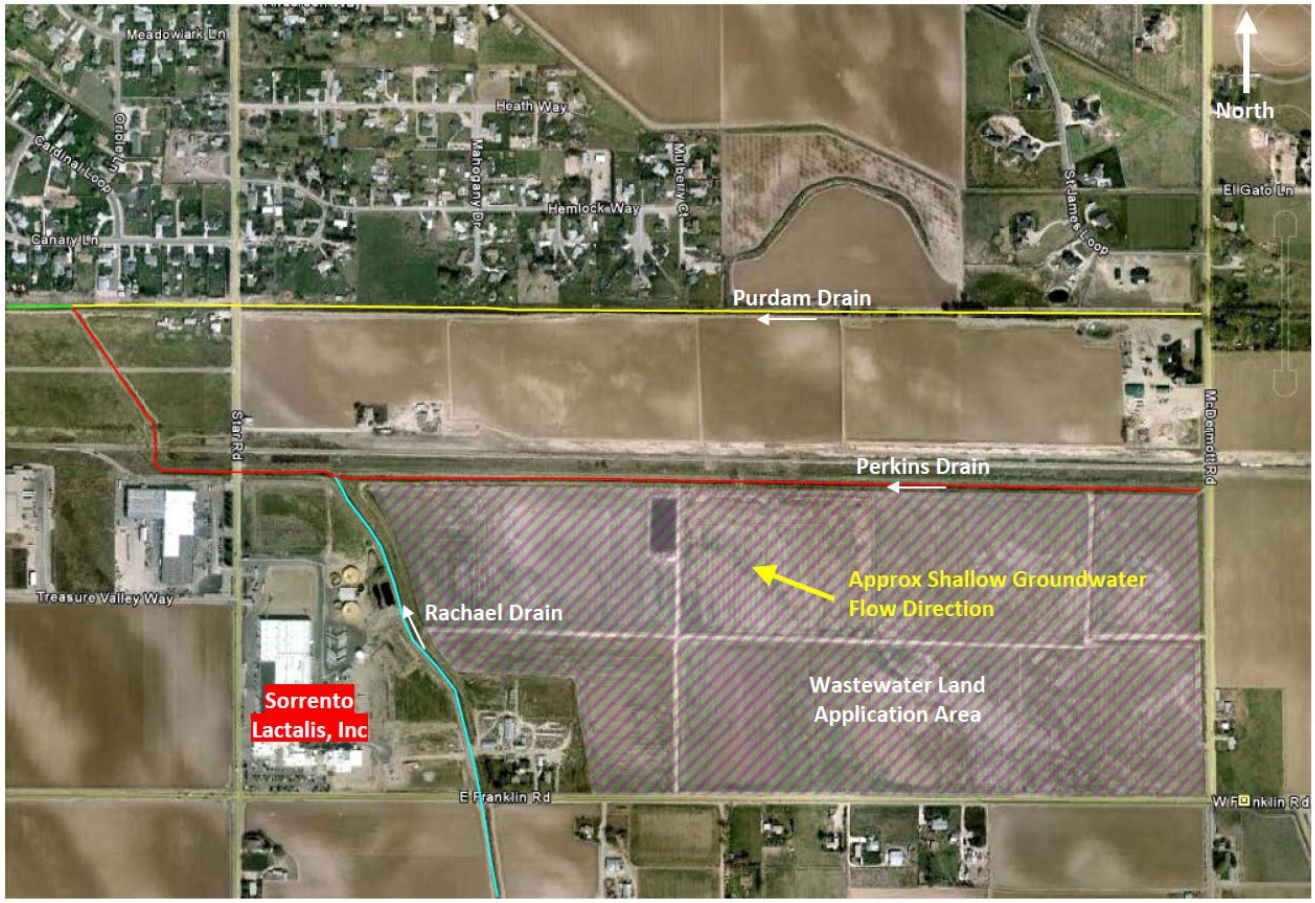
    In addition, the permit requires that “[s]amples and measurements must be representative of the volume and nature of the monitored discharge.” Permit at Part III.A. If the sampling locations described by Sorrento in the comment letter meet these requirements, then they are acceptable for DO monitoring.

14. **Comment (Sorrento) Fact Sheet Appendix A:** Lactalis requests that Appendix A, Facility Details in the Draft Fact Sheet be updated to reflect that a dissolved air flotation (“DAF”) treatment train became operational in 2013, and a new clarifier is scheduled to become operational in late 2016.

    Response: Fact Sheets are not changed based on public comments. The EPA acknowledges that the DAF treatment train became operational in 2013 and that the new clarifier became operational in late 2016.

15. **Comment (Sorrento) Fact Sheet Updated Map:** The bottom map of page 29 of the Draft Fact Sheet, Appendix B, is from the surface monitoring report and includes miscellaneous sampling locations that were required in the previous permit. Lactalis requests this map be removed because the sampling locations are not relevant to the current Draft Permit. If the purpose of these maps is to demonstrate the location of Lactalis’s facility with relation to drains within the area, Lactalis requests EPA use the maps attached as Exhibit 4.

    Response: Fact Sheets are not changed based on public comments but the map is shown below.



Irrigation Drains adjacent and near Sorrento Lactalis Site

16. **Comment (Sorrento) Fact Sheet – Ammonia:** The first sentence on page 46 of the Draft Fact Sheet, Appendix E, states that the calculations demonstrate how "total phosphorus, TSS, *E. Coli* and ammonia" WQBELs [Water Quality Based Effluent Limitation] are calculated. Lactalis requests that the reference to ammonia be removed because the Draft Permit does not contain a WQBEL for ammonia.

    Response: Fact Sheets are not changed based on public comments but the EPA affirms the permit does not contain WQBEL for ammonia.

17. **Comment (Sorrento): Draft 401 Certification:**

    • Page 4 of the Draft 401 Certification, Appendix G to the Draft Fact Sheet, contains an inadvertent "?" after "E-Coli."

    • Page 5 of the Draft 401 Certification states DEQ authorizes a mixing zone that utilizes 25% of the stream width and does not include more than 25% of the low flow design discharge conditions. In discussions between Lactalis's consultant, Forsgren Associates, Inc., and DEQ, DEQ indicated it would provide a mixing zone of 100% where the Purdam Drain discharges into Mason Creek, as Mason Creek is the relevant receiving body. Lactalis requests that the Draft 401 Certification be amended to reflect this mixing zone.

    • The comments, noted above, that Idaho's water quality standards do not contemplate, authorize, or require the Existing Use Study apply with equal force to the Draft 401 Certification. Lactalis

requests that DEQ amend the Draft § 401 Certification to remove support for the Existing Use Study; to clarify that Idaho's water quality standards do not require and indeed cannot require such a study, since DEQ by law cannot impose conditions more stringent than federal conditions, Idaho Code § 39-175B; and to clarify that the agricultural water supply use protections afforded by the Idaho water quality standards, which were approved by EPA, cannot be undercut or revised on a permit-by permit basis.

Response: IDEQ is responsible for providing responses to comments on their 401 certification.

18. **Comment (Sorrento):** The Draft Permit contains a list of information that Lactalis must gather, including "Dates and types of uses (before and on/after Nov. 28, 1975;" "Available historical information concerning when and how constructed, points of access, and facilities to support particular uses;" "Description of any management activities;" and "Description of any activities that may affect aquatic life, wildlife, and recreation/human contact uses." Draft Permit, App'x B. By looking at the permit requirements, Lactalis cannot determine what sort of information the permit requires. For example, what historical information is "available" and what methodologies must Lactalis use to gather it? EPA has apparently already reviewed historical information, contained in the Draft Fact Sheet, and there is no reason Lactalis would be able to access additional historical information. Draft Fact Sheet at 50-51, App'x F. EPA cannot impose the threat of civil penalties and an enforcement action on such vague requirements.

    In addition, Lactalis does not have access to, or expertise in gathering, historical information or information regarding management activities that are carried out on the Purdam Drain, which is a privately owned facility managed by the Nampa Meridian Irrigation District ("NMID") and Pioneer Irrigation District ("Pioneer"). Lactalis is a cheese-manufacturing facility, not a historical archive or irrigation district. The information required by the Existing Use Study is not even tangentially related to cheese manufacturing or wastewater treatment. Requiring collection of this information in an NPDES permit under the threat of civil penalties is an inappropriate use of the power to regulate point source discharges into waters of the United States. The final permit should also make clear, at a minimum, that failure to collect this information does not trigger civil penalties or other consequences attached to violation of the NPDES permit.

    Response: This comment was addressed by the revised draft permit issued for public review and comment in 2017.

19. **Comment: (Sorrento) Authority to Require Existing use Study**

    The Draft Permit requires that Lactalis gather historical and other information and conduct a fish and macroinvertebrate survey in the Purdam Drain (the "Existing Use Study"). Draft Permit at 13, App'x B. EPA indicates that information collected in the Existing Use Study may be used to "determine the appropriate existing uses for [the] Purdam Drain." Draft Fact Sheet at 25.

    Under the Clean Water Act, each state is required to adopt water quality standards that protect public health, enhance water quality, and further the purposes of the Act. 33 U.S.C. § 1313(c)(2)(A). Water quality standards "serve as the goals for the water body" and the "legal basis for the water quality-based NPDES permit requirements under the CWA." 59 Fed. Reg. 18,688, 18694 (April 19, 1994); *see Nat. Res. Def. Council v. U.S. E.P.A.*, 279 F.3d 1180, 1183 (9th Cir. 2002).

    Once EPA determines that a state's water quality standards comply with the Clean Water Act and approves them, EPA does not reevaluate their adequacy in the context of developing or approving NPDES permits. EPA "is given **no authority** to set aside or modify [approved state] limitations in a permit proceeding." *U. S. Steel Corp. v. Train*, 556 F.2d 822, 835 (7th Cir. 1977) (emphasis added) *abandoned on other grounds by City of West Chicago v. U.S. Nuclear Regulatory Comm'n*, 701 F.2d 632, 644 (7th Cir. 1983). Rather, EPA's role is to include permit conditions that "properly

implement[]" a state's approved standards. *In Re: City of Hollywood, Florida Permit No. Fl 0026255*, 5 E.A.D. 157, *12 (E.P.A. Mar. 21, 1994); *id.* at *12 ("Because there is no dispute that the water quality standard being challenged by the City was 'established under section 303 of the CWA,' threshold issues pertaining to whether the Agency may have erred in approving the standard in the first instance are necessarily beyond our jurisdiction. Our jurisdiction is limited to reviewing whether the Region, as permit issuer, included a condition in the permit that properly implements the standard.").

Consistent with this guidance and the structure of the Clean Water Act, in practice, EPA protects existing uses by applying the criteria set forth in approved water quality standards. U.S. ENVT'L PROT. AGENCY, NPDES Permit Writers' Manual (2010) at § 6.6.1 ("In practice, for a Tier 1 receiving water body, the permit writer typically calculates the WQBELs on the basis of the applicable criteria because the state's designated uses and criteria to protect those uses must be sufficient to protect the existing uses."). In short, the permitting process implements a state's water quality standards. EPA does not and cannot set aside or modify approved water quality standards in a permit proceeding.

Idaho adopted water quality standards that were approved, in relevant part, by EPA in 1980. Exhibit 1, Letter from EPA to DEQ (July 15, 1980); IDAPA 58.01.02 *et seq.* Under these standards, manmade waterways that are not specifically designated "are to be protected for the use for which they were developed." IDAPA 58.01.02.101.02. In approving Idaho's water quality standards, including the provision regarding manmade waterways, EPA concluded that they comply with the Clean Water Act. *See* 33 U.S.C. § 1313(c)(3) (noting that submitted water quality standards become effective if EPA "determines that such standard[s] meet[] the requirements of this chapter"). EPA has not taken any action to disapprove the manmade waterways provision of Idaho's water quality standards or to promulgate federal standards. Instead, EPA has applied the manmade waters provision in Idaho's water quality standards through NPDES permits, including in Lactalis's 2005 Permit. Exhibit 2, Fact Sheet to Sorrento Lactalis 2005 NPDES Permit at 9.

In the current Draft Permit, instead of applying Idaho's water quality standards and protecting the Purdam Drain for agricultural uses, EPA attempts to require Lactalis to fund and conduct a study to determine whether non-agricultural uses have been established in the Drain. Draft Permit at 13, App'x B. This *ad hoc*, permit-by-permit approach to identify existing uses exceeds EPA's authority under the Clean Water Act. As discussed above, if EPA disagrees with Idaho's water quality standards, it may disapprove the standards and promulgate federal standards. 33 U.S.C. § 1313(c). But EPA does not have the authority to revise or undercut a state's approved water quality standards by requiring a permittee to study whether the state's water quality standards are adequate. Idaho's approved water quality standards protect the Purdam Drain for agricultural water supply and do not contemplate, much less require, a permittee to conduct an existing use survey as a permit condition. EPA cannot revise or undercut Idaho's water quality standards through Lactalis's Draft Permit or require an existing use study that has no basis in Idaho's water quality standards. EPA also cannot selectively apply *ad hoc* modifications to its regulations, its practice, or Idaho's water quality standards without following rulemaking procedures, without explaining the deviation from its consistent practice, or without treating other Idaho permit-holders consistently. Such actions are arbitrary and discriminatory.

Response: Water quality standards consist of three components: (1) one or more designated uses of the water body consistent with the CWA; (2) water quality criteria, expressed as numeric concentration levels or narrative statements that support a particular designated use; and (3) an antidegradation policy. A designated use is the use assigned to a water body that is to be achieved and protected. See 40 C.F.R. § 131.10(a); see also 40 C.F.R. § 131.3(f). An "existing use" is defined as the use "actually attained in the water body on or after November 28, 1975, whether or not [it is] included in the water quality standards." 40 C.F.R. § 131.3(e). Under the antidegradation policy, all waterbodies receive at least Tier 1 protection. Tier 1 protection means that the permit must include limits sufficient to maintain and protect water quality necessary to protect existing uses.

As the commenter correctly notes, under Idaho's water quality standards, when designated uses are not specifically identified for a waterbody, the default designated use water quality standards apply. For manmade waters such as Purdam Drain, the Idaho water quality standards state that, unless designated uses are identified, such waterbodies are to be protected for the use in which they were developed. As set forth in IDEQ's final 401 certification, that use is agricultural water supply.

Contrary to the commenter's statement, the EPA did establish effluent limitations for Purdam Drain to ensure that the agricultural water supply use was protected in Purdam Drain. The EPA also established effluent limitations to protect the designated uses of downstream waterbodies. In addition to establishing these effluent limitations, the EPA included the existing use study provisions to determine whether there are any additional existing uses for which Purdam Drain needs protection. The existing use study requirement was also a condition of IDEQ's draft 401 certification.

Under Section 308 of the CWA, 33 U.S.C. § 1318, the EPA has broad authority to require a point source to provide information that the EPA requires to carry out its responsibilities under CWA Section 402, 33 U.S.C. § 1342. As described in the Fact Sheet, the EPA and IDEQ have conducted one day field visits to determine whether there were any additional existing uses in Purdam Drain. These field visits were inconclusive and did not find clear evidence of additional existing uses beyond the designated uses set forth in IDEQ's final 401 certification. In addition, in IDEQ's final 401 certification, IDEQ has stated that there is no evidence of any additional existing uses beyond agricultural water supply and, as such, has taken out the existing use study condition. Given this information, the EPA has removed the existing use study condition in the final permit.

20. Comment (Sorrento): Existing Use Study

EPA and DEQ attempt to justify the Existing Use Study by noting that Idaho's water quality standards require protection of existing uses. Draft Permit at 13; Draft 401 Certification at 2. However, DEQ plainly states that the existing permit limits protect existing uses in the Purdam Drain: "the permit will protect and maintain existing and designated beneficial uses in the Purdam Drain in compliance with the Tier 1 provisions of Idaho's WQS." Draft 401 Certification at 4. Additionally, Idaho's water quality standards protect existing uses in agricultural manmade waterways in a specific manner: by protecting them for agricultural uses unless DEQ designates additional uses. IDAPA 58.01.02.101.02 ("**Unless designated in Sections 110 through 160**, man-made waterways are to be protected for the use for which they were developed." (emphasis added)). Idaho's antidegradation policy provides that existing use determinations will be based on "all **available** information" without mentioning or authorizing imposition of an existing use study as a permit condition. IDAPA 58.01.02.052.07 (emphasis added). And DEQ is prohibited by law from "impos[ing] conditions or requirements more stringent or broader in scope than the clean water act and regulations adopted pursuant thereto." Idaho Code § 39-175B. This statutory prohibition prohibits interpretation of Idaho's water quality standards as requiring the Existing Use Study because no such study is required by the Clean Water Act or EPA regulations.

Accordingly, Idaho's water quality standards protect existing uses in agricultural manmade waterways by protecting for agricultural uses unless DEQ designates otherwise. Idaho's water quality standards do **not** protect existing uses by requiring, as a condition of an NPDES permit, an *ad hoc*, permit-by-permit existing use study. If EPA now takes the position that existing use studies are required to protect existing uses in man-made waterways, then it must avail itself to the disapproval process set forth in the Clean Water Act. If DEQ now takes the position that permit-by-permit existing use studies are required to protect existing uses in manmade waterways, it must amend its water quality standards to require existing use studies. EPA and DEQ cannot act contrary to Idaho's existing, EPA-approved water quality standards by requiring a mechanism—the Existing Use Study—that is not mentioned in, much less required by, the water quality standards as they currently exist. The fact that existing uses must be protected does not give EPA and DEQ authority to re-write Idaho's water quality standards by

imposing an existing use study that has no basis in the rules as written. Idaho's water quality standards cannot be reasonably interpreted as requiring the Existing Use Study.

Response: See Response to Comment 19.

21. Comment (Sorrento): Existing Use Study

Moreover, consistent with the structure of the Clean Water Act, EPA's practice is to protect existing uses by calculating water quality based effluent limits based on the protection afforded the waterway under the state's approved water quality standards. U.S. ENVT'L PROT. AGENCY, NPDES Permit Writers' Manual (2010) at § 6.6.1 ("In practice, for a Tier 1 receiving water body, the permit write typically calculates the WQBELs on the basis of the applicable criteria because the state's designated uses and criteria to protect those uses must be sufficient to protect the existing uses."). This is the approach that EPA followed in Lactalis's 2005 Permit, and is consistent with guidance from the courts and the Environmental Appeals Board that NPDES permits merely "implement" state water quality standards and are not the appropriate forum to challenge a state's approved standards. Exhibit 2, Fact Sheet to Sorrento Lactalis 2005 NPDES Permit at 9 (protecting for agricultural water supply and acknowledging requirement to protect existing uses); *In Re: City of Hollywood, Florida Permit No. Fl 0026255*, 5 E.A.D. 157, at *12; *U. S. Steel Corp.*, 556 F.2d at 835.

Neither EPA nor DEQ have cited to an NPDES permit in Idaho that requires an existing use study to determine the existing uses within a man-made waterway. Lactalis's independent research has not revealed any such permit. This lack of precedent further supports the conclusion that permit-by-permit existing use studies are not supported by the Clean Water Act or Idaho's water quality standards.

Response: See Response to Comment 19.

22. Comment (Sorrento): Existing Use Study

Finally, determining existing uses through a patchwork of permit-specific existing use studies would be cumbersome, inefficient, and inconsistent even if it were supported by existing rules and regulations. A permittee's ability to gather information is dictated by numerous factors, including the permittee's access to the waterbody, the consultant retained by the permittee, the techniques used by the permittee or consultant, the timeframe of the study, and others. It would be difficult, if not impossible for DEQ or EPA to oversee and ensure consistency across potentially dozens of studies conducted on different timeframes in different parts of the state. Likewise, there is no mechanism for permittees who may be affected by the findings of an upstream or downstream permittee to comment or provide input on the details or findings of another permittees' study. Determining and protecting uses is a regulatory action that should be conducted in a transparent, public, and consistent manner. A patchwork of permittee-funded and permittee-implemented studies is not a sound approach to carry out the governmental function of determining what level of protection a waterway should receive.

Response: (Sorrento) See Response to Comment 19.

23. Comment (Sorrento): EPA and DEQ point to an existing use screening conducted by EPA in October 2015 to justify the Existing Use Study. Draft Fact Sheet at 12; Draft 401 Certification at 2. According to this argument, EPA's existing use screening provided "inconclusive" results regarding existing uses in the Purdam Drain and, therefore, additional information is required. Draft Fact Sheet at 12; Draft 401 Certification at 2. However, EPA's existing use screening is consistent with protecting the Purdam Drain for agricultural water supply. EPA personnel reported that riparian conditions were "poor to marginal;" the water appeared "brown" with "high turbidity;" a rapid habitat assessment scored "poor;" and "aquatic life observed" was reported as "none." *Id.* at 57. EPA personnel also noted that a structure at the start of the drain would likely prevent fish passage and a check dam would temporarily prevent fish passage when in life [The reference is to *in use* not "in life"]. *Id.* at 57. Personnel noted that some areas of the drain were "unfenced which might allow human access to the waterbody and

potential human contact," though "[n]o human contact or signs of human contact with the waterbody was observed." *Id.* The results of EPA's screening survey are consistent with a screening conducted by Idaho DEQ in 2005, which concluded that there are no existing cold water aquatic life uses in the Purdam Drain. *See* Exhibit 3, Letter from Barry Burnell to Mike Lidgard, June 16, 2005. As DEQ correctly notes, "the Purdam Drain is protected only for agricultural water supply, and there **is no evidence to date regarding other existing uses**." Draft 401 Certification at 2 (emphasis added).

Both EPA and DEQ have conducted screenings on the Purdam Drain, and neither identified existing uses other than agricultural water supply. This is substantially more information on exiting uses than EPA or DEQ typically have. If anything, two existing use screenings that do not identify uses other than agricultural water supply should give EPA and DEQ comfort that it is appropriate to protect the Purdam Drain for agricultural water supply. Describing the results of those two screenings as "inconclusive" does not support imposition of a third.

Response: See Response to Comment 19.

24. Comment (Sorrento): The Existing Use Study also requires that Lactalis engage in a "fish survey" and "macroinvertebrate survey," both of which would require that Lactalis access and conduct activities within the waters of the Purdam Drain. Draft Permit at App'x B. As DEQ correctly notes, "Lactalis does not own the Purdam Drain and may not currently have access to collect the required information." Draft 401 Certification at 5. The Purdam Drain is privately owned and flows through private property. While Lactalis personnel have been able to take required surface water samples without incident, Lactalis does not have the legal right to access the substrate of the Purdam Drain for the purposes of conducting fish or macroinvertebrate surveys, which are more intrusive and potentially objectionable to Nampa Meridian Irrigation District, Pioneer, or private landowners. Owners of the Purdam Drain and surrounding land are under no obligation to provide access and may be disinclined to allow a study of the privately owned waterway that provides no benefit to them. Lactalis should not and cannot be compelled to carry out activities it has no legal right to carry out.

The Draft Permit states, "If the permittee is unable to obtain access to establish the monitoring station, the permittee must send written notification to EPA and IDEQ. The notification must summarize the steps taken to obtain access and the reason(s) that access was denied." Draft Permit at 10. It is not clear whether this statement refers only to monitoring stations for surface water samples, or whether it also refers to monitoring stations or other activities required by the Existing Use Study. In the final permit, EPA should, at the very least, make clear that the Permit does not require Lactalis to access the Purdam Drain or Mason Creek where Lactalis does not have the legal right to do so. If EPA intends the notification requirement on page 10 to encompass activities required by the Existing Use Study, the Draft Permit should be amended to make that clear.

Response: The EPA contacted the Bureau of Reclamation who provided the following response.

> The locations of the monitoring stations in lower Mason Creek and at the mouth of Purdam Drain are not privately held. Instead, these channels are under the jurisdiction of the Bureau of Reclamation (via fee title ownership, right-of-way, or flowage easement). They are operated and maintained for the Bureau of Reclamation by the Pioneer Irrigation District (PID). It can be expected that the Bureau of Reclamation and PID will allow Sorrento appropriate access along these channels for the permit-required surface water monitoring of ammonia, pH and temperature and the Physical Data and Biological Data Existing Use Information. (email John Petrovsky, Activity Coordinator/Project Manager, Bureau of Reclamation – Pacific Northwest Region, Snake River Area Office to John Drabek, January 20, 2017)

Further, monitoring locations in Purdam Drain are accessible to Sorrento as demonstrated in the Surface Water Monitoring Report that reported results of sampling where Sorrento's contractor, Forsgren, accessed upstream and downstream monitoring locations. The notification requirement

applies to monitoring locations for surface water samples and to activities required by the Existing Use Data Collection. As previously stated, the EPA has removed the requirement to conduct an Existing Use Study. See Response to Comment 19.

25. **Comment (Sorrento):** The Draft Fact Sheet requires that the Existing Use Study be consistent with the BURP protocol. The BURP protocol would require collection of data in and around the Purdam Drain. As noted above, Lactalis does not have the legal right to access the Purdam Drain for this purpose. The BURP protocol is also designed for evaluation of natural waterways. Because the Purdam Drain is a manmade waterway, certain aspects of the BURP protocol, such as measuring sinuosity and other natural features are not relevant. Finally, the BURP protocol is designed for use by DEQ personnel and contains requirements that only make sense when applied by DEQ personnel, for example, use of particular electronic forms and storage of data on DEQ servers. If the Existing Use Study is imposed, Lactalis and/or its contractors will have to modify the BURP protocol to apply to manmade waterways, to reflect access restrictions, to allow for data collection and storage by a private party, and other modifications.

    Response: See Response to Comment 19.

26. **Comment (ICL) Low Flow, Reasonable Potential Analysis in Purdam Drain:** Appendices D and E of the EPA's Fact Sheet discuss the calculations used [to] define effluent limits necessary to protect the receiving water body. After reviewing these calculations, it is unclear if the appropriate low flow data was utilized.

    First, it appears that calculations for ammonia and pH do not use the low flow data collected from Purdam Drain [Purdam Gulch Drain, also called Purdam Drain] in their respective reasonable potential estimates. Ammonia criteria were calculated for Mason Creek downstream of the confluence with Purdam Drain due to Mason Creek having aquatic life listed as a beneficial use. The reasonable potential analysis for pH uses data collected from Purdam Drain but at a downstream monitoring point 4.5 miles downstream of Sorrento's discharge point. The Purdam Drain is a water of the U.S. that potentially supports aquatic life; therefore reasonable potential analyses for both ammonia and pH must be performed for Purdam Drain at the point of discharge utilizing low flow data representative of actual conditions in Purdam Drain.

    Response: In addition to protecting the immediate receiving water, the CWA requires the attainment and maintenance of downstream WQS (*See* 40 CFR 131.10(b)). Therefore, the permit must protect any downstream waterbodies that are potentially impacted by the discharge. The draft permit limits are set to protect the downstream water quality of Mason Creek as well as Purdam Drain.

    As the fact sheet states a reasonable potential analysis was done for the downstream uses in Mason Creek and not for Purdam Drain. The EPA disagrees with the comment that low flow was not used in the reasonable potential calculations for ammonia and pH. The Fact Sheet in Appendix D calculated reasonable potential for ammonia and pH in Mason Creek based on low flows collected in Purdam Drain as it enters Mason Creek with low flows in Mason Creek following NPDES Permit Writers' Manual, Environmental Protection Agency, Office of Wastewater Management, EPA-833-K-10-001, EPA, 2010, Pages 6-26 Exhibit 6-13 Mass-balance equation for reasonable potential analysis for conservative pollutant under conditions of rapid and complete mixing, 6-27 Exhibit 6-14 Example of applying mass-balance equation to conduct reasonable potential analysis for conservative pollutant under conditions of rapid and complete mixing and 6-28. The reasonable potential used low flows in Purdam Drain of 1Q7 and 30Q7.

    As outlined in the fact sheet, at this time it is unknown if aquatic life is an existing use in Purdam Drain. Data collected during this permit cycle will be used to identify the existing uses in Purdam Drain. If aquatic life is identified as an existing use, the permitting authority will conduct a reasonable

potential analysis of the discharge to exceed aquatic life criteria during development of the next permit. See Response to Comments 19 and 20.

27. **Comment (ICL) Flow Data:** Second, it is unclear which low flow data were utilized for the WQBEL calculations performed for total phosphorus, TSS, and *E. Coli* in appendix E. The included derivations appear to only discuss the relationship between AML and MDL, with no discussion on how WQBEL were determined. Again, because the Purdam Drain is a water of the U.S. that potentially supports aquatic life, low flow data representative of the Purdam Drain at the point of discharge must be utilized for all effluent calculations.

    Response: Low flows were not used for the WQBEL for total phosphorus, TSS and *E. Coli*. The WQBEL are based on the allocations provided to Sorrento from addendums to the *Lower Boise River TMDL* as shown in Appendix E. This is explained on page 13 of the Fact Sheet.

    - "Appendix E calculated the weekly limit from the monthly allocations for total phosphorus provided by the *Lower Boise River TMDL 2015 Total Phosphorus Addendum* using methods in EPA's *Technical Support Document for Water Quality-based Toxics Control"*

    - Appendix E also compared the allocation of TSS to the Effluent Limit Guideline and concluded

    "The TSS and *E. Coli* Addendum in Table 26 provided Sorrento a total suspended solids (sediment) allocation of 222.0 lb/day averaged over four months. The highest effluent limitation guideline for TSS is 70 lbs/day averaged over a month. Therefore, the ELG for TSS is more stringent and is established as the effluent limitations for TSS."

    - Appendix E also compared the allocation of *E.Coli* to the WQS.

    "The TSS and *E. Coli* Addendum in Table 26 provided Sorrento with an *E.Coli* allocation of 7 x 109 cfu/day which is based on 126 cfu/100 ml:

    7 x 109 cfu/day (1 day/ 1,520,000 gallons)(1 gal/3.785 L)(0.1 L/100ml) ~ 126 cfu/100 ml The *E.Coli* effluent limitation is established at 126 cfu/100 ml."

    See Response to Comment 23 and 25 concerning the potential of Purdam Drain to support aquatic life.

    The comment did not result in a change in the permit.

28. **Comment (ICL) <u>pH Limits</u>:**

    EPA has chosen to utilize effluent limitations guidelines (ELG) for defining permissible pH limits of between 6.1-9.0. However, this range is not as stringent as Idaho's aquatic life thresholds of 6.5-9.0. As discussed previously, until all of the beneficial uses for the Purdam Drain are determined the EPA must implement the most stringent levels of protection. Therefore, the pH effluent limits must be updated in order to comply with the Idaho WQS of 6.5-9.0.

    Response: The EPA based the pH limits on both the ELG and on compliance with the water quality standards for Mason Creek whichever was more stringent. At a pH of 6.1 the discharge does not have a reasonable potential to violate the water quality standards of 6.5 to 9.0 in Mason Creek. The water quality based effluent limit calculation is shown on pages 44 and 45 of the Fact Sheet.

    See Response 21 and 25 discussing the beneficial uses of Purdam Drain.

    The comment did not result in a change in the permit.

29. Comment (ICL) <u>Total Phosphorus</u>:

The draft permit proposes an average monthly effluent limit for total phosphorus of 1.3 lbs/day. EPA states this is consistent with IDEQ's 2015 Total Phosphorus TMDL. However, if Sorrento generates 1.52 mgd of wastewater – as stated in their application and utilized for calculations for TMDLs and this proposed permit – the discharged effluent would have a total phosphorus concentration of 0.1 mg/L. This concentration is an order of magnitude greater than the WLA of 0.03 mg/L presented in IDEQ's TMDL. The EPA must issue permit thresholds that are consistent with both mass- and concentration-based WLA. The EPA should handle total phosphorus in the same manner as BOD5 and TSS and include both mass- and concentration-based thresholds in order to be consistent with current and approved TMDLs. Alternatively, EPA could lower the mass-based monthly average effluent limit to 0.38 lbs/day, which would also be consistent with the mass- and concentration-based TMDL.

Response: The waste load allocation is a mass allocation of 1.3 lbs/day. A concentration based allocation is not provided by the TMDL. Since the effluent limitations are based on this mass allocation they are consistent with the TMDL.

Further, the 401 Certification states the total phosphorus effluent limitations in the draft permit are consistent with the *Lower Boise River TMDL 2015 Total Phosphorus Addendum*, State of Idaho Department of Environmental Quality, July 2015.

The comment did not result in a change in the permit.

30. Comment (ICL) <u>Antidegradation Review</u>:

Neither IDEQ's CWA Section 401 Certification or the EPA's Existing Use Screening Assessment (EPA, 2015) have definitively characterized the beneficial uses of the Purdam Drain. In light of this, the draft permit includes a provision requiring data collection to determine the existing beneficial uses for this water body, most notably whether or not aquatic life is supported. We are concerned that the antidegradation review performed by IDEQ and relied upon by EPA does not sufficiently ensure that existing beneficial uses will not be impacted. In the absence of information the EPA must utilize the most stringent levels of protection until required beneficial uses surveys are completed and reviewed. At present, the antidegradation review does not provide sufficient assurance that all existing beneficial uses will not be impacted and should therefore not be relied upon by the EPA.

Level of Protection for Purdam Drain

The EPA acknowledges that Purdam Drain is a water of the U.S., yet they fail to afford it the protection it deserves. The IDEQ asserts that Purdam Drain is a manmade water designed to convey water for agricultural purposes, and as such seeks to only protect this beneficial use. Protecting only for agricultural water conveyance is erroneous though as all of the beneficial uses for Purdam Drain has yet to be defined. The EPA conducted an observational survey seeking to identify the beneficial uses of Purdam Drain yet the results were inconclusive, thus there is potential that Purdam Drain supports aquatic life. The Purdam Drain needs to be protected to the maximum extent possible until all of the beneficial uses for Purdam Drain are identified and supported by thorough and complete surveys. Failure to do this creates a scenario where Sorrento's discharge could be creating an inhospitable environment for aquatic life, thus negatively influencing aquatic life surveys and not accurately portraying the actual beneficial uses for Purdam Drain. In order to utilize the most stringent protection levels available the EPA must assume that Purdam Drain supports cold-water aquatic life and primary contact recreation and implement effluent limits reflecting the corresponding state WQS accompanying these beneficial uses.

Response:

Purdam Drain needs to be protected for designated uses and identified existing uses. Until an existing use is identified the EPA will protect the designated uses of agricultural irrigation and livestock enterprise. The comment did not result in a change in to the permit. See Response to Comment 19.

<u>Comments received on 2017 Draft Permit</u>

31. Comment (Sorrento): BOD TBELs:

Lactalis appreciates that EPA has proposed tiered effluent limits using the building-block approach and Lactalis's projections of actual BOD input. This method is firmly grounded in the Permit Writers' Manual and regulations.

Lactalis does note that its actual BOD input has been lower than projected such that the plant currently falls below the first tier. Accordingly, Lactalis respectfully requests that EPA:

Option 1: extend the first tier downwards to encompass the plant's current operation or, in the alternative,

Option 2: create a new tier to encompass current input levels.

The ratio of dairy products produced at the facility has also differed from projections, most notably by producing liquid cream instead of butter, which alters the building block calculation. Exhibits 1 and 2, attached hereto, contain proposed TBEL calculations using 2016 input and production figures.

Option 2 – Adding a New Tier 0 to Bridge Gap Between Current BOD_5 and TSS and EPA's Proposed Tier 1.

Exhibit 1. Proposed Tier 0 Permit Limits with TBEL Building Block Limit Calculations

Table E-1: Effluent Limitations for Proposed Tier 0 (BOD5 input = 401,000 to 528,000 lbs/day)* (mid-point 464,784 lbs/day)*			
Parameter	**Units**	**Average Monthly**	**Maximum Daily**
Biochemical Oxygen Demand (BOD5)	mg/L	10	20
	lbs/day	58	116
Total Suspended Solids (TSS)	mg/L	13	25
	lbs/day	73	140
1. Tier 0 is proposed to bridge the gap between current BOD5 Input at the Lactalis Cheese Processing Plant and EPA's Proposed Tier 1. 2. The midpoint of the tier is the 2016 BOD5 Input to the Lactalis Plant. The upper range is the lower level of Tier 1 to mid-point, and the lower range is that same amount subtracted from the mid-point.			

Table E-2. 2016 Milk Input to Lactalis Cheese Facility	
2016 Milk Input (klbs/year)	1,749,570
2016 Milk Input (lbs/year)	1,749,570,000
2016 Daily Milk Input (lbs/day)	4,793,342
*Assumes 365 work days/year	

Table E-3. 2016 BOD Input to Lactalis Cheese Facility

4,793,342	lbs milk/day	lbs /day of fats, proteins, carbs and lactic acid	BOD5 multiplier	BOD5 input	units
Raw Milk Composition	Percentages				
fat	3.50%	167,767	0.890	149,313	lbs/day BOD5
proteins	3.20%	153,387	1.031	158,142	lbs/day BOD5
carbohydrates (lactose)	4.75%	227,684	0.691	157,329	lbs/day BOD5
OTHER (e.g. water)	88.55%				
		EPA Method to Calculate Facility BOD5 Input =		**464,784**	**lbs/day BOD5 Input**

Table E-4. Lactalis Production Breakdown Developed by EPA for Incorporating Building Block Approach

Product	**lbs/year ***	**Percent**
Cottage and Cream Cheese	2,318,914	0.60%
Natural and Processed Cheese	243,202,903	62.68%
Dry Whey	97,480,376	25.12%
Butter	0	0.00%
Cream **	45,032,354	11.61%
Total Site	388,034,547	100%

*** Data Provided by Lactalis, Inc on April 17, 2017.**

**** Cream was not included in EPA's Revised Fact Sheet, dated March 22, 2017.**

Option 1 Revising EPA's Tier 1 to Include Existing Production Values

Table E-5. TBELS Building Approach Permit Limit Calculations			
Calculated BOD5 Input = from Table E-3	464,784	lbs/day BOD5	
Tier 0 for CFR 405.65 - Natural & Processed Cheese			
Production Percentage (from Table E-4):	BOD Input for CFR 405.65:		Units
62.68%	291,306		
Technical Based Limit (CFR 405.65) for Max Daily BOD5 limit	0.016	46.6	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.65) for Avg Monthly BOD5 limit	0.008	23.3	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.65) for Max Daily TSS limit	0.020	58.3	lbs TSS/100 lbs BOD input
Technical Based Limit (CFR 405.65) for Avg Monthly TSS limit	0.010	29.1	lbs TSS/100 lbs BOD input
Tier 0 for CFR 405.125 - Whey			
Production Percentage (from Table E-4):	BOD Input for CFR 405.125:		Units
25.12%	116,761		
Technical Based Limit (CFR 405.125) for Max Daily BOD5 limit	0.022	25.7	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.125) for Avg Monthly BOD5 limit	0.011	12.8	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.125) for Max Daily TSS limit	0.023	26.9	lbs TSS/100 lbs BOD input
Technical Based Limit (CFR 405.125) for Avg Monthly TSS limit	0.014	16.3	lbs TSS/100 lbs BOD input
Tier 0 for CFR 405.55 - Cottage Cheese			
Production Percentage (from Table E-4):	BOD Input for CFR 405.55:		Units
0.60%	2,778		
Technical Based Limit (CFR 405.55) for Max Daily BOD5 limit	0.148	4.1	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.55) for Avg Monthly BOD5 limit	0.074	2.1	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.55) for Max Daily TSS limit	0.185	5.1	lbs TSS/100 lbs BOD input
Technical Based Limit (CFR 405.55) for Avg Monthly TSS limit	0.093	2.6	lbs TSS/100 lbs BOD input
Tier 0 for CFR 405.45 - Butter Subcategory			
Production Percentage (from Table E-4):	BOD Input for CFR 405.45:		Units
0.00%	-		
Technical Based Limit (CFR 405.45) for Max Daily BOD5 limit	0.016	-	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.45) for Avg Monthly BOD5 limit	0.008	-	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.45) for Max Daily TSS limit	0.020	-	lbs TSS/100 lbs BOD input
Technical Based Limit (CFR 405.45) for Avg Monthly TSS limit	0.010	-	lbs TSS/100 lbs BOD input
Tier 0 for CFR 405.25 - Cream Subcategory			
Production Percentage (from Table E-4):	BOD Input for CFR 405.25:		Units
11.61%	53,939		
Technical Based Limit (CFR 405.25) for Max Daily BOD5 limit	0.074	39.9	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.25) for Avg Monthly BOD5 limit	0.037	20.0	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.25) for Max Daily TSS limit	0.093	50.2	lbs TSS/100 lbs BOD input
Technical Based Limit (CFR 405.25) for Avg Monthly TSS limit	0.046	24.8	lbs TSS/100 lbs BOD input
Allowable Discharge Limits (presented in Table E-1)			
BOD Max Daily Limit:	**116**	**=46.6+25.7+4.1+0.0+39.9**	
BOD Avg Monthly Limit:	**58**	**=23.3+12.8+2.1+0.0+20**	
TSS Max Daily Limit:	**140**	**=58.3+26.9+5.1+0.0+50.2**	
TSS Average Monthly Limit:	**73**	**=29.1+16.3+2.6+0.0+24.8**	

Table E-7. TBELS Building Approach Permit Limit Calculations

Calculated BOD5 Input = from Table E-3	523,500	lbs/day BOD5	
Tier 0 for CFR 405.65 - Natural & Processed Cheese			
Production Percentage (from Table E-4):	BOD Input for CFR 405.65:		Units
62.68%	328,107		
Technical Based Limit (CFR 405.65) for Max Daily BOD5 limit	0.016	52.5	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.65) for Avg Monthly BOD5 limit	0.008	26.2	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.65) for Max Daily TSS limit	0.020	65.6	lbs TSS/100 lbs BOD input
Technical Based Limit (CFR 405.65) for Avg Monthly TSS limit	0.010	32.8	lbs TSS/100 lbs BOD input
Tier 0 for CFR 405.125 - Whey			
Production Percentage (from Table E-4):	BOD Input for CFR 405.125:		Units
25.12%	131,511		
Technical Based Limit (CFR 405.125) for Max Daily BOD5 limit	0.022	28.9	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.125) for Avg Monthly BOD5 limit	0.011	14.5	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.125) for Max Daily TSS limit	0.023	30.2	lbs TSS/100 lbs BOD input
Technical Based Limit (CFR 405.125) for Avg Monthly TSS limit	0.014	18.4	lbs TSS/100 lbs BOD input
Tier 0 for CFR 405.55 - Cottage Cheese			
Production Percentage (from Table E-4):	BOD Input for CFR 405.55:		Units
0.60%	3,128		
Technical Based Limit (CFR 405.55) for Max Daily BOD5 limit	0.148	4.6	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.55) for Avg Monthly BOD5 limit	0.074	2.3	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.55) for Max Daily TSS limit	0.185	5.8	lbs TSS/100 lbs BOD input
Technical Based Limit (CFR 405.55) for Avg Monthly TSS limit	0.093	2.9	lbs TSS/100 lbs BOD input
Tier 0 for CFR 405.45 - Butter Subcategory			
Production Percentage (from Table E-4):	BOD Input for CFR 405.45:		Units
0.00%	-		
Technical Based Limit (CFR 405.45) for Max Daily BOD5 limit	0.016	-	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.45) for Avg Monthly BOD5 limit	0.008	-	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.45) for Max Daily TSS limit	0.020	-	lbs TSS/100 lbs BOD input
Technical Based Limit (CFR 405.45) for Avg Monthly TSS limit	0.010	-	lbs TSS/100 lbs BOD input
Tier 0 for CFR 405.25 - Cream Subcategory			
Production Percentage (from Table E-4):	BOD Input for CFR 405.25:		Units
11.61%	60,753		
Technical Based Limit (CFR 405.25) for Max Daily BOD5 limit	0.074	45.0	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.25) for Avg Monthly BOD5 limit	0.037	22.5	lbs BOD5/100 lbs BOD input
Technical Based Limit (CFR 405.25) for Max Daily TSS limit	0.093	56.5	lbs TSS/100 lbs BOD input
Technical Based Limit (CFR 405.25) for Avg Monthly TSS limit	0.046	27.9	lbs TSS/100 lbs BOD input
Allowable Discharge Limits (presented in Table E-1)			
BOD Max Daily Limit:	131	=52.5+28.9+4.6+0.0+45	
BOD Avg Monthly Limit:	66	=26.2+14.5+2.3+0.0+22.5	
TSS Max Daily Limit:	158	=65.6+30.2+5.8+0.0+56.5	
TSS Average Monthly Limit:	82	=32.8+18.4+2.9+0.0+27.9	

Response: The EPA reviewed the updated information provided on production rates, the addition of cream to production and the decision not to produce butter. The EPA also noted the reduced milk input from the projections in the application and the calculations and effluent limit guidelines to derive effluent limits for TSS and BOD_5 in Exhibits 1 and 2. The EPA calculated revised effluent limits for TSS and BOD_5 based on the updated production information for the four tiers. The effluent limits are the same except for using the new production break down.

The final permit also includes a new Tier 0, i.e Option 2, to bridge the gap between current production and BOD_5 input and EPA's Tier 1 for effluent limitations for TSS and BOD_5 as shown in Exhibit 1 Table E-1.

The revised limits are the same as those provided by Sorrento in their comments.

32. Comment (ICL) Building Block Approach for BOD5 and TSS Effluent Limits:

The EPA has revised their method of calculating BOD5 and TSS limits in order to use a building block approach and combine all applicable ELGs into one ELG for the production of the facility. We disagree with this approach primarily because the beneficial used of Purdam Drain remain unknown. The Purdam Drain needs to be protected to the maximum extent possible until all of the beneficial uses for Purdam Drain are identified and supported by thorough and complete surveys.

Failure to do this creates a scenario where Sorrento's discharge could be creating an inhospitable environment for aquatic life, thus negatively influencing the required Existing Use Data Collection surveys and not accurately portraying the actual beneficial uses for Purdam Drain. In lieu of absolute knowledge regarding beneficial uses, the EPA should utilize the most stringent protection levels available, similar to the previous draft permit.

Furthermore, Purdam Drain flows into Mason Creek, which is currently listed in Category 5 of Idaho's most recent approved Integrated Report (DEQ, 2012). Mason Creek has a number of causes of impairment, one of which is sedimentation and siltation. At this time, Mason Creek's assimilative capacity for sediment is unknown. Until such time that a TMDL is developed for Mason Creek, it is inappropriate to increase the level of a pollutant discharged into a water body that eventually flows into an impaired water body.

Once again, we encourage the EPA to utilize the BOD5 and TSS limits calculated for the 2016 Draft Permit rather than the proposed revised limits.

Response: See Responses to Comments 25 and 30 concerning the existing uses of Purdam Drain.

The EPA disagrees the assimilative capacity of Mason Creek is unknown. A TMDL has been developed for Mason Creek.

The assimilative capacity of Mason Creek was determined through development of the *Lower Boise River TMDL Sediment and Bacteria Addendum*, State of Idaho Department of Environmental Quality, June 2015, (TSS and *E. Coli* Addendum) approved by the EPA in September, 2015.

As the fact sheet for the Sorrento August 12, 2016 draft permit states:

> "A TMDL is a detailed analysis of the water body to determine its assimilative capacity. The assimilative capacity is the loading of a pollutant that a water body can assimilate without causing or contributing to a violation of water quality standards. Once the assimilative capacity of the water body has been determined, the TMDL will allocate that capacity among point and nonpoint pollutant sources, taking into account natural background levels and a margin of safety."

The allocation for Sorrento is provided in Table 26 of the TSS and *E. Coli* Addendum.

Table 26. Point source wasteload allocations for tributaries in the Lower Boise River subbasin.

Facility	NPDES Permit Number	Affected Assessment Unit (ID17050114SW)	Present Design Flow (mgd)	Wasteload Allocation at Present Design Flow		
				Sediment [a]		*E. coli* (10^9 cfu/day)[b]
				(kg/day)	(lb/day)	
City of Greenleaf	ID-0028304	001_02 Dixie Slough	0.24	n/a[c]	n/a[c]	1
City of Nampa	ID-002206-3	002_04 Indian Creek	18.00	1192.3	2,628.6	86
Sorrento-Lactalis	ID-002803-7	006_02 Mason Creek	1.52	100.7	222.0	7
City of Meridian	ID-002019-2	010_03 Fivemile	10.20	675.6	1,489.4	49
City of Parma	ID-002177-6	017_06 Sand Hollow	0.68	45.0	99.2	3

Notes: National Pollutant Discharge Elimination System (NPDES), million gallons per day (mgd), kilograms (kg), colony-forming units (cfu)

[a] 4-month average

[b] 30-day geometric mean

[c] Dixie Slough is not §303(d) listed for sediment but was found to be impaired by *E. coli*.

As seen in the table below the technology based limits are more stringent than the assimilative capacity based allocations.

Tiers	**Technology Based Limits**[1] lbs/day	**Mason Creek Assimilative Capacity based Allocation**[2] lbs/day
Tier 0	73	222.0
Tier 1	82	222.0
Tier 2	87	222.0
Tier 3	102	222.0
Tier 4	116	222.0

[1]Monthly Limit.

[2]4-month average

Note: A monthly limit of the same number as a 4-month average limit is more stringent because there is no average of low and high loadings. With the monthly limit lower than the 4-month allocation in all Tiers it is assured the assimilative capacity for sediment in Mason Creek will not be exceeded.

In addition as the August 12, 2016 Fact Sheet for the draft permit states:

> "Total Suspended Solids (TSS)
>
> Mason Creek (entire watershed) is classified as impaired for sediment, and the TSS and *E. Coli* Addendum for tributaries to the Lower Boise River, of which Mason Creek is one. While the mass-based limit for TSS for Sorrento Lactalis is based on the applicable ELG (see above) and applied in production-based tiers to allow for planned facility expansion, the draft permit *also includes a concentration-based limit for TSS that is intended to ensure the protection of Mason Creek from further impairment* [Emphasis added]. In other words, this permit allows an increase in load to the receiving water, but ensures that the TSS concentration does not increase so as to protect the receiving water from further impairment. The technology mass-based limits are more stringent than

the corresponding water quality mass-based limits. Therefore, this permit maintains the concentration-based monthly average TSS limit of 13 mg/L and a daily maximum of 25 mg/L TSS, both of which are in the existing permit."

The mass limits based on the building block approach only increases the mass based limits. The concentration based limits that ensure the protection of Mason Creek from further impairment remain unchanged from the existing permit.

33. Comment (ICL) Existing Use Data Collection**:**

As part of revisions to the 2016 draft permit, the EPA is proposing to eliminate requirements that Sorrento collect existing use data on Purdam Drain, including dates and types of uses (before and on/after Nov. 28, 1975). Under Idaho Administrative Code, any use of Purdam Drain on or after Nov. 28, 1975, is considered an existing beneficial use or existing use (IDAPA 58.01.02.010.38). Further, under Idaho's Antidegradation Policy (IDAPA 58.01.02.051), all waters in the State are afforded Tier I protection, requiring the maintenance of existing uses.

Given this information, the requirements to collect data on Purdam Drain's origin and historical uses cannot be removed from the revised permit. As such, we request that the EPA reverse their decision to delete Sections 1 and 2 from the Existing Use Data Collection section of the permit.

Response: See Response to Comment 19.