Minnesota Pollution Control Agency
Attn: Charles Peterson
520 Lafayette Road North
St. Paul, MN 55155

Re: The Environmental Assessment Worksheet for the West River Dairy Expansion

Dear Mr. Peterson,

For over 50 years, Riverview has successfully and responsibly operated regulated feedlots in Minnesota. As a feedlot permittee, Riverview has completed numerous Environmental Assessment Worksheets (EAWs) as part of Minnesota's rigorous environmental review process. The West River Dairy expansion EAW stands as the most comprehensive to date. The EAW process is designed to determine whether an environmental impact statement (EIS) is required for a proposed action. An EIS is prepared when there is a potential for significant environmental effects. As detailed below, the only reasonable conclusion based on the evidence developed after a thorough review is that this proposed project does not have the potential for significant environmental effects. Thus, we do not believe that further analysis through an EIS is warranted.

We thank the Minnesota Pollution Control Agency (MPCA), Department of Natural Resources (DNR), and other state agencies for their diligent work and for the opportunity to comment on this EAW. We offer the following information to address various comments and questions raised with respect to the project over the last few months.

I. Comprehensive Greenhouse Gas Accounting

The project's anticipated emissions are accounted in detail in the EAW, including differences between construction and operational emissions. Construction emissions encompass land conversion, transportation, as well as the use of stationary and mobile equipment during the building phase. Operational emissions include two kinds: Scope 1 direct emissions, and Scope 2 indirect emissions. Scope 1 emission sources include enteric fermentation, methane, and nitrous oxide released from the barn and manure storage; nitrous oxide from land application; and combustion from stationary and mobile equipment. Scope 2 emissions account for the project's electricity consumption.

The EAW also addresses the project's relationship to the Minnesota Next Generation Energy Act goals. While the project will generate a certain amount of GHG emissions, overall emissions in Minnesota have declined approximately 14% since 2005. It is also worth highlighting that the Food and Agriculture Organization of the United Nations found that North American dairies are the most efficient in the world. In fact, North American dairies reduced absolute

emissions by 5% while increasing milk production over a 10-year period.[1] And a peer-reviewed study published in the Journal of Animal Science found that the total carbon footprint of the U.S. dairy industry in 2007 was 41% lower than in 1944, even as total milk production increased by 59%.[2] On a per-unit basis, the carbon footprint per kilogram of milk produced in 2007 was only 37% of the 1944 level. Modern dairy practices required only 21% of the animals, 23% of the feedstuffs, 35% of the water, and 10% of the land needed to produce the same quantity of milk as in 1944. These improvements have continued: a follow-up study by the same researchers found that between 2007 and 2017, GHG emissions per unit of energy-corrected milk declined by an additional 19.2%, even as total U.S. milk production increased by 24.9%.[3] Minnesota's total dairy cow herd has declined from roughly 1.2 million head in 1960 to approximately 440,000 today. This logically demonstrates that Minnesota's dairy industry is producing the lowest level of GHG emissions at any point in its history. As global demand for dairy products increases,[4] Minnesota has an opportunity to lead in supplying that demand, and doing so in a way proven to have the lowest impacts on the environment.

Finally, the EAW highlights several opportunities in which emissions will be mitigated and/or reduced. The project will convert thousands of acres from row crops to alfalfa production (reducing approximately 1.21 tons of CO2e annually per acre), promote the use of cover crops, and offset reliance on synthetic fertilizer through organic manure application. Additional mitigation strategies, as described in the EAW, include the use of efficient Holstein-Jersey crossbred genetics, feed additives, variable frequency drives on motors and milking equipment, temperature-regulated ventilation and misting systems, LED lighting, plate cooler heat recovery, and the potential purchase of renewable electricity from the utility provider.

II. Sustainable Water Supply and Ongoing Compliance

Strategies to achieve a diversified and sustainable water supply plan are meticulously described throughout the EAW. Rather than seeking a new groundwater appropriation, Riverview will utilize an existing off-site well that was previously permitted for 452 million gallons per year, an amount that was previously found by MN DNR to be sustainable from this aquifer. Through a pending permit with the DNR, Riverview will reduce the appropriated volume by half, requesting only 226 million gallons per year. The original appropriation was granted after the completion of an aquifer test. The results of the aquifer test confirmed that the water-table aquifer can sustain the requested volume. The aquifer test also identified a hydraulic connection between the off-site well

[1] "Climate Change and the Global Dairy Cattle Sector: the role of the dairy sector in a low-carbon future." Food and Agriculture Organization of the United Nations. 2019. https://www.fao.org/3/CA2929EN/ca2929en.pdf

[2] Capper, J.L., R.A. Cady, and D.E. Bauman. "The Environmental Impact of Dairy Production: 1944 Compared with 2007." Journal of Animal Science 87, no. 6 (2009).

[3] Capper, J.L. and R.A. Cady. "The Effects of Improved Performance in the U.S. Dairy Cattle Industry on Environmental Impacts Between 2007 and 2017." Journal of Animal Science 98, no. 1 (2020).

[4] U.S. Dairy Export Council, International Demand Analysis (Data Through January 2026), available at https://www.usdec.org/economics-and-data/international-demand-analysis.

and the Pomme de Terre River, prompting the DNR to include groundwater appropriation restrictions based on river flow. These restrictions are responsive to, and will protect, surface water resources.

This hydraulic connection between the river and the aquifer is important for another reason: it represents a source of aquifer recharge. Given that, it's important to note that last year alone 120 billion gallons of water flowed past a nearby stream gage on the Pomme de Terre River.[5] West River Dairy's proposed appropriation represents 0.18% of that measured volume. Although West River will not be appropriating river water, knowing that the aquifer from which it will be appropriating has recharge connectivity to this volume of river water provides good perspective. With this perspective, it's easy to see why a groundwater appropriation volume that is double the currently-proposed amount was previously found to be sustainable in this location, and why the currently-proposed amount does not represent a potentially significant environmental impact.

Some commenters have compared the project's water use to the volume used by the nearby City of Morris, implying that the project poses a risk to the city's water supply. This comparison is not indicative of any potential environmental impact. The off-site well to be used for the West River Dairy expansion is located several miles downstream from the City of Morris's wells along the Pomme de Terre River. Because the water-table aquifer in this area is recharged by the Pomme de Terre River, the downstream position of the project's well means that any water use by West River Dairy would have no impact on the water supply available to the City of Morris, especially in light of the river flow restrictions to be imposed by DNR. This conclusion is further supported by the aquifer test conducted on this well, which found that significant interference is not expected to occur in any existing water wells. Additionally, a historic flow study of the Pomme de Terre River conducted by Moore Engineering found that stream flows have been materially increasing since 1991. This increasing trend in river flows—likely correlated to drainage improvements within the watershed—further supports the conclusion that adequate recharge exists for water appropriations from the Pomme de Terre River valley and reduces the likelihood that pumping restrictions would ever be required. It is also worth noting that the DNR's Groundwater Province Map indicates that groundwater availability is moderate to good in the surficial sand aquifers in this area. Finally, we are not aware of any evidence indicating hydrologic connectivity between the off-site well and the on-site wells at the existing dairy, which are screened in different aquifers. As noted above, the aquifer test report confirmed that significant interference is not expected to occur in any existing wells.

Furthermore, as a contingency and climate adaptation strategy, the project will also construct two water storage basins designed to hold a nine-month supply of water. These basins will allow the appropriation and storage of water when river flows are high and provide a buffer should groundwater appropriation ever need to be curtailed due to lower river flows. In addition,

[5] Minnesota Department of Natural Resources. "Cooperative Stream Gaging (CSG)." https://www.dnr.state.mn.us/waters/csg/index.html

West River Dairy will offset groundwater needs by capturing and recycling rainwater from the farm itself. In total, the farm will be engineered to capture approximately 90 million gallons of rainwater annually (on average). All these features and strategies result in a diversified and sustainable approach to the project's water needs while reducing reliance on a single water source.

What's more, West River Dairy's water appropriation is subject to permitting and ongoing regulation by the DNR. When determining whether a project has the potential for significant environmental effects, the responsible governmental unit (RGU) *shall consider* the extent to which the environmental effects are mitigated by ongoing public regulatory authority. Minn. R. 4410.1700, subp. 7 (emphasis added). The West River Dairy expansion must obtain a groundwater appropriation permit from the DNR and is therefore subject to the DNR's ongoing public regulatory authority. According to Minn. Stat. § 103G.287, subd. 5, a groundwater appropriation permit may be granted only if DNR determines that the use is "sustainable to supply the needs of future generations and the proposed use will not harm ecosystems, degrade water, or reduce water levels beyond the reach of public water supply and private domestic wells…."[6] Thus, by law, the DNR cannot issue a permit for West River Dairy's expansion if it determines that the water resources proposed to be used are not adequate, which eliminates the potential for significant environmental effects from water appropriation. Further, once issued, ongoing compliance frameworks — including water level monitoring, annual reporting, and enforceable pumping restrictions — remain in place to ensure continued protection of the state's water resources. And Minn. Stat. § 103G.261 prioritizes domestic water supply above all other uses.

Minnesota courts support an RGU's reliance on ongoing public regulatory authority when measures exist that are specific, targeted, and certain to be able to mitigate the environmental effects in question. *Citizens Advocating Responsible Development v. Kandiyohi County Board of Commissioners*, 713 N.W.2d 817, 834-35 (Minn. 2006). The DNR's permit measures clearly meet these criteria. Importantly, the Minnesota Court of Appeals has stated that the DNR water appropriation permit process is a sufficient means of preventing and mitigating significant environmental effects. *In re Environmental Impact Statement*, 849 N.W.2d 71, 82 (Minn. Ct. App. 2014); see also *Friends of Twin Lakes v. City of Roseville*, 764 N.W.2d 378, 382 (Minn. Ct. App. 2009). The Court of Appeals has also held that MPCA deferral to the DNR's permitting process in a nearly identical scenario was proper. See *Matter of Decision on Need for an Env't Impact Statement for Proposed Barrick Fam. Farms, LLP - Lockhart 25 Project Lockhart Twp. Norman Cnty*., 2021 WL 3716643, at *6 (Minn. Ct. App. Aug. 23, 2021) ("[B]ecause of the rigorous review process and strict statutory protections …, the MPCA could properly defer review of the potential impacts … to the DNR's permitting process.")

[6] See also, Minn. R. 6115.0670 (providing that permits may not be issued if the water resources are not adequate or if " the appropriation is not reasonable, practical, and does not adequately protect public safety and promote the public welfare").

Considering the foregoing, MPCA must consider DNR's regulations with respect to water appropriation, and it's reasonable and proper to conclude that these regulations are sufficient to prevent the potential for significant environmental effects.

III. Stormwater Management

The project's stormwater management plan further demonstrates a commitment to climate adaptation. As described in the EAW, the project's stormwater basins are sized at least 20% larger than the minimum required for a 25-year, 24-hour precipitation event to account for projected increases in rainfall frequency and intensity. In practice, the oversizing is even greater: the two long-term water storage basins being constructed as part of this expansion provide an additional 157 million gallons of storage capacity. Stormwater captured in the on-site stormwater basins can be transferred to these long-term water storage basins, where this captured rainwater will be stored for recycling/reuse as a water supply for cattle. Together, these water storage basins provide several times the amount of required stormwater capacity. This layered approach to stormwater management thoroughly mitigates and eliminates any concerns regarding stormwater basin capacity, even under the most severe projected climate scenarios.

IV. Minnesota's Robust Permitting Process and the Project's Draft Individual Permit

The West River Dairy expansion will be governed by a "zero discharge" Individual National Pollutant Discharge Elimination System (NPDES) feedlot permit that imposes site-specific requirements, more stringent than those of the state's general feedlot permit. The dairy is designed so that no discharge of manure or process wastewater from the farm will occur. Further, among the more stringent provisions of the draft individual permit are earthen manure storage basins with clay liners more than twice as thick as those required under the general permit, additional notification requirements during construction of manure storage areas, mandatory agency approval before manure storage areas can be used, and notification requirements when land application of manure begins. None of these requirements are part of the general feedlot permit, under which most feedlots operate.

Additionally, as described in the EAW, the land application of manure is managed and regulated according to plans that are part of the NPDES permit designed so that the nutrients found in the manure are used in crop production and not lost to waterways. This includes soil testing, manure testing, agronomic rate requirements, etc. The application areas for the West River Dairy expansion were also carefully selected and evaluated to avoid and mitigate environmental effects, and more than enough acres are available to handle the manure that will be produced.

Moreover, the MPCA's own literature review of manure application runoff studies confirms that the incorporation of manure into soil—the method proposed to be used at West River Dairy—reduces runoff volume, soil loss, and nutrient transport compared to fields that did not receive

manure. Importantly, the injection of liquid manure—consistent with the knife-injection method Riverview employs—resulted in greater reductions.[7]

V. Dairy Farm Trends

Some commenters have suggested that this project should be evaluated in light of economic trends within the dairy industry. The purpose of an EAW is to assess potential significant *environmental* effects—not to serve as a vehicle for broader economic policy debates.

Even setting that aside, the data does not support the argument that larger-scale dairy farming is causing other farms to exit the industry. Dairy farms have been declining in Minnesota since at least the 1940s. According to USDA Agricultural Census data, approximately 90% of the dairy farms that have exited Minnesota since 1940 had done so by 1992—well before large-scale dairy farming existed in the state. Since the emergence of larger dairy farms in the early 2000s, the rate of decline in farm numbers has continued largely unchanged, while Minnesota's dairy herd numbers have stabilized. Similar trends of farm declines have been even more pronounced in neighboring North Dakota, where large-scale dairy farming does not exist to any meaningful degree, yet dairy farm numbers have declined even more dramatically. These facts suggest that other factors—not farm size—are the primary drivers of dairy farm exits. Meanwhile, demand for dairy products continues to grow both domestically and internationally, with approximately $10 billion invested in U.S. dairy processing capacity recently and significant new processing investments in the upper Midwest region. This growing demand represents an opportunity for Minnesota's entire dairy industry, and projects like the West River Dairy expansion help sustain the milk supply that supports regional processors, which in turn benefits dairy producers of all sizes.

VI. Conclusion

The West River Dairy expansion EAW is a thorough document that demonstrates the proposed project has been carefully designed to avoid, minimize, or mitigate potential environmental effects. It is also clear that the regulatory framework governing the project provides robust and ongoing environmental protection. Riverview appreciates the work of the MPCA, DNR, and other agencies involved in this process and is confident in Minnesota's environmental review and permitting process. We respectfully urge the MPCA to follow the process established in law and issue a negative declaration on the need for an Environmental Impact Statement.

Sincerely,

/s/ Brady Janzen

Brady Janzen
Authorized Partner, Riverview, LLP

[7] "Runoff Reductions with Incorporated Manure." Minnesota Pollution Control Agency. May 2018. Publication wq-f1-08.