My name is Brent Koehl and I have been a lifelong resident of the Horton Township area in Stevens County. I have been actively farming for 20 years growing corn and soybeans. My farm is located approximately two miles from the current West River Dairy site and the proposed expansion. Throughout my entire farming career, I have worked directly with Riverview's West River Dairy—supplying feed and receiving manure as fertilizer. I am writing this letter to express my strong support for the proposed dairy expansion project currently under MPCA review. I believe this project will continue to benefit our local agricultural community, our land, and our water resources.

Water Quantity and Aquifer Sustainability

As a nearby well owner, water quantity is critically important to me, my family, and my operation. I have personally analyzed decades of groundwater monitoring data from the Horton DNR Test Wells that are located directly where water will be drawn to supply West River Dairy. We have compared those water level readings, done by the Minnesota DNR, against annual precipitation records from the Morris WCROC weather station. The results are clear: water levels in our local aquifer are driven overwhelmingly by natural precipitation patterns, not by agricultural water use. The data shows a statistically significant correlation between precipitation and water levels, with the strongest relationship appearing in a two-year rolling average of precipitation ($r = 0.656$, $p < 0.0001$, $R^2 = 0.43$). In practical terms, this means that roughly 43% of the variation in aquifer levels can be explained by rainfall alone—and the remaining variation is likely attributable to other natural hydrological factors. There is no evidence in the data that current water usage has negatively impacted the aquifer. Our area sits atop one of the best naturally recharging aquifers for agricultural use in the region, and the monitoring data spanning over 40 years confirms its resilience.

To put the proposed water usage in perspective: Riverview's expansion plans call for a maximum of 226 million gallons of water annually. Consider that a single square mile of land in our area receives approximately 452 million gallons of water each year from rainfall alone, based on the Morris average of 26 inches of annual precipitation. That means the dairy's entire annual water demand is roughly equivalent to the rain that falls on just half of one square mile—a modest amount relative to the scale of precipitation and recharge occurring across this landscape. Minnesota's water appropriation permitting process is rigorous, prioritizes domestic and household water use, and requires a demonstrated sustainable water source before any permit is issued. I have full confidence that water quantity can be managed responsibly as this expansion moves forward.

Please refer to Figure 1 below, which illustrates the relationship between water levels and annual precipitation at the Horton DNR Test Wells over the past four decades. The underlying data used in this analysis was sourced from publicly available NOAA precipitation records and Minnesota DNR groundwater monitoring reports.

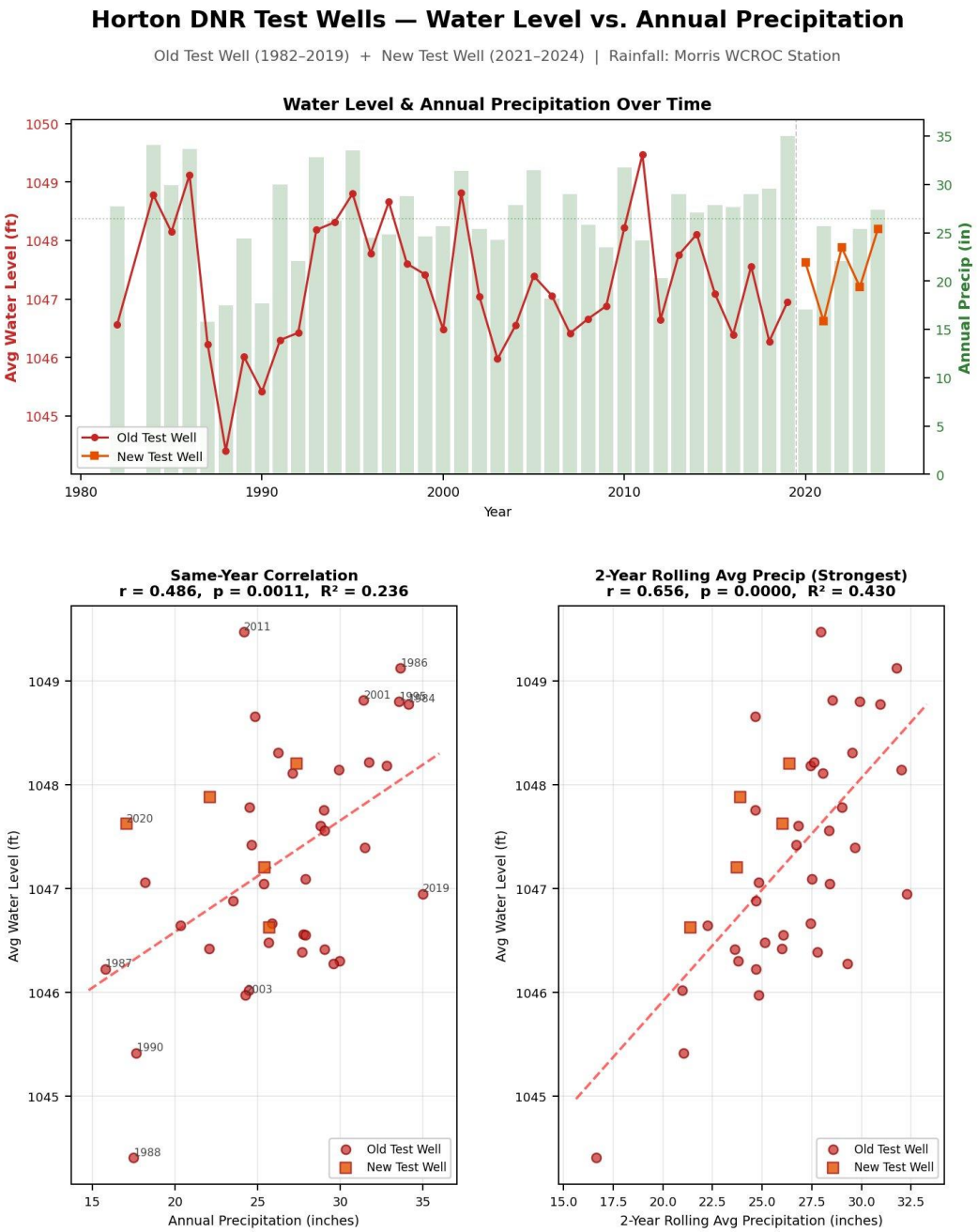

Figure 1. Horton DNR Test Wells – Water Level vs. Annual Precipitation (1982–2024)

The Agronomic Benefits of Manure

One of the most significant benefits of working with West River Dairy is the ability to sell silage and alfalfa to the operation and receive manure back in return. This exchange is not just economically efficient; it provides agronomic and environmental benefits that go beyond what commercial fertilizers alone can achieve. A 20-year study conducted by Iowa State University found that cropland fertilized with manure had significantly better measures of soil quality—including higher particulate organic matter—compared to fields treated with commercial nitrogen at equivalent rates. Additionally, nitrate-nitrogen losses in tile drainage were 7 to 16

percent lower from manured plots than from commercially fertilized plots. Manure also increased soil organic carbon at multiple depths, increased total nitrogen, and improved the soil's ability to withstand erosion. Research at North Dakota State University's Carrington Research Extension Center found that manure applied at just 40 pounds of nitrogen per acre performed comparably to—and in some cases outperformed—80 pounds per acre of commercial nitrogen, while also producing significantly higher soil organic matter levels.

For my operation, receiving manure from West River Dairy is not just a convenience; it is a cornerstone of my soil management strategy.

Sources:

Hoover, N.L., Law, J.Y., Long, L.A.M., Kanwar, R.S., & Soupir, M.L. (2019). "Long-term impact of poultry manure on crop yield, soil and water quality, and crop revenue." Journal of Environmental Management, Vol. 252. Iowa State University.

Wiederholt, R. (2008). "Manure Good for Crops, Soil." Long-term Cropping Systems Trial (est. 1987), Carrington Research Extension Center, North Dakota State University.

Organic Crop Production and the Critical Need for Local Manure

It is important to understand that the ability to grow certified organic crops in this area depends heavily on access to local manure sources. Under the USDA National Organic Program (NOP) regulations, most synthetic fertilizers are prohibited in organic crop production (7 CFR 205.105). Organic farmers must instead rely on non-synthetic nutrient sources—primarily animal manure, compost, and legume cover crops—to maintain soil fertility and meet crop nutrient demands. In practical terms, this means that without a nearby livestock operation like West River Dairy, organic producers in our area would need to source manure from distant barns and facilities. That manure would have to be trucked in over long distances, stockpiled on-site, and spread at a later time—adding significant cost, logistical complexity, fuel consumption, and road traffic. Having a local dairy that produces manure much closer to cropland eliminates these inefficiencies and makes organic production viable and economically sustainable for area farmers.

Community and Economic Impact

Beyond the agronomic and environmental merits of this project, the West River Dairy expansion would bring meaningful economic benefits to our rural community. The expansion would create jobs, bring more families and students to our towns and schools, and strengthen the local agricultural economy through increased demand for locally grown feed crops. Riverview has been an important partner to area farmers for years, and their presence supports our community in ways that extend well beyond economics. In all my years farming near this site, I have found Riverview to be a responsible neighbor and operator. They run a clean, well-maintained facility, and they take their environmental responsibilities seriously.

For all of the reasons stated above—the demonstrated sustainability of our local aquifer, the proven agronomic benefits of manure, the critical role of local manure in supporting organic crop production, and the positive economic impact on our community—we fully support the West River Dairy Expansion.