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Summary Comment on Draft Permit for Simplot Feedlot (Wallula/Burbank)

This summary highlights key concerns related to the Washington Department of Ecology's draft water quality permit for the J.R. Simplot Company's Wallula/Burbank feedlot, located in one of the state's most nitrate-impaired areas (Nitrate Priority Area No. 3).

1. **Groundwater Risks:** Water levels in 3 of 4 monitoring wells (MW-1, MW-4, MW-5) have risen 2.7 to 3.6 feet since 2002. Groundwater in this area is already high in nitrate, and water movement toward the Columbia River increases vulnerability. Ecology should investigate trends and ensure appropriate monitoring.
2. **Lagoons and Wastewater Management:** Ecology records and Simplot's hydrogeologic reports indicate many lagoons were unlined as recently as 2021. The final permit must require enforceable deadlines for lagoon lining, with public disclosure.
3. **Avian Botulism and Wildlife Exposure:** Botulism outbreaks linked to lagoon and groundwater conditions have caused mass bird die-offs. The facility lies on the Pacific Flyway and includes artificial water bodies that attract birds. Ecology should require deterrent and mitigation measures.
4. **Manure Management:** Simplot generates tens of thousands of tons of manure annually. In 2019, it reported over 90,000 dry tons generated. Ecology should require tracking of all offsite manure exports and receiving locations.
5. **Air Quality and Dust:** Dust from the feedlot can carry pathogens and agrochemicals miles downwind. The site lies within a historically PM10-impacted region. Updated and enforceable dust control provisions are essential.
6. **Cattle Counts and Capacity Transparency:** Ecology cites a "typical" head count of 40,000, yet internal data shows much higher figures, and the site's stated capacity has changed over time. Pen acreage has expanded. Ecology should require transparent reporting of manure volumes, cattle numbers, and pen space.
7. **Permit Enforcement and Public Access:** Simplot has operated under an Agreed Order since 2005. It is long past time for a modern, enforceable permit. Ecology should also centralize access to all compliance reports, lagoon data, and groundwater monitoring.

Requested Changes:

- Add monitoring wells and independent hydrological review.
- Require enforceable lagoon upgrade schedules.
- Mandate full tracking of offsite manure transfers.
- Strengthen dust and air quality protections.
- Require wildlife exposure prevention and dissolved oxygen mitigation.
- Ensure data transparency and public access.

Conclusion: This facility presents long-term risks to water, air, and public health. The current permit must reflect those risks with enforceable, science-based requirements.

Thank you for your consideration.

Subject: Public Comment on Draft Permit for Simplot Feedlot, Wallula/Burbank (2025)

To Whom It May Concern,

This comment is submitted regarding the Washington Department of Ecology's draft water quality permit for the J.R. Simplot Company's feedlot operation near Wallula and Burbank.

This site has operated under Agreed Order No. 3132 since 2005 and has yet to be brought under a modern, enforceable permit, despite longstanding and well-documented concerns. The facility is located in a **Groundwater Nitrate Priority Area**, specifically designated as **Nitrate Priority Area No. 3** in Ecology's 2016 Nitrate Prioritization Report — placing it in the “**Very High Priority**” category based on groundwater monitoring data, population exposure potential, and hydrogeologic vulnerability. Groundwater in the shallow alluvium shows some of the highest nitrate levels in the state. Simplot has monitoring wells. Recent water quality reports show that groundwater levels in three of the four wells—MW-1, MW-4, and MW-5—have generally risen over the past two decades, though not always in a consistent pattern. In contrast, MW-2 has remained relatively stable. According to the 2024 Q4 Water Quality Monitoring Report, water levels in these three wells have risen approximately 2.7 to 3.6 feet since 2002, with MW-2 rising only about 0.5 feet. This upward trend, though not entirely linear, suggests changes in groundwater recharge or confinement conditions at the site. Ecology should explain the observed trends and ensure monitoring is sufficient to determine whether rising water levels are the result of increased infiltration, changing hydrogeologic conditions, or other causes. These questions must be addressed before the permit is finalized.

Agreed Order No. 3132 was intended as a temporary framework to address groundwater concerns while a permanent permit was developed. Under the order, Simplot was required to resume groundwater monitoring, monitor wastewater and manure quality, and follow the Wastewater Irrigation and Manure Management Plans. Importantly, because the facility has continued to operate under the terms of this Agreed Order, Simplot's 2000 Manure Management Plan — which was developed nearly 25 years ago — remains in effect to this day. Simplot was also obligated to maintain records on-site and provide quarterly water quality reports to Ecology. Nearly two decades later, no enforceable long-term permit has been adopted. Continuing to rely on interim measures in one of the state's most nitrate-impaired regions is unacceptable.

While the current draft permit requires all lagoons to be lined, public records offer no clear documentation confirming which of Simplot's lagoons may have been lined since 2021. According to Simplot's 2021 Hydrogeologic Report and Ecology's own records, numerous ponds — including detention ponds 4 through 11 — remained unlined as of that time. Ecology should require a complete, dated lagoon inventory and engineering certification as part of the final permit.

A 2021 internal Ecology presentation further underscores the environmental risks. At that time, **all 19 lagoons at the Wallula site were unlined**. Untreated runoff was reportedly pumped to 1,300 acres of land application fields, and the facility generated approximately 800 tons of

manure daily. Water quality data from the lagoons showed **phosphorus as high as 98 mg/L, TDS up to 6,580 mg/L, and BOD near 4,590 mg/L** — levels consistent with highly concentrated agricultural waste. These findings highlight the urgent need to modernize Simplot's waste containment systems and strengthen monitoring.

Lagoon leakage is a known source of nitrate contamination and has also contributed to **avian botulism outbreaks**, which have caused **mass bird die-offs** at or near this site. These outbreaks are linked to anoxic conditions in both lagoon water and groundwater, documented near Lagoon Nos. 3 and 14. Groundwater dissolved oxygen levels in nearby wells have remained below 1.0 mg/L for years. Internal agency correspondence about Tyson's adjacent facility shows the Washington Department of Fish and Wildlife recommended bird exclusion netting over similar lagoons to protect migratory shorebirds. Given Simplot's repeated outbreaks and proximity to artificial pools, Ecology should require bird deterrent measures at this site as well.

Manure scraped from cattle pens is stockpiled on site and off site. Satellite imagery has shown some stockpiles encroaching near lagoon areas, which may contribute to nutrient leaching and groundwater contamination. In 2019–2020 alone, Simplot applied 17,353 tons of manure to its Grandview Farms fields and exported an additional 75,000 tons off site. Despite the scale of these operations, Simplot has resisted efforts to improve manure tracking. Ecology should require a comprehensive tracking system for all offsite manure applications to ensure accountability and prevent diffuse nutrient pollution.

Simplot's property also contains **areas of ponded water** that develop during runoff events. These temporary pools — visible in satellite imagery and sometimes referred to as "ponds" — are not constructed or jurisdictional wetlands, but they still attract waterfowl when filled. The site lies within the **Pacific Flyway**, a major migratory route, which increases the likelihood of bird-livestock interactions and recurring botulism outbreaks. Ecology should evaluate these areas and require mitigation to discourage bird congregation.

The **hydrogeology of the site compounds these risks**. High-permeability Pasco gravels and silts allow surface waste to infiltrate rapidly until it meets a sloping layer of impermeable basalt. Groundwater then flows southwest toward the Columbia River. Ecology's own staff have surmised that groundwater travels through this unconfined aquifer from the site to the river — just one mile away — at depths of 17 to 50 feet. This underscores the vulnerability of both the aquifer and the river.

Dust emissions are another concern. Feedlot dust can carry pathogens, antibiotics, and nutrients that contaminate nearby canals and water bodies. A 2023 peer-reviewed study in *Science of the Total Environment* found that PM_{2.5} particles from cattle feedlots can carry pesticides and veterinary antibiotics over 12 kilometers downwind. These bioaerosols are associated with respiratory, cardiovascular, and developmental harm — particularly to young children in rural communities. Ecology must account for this exposure pathway and require enforceable dust mitigation measures.

The timing of this permit revision also warrants scrutiny. The Wallula PM10 Maintenance Plan — part of Washington’s EPA-approved State Implementation Plan (SIP) — expired in **March 2025**, marking the end of the second 10-year maintenance period. Simplot’s Fugitive Dust Control Plan is incorporated into that SIP. Any operational changes affecting emissions—including increases in animal capacity—could jeopardize the area’s ability to maintain compliance with federal air quality standards beyond the SIP’s expiration. Ecology should explain how the current permit aligns with the maintenance plan timeline and clarify what steps are being taken to preserve attainment status post-2025. (Source: Washington Department of Ecology, *Washington State Implementation Plan Revision / Wallula, Washington / Second Ten-Year Maintenance Plan for PM10*, October 2019, Publication 19-02-021.)

In addition, there is confusion and concern surrounding the facility’s stated animal capacity. According to Ecology’s April 2025 news release, Simplot Feeders has a maximum capacity of 100,000 cattle, despite a typical operating capacity of 40,000. However, Simplot’s 2018 Fugitive Dust Control Plan (FDCP), which forms part of Washington’s EPA-approved State Implementation Plan (SIP) for the Wallula PM10 Maintenance Area, references a capacity of 80,000 head. The FDCP has been updated since, but no explanation has been provided for this capacity change. Moreover, internal Simplot records show cattle counts well above 40,000 for multiple recent years: 60,322 head in 2000; 61,194 in 2022; and counts exceeding 55,000 in both 1999 and 2021. These numbers raise questions about why Ecology continues to characterize 40,000 as a “typical” capacity. If the feedlot’s reported or permitted capacity has increased, it is unclear how the Wallula area can remain in compliance with PM10 air quality standards, given that the SIP’s dust emission estimates were based on the earlier, lower 80,000 head capacity.

Ecology should also be transparent about how pen acreage and configuration have changed over time. Simplot’s 2000 Fugitive Dust Control Plan describes a 1998 pen reconfiguration that increased the facility’s capacity from 65,000 to 90,000 cattle by optimizing the pen layout while maintaining spacing. The plan cites a total pen area of 294 acres and a density of 144 square feet per head. However, based on the stated acreage and 90,000 head capacity, the actual calculated density is closer to 142 square feet per head. Additionally, Simplot’s 1999 NPDES Form 2B application includes a handwritten update noting that the facility’s capacity had increased to 100,000 head as of December 16, 1999. If 100,000 head are distributed across the same 294 acres cited again in Simplot’s 2003 FDCP, the resulting density would be approximately 128 square feet per head—a figure consistent with other large commercial feedlots operating in similarly arid climates, such as Five Rivers Cattle’s McElhaney Feedyard in Arizona.

More recently, Simplot’s 2021 Fugitive Dust Control Plan reports pen densities between 160 and 180 square feet per head, still described as 'optimum' for performance and dust control. Between 2000 and 2024, Simplot installed additional pens to support operational flexibility, not to increase permitted capacity. In a February 17, 2021 letter to Ecology, Simplot noted that the new pens would accommodate approximately 4,100 head of cattle to 'allow for easier management at the existing operation' and emphasized that the authorized capacity of 80,000 head would remain unchanged under Approval Order No. 18AQ-E018. While Ecology approved

the reconfiguration, the physical addition of pen space—regardless of stated intent—may have implications for animal spacing, manure generation, and dust emissions.

Although the Wallula PM10 Maintenance Area's second 10-year maintenance plan expired in March 2025, the site's history of air quality violations and location within a historically impaired region still warrant continued oversight. Ecology should require updated and transparent reporting on cattle population and pen acreage, as changes in effective herd size or spacing can influence both manure generation and dust emissions. Accurate emissions modeling and regulatory compliance depend on clear, consistent data.

Additionally, Simplot's March 2000 Manure Management Plan projected manure production based on an average annual occupancy of 80,000 head, even though the site's stated maximum capacity is 100,000. The plan estimated more than 125,000 tons of wet manure annually, using an assumption of 4.3 pounds of dry manure produced per head per day. More recent annual reports from Simplot show manure generation figures that vary from this projection. In 2019 and 2021, Simplot reported generating over 90,000 dry tons of manure—an amount consistent with the 2000 Manure Management Plan projections for an 80,000-head operation. This data suggests that actual manure generation may often exceed Ecology's characterization of 40,000 head as "typical." Alternatively, the differences may reflect changes in moisture assumptions, recordkeeping practices, or manure handling methods. In either case, the data underscore the need for an updated, modern Manure Management Plan and stronger transparency requirements.

Distributing cattle across a broader footprint may make the facility appear static in size while enabling increased manure generation, indirectly reflecting higher operational capacity. Ecology should require Simplot to provide transparent, periodic reporting of manure data and cattle counts to ensure operational practices align with environmental assumptions in the draft permit. Such data would support effective oversight, particularly amid regulatory uncertainty following the expiration of the Wallula PM10 Maintenance Plan.

In light of these concerns, I respectfully request the following changes to the draft permit:

1. Require additional monitoring wells to fill data gaps and confirm contamination trends in both shallow and deep aquifers.
2. Mandate a third-party hydrological review of the unexplained rise in monitoring well water levels.
3. Enforce strict, dated requirements for lagoon lining or closure, with public reporting and penalties for non-compliance.
4. Require Simplot to track all offsite manure transfers and provide an annual accounting of receiving locations and application rates.
5. Include enforceable dust control provisions in the permit to protect local air and water quality.
6. Require management measures to increase dissolved oxygen in Lagoon No. 3 and Lagoon No. 14 to mitigate the risk of avian botulism outbreaks.

7. Implement waterfowl deterrence measures and evaluate artificial ponds or ponded areas for their role in wildlife exposure.
8. Include a public inventory of all lagoons and wastewater impoundments, with lining status and retrofit dates.

This facility presents long-term environmental risks, and further delay or inadequate oversight would be unacceptable. Stronger permitting standards are not only necessary—they are long overdue.

Ecology should ensure timely and centralized public access to all compliance reports, groundwater monitoring results, and lagoon upgrade schedules. This level of transparency is essential for rebuilding and maintaining public trust in the permitting process.

Thank you for your consideration.