

Dear Chair Golden and members of the committee,

My name is Bruce Zoellick and I am submitting testimony SB 85-1. I have worked as a federal Fisheries Biologist for over 25 years, and am specifically familiar with the lower North Santiam River because I formerly worked for the NW OR District BLM who manages scattered BLM holdings on the river.

It is critical the legislature push pause on allowing large chicken CAFOs from being built in the Willamette Valley. One proposed facility (JS Ranch) is located about 400 m from the best example of unconfined floodplain habitat, vegetated with a gallery Cottonwood forest in the lower Willamette River valley. This is because a major tributary, the Little North Santiam river, is undammed and provides abundant supplies of spawning gravel to the river and the Wiseman Island reach of the North Santiam at the proposed CAFO is not confined by dikes or levees, such that the river still has access to its floodplain and sources of spawning gravel.

As a result the river provides high quality habitat for 2 federally threatened fish species: Spring Chinook Salmon and Winter Steelhead. The area is particularly important for chinook rearing as 65-75% of Chinook in the Willamette basin move as sub-yearlings to the Pacific Ocean, stopping at high quality areas such as the Wiseman Island reach to rear before dropping downstream to the next high quality habitat area as they move downstream to the Ocean. The Wiseman island reach at the proposed CAFO is also high quality spawning habitat for winter steelhead. I and ODFW have conducted redd surveys in this reach that document the Wiseman reach has some of the highest steelhead spawning densities in the entire North Santiam River Basin.

The CAFO will negatively affect the spawning success of winter steelhead and survival of juvenile salmon and steelhead in the river through stormwater runoff that carries sediment and ammonia to spawning and rearing habitat, and through the aerial transmission of ammonia exhausted from the chicken houses into the river.

<https://www.sciencedirect.com/science/article/pii/S0048969722071145>

The lower North Santiam River is already water quality impaired and the stormwater runoff from the hardened surfaces of the CAFO will carry sediment to the river and impact steelhead egg survival. Similarly, the stormwater runoff and aerial transmission of ammonia exhausted out of the chicken houses will deposit ammonia into the river. According to my calculations, approximately 120 tons of

ammonia per year would be deposited into the North Santiam by the JS Ranch broiler operation if it was built. The river already has algae blooms due to nonpoint source pollution. Ammonia and nutrients associated with the CAFO carried by the stormwater and aerial emissions to the river will contribute to increased algae blooms and decreased oxygen levels in the river as the algae dies. Decreased oxygen levels will negatively affect egg and juvenile steelhead survival.

The amount of increased stormwater runoff produced as a result of the hardened surfaces from the CAFO will be extremely costly and difficult to impound to prevent accelerated runoff to the North Santiam River. Particularly, because the groundwater table is at or near the ground surface during much of the winter. Due to the stormwater and ammonia releases to the groundwater and North Santiam River, the CAFO should not be allowed to proceed.

ODA was aware of these concerns prior to issuing the permit for JS Ranch. I testified at an ODA hearing and submitted written testimony that due to these impacts to federally threatened fish, ODA should consult with NMFS regarding impacts to Federally threatened salmon and steelhead before considering issuing this CAFO permit. However, despite assurances that NMFS would be consulted, ODA failed to request a consultation and issued the permit.

The proposed Jordan site (Evergreen) is adjacent to Thomas Creek, which has all of the same issues as the North Santiam, including listed fish spawning grounds. Evergreen is actually even closer to Thomas Creek than JS Ranch is to the North Santiam. In Baker, et. al, research clearly shows that aerial transmission of ammonia from chicken houses has catastrophic effects on fisheries.

As someone who has spent their career working to recover endangered Salmon and Steelhead, it is deeply disturbing to me that corporate agriculture is not only being allowed to build huge factories in environmentally sensitive areas; they are doing so without appropriate consultation from the necessary federal agencies. The rivers in the Willamette valley sit on a knife's edge for species conservation. Salmon and Steelhead numbers are already depressed without chicken CAFOs impacting their habitat. This situation reminds me of something my first supervisor at the US Fish and Wildlife Service said to me over 30 years ago, "natural resource management is really the tragedy of the commons." America expects us to manage fish and wildlife habitat and maintain populations in abundance because everybody values those. Those resources are common to all of us. Yet, so many times it ends in tragedy because someone proposes something like an industrial chicken farm 400 meters from the most unique salmon and steelhead habitat in the Willamette Valley and they don't have to pay the environmental

cost of that. They don't have to pay the cost of 120 tons of ammonia raining down on the river. They don't have to pay the cost of MRSA, antibiotic resistant bacteria ending up in the river, but WE do, the people, the people that hold these resources in common and value them. It's up to us to stop things like this and that's the very definition of the tragedy of the commons. I encourage the legislature to support SB 85-1 and push pause on chicken CAFOs being built in the Willamette Valley.

Thank you,

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Resident of Scio