## David S. Wall P.O. Box 756 Newberg, Oregon 97132; [(408)-287-6878]

February 23, 2021

To: Senate Committee on Natural Resources and Wildfire Recovery; others

## Re: I SUPPORT [SB 151]...Manure processing operations must be enhanced!

Most people haven't a clue of what a "Digester" is or what is used for unless; you have a working knowledge of wastewater treatment in advanced Water Pollution Control Plant operations.

## Dairies are facing serious challenges to reduce "Green House Gas (GHG)" emissions produced by cows.

Digesters process manure by degrading the carbonaceous material in anaerobic conditions within a specific temperature range. The digestion process creates "biogas" in the form of Methane [CH<sub>4</sub>] and Nitrous Oxide [ $N_2O$ ]. Digestion also enhances the fertility aspects of the manure.

## Nitrous Oxide is a laughing matter to some but, as a GHG, N<sub>2</sub>O is a potent ozone eater.

Everyone is on the band wagon for the removal of Methane from the atmosphere and using the captured biogas as a renewable fuel source to create electricity to aid in Dairy operations. This is a good use of the Digester technology but, it is not cheap. (It also should be dewatered to increase efficiency.)

Digesters are just one aspect of bovine manure processing;  $[N_2O]$  and Ammonia  $[NH_3]$  are potent polluting threats to the environment requiring additional technologies to facilitate treatment and removal.

Consider economic incubators to develop new processes and products to assist the Dairy Industry.

Emerging Technologies to address advanced sewage treatment of Dairies will create more "Green Jobs."

Extending the Tax Credit to assist the Dairy Industry is a wise Economic Development investment.

Dairies are constantly facing economic challenges to stay profitable.

Respectfully submitted,

/s/ David S. Wall

/// ///