WA Natural Resources Conservation Service (Lynelle Knehans)

CAFO Comments

S4.A.4.d.i. **Nitrate Priority Area requires groundwater monitoring.**

see appendix C, map is dated +20-30 years

using old data, old studies and well data.

Farm intensity, animal numbers have changed.

S4.C.1 **Liquid waste storage structures must be designed, constructed, and**

maintained to have a : <u>maximum water specific discharge</u> of 1x10-6cm3/cm2/s without consideration for manure sealing.

What does this mean?:

- Is this supposed to represent soil permeability? -ksat
- Or 0.000006 cm3/second across 1 cm2. (924 gallons per acre/ day)

1. Specific Discharge (AWMFH Ch.10 Ap.D pg 10D-10) is defined as unit seepage.

From Table 10D-7 A value of seepage per square unit area of pond bottom.

The majority of waste storage ponds in the state will not comply with the above statement.

Synthetic Lined, including double lined ponds. For example the calculated Specific discharge is greater than 1,000 gallons per day/acre, for pond with a 60 ml liner, ksat =1x10-9cm3/cm2/s x 12ft deep

S7.C.2. **Assessment of ponds without leakage de**

- Is TN23 still the best tool for this assessment? Have any new tools been developed or will be developed for assessments?

- What is: qualified expert (definition is vague) to conduct NRCS Tech Note 23

Qualified Expert: Individuals who: (1) Have received professional training in waste storage facility design and construction and (2) Are capable of evaluating the conditions of the facility that could impact water quality at the site as required by this permit

S7.C.4. **Assessment of solids storages, dry stacks and compost piles on soil pads**

This is not the correct test for this situation. Procedure ASTM D3385-88 states:

1.6 This test method is difficult to use or the resultant data may be unreliable, or both, in very pervious or impervious soils(soils with a hydraulic conductivity greater than about 10−2cm/s or less than about 1 × 10−5 cm/s) or in dry or stiff soils if these fracture when the rings are installed. For soils with hydraulic conductivity less than 1 × 10−5 cm/s refer to Test Method D5093.

1.7 This test method cannot be used directly to determine the hydraulic conductivity (coefficient of permeability) of the soil (see 5.2).