Steven Pannone

Please see the attached file.

The code is poorly organized and is hard to read. It has multiple section relating to drain fields with the same application rates. It would better to organize the Code so that it simplifies and makes it easier to read and apply.
There are definitions in this section that do not apply and should be removed. The definitions in use are new and confusing. The definition section should be brought into alignment with the definitions used in the Ten State Standards, EPA Guidelines, and USPHS Manual. Why reinvent the wheel? The definitions are being used in the Pacific Northwest and throughout the upper tier states.
The Code needs to address the application rates for advanced wastewater systems. It needs to define what is considered an advanced system and the applicable soil application rates. Ignoring that these system have been in use for over 25 years is plain negligence. The Municipality of Anchorage (MoA) spent a considerable amount of time developing a great Advanced Wastewater Code, which the State was a party to the writing and signed off on its use. It should be applied to residential wastewater systems up to 2500 gallons a day. It should also be applied to commercial systems on a case by case basis. But the code should be incorporated into this re-write.
The Code rewrite does not address steep slopes and installing systems on steep slopes. There are numerous codes across the Pacific Northwest and in the Ten State Standards that have a steep slope code. The MoA researched these standards real well during their last code rewrite, which the state was a party to and signed off on their use.
A big question is why insert the private drinking water regulation into a wastewater code? I would never think of looking for it there. It's by definition a cross connection!! Does the Department have regulating authority to regulate Drinking water? It looks like the Code is trying to add scope to their authority without authorization. If so, then that will increase Cost to Alaskans in Engineering time and Regulator time.
A working group between the staff and Industry should be developed to go through these proposed regulations to make corrections. Codes should not be written in a vacuum by staff only. I know that five or six years ago there was input, but it appears that the input was not adequately duplicated to make a workable code for industry. The proposed Code as written will increase Engineering time (An added Cost), it is open to arbitrary requirements by the department (which will increase the time associated with a project and thus the cost of the project.)

General Comments:

I did a quick review and these are the issues that jumped out at me – There are probably numerous additional comments and improvements that could be found if there was sufficient time to do a thorough review.

Some general comments though:

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Not all section referenced are preceded with 18AAC72.XXX, where XXX is the section I am refereeing writing about.

005 (a) (1) – What about collection, storage? It is referenced later in this section.

005 (a)(2) – Why is a wastewater code setting minimum separation and construction standards for private water system? Seems like the wrong section. Is ADEC now regulating private water sources?

005(b)(2) - Why is Private water systems under the wastewater code?

015(a)(2) – A crib is not defined in the definitions. A reference to a Seepage Pit constructed of log or wood material should be added.

015(b) – you're making it contrary to code to repair a log crib, which may have been previously approved under 18AAC72. These system work very well and the lids sometimes collapse and need repair while the system is still working adequately. This section will add cost to the homeowner to require them to upgrade the system, when a simple repair is all that is needed. Crazy.

100 – This section in its entirety…Why is a wastewater code regulating private drinking water sources?

100(a)(1) why is the requirement increasing for holding tanks to 100 feet? It has been at 75 feet for years with no known issues.

100(a)(2) – The word Sump is not defined. Also does that mean the a crawlspace sump needs to be located greater than 25 feet from a well? And its discharge?

100(a)(3) – This is a new requirement and the ramifications of this requirement need to be discussed and analyzed in detail. Most likely it will add a cost to our fellow Alaskans.

520(g) – The way it is written is open-ended and opens to door for arbitrary requirements not necessarily justified. Additionally, the justification usually required engineering judgment. The department will be requiring the Engineer to take responsibility for the Reviewer's opinion, where it may not be justified using good sound engineering judgment.

530(d)(1) Table 2 – Why is the code specifying a maximum slope? The Ten State Standards do not limit slope. This should be modified and brought into alignment with the ten state standards.

530(d)(1) * - Why limit the velocity to 10 fps? Scour of pipes using modern material are very resistant to scour.

530(d)(1)** - the department should develop a standard drawing for drop connects that are acceptable. It opens the door for arbitrary requirements and forcing engineers to accept ADEC Staff requirements that may go against good engineering practices.

530(f)(1)(A) – The Code needs to define where the thickness of the distribution material is calculated from.

530(f)(1)B) – why are you limiting a deep trench to 12 feet of effective depth?

530(f)(3) Table 4 – What is to be done concerning duel classifications of soils? Why not add application rates for advanced treatment effluent? Subscript c, seepage pits work well in soils having a percolation rate greater than 30 mpi…why restrict their use?

530(f)(6) – Monitor tubes should be placed at the four corners of a bed to define its size.

530(g)(3)(A) – 350 gallon lift station appears to be arbitrary. An exterior lift station should be designed by an Engineer and sized accordingly. Is some cases, a 50 gallon separate lift station is acceptable. Other cases it will need to be larger. Let the Engineer decide and provide calculations to support the design.

540(b)(1) – Waivers are Engineer activities. Either they need to Engineered or not. If a certified Installer can sign it off, then that should be the requirement everywhere. Also if you are requiring an Engineer to justify the waiver, than it's a violation of 18AAC08 if someone other than an engineer justifies the waiver.

540(b)(6) – This requirement is open-ended and arbitrary.

540(c)(4) – This requirement is open-ended and arbitrary.

540(d) – This requirement is open-ended and arbitrary. Also it puts the Engineer in a position to having to modify a design to meet a potentially arbitrary and poorly thought through idea as required by the Department.

Article 6 – Alternate and advanced wastewater systems have been in operation for 24 years. They have proven themselves over that time. This section should address increased soil application rates (like the ones established and approved by the Department in 2000) and reduced horizontal and vertical separation distances requirements (like the department has accepted in 2019). An engineer should not need to justify a waiver for these every time they use an advanced wastewater system. It is a waste of time and money.

Section 990 Definitions and Abbreviations

General Comment: These definitions do not define a subsurface drain or curtain drain. Also a Sump is not defined. They should be added for clarification.

(1) – Recommend using the USPHS and EPA definition of 5-Wides. They typically have an effective depth from 6 inches to 48 inches. Also nowhere in the Code is it defined where the measurement of depth starts from. Invert? Spring line? Top of distribution pipe?

(16) – Engineers are not typically supervising construction. They are observers. Supervision implies control.

(17) – What about two different owners utilizing a community wastewater system?

(18) – Seepage pits constructed using concrete rings or steel are not included.

(28) – where it is measured from and to is not defined.

(34) – This definition should also include an AKA Building Drain as defined by the UPC. It is a confusing definition after the However…

(80) – An Also Known As (AKA) should be added to include “crib”

(86) - Other Constructed conveyances could be construed to include road side ditches or drainage ditches. Is this intentional? Nondomestic wastewater include storm water runoff. This definition is overly broad. Should be refined.

(86)-(88) – these definitions are confusing. Consider word-smithing these for clarification.

(90) – A shallow trench is the same a 5-wide but with only six inches of effective depth. See comments concerning definition (1) – use USPHS and EPA definitions for a 5-wide.

18AAC80.020 Table A – This should be reviewed and discussed with industry. It is changing some significant issues concerning Public drinking water system. Also, how can a rewrite of one code, change another Code (18AAC80), without notifying the user groups associated with 18AAC80?