

CLARIFICATION OF DIFFERENCES BETWEEN AITKIN COUNTY'S ISTS AND WATEWATER ORDINANCE NO.1 AND MPCA CHAPTER 7080.

Subdivision 2, 2.4 -Definitions:

Absorption Width - requires the use of the dike slope multiplier sheet from the manual to determine the clean sand area under the mound. The clean sand area must be the greater of the two values when comparing the values of step G.1 to G.2h as in the mound design sheets in the manual.

Chapter 7080 requires the clean sand area to be only under the absorption area as determined on the bottom of page 1 of the mound design worksheet from the manual.

Aitkin County's definition will provide long term treatment and longer life expectancy of the system. This will also reduce the likely hood of failure do to under sizing of the sand base.

Subdivision 3, Permits Required: This Subdivision identifies how Aitkin County will issue permits. Chapter 7080 requires local units of government to have a permit program.

3.41 - site evaluation requirements:

- 2 soil borings are required for each ISTS site.
- Chapter 7080 requires only 1 soil boring per site.
- 2 soil borings will more accuratly determine a sites suitability for an ISTS and what type of system will be required.

- 2 sites are required for each lot created after January 21, 1992 within the Shoreland District and January 10, 1995 outside the shoreland district.
- Chapter 7080 requires 2 sites on lots created after January 23, 1996.
- 2 ISTS sites have been required by Aitkin County Ordinance's as of the dates mentioned.

- Elevations of all septic system components which include - Bench mark, sewer outlet, inlet to septic tank, inlet pump tank, pump, manifold and drop boxes.
- Chapter 7080 requires the elevation of the bottom of the soil treatment system.
- Additional elevations allow better judgement on a contractors part for bidding a system off a design and also assists designers in accurately designing systems.

- Designer must stake the proposed building locations, wells, septic system components and soil testing locations clearly onsite.
- Chapter 7080 does not require staking of the site.
- This will assist the property owner and local unit of government in assessing the ISTS site before issuance of permit(s).

Subdivision 4, Inspection Requirements

This entire section identifies the method Aitkin County will use in administration of the ISTS program. Chapter 7080 requires local units of government to have an inspection program.

4.23 - requires a Designated Registered Professional (DRP) listed on the Installers License to be onsite at all times during the construction of the ISTS.

-Chapter 7080 only requires a DRP to be present during the inspection.

-This will ensure that someone knowledgeable about the rules is present during the entire construction of the ISTS. This will also reduce the number of unseen violations that may occur during construction.

4.41 - Mandatory compliance inspections for existing systems - requires compliance inspections to be done whenever a permit is required by zoning ordinances, any time there is an increase in number of bedrooms or water usage, anytime there is a change in the use of the property, anytime there is an expansion to the building or business, prior to the transfer of property, and anytime the Department deems appropriate.

-Chapter 7080 requires a compliance inspection only when someone other than the property owner performs an inspection for a disclosure or at the time of a variance or bedroom addition.

-Our requirements will bring more nonconforming septic systems up to code and will ensure continued protection of the ground and surface waters of Aitkin County.

4.43 - Existing tanks - Any septic tank exposed for inspection, repairs, or for maintenance purposes shall meet the requirements of Chapter 7080.0130; Subpart 1, A-D and Subpart 2, C, M.

-Chapter 7080 does not clearly define existing tank upgrade requirements.

-This will require tanks to have manholes brought to within 12 inches of the ground surface and still meet current code requirements excluding setbacks and tank size requirements. This will ensure ease of future maintenance of the tank.

4.44 - Failing septic systems - This section identifies the upgrade requirements of failing septic systems and time frames for compliance. Failing system's have 1 year to conform, IPHT has 10 days to abate and 10 months to conform. A replacement plan is to be submitted to the department within 30 days in either situation. Also, the entire system must be brought into compliance with the Ordinance.

-Chapter 7080 requires the time frame for compliance to be established per County Ordinance. Also, Chapter 7080 only requires the portion that is failing to be brought into compliance.

-Our Ordinance requirements will ensure the entire system is in code within a reasonable period of time and that the IPHT is abated per state statute.

4.45 - Sale or Transfer of Property - requires ISTS to have compliance inspection performed at time of sale or transfer and if nonconforming, arrangements made to ensure compliance within 12 months.

-Chapter 7080 requires a disclosure by the property owner at the time of transfer.

-This will ensure the ISTS is conforming at the time of transfer and prevent potential litigation in the future between interested parties of the transfer. Also, this is a triggering mechanism for upgrading of ISTS when monies are available to do so.

4.47 - Transactions between Nov.1 and April 30 - A "Winter Release of Compliance Inspection Form" is required in addition to the June 1 and September 30 time frames. The required form establishes time frames and financial responsibilities for the upgrading of the septic system.

-Chapter 7080 does not identify any financial responsibilities.

-This will identify the amount and financial responsibilities up front prior to the transfer of property. This will help police the upgrading of the ISTS.

SUBDIVISION 5 - ADDITIONAL STANDARDS

6.13 - Alternative and Experimental Systems - B.1 - Slowly permeable soils with percolation rates slower than 120 mpi will limit mounds to 3% slope or less.

-Chapter 7080 does not limit the slope that the mound can be placed on.

-With percolation rates slower than 120mpi, the chance a mound will fail increases with the increase in slope. By limiting the slope to 3%, we have taken a reasonable approach to try and prevent premature failure of these systems. Also, lot line setback distances will be a problem if the toe is placed 10 feet away and the mound begins to leak due to lack of absorption width.

5.14 - Additional Standards - A- All ISTS shall be sized on a Type I residence.

- Chapter 7080 allows the residence to be sized on types II, III and IV.

- By sizing all on type I this will provide consistency in designs and allow for the conversion or enlargement of the residence at a later date without having to enlarge the ISTS.

B - Limit mounds to slopes of 12% or less when the percolation rate is between 30 and 120 mpi.

- Chapter 7080 does not limit the slope if you add 25% more basal area.

-The chances for hydraulic failure increases with the increase in slope and percolation rate. A 25% increase in the basal area will have a limit for performance but that limit has not been identified. This will provide longer life expectancy of mounds, prevent premature failure and prevent potential liability for the homeowner, designer, installer and County.

C - All mounds shall be sized using 4:1 dike slope multipliers.

-Chapter 7080 allows the use of 3:1 dike slope multipliers.

-This will make designing the systems consistent and to allow bidding apples for apples. Also, mounds sized on 4:1 slopes will have a less chance of failure and will

have a longer life expectancy.

F - Setback distances from mounds shall be taken from 5 feet beyond the upslope of the rockbed and 5 feet from the ends of the rockbed and from the end of the downslope dike.

-Chapter 7080 does not clearly define where the setback distance is to be measured from.

-This clarifies where the setback distance shall be measured from for mound systems. Also, if the setback is taken from the rockbed to the lot line, when the landslopes away from the lot line, the end of the upslope dike will end on the neighbors property or on the lot line. This situation would result in a law suit due to trespassing or an increase in the drainage on the neighboring property.

G - All ISTS in sandy soils shall be sized on 1.27 sq.ft./gallon/day unless the sandy soil meets the special requirements in Mn Rules Chpt.7080.0170, Subpart 2,C, Table V (fine sand).

-Chapter 7080 allows the use of .83 sq.ft./gal/day soil sizing factor.

-This will provide a longer life expectancy of the ISTS and prevent premature failure of the ISTS due to the amount of fines that can be found in the sandy areas of Aitkin County. This provides for designing consistency and prevents undercutting of bids, which has been a problem in Aitkin County.

H - Each drainfield line must be connected separately to drop boxes and distribution boxes and must not be further subdivided.

- Chapter 7080 only states that lines must be connected separately and must not be further subdivided with distribution boxes.

- Drop boxes are used far more frequently than distribution boxes and by allowing trenches to be further subdivided and connected without the use of a drop box will likely cause water to be sitting in pipes that are prone to freezing.

SUBDIVISION 6 - LICENSING REQUIREMENTS - 6.10 - Requires all ISTS Professionals to be licensed by the Minnesota Pollution Control Agency and Registered with Aitkin County.

-Chapter 7080 requires ISTS Professionals to be licensed by the MPCA but does not require them to be Registered with the County.

-By Registering the ISTS Professionals we can provide a list of local Licensed Professionals to the general public, with addresses and telephone numbers. Also, this provides the County with addresses for mailings to keep our local contractors informed of policy decisions and informational items.