

Stephanie L. Jones

From: Margaret C. Jaynes
Sent: Friday, May 01, 2020 11:14 AM
To: Jerry L. Moore
Subject: RE: Ames Urban Fringe Plan Discussion with Planning and Zoning Commission and Board of Supervisors

Hi Jerry, I am resending this email to you, as I added one more bullet point (second to last). Please use this version. Also, let me know if I am not being PC enough with regards to Irons comment. m

From: Margaret C. Jaynes
Sent: Thursday, April 30, 2020 12:56 PM
To: Jerry L. Moore ; Darren R. Moon ; Scott T. Wall ; Ethan P. Anderson ; Wayne V. Schwickerath ; Dina M. McKenna ; Leanna J. Ellis ; Michael D. Cox
Subject: RE: Ames Urban Fringe Plan Discussion with Planning and Zoning Commission and Board of Supervisors

Hi Jerry,

Thanks for including us in your discussion on the Ames Urban Fringe Plan. Here are a few thoughts to consider:

- Lot size. My main concern is figuring out a septic system design that fits on a smaller lot with a large house footprint, which seems to be somewhat common for parcels closer to town. Technology has brought us to a point where we can use “mechanical” systems, basically using filtering material in a container, approximately 14’ x 7’. While these require a lot less space compared to standard septic systems, there are still space issues for tertiary treatment. The mechanical systems are designed to discharge treated water. Typically the water is discharged to a lateral ~100’ long, but sometimes this is not possible due to setback requirements. A second option is to use UV light for tertiary treatment, and then discharging to the ground surface. These systems are quite a bit more expensive (maybe five thousand dollars more and up) and require a maintenance contract for the life of the system (\$200-\$300 annually).
- Landscaping. The state and county require soil-based systems be used whenever possible, making the mechanical systems last on the list of possible design choices. If soil based systems are used, a large portion of the yard is used for wastewater treatment, which cannot have trees, bushes or gardens on them (it is recommended to keep trees and bushes 20’ away from laterals). For lots in wooded areas, it may be necessary to do some tree removal for septic.
- Geothermal heating. Use of vertical and horizontal geothermal collection lines are limited on lots that have a large house and septic system to compete with. Septic laterals must be a minimum of 100’ from vertical geothermal wells.
- Cluster septic systems. It may be necessary to have cluster systems (several houses, each with their own tank, but one common treatment system) to accommodate subdivisions with small lots. This is probably more expensive than individual systems and may require a wastewater operator, depending on wastewater volume. This approach presents maintenance issues, and time of transfer inspection complications. Story County has a few sites with two houses sharing one system. The main downside is agreeing to what level of maintenance both parties are comfortable with. South Squaw Valley Subdivision has a privately owned public wastewater treatment system that is owned by the HOA, and serves forty houses. IDNR and Fox Engineering are in the process of designing a replacement system. I believe it will cost each property roughly \$40,000, plus HOA fees for the wastewater operator and maintenance.
- Big pipe ready. For subdivisions being constructed close to municipal sewer service areas, with the expectation of city annexation, it would be ideal to have the systems plumbed so that you can remove the treatment system(s), and connect the houses directly to the municipal lines. This is less than ideal for those houses or systems that will need a lift station. I will point to the Irons Subdivision, near the Ames Golf and Country Club, as an example. The Irons subdivision

has exceptionally poor soil, and mechanical systems were planned for all houses. The City of Ames was involved in the planning and setting of requirements on wastewater treatment because the subdivision is located in the Ada Hayden protected watershed. Each set of duplexes were designed to share a secondary system, and the single family houses were designed to have individual systems. The city required sewer lines exit each house toward the street, so as to make connection to city sewer easier when it becomes available. At a Board of Supervisors meeting, during the planning phase, I suggested that sewer lines be installed when the roads were being constructed in the subdivision. I was told by the applicant's representatives that it would be cost prohibitive for the developer to do this. They also stated that installing sewer lines before they were ready to be used could result in deterioration of the lines that may have to be replaced anyway. The BOS accepted the developers reasoning. When the city annexes, the subdivision will be required to install collector lines to the "big pipe", at the property owner's expense.

- Increased groundwater. With the addition of every house, comes the addition of a new block of water, approximately 100 gallons per person per day. This adds stress to existing waterways, and compounds flood events.
- Water service. Service area buy-out is expensive and time consuming.

Let me know if you have any questions Jerry. I am sure these are standard hurdles for building in non-sewered areas in the municipal fringe. Sensible guidelines would be greatly appreciated.



Margaret Cemashko Jaynes, Director
Story County Environmental Health Department
900 6th Street | Nevada, Iowa 50201-2087
(515) 382-7241 | mjaynes@storycountyiowa.gov
www.storycountyiowa.gov

From: Jerry L. Moore

Sent: Monday, April 27, 2020 5:46 PM

To: Darren R. Moon <DMoon@storycountyiowa.gov>; Margaret C. Jaynes <MJaynes@storycountyiowa.gov>; Scott T. Wall <SWall@storycountyiowa.gov>; Ethan P. Anderson <EAnderson@storycountyiowa.gov>; Wayne V. Schwickerath <WSchwickerath@storycountyiowa.gov>; Dina M. McKenna <DMcKenna@storycountyiowa.gov>; Leanna J. Ellis <LEllis@storycountyiowa.gov>; Michael D. Cox <MCox@storycountyiowa.gov>

Subject: Ames Urban Fringe Plan Discussion with Planning and Zoning Commission and Board of Supervisors

Hello everyone,

Planning and Development Department staff are having an initial discussion with the Planning and Zoning Commission members at their May 6 meeting about the Ames Urban Fringe Plan. This discussion will be a part of many future discussions regarding possible amendments to policies and the map within the Plan.

Please share any observations and/or concerns your department staff have experienced due to development, growth, and/or changes within the two mile area outside of Ames' city limits.

Please respond by Friday, May 1, 2020. Your responses will be shared with the Planning and Zoning Commission members and the Board of Supervisors.

Thank you,

Jerry Moore
Planning and Development Director
Story County
900 6th Street
Nevada, IA 50201
515-382-7246