



February 3, 2016

Dear Woodcrest Resident,

City Staff has reviewed the questions and comments from the December 3, 2015 informational meeting on sewer at Woodcrest and has prepared responses. The responses are in italics following each question. These are staff responses. They reflect what staff will be recommending to the Council, but the Council is the deciding body and will make the final determination as to whether there will be a project at Woodcrest and what the terms might be.

These comments and responses will be provided to Council members as well as posted on the website. We appreciate your patience while we gathered information and worked through these questions.

Regards,

A handwritten signature in black ink, appearing to read "Tom Terry", is written over a horizontal line.

Tom Terry, City Administrator
City of Elko New Market

Attachments

- 12-3-15 Meeting Questions and Responses
- 1-26-10 Adopted Ordinance

Woodcrest Sanitary Sewer Project – Resident Questions/Concerns from 12/3/15 Meeting

Question/Concern No. 1. What are the options for property owners? Both from a whole, and the property owners currently with failing systems.

City Engineer's Response:

- a) **Existing Options for Properties With No City Sewer Access**- *The only existing option is a Subsurface Sewage Treatment System (SSTS) - commonly referred to as a septic system- for most lots in the project area. City sewer is available at this time only to lots 31-38, Block 2, Woodcrest and lot 6, Block 1, Ptarmigan Heights. These are all at the most northerly end of the neighborhood.*

If your system needs to be replaced a permit would be needed from Scott County to install a new system. The permit is \$735 to \$845, depending upon the site. The property owner would need to hire a designer to find a site within the lot meeting current requirements for setbacks, soils, and non-disturbance. In many cases a mound system will be required due to soil and groundwater conditions in Woodcrest. The existing site may be able to be reused under special conditions if no suitable alternative is available. A specially-permitted alternative system or holding tanks only may be required. An annually renewed operating permit may also be required. Scott County is seeing mound system costs ranging from \$15,000 to \$20,000. The owner will be responsible for financing the new system.

- b) **Existing Options for Owners currently with Failing System** – *See response a, however, the City has been advised that one owner does not have space for a new system and cannot place a replacement system on the former site due to its location off of the parcel. Without City sewer, the only option available on this parcel would be a holding tank and pumping.*
- c) **Proposed Option for All Properties** – *The proposal laid out by the City Engineer would make City sewer available to all properties with driveways onto Woodcrest Lane, Woodcrest Drive, Woodcrest Circle, and Woodcrest Court. The proposal consists of:*
- *City installation of several branches of shared forcemain piping generally located to minimize cost, use available rights of way and easements, and maintain required setbacks from wells. The forcemains would be installed using trenchless technology to minimize tree loss to the degree practical. Most trees should be able to remain; however, some excavation will be necessary in areas with trees. Trees would be surveyed and alternatives considered with the property owner if certain trees were found to be at risk.*

- *No charges or connection requirement until a property owner chooses to connect or fails a compliance inspection and needs to hook up as determined by Scott County Environmental Services staff under Scott County Ordinance No. 4. A copy of this ordinance is attached.*
 - *Individual or shared Hydromatic-brand grinder pump stations generally located by septic tanks (to be filled in). The grinder stations would only be installed when a home or homes are ready to hook up to City sewer.*
 - *Availability of assessment agreement for homeowner's share of forcemain, grinder station and associated work, and City fees, payable under terms set by the City Council.*
- d) **Proposed Option for Properties Currently with Failing Systems** – *See response c; however, time is of the essence for these parcels. A decision before the 2016 construction season would be desirable to avoid unnecessary expenses. These parcels would be on the same branch, so a partial forcemain installation would be a possible solution for these properties.*

Question/Concern No. 2. Can multiple properties be served with one pressure system?

City Engineer's Response: Technically, yes. There will be a tipping point on cost because serving multiple homes will increase the costs for piping from each home to the shared grinder station. Eventually, the piping costs will exceed what an additional grinder station would cost. There are other important issues to consider with hooking up multiple homes to one station. These include:

- *Easements or land rights for piping – if there are more than two parcels, where do you run one neighbor's pipe across another neighbor's property? Who pays? Who decides?*
- *Electrical service – how is electrical service provided? What happens if the house providing electrical service is unable to continue service for some reason?*
- *Foreign objects – a shared grinder station that is blocked or damaged by a foreign object can lead to a dispute between neighbors. Who put the block of wood/turkey fryer fat/steel toy/etc. down the sewer so they can be billed for the misuse of the system?*

Because of these issues, staff will recommend to Council that each home be served by a single grinder pump station.

Question/Concern No. 3. Will the City or the property owner be responsible for maintenance?

City Engineer's Response: Staff recommends the City maintain any shared portion of the system such as gravity pipes and main line forcemains. The pipe from the house to the grinder station would be the property owner's responsibility.

It is staff's opinion that maintenance of the grinder stations and pressure services should be a City responsibility. Call out procedures would be provided to residents that may include vendors as first points of contact.

Question/Concern No. 4. Will property owners be able to continue to use their wells for water usage?

City Engineer's Response: Yes. The study asked for by the City Council is for sanitary sewer only, nor is the City aware of any compliance or health issues with the private wells.

Question/Concern No. 5. What is the alignment of the mainline pressure system?

City Engineer's Response: The final alignment would be determined after a detailed survey is completed. The feasibility report includes a layout based on the location of wells determined by a drive-by review and State well information; however, this layout is subject to further revision if the project or any portion proceeds to final design. There can be deviations from this alignment with property owner permission if needed to save cost, avoid trees, or other reasons.

A detailed field survey is a project expense, but would not be conducted unless the City decides to move the project beyond this study phase.

Question/Concern No. 6. What is the depth of the excavations for the pressure system? Will there be line that will be able to be directionally drilled?

City Engineer's Response: All new pipes associated with the pressure system would generally be installed to maintain seven or more feet of ground cover to prevent freezing. It may be deeper in places to prevent high spots where air could be trapped. We anticipate much of the main line would be installed by Horizontal Directional Drilling (a trenchless installation technique).

Question/Concern No. 7. What will happen to the trees in Woodcrest?

City Engineer's Response: The City Engineer's view is that the trees in Woodcrest are an essential part of the character of the neighborhood. Trees are one of the reasons a pressure system is being studied instead of a gravity system. It would be our intention to preserve trees to the extent possible, including extra measures to work with property owners to save desirable trees.

Question/Concern No. 8. How deep do the sewer pressure pipes need to be underground to avoid freezing?

City Engineer's Response: See no. 6.

Question/Concern No. 9. The Owner of 10051 Ptarmigan asked whether this system would have any advantages over the deep gravity connection currently available to his lot.

City Engineer's Response: Staff will contact this property owner independently to discuss service to this lot if it appears a project will move forward.

Question/Concern No. 10. How does the pressure system work with an uphill grade/slope?

City Engineer's Response: The Hydromatic grinder pumps contemplated for this project are generally capable of delivering wastewater at flowrates acceptable for residential applications under the terrain conditions at Woodcrest.

Question/Concern No. 11. Have there been any case files of other systems in MN?

City Engineer's Response: Bolton & Menk, Inc. has designed several low-pressure wastewater sewer systems. Successful projects that have been in place for many years are Green Lake near Spicer (15 years) with nearly nine hundred grinder pump stations in operation and Roberds Lake (3 years) near Faribault with several hundred grinder pump stations. In addition, the regional supplier of the Hydromatic brand grinder pumps, WW Goetsch, has pumps in operation for nearly 25 years in East Gull Lake areas near Brainerd. To our knowledge we are not aware of any pump that has failed in its designed operation.

The pumps are designed to be serviceable, in which the cutter head of the grinder pump is two-sided, so when one side wears out the cutter head can be pulled, flipped and put back into operation. When both sides are worn, the cutter head can be replaced. This requires a service call, but not a new pump.

These systems have not been without service calls - the greatest reason has been related to the float controls. The MPCA banned the use of mercury switches in floats and at that time (we have now realized) no cost effective reliable alternative material was available. The new floats were unreliable, and the use of a pressure transducer for controlling pumps was only used in major lifts stations. Transducers have now been adapted to grinder stations. Floats are now only a backup system, and the associated call-outs are a thing of the past. There were also air-lock issues in some early systems which prevented the pumps from pumping wastewater out. We eliminated this issue with the use of a double-check valves and an anti-siphon device. Today's systems are very reliable and have low maintenance needs.

Question/Concern No. 12. Grinder pump station longevity? One property owner who sells these stations believes that they will only last 2-5 years and maintenance is very costly.

City Engineer's Response: The manufacturer's warranty for the Hydromatic grinder pump station and pump is five years. See Question/Concern No. 11 related to our experience with longevity of these units at other projects.

Question/Concern No. 13. Property owners share a desire for costs and warranties associated with these pressure systems.

City Engineer's Response: The proposed project would have the property owner responsible for all first costs at the time of hookup, per above. Maintenance, including pump service and replacement (if needed), would be by the City as part of the monthly wastewater charges to each connected property. Service call outs would be charged to the property owner only if it was discovered that the sewer was used improperly (flushing toys, grease, or somehow flooding the system, for example). Call outs for normal wear and tear or issues not caused by the user would not be charged back to property owners.

Staff would propose the Council treat the grinder station and downstream parts of the system just like lateral gravity pipes on other parts of the system. When the time comes to replace those pipes, residents are assessed ½ the replacement cost. We anticipate this would be 50 years or more after initial installation.

Question/Concern No. 14. Is the required distance of a grinder pump pressure system to wells similar to the required distance from a septic system to wells?

City Engineer's Response: The mainline forcemain and grinder station must be 50 feet from wells. The grinder station lateral forcemain can be as close as 20 feet. SSTS components must be 50 feet from wells.

Question/Concern No. 15. Resident has lift pump in basement, does not want to have two pumps if the pressure system is put in place. Will this be feasible?

City Engineer's Response: Yes. The grinder pump station can be set at an elevation that would allow gravity flow out of the house basement and into the station. The depth of the station is widely adjustable by adding extensions to the top to place the lid at the surface. We would assist homeowners with this situation in evaluating the economics of eliminating the basement lift pump so they can make an informed decision whether or not to do so.

Question/Concern No. 16. Figure showing the pressure system alignment in the presentation indicates a line going through property at 26698 Woodcrest Circle.

City Engineer's Response: The layouts displayed at the meeting were not easy to see. We re-checked the drawing and confirmed it depicts a line going around, rather than through, the home. More importantly, our intention is to prepare a detailed layout based on field surveys if the project moves beyond the study phase. Trees were discussed in an earlier response. We would also work around homes, garages, sheds, and other site features to find viable routes that minimize cost and disruption.

Question/Concern No. 17. How long would this project take from a construction standpoint? What time of year would the work occur?

City Engineer's Response: The typical outdoor construction season in our area runs from mid-May to Thanksgiving. We would try to set this project up so the contractor could work in the warmest and driest months of June through September. We think the forcemain installation would be completed in less than one season, with minimal disruption to residents.

Question/Concern No. 18. Why not put the pressure system mainline piping in the middle of the gravel road?

City Engineer's Response: Our concept layout assumes most septic tanks (and therefore building sewers) are behind or beside the homes and that this would be the easiest way to maintain well setbacks. The final layout will be based on actual well locations, so some changes may be needed, including using the road rights of way.

Question/Concern No. 19. How big are the pipes for both mainline and services for the pressure system?

City Engineer's Response: The mainline forcemain pipe would vary between 1 1/2 and 2 inches. The service lines would be 1 1/4 inches in diameter. The existing gravity pipes from homes to septic systems are typically four inches in diameter.

Question/Concern No. 20. How does the connection take place from the house to the pressure system?

City Engineer's Response: As for procurement, we envision property owners would contact the City if they choose to hook up or were notified by Scott County that their system failed a compliance inspection. The City would apply a standard design to the parcel, add any special requirements, and obtain quotes from pre-qualified bidders for the work. The connection may be combined with other parcels also being connected. The work would be authorized by the City once a Special Assessment Agreement or other paperwork needed by the City is signed.

Staff would recommend the Council permit homeowners wishing to make their own install to do so; provided the homeowner agrees to use approved equipment and allow City inspection. In these cases, the City would be unable to include the cost of privately contracted or performed work in the Special Assessment agreement, but could still offer financing for fees and the parcel's share of mainline costs, and would still maintain the system.

As for the actual connection, your home, unless it has a basement sewage pump, currently has a gravity pipe from the basement to the septic tank. The grinder pump station would typically be placed just upstream of, or in place of, the septic tank. The depth of the station is set based on the existing pipe from your house. A hole is cut in the fiberglass grinder station structure and a gasket selected based on your pipe material is inserted in the hole to make a water-tight connection between the pipe and the structure.

The control panel for the station will typically take a power feed from your outdoor electrical meter socket (or a new socket, if necessary). There is usually no need to run a wire all the way to your circuit panel or upgrade the panel. Power feed wires are buried.

Question/Concern No. 21. What will the overall cost to each property owner be?

City Engineer's Response: This table was presented at the meeting and provides a conceptual estimate of costs for replacing an SSTS system (left two columns) versus City sewer (right two columns). No City participation, credits, or discounts have been granted or applied in this table.

SSTS		Pressure Sewer to City	
Trunk Fee	\$0	Trunk Fee	\$3,751
MCES SAC	\$0	MCES SAC	\$4,333
City Conn. Fee	\$0	City Conn. Fee	\$1,882
Forcemains	\$0	Forcemains	\$2,745
On-Site Work	\$19,000	On-Site Work	\$11,865
TOTAL	\$19,000	TOTAL	\$24,576

Question/Concern No. 22. Did property owners in Windrose pay the City's trunk fee?

City Engineer's Response: A trunk fee and/or its equivalent in the form of extra/oversized construction was paid by the developer of Windrose, including extending a pipe to the southern boundary of Woodcrest at his cost.

Question/Concern No. 23. Property owners were assured by previous City government that there would be no hookup fees.

City Engineer's Response: Staff is unable to confirm or deny verbal statements made about hookup fees. While the intention may have been for a hookup fee waiver, a review of the record indicates that no formal policy was adopted by either City or the Joint Sewer Board until 2005. The language stated in the memo below describes the policy.

The City is now connected to the MCES system, so technically, this policy has expired. Woodcrest residents would be free, of course, to invoke this former policy or present other arguments for possible waivers or reductions of fees in discussions with the City Council. The granting of any waivers or reductions is a Council decision. Nothing in this response should be construed as an indication that waivers or reductions are available.

MEMORANDUM

Date: July 18, 2005
To: Joint Sewer Board
From: Executive Director
RE: Sewer Access Charge Waiver Policy

At the June meeting of the JSB, the Board directed staff to prepare a policy specifying the conditions and criteria under which the JSB would waive sewer access charges (SAC) for certain properties. Based on the discussion of the JSB, staff has prepared the following policy for adoption by the Joint Sewer Board:

Sewer Access Charge Waiver Policy

Property owners may petition for a waiver of the Sewer Access Charge(s) (SAC) due to JSB upon connection to the municipal sanitary sewer system. The following criteria must be met in order to grant a waiver:

- 1. The property was located within the corporate boundary of the City of Elko or the City of New Market prior to January 1, 1987.*
- 2. The property must have been improved with a single family, multi-family or commercial building served by an ISTS prior to January 1, 1989.*
- 3. The SAC charge will be waived for each single family, multi-family or commercial building connecting to the system that was served by an ISTS prior to January 1, 1989 and existing at the time of the petition for waiver. All single family, multi-family or commercial building served by an ISTS prior to January 1, 1989 will be considered to be one (1) SAC unit.*
- 4. The petition for waiver shall be submitted prior to connection to the system.*
- 5. Unless otherwise amended or modified, this policy shall expire upon connection of the Cities of Elko and New Market to the Metropolitan Council system.*

Please contact the Executive Director with any questions regarding the matter in this agenda (952-467-2711).

Question/Concern No. 24. What is a forcemain?

City Engineer's Response: A forcemain is a pipe carrying wastewater under pressure from a pump or pumps rather than flowing freely by gravity. Forcemains tend to be smaller than gravity pipes, and can follow the lay of the land because a downward gradient isn't needed to keep wastewater flowing. They also tend to be less expensive because of the smaller size, shallower depth, and more forgiving installation requirements.

A disadvantage is that only other pressure pipes operating under certain conditions can connect to a forcemain. No gravity lines can connect directly – a pump is needed.

Question/Concern No. 25. Why do Woodcrest property owners pay for a stormwater system that they do not have in the Woodcrest development?

City Engineer's Response: Stormwater systems include more than storm sewer pipes and catch basins. Title 9, Chapter 3 of the City Code (click on City Code under the Ordinances tab at www.ci.enm.mn.us) defines stormwater systems. This definition would include the roadside ditches at Woodcrest, on which the City has performed maintenance on in the past. While driveway culverts are privately owned, the City has also assisted with cleaning these in the past. Maintenance is done on a complaint basis or as deficiencies are observed by Public Works staff.

The Ordinance requires all parcels in the City to pay this fee. As further justification for the fee, consider that Woodcrest residents use roads outside of their neighborhoods to get to their neighborhood, including CSAH 2. The City maintains storm sewers and ponds for all roadways in the City, including CSAH 2. In addition to road drainage, runoff from Woodcrest flows beyond Woodcrest boundaries through other neighborhoods, including Windrose storm sewers, for example, on its way to the Vermillion River. The City maintains and/or responds to issues with all of these waterways.

No changes to the stormwater system, charges, or maintenance practices are proposed as part of this project – it is strictly a study of extending City wastewater (sewer) collection. Specific complaints related to stormwater runoff should be made at City Hall or on a complaint form filled out online so the City can direct an appropriate response.

Question/Concern No. 26. What do the City connection fees go towards?

City Engineer's Response: Trunk fees are based on the estimated costs for installation, upgrade, and replacement of lift stations, forcemains, and trunk sewers that all system users benefit from. Connection fees are based on the estimated costs for repair, upgrade, and replacement of lateral sewers and manholes, as the City only assesses a portion of these costs to abutting properties. All fees collected are placed in the wastewater enterprise fund along with revenue from customer usage. All costs associated with building, expanding, maintaining, replacing, and operating the system, including SAC and treatment charges and loan payments to MCES, are paid from this fund.

The upfront cost of installing the forcemains and any waiver or reduction of fees would impact the balance of this enterprise fund.

Question/Concern No. 27. What are the costs associated with removing/ decommissioning/ abandonment of septic systems?

City Engineer's Response: When a SSTS, "septic system," is no longer used the only requirement is that the septic tank be pumped out, then filled with soil so there is no void beneath the land surface to cause any future safety issues. The top can be removed or broken and the tank filled with earth. The tank itself does not need to be removed or broken up unless it would be in the way of other work. This would be included in the scope of work and cost for any grinder station installs the City coordinates.

Removal of the absorption area piping and/or mound system soil is elective on the part of the homeowner. We are open to discussing whether and how the City could help with getting these systems removed if there is interest from homeowners.

Question/Concern No. 28. What is the processes of removing/decommissioning/abandoning of septic systems?

City Engineer's Response: Please refer to the response for Question/Concern No. 26.

Question/Concern No. 29. How was the \$11,500 for the actual work determined?

City Engineer's Response: This is the estimated cost of filling the septic tank, adding a grinder pump station, and connecting the pressure service to the main forcemain, with re-seeding disturbed areas. Each parcel will have a different layout and piping distances, so the cost is an average per lot.

Question/Concern No. 30. Why are Woodcrest property owners paying fees for City water, sanitary sewer, & storm sewer?

City Engineer's Response: Woodcrest property owners currently pay only the City stormwater management fee as explained above. No fee for potable water or sanitary sewer is currently charged to Woodcrest properties, nor are costs associated with potable water or sanitary sewer included in City property taxes.

If this project proceeds, only fees and charges related to sanitary sewer would apply as explained elsewhere. Potable water is not part of this project and no fees associated with potable water would be applied as part of this project.

Question/Concern No. 31. Woodcrest property owner mentioned that some Xerxes property owners were unaware of fees for City water, sanitary sewer, & storm sewer.

City Engineer's Response: Properties along Xerxes that have connected or will connect to City sewer or water were or will be charged water and sanitary sewer fees in place at the time of connection. All parcels in the City unless meeting exemptions in the code are charged the stormwater management fee per City Ordinance.

Question/Concern No. 32. How much has each Woodcrest property owner paid for fees associated with City water, sanitary sewer, & storm sewer?

City Engineer's Response: No fees for water or sanitary sewer have yet been charged to Woodcrest properties; however, it is the City Engineer's understanding that a portion of property tax for a

period after initial installation may have been used to help pay bonds for the original sewer system. The City Finance Department has no information on what amounts may or may not have been paid by individual properties to support the former City of Elko's share of debt service for the initial installation of sewer. Past City efforts to recover this information from Scott County have been unsuccessful based on discussions with former Elko Councilmembers and joint sewer board members.

Question/Concern No. 33. Will the new house in Woodcrest have a septic system?

City Engineer's Response: The new house has an approved plan for a mound system. If no City sewer project moves forward, this mound system will need to be installed.

Question/Concern No. 34. Why is this project being brought up again after four years?

City Engineer's Response: The City Engineer's office has been placing this project on the City's Capital Improvement Plan each year for the past several years. There are several reasons we are concerned about the long-term viability of SSTS at Woodcrest. Scott County Environmental Services staff shares these concerns:

- Many Woodcrest SSTS systems date back to the 70s. The newest system is 10 years old. The components of many of the systems are aging, the soils can be altered or lose infiltration effectiveness over time, and regulations have become stricter. We are aware of four systems that require replacement, one as soon as 2016.*
- A new home is going in that requires some type of wastewater disposal system in 2016.*
- Lots are substantially smaller than typical township lots using SSTS for wastewater disposal*
- Lots are heavily wooded, reducing available space and/ or increasing costs for replacement systems*
- The continuing use of SSTS appears to be limiting development, redevelopment, or upgrade of the housing stock. There is also anecdotal evidence it is a concern for property transfers. While some buyers accept or even prefer SSTS, others –including lenders - are concerned about potential problems. The net effect of the SSTS may be that property values are constrained or even pushed downward compared to similar properties with City sewer.*

Our office believes that continued delay in the extension of City sewer to this subdivision will not be in the best long-term interest of Woodcrest Property owners or the City. Problems will increase rather than be avoided, costs will escalate rather than be saved, and the City will continue to be petitioned for relief on a case by case basis until City sewer is eventually provided.

A survey in 2012 indicated a meaningful level of support for City sewer if no costs were incurred until the homeowner chose to or was required to connect. With five properties needing to build or replace SSTS, the newest existing system being 10 years old, and a possible way identified to make sewer available with no up-front cost to property and no requirement to connect until desired or necessary, we think it makes sense for the City and residents to once again take a hard look at this option for 2016.

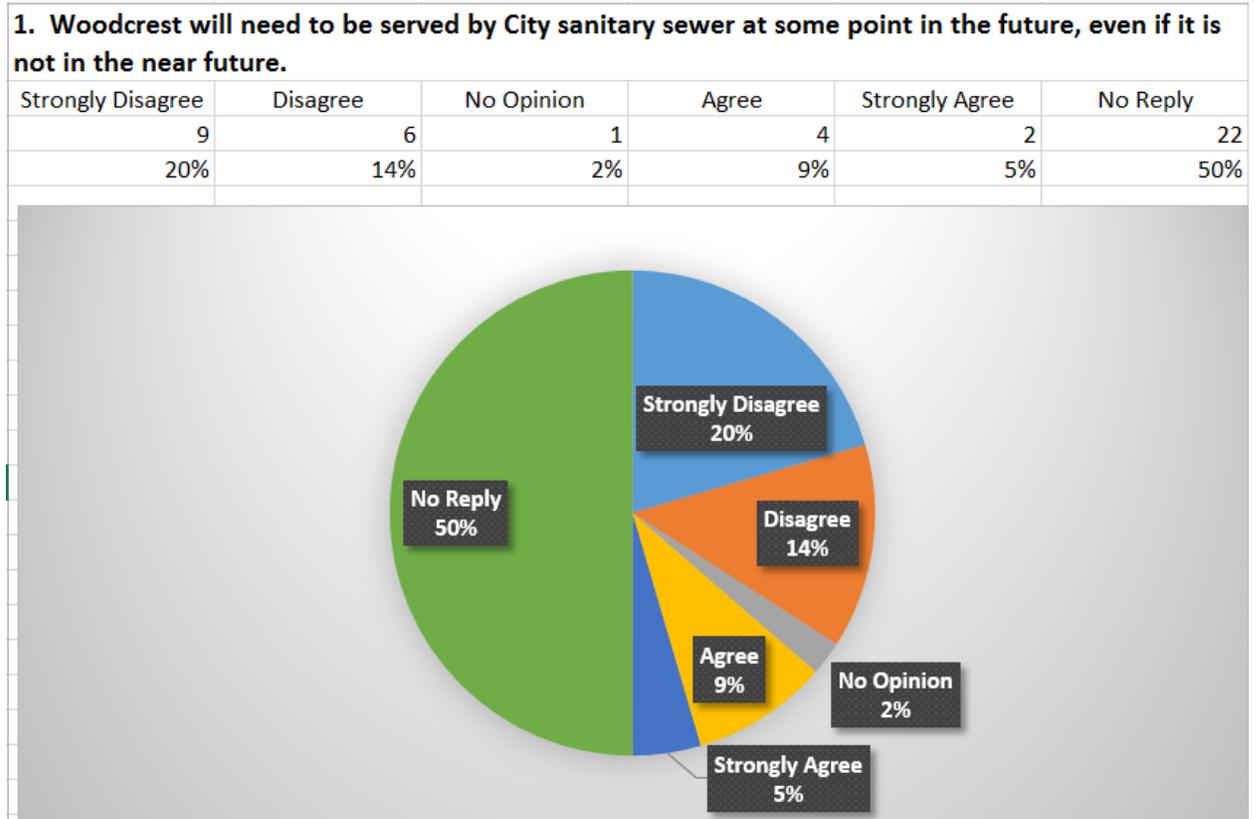
Question/Concern No. 35. What were the results of the Woodcrest property owner's opinion survey?

City Engineer's Response: Two surveys have now been conducted. The first was in 2012. About 75% of Woodcrest parcels responded to that survey.

When asked whether City sewer was supported (with immediate hookup and payment implied) assuming costs of about \$2,200 per year for 15 years, 3 respondents were supportive, 7 were neutral, 23 opposed, and 4 did not respond.

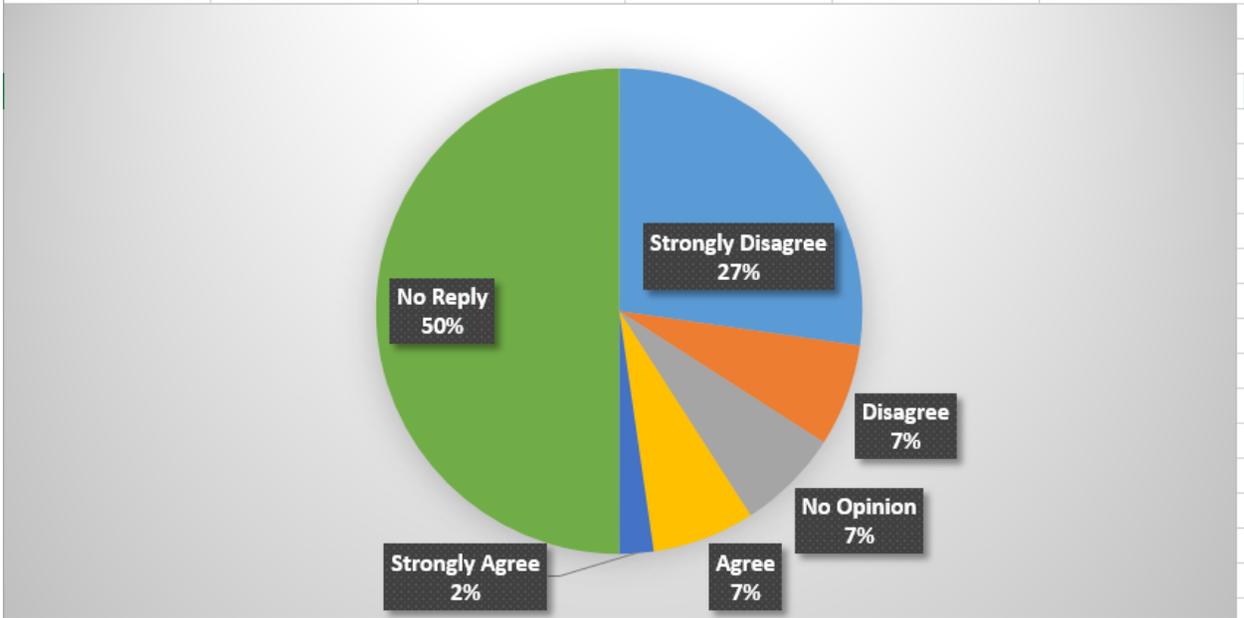
When asked whether City sewer was supported if there was no cost until the home was hooked up at the property owner's request or the system failed a compliance inspection, 16 respondents were supportive, 11 were neutral, 7 opposed, and 3 did not respond.

The most recent survey results (December of 2015) are shown in the following charts:



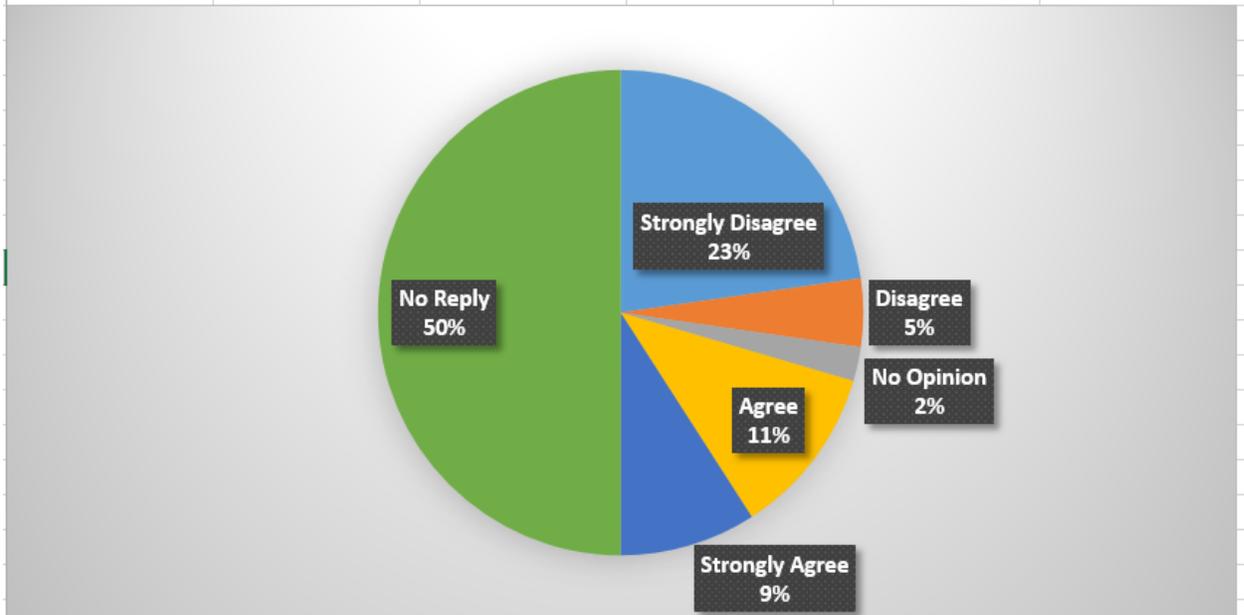
2. I support the concept that has been presented by staff for the extension of City sanitary sewer to serve Woodcrest.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree	No Reply
12	3	3	3	1	22
27%	7%	7%	7%	2%	50%



3. I need more information before I can decide if I support City sewer in Woodcrest.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree	No Reply
10	2	1	5	4	22
23%	5%	2%	11%	9%	50%



Question/Concern No. 36. Would wastewater treatment rates apply for the pressure system?

City Engineer's Response: Yes. Woodcrest residents would be charged the same rates as other users on the system if connected to City sewer.

Question/Concern No. 37. Would there be a timetable put in place in which property owners would be mandated to hook up to the pressure system? Under the assumption that the City would pursue installing the pressure system but not mandating an immediate connection for each property?

City Engineer's Response: Any timetable would be a Council decision. No staff recommendation on a deadline for connections other than any that might be imposed by Scott County based on Ordinance No. 4 (attached) for compliance reasons has been made at this point in the process. An overall timetable might be attractive to the City to ensure all parcels are connected and cash outlays recovered in a reasonable time period; however, staff recognizes that a timetable, especially if deemed unreasonably short, may reduce support or increase opposition to a project.

Question/Concern No. 38. Is this project being driven by taxes?

City Engineer's Response: No. While increased property taxes due to valuation increases over time may result, the differential would not justify the City's cost to participate in this project. It also would make little economic sense for the wastewater enterprise fund – the revenue from an increased number of customers will be offset by fiscal and non-recovered capital and overhead costs.

The project is being driven by a desire to make sure that no property is left with no viable sewage disposal option in the coming years, to protect owners and neighbors from potential health threats from any failing systems, and to do it at the most advantageous time from a long-term cost standpoint.

Question/Concern No. 39. How long will the pressure system last in comparison to septic systems?

City Engineer's Response: We anticipate properly installed structures and piping systems will last 70 years or more. We plan, and budget for, pumps to last 20 years and control systems to last 25. Our experience is that these components last even longer than that if used and maintained properly. The pumps can be replaced and upgraded without replacing the structures and piping.

The Woodcrest Plat is dated June of 1977. Thus, the very oldest SSTS in Woodcrest could be 40 years old in 2017. The newest one is just over 10 years old. Four require replacement at this time; however, it should be noted that most have not been inspected. There could be more non-compliant systems that the City or County or property owner simply do not know about. By comparison, municipal sewer pipes and services of this vintage are typically left in place during reconstruction projects because of few, if any, defects observed at 40 years.

SSTS are dependent on man-made materials to some degree. These materials should be long-lived. What are not as predictable are the quality of the system design and installation, soil and land use conditions, groundwater impacts, property owner maintenance practices, etc.

Question/Concern No. 40. Who is really pushing this project? Property owners, Bolton & Menk, or the City?

City Engineer's Response: Bolton & Menk, Inc. is a consultant to the City, serving as its City Engineer. Accordingly, one of our responsibilities is to try to identify potential problems before they happen or before costs to address them are unmanageable. We, and Scott County Environmental Services officials, see the potential for ongoing SSTS problems at Woodcrest. We have advised the council of our concerns. The Council has agreed that the evidence we presented was compelling enough that the issue should be examined further.

Another responsibility of the City Engineer is to seek opportunities to implement the long-term plans of the City. Sewer at Woodcrest has been included in City plans for many years, as evidenced by pipe stubs installed with adjacent development and examination of the former City of Elko's Comprehensive Sewer Plan.

In tackling these responsibilities, the City Engineer has been looking for ways to make City Sewer available without undue burden to Woodcrest residents or unjustifiable expense to the City, placing this project on the City's Capital Improvement Plan for discussion every year, and monitoring the status of SSTS with Scott County to see if problems are developing.

Problems are developing. What we think is a viable solution has been identified and is ready for implementation should the Council decide to proceed - precisely because of the plans and preparations already made.

Question/Concern No. 41. Results of Scott County inspection on existing septic systems needs to be revisited to determine exactly which current properties have failing systems.

City Engineer's Response: While that is a possibility, it is contrary to current policy and practice. Scott County inspects on a complaint basis or as needed related to building permit activity. County staff feels, based on experience, that a large number of systems are likely to fail if inspected. No inspection of systems beyond current County policy and practice is planned. The focus is instead on getting the best long-term solution in place based on what is already known.

Question/Concern No. 42. Can property owners replace their own drain fields without the need for involvement from Scott County?

City Engineer's Response: No. A permit would be required from Scott County to legally replace or upgrade any SSTS in Woodcrest.

Question/Concern No. 43. What are the causes for failures on the existing septic systems per Scott County inspections?

City Engineer's Response: Scott County reports that one common cause of failure (sewage discharging to the ground surface) is that drain fields gradually become plugged with solids over time, even if the tank is pumped regularly. Another typical reason is that the homeowner is discharging more wastewater than the system was designed to handle.

The most common reasons systems do not pass compliance inspections include; imminent health threats (previous paragraph), non-sealed septic tanks, and inadequate vertical separation from groundwater.

Question/Concern No. 44. Will there be any funding available for this project?

City Engineer's Response: We have identified no funding source at this time; however, we will make inquiry with regulatory agencies and known possible sources if the project moves forward and we are so directed by the Council. Past experience with grant applications has shown that Elko New Market often fails to meet the criteria set forth in the grant programs.

The City would use reserves in the Wastewater enterprise fund or sell bonds to finance this project, with receipts from fees and assessments used to reimburse the fund. The current bonding environment has resulted in favorable interest rates.

Question/Concern No. 45. When will information be presented to City Council?

City Engineer's Response: This item has been placed on the February 11th Council Agenda for an overview of the feasibility report. This meeting will not include a public hearing; rather, it is intended to provide background information to the Council. The public is welcome to attend this meeting and receive the same information as the Council. The Council will be asked to schedule a public hearing on the project for the March 10th meeting. This is called the "Improvement Hearing". The hearing typically includes a presentation of the report from the Engineer, followed by questions and comments from the Council and the project residents. The Improvement Hearing will be the official opportunity for residents to hear and participate in City Council discussion about the project. Residents will be notified by mail and publication in the New Prague Times of the hearing.

Question/Concern No. 46. Will there be a Public Hearing or notices for each property owner?

City Engineer's Response: Yes to both. See above.

Question/Concern No. 47. Who would perform the work of installing the pressure systems?

City Engineer's Response: The details of the procurement would get worked out during the design phase of the project – the City is only in the study phase. Our intention would be to offer flexibility to residents to the extent design standards and installation quality can be maintained and procurement laws related to project financing can be complied with. For example, if a homeowner wishes to hire his own plumber or do the work himself, the City may not be able to offer financing for that portion of the work and comply with public bidding laws and the City's own financial policies.

Question/Concern No. 48. Could property owners hire their own contractor to perform the work?

City Engineer's Response: See above.

Question/Concern No. 49. What would the cost be per month to operate pressure systems? Both electrical & sewer?

City Engineer's Response: The electrical costs are reportedly similar to the cost to operate an incandescent light bulb. Most residents would notice little change to their electric bills. The sewer charge for 2016 would be a monthly base (availability) charge of \$17.55 plus usage charges of \$4.82 per thousand gallons. A family using 6,000 gallons of water per month would have a monthly sewer bill of \$46.45.

The City fees and initial system cost are not included in the monthly user charge. For most folks, the upfront costs would be paid via a Special Assessment Agreement with the City.

Question/Concern No. 50. What is the average cost of pumping septic tanks?

City Engineer's Response: We've heard pumping costs are around \$300 to \$325; however, these figures are hearsay. Homeowners should call local providers for quotes to get the best information on pumping costs.

Question/Concern No. 51. How would the City perform billing of pressure system?

City Engineer's Response: We anticipate Woodcrest residents would be billed for sewer availability and usage on a monthly basis, just like other wastewater customers in the City. We envision installing meters on existing water lines to measure sewer usage. Usage for winter months would be applied to summer usage to avoid artificially high billing due to lawn irrigation.

We anticipate the up-front costs for improvements and fees would be eligible for a Special Assessment agreement with the City. All or a portion could be paid up front, with the remainder assessed over an agreed upon period and collected with property taxes.

Question/Concern No. 52. What kind of effect would these pressure systems have on property values?

City Engineer's Response: The following opinions are based on anecdotal evidence noted over several years from informal discussions with real estate professionals, building trade representatives, and home buyers. It is not based on documented market research. City staff members' opinions are that we would expect to find a wide range of preferences if individual buyers in the market were polled; however, in general, we think the market would favor homes on City sewer from a price and sale time standpoint. Our further opinion is that SSTS suppress property values and increase market time for comparable homes in comparable locations. We would expect that making City sewer available in Woodcrest would increase property values and make the properties appealing to a broader market segment.

Homes on City sewer would also be able to be improved or transferred with no concerns over SSTS compliance; thus increasing the likelihood of home improvements that require building permits. This would result in greater investments in the properties over the long-term, increasing property values.

Question/Concern No. 53. How would project assessments be paid by property owners?

City Engineer's Response: We are recommending an all-inclusive cost be established by Council to be paid when any property chooses to or needs to hook up. The cost would be updated/adjusted on an annual basis. This cost would include all improvements and fees required to connect a home to City sewer. Woodcrest property owners would be eligible for a Special Assessment agreement whereby the cost is assessed to the property over a number of years at a reasonable interest rate. All or a portion of the cost could be paid up front, with the remainder assessed over an agreed upon period and collected with property taxes.

Question/Concern No. 54. Why aren't Thomas Avenue property owners on septic systems being presented with the new pressure system?

City Engineer's Response: To date, the City has received no inquiries about sewer availability at Thomas Avenue, and is aware of no compliance concerns. This is not the situation at Woodcrest. We do, however; anticipate that this issue will eventually come up at Thomas Avenue also.

Question/Concern No. 55. Is it feasible to incorporate a large drain or a community system that would encompass multiple properties in Woodcrest? (Question was e-mailed on 12/4 from property owner in Woodcrest)

City Engineer's Response: The following information was provided by Pete Schmitt at Scott County Environmental Services. "Doing a CSTS would require purchasing about 6-8 acres of land that is not hydric (wet) and has never been disturbed. For example, Silver Maple Bay in Helena Township had a CSTS for 58 homes which required 8 acres of land for the primary and alternate CSTS. The Scott County septic ordinance requires that CSTS be owned and managed by a Subordinate Sewer District (SSD), which would typically be a city or township (has taxing authority). The SSD is in charge of recovering costs from the homeowner for CSTS construction, maintenance, and permit fees. The SSD would need to hire an Advanced Septic Professional and engineer, and obtain a permit from the MPCA (because the CSTS would be designed for more than 10,000 gallons per day). The CSTS would need to be maintained at least annually if not more often by a licensed service provider. Several Townships in Scott County are an SSD for CSTS, and they have expressed frustration that the cost to annually maintain the CSTS is too high and that the homeowners are upset with the high costs."

Our comments would be that in addition to the challenges described above, the waste from each home would still need to be delivered to the Central Sewage Treatment System (CSTS). This would require a system such as the pressure sewer system proposed or a gravity sewer pipe collection system. The challenge at Woodcrest is not treatment – the City easily has capacity to treat the waste via its MCES connection. The challenge is getting the waste from each home to the existing pipe at the boundary of Woodcrest. A CSTS does not eliminate that challenge, but does add a whole new set of challenges. We are able to find no justification for further examining CSTS as an option for Woodcrest.

Question/Concern No. 56. Can residents needing more space for addressing a failing SSTS buy additional property to do so? There are lots available.

City Engineer's Response: Technically, this may be feasible; however, at a minimum:

- They would face the challenge of getting the waste from their property to wherever the vacant space might be (probably would require a pump and piping).*
- They would incur the cost of the extra property.*
- They would have issues getting a permit for an accessory use on a lot with no primary use.*
- They would have issues finding a route on private property or encroachment agreements for a route including public property for the piping.*
- They would incur additional property taxes for the vacant lot on an ongoing basis, and face potential assessments against the parcel if any public improvements are made in the future.*

Unless vacant property with favorable characteristics for an SSTS happen to be adjacent to a parcel having SSTS difficulties, we think this strategy is not likely to offer any benefit to Woodcrest property owners.

CHAPTER 1

TITLE 4

**SUBSURFACE
SEWAGE TREATMENT SYSTEM ORDINANCE NO. 4**

(Cite as e.g.)

**(Scott County Subsurface Sewage Treatment System
Ordinance No. 4 Section)**

SCOTT COUNTY SUBSURFACE SEWAGE TREATMENT SYSTEM ORDINANCE NO. 4

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1.00 PURPOSE AND AUTHORITY.

- 1.01 PURPOSE.** An ordinance establishing the minimum standards and criteria for the design, location, installation, use, and maintenance of Subsurface Sewage Treatment Systems (SSTS), also referred to as Individual Sewage Treatment Systems (ISTS) and Community Sewage Treatment Systems (CSTS); penalties for failure to comply with provisions of this Ordinance; issuing, denying, modifying, imposing conditions upon, suspending or revoking licenses and permits; the proper removal, transport, treatment and disposal of domestic septage; and other matters as determined to be necessary, and thus protect the surface and ground waters of the County of Scott and the State of Minnesota, and promote the public health and general welfare.
- 1.02 AUTHORITY.** This Ordinance is adopted pursuant to Minnesota Statutes, Sections 145A.05, 115.55 and 115.56.

2.00 DEFINITIONS.

- 2.01 CERTAIN TERMS.** For the purposes of these standards, certain terms or words used herein shall be interpreted as follows: the words "shall" and "must" are mandatory, the words "should" and "may" are permissive. All distances, unless otherwise specified, shall be measured horizontally.
- 2.02 ALTERNATE SITE.** "Alternate Site" means that portion of real property that is designated by a licensed ISTS professional and approved by the Department to be protected from all vehicular traffic, construction and other disturbances and which will allow for the construction of a future standard SSTS.
- 2.03 COUNTY.** "County" means Scott County, Minnesota.
- 2.04 COUNTY BOARD.** "County Board" means the Scott County Board of Commissioners.
- 2.05 COMMUNITY SEWAGE TREATMENT SYSTEM.** "Community Sewage Treatment System" or "CSTS" means a collector-type sewage treatment system serving two or more dwellings on separate lots and managed by a public entity such as a Subordinate Service District or Sanitary District.
- 2.06 DEPARTMENT.** "Department" means the Scott County Environmental Health Department or its successor.
- 2.07 INCORPORATED.** "Incorporated" means the mixing of domestic septage with the topsoil by means of discing or plowing.
- 2.08 INJECTED.** "Injected" means the direct flow of domestic septage from the injector tank or injector vehicle into the soil.

- 2.09 INSPECTOR.** "Inspector" means the person or persons registered by the Minnesota Pollution Control Agency with specialty area endorsements applicable to the work being conducted and assigned the responsibility for the administration of this Ordinance by the Manager of the Department.
- 2.10 ONE HUNDRED-YEAR FLOOD.** "One hundred-year flood" means that flood which can be expected to occur, on an average, of once in one hundred years; or the level to which flood waters have a one percent chance of rising in any given year.
- 2.11 TYPE I SYSTEM.** "Type I System" is an SSTS that follows a standard trench, bed, at-grade, mound, or graywater system design in accordance with Minn. Rules parts 7080.2200 through 7080.2240.
- 2.12 TYPE II SYSTEM.** "Type II System" is an SSTS with acceptable modifications or sewage containment system that may be permitted for use on a site not meeting the conditions acceptable for a standard Type I system. These include holding tanks, privies and systems located in floodplains or on lots with rapidly permeable soils.
- 2.13 TYPE III SYSTEM.** "Type III System" is an SSTS that uses soil to treat sewage but does not meet the tank, size or distribution requirements for a Type I system. Type III systems are designed for use on a lot that cannot accommodate a standard Type I soil treatment and dispersal system.
- 2.14 TYPE IV SYSTEM.** "Type IV System" is an SSTS having an approved pretreatment device and incorporating pressure distribution and dosing.
- 2.15 TYPE V SYSTEM.** "Type V System" is an SSTS designed by a professional engineer that does not meet the prescriptive designs for Type I-IV systems. Type V systems must meet the public health and safety standards of Minn. Rules part 7080.1500.

3.00 GENERAL PROVISIONS.

- 3.01 ADMINISTRATIVE PROCEDURES.** Except to the extent superseded by this Ordinance, all of the provisions of the Scott County Administrative Procedures Ordinance No. 13 relating to definitions; license and permit provisions; administration of the Ordinance; license and permit application and processing; suspensions and revocations; variances; severability; provisions cumulative; and no consent, shall apply as if fully set forth herein.
- 3.02 ADMINISTRATION OF ORDINANCE.** This Ordinance shall be administered by the Inspector. The Inspector's responsibilities shall include, but not be limited to, the following:

- A. Review and consider all permit applications submitted to the Department for the site evaluation, installation and maintenance of an SSTS within the County.
- B. Conduct routine inspections of SSTS installations and site evaluations in such frequency as to insure consistent compliance with the provisions of this Ordinance. The permittee or licensed SSTS professional shall be provided with written and documented notice of any deficiencies, recommendations for their correction and the date when the corrections shall be accomplished. The permittee or licensed professional shall be required to allow free access to the Department, County Board or to the proper representative of any other governmental agency at any time for the purpose of making such inspections as may be necessary to determine compliance with the requirements of this Ordinance, or any other applicable statute, ordinance or regulation, or for the purpose of making written and documented notice of any deficiencies, or recommendations for their correction and the date by which corrections shall be accomplished.
- C. Investigate complaints of violations of this Ordinance and recommend, when necessary, to the County Attorney's Office that legal proceedings be initiated to achieve compliance with this Ordinance and protect public health and the environment.
- D. Advise, consult and cooperate with other governmental agencies and the various offices of Scott County.
- E. Resolve conflicts and other technical disputes between SSTS certified individuals.

3.03 COMPLIANCE REQUIRED. All sewage, septage and sewage tank effluent generated within Scott County shall be treated either in a Minnesota Pollution Control Agency (MPCA) permitted facility or a system that meets the requirements of this Ordinance. Any person who conducts site evaluations or designs, installs, alters, repairs, replaces, maintains, pumps, or inspects all or part of an SSTS in Scott County shall comply with the requirements of this Ordinance and the appropriate portions of Minn. Rules chapters 7080 or 7081. Any SSTS, irrespective of the date of original installation, which is found to be in violation of Minn. Rules part 7080.1500, 7080.2150, subp. 2, or 7081.0080, shall be relocated, reconstructed or reinstalled so as to be in compliance with this Ordinance. A surface discharge is strictly prohibited unless a national pollution discharge elimination system permit has been issued by the MPCA. Any septic tank that is exposed for inspection or repairs shall be repaired or replaced in accordance with this Ordinance to meet the requirements of Minn. Rules part 7080.1900 or 7081.0240.

3.04 CONDITIONS. Violation of any conditions imposed by the County on a license, permit or variance shall be deemed a violation of this Ordinance and subject to the penalty provisions set forth in this Ordinance.

4.00 STANDARDS ADOPTED.

4.01 TECHNICAL STANDARDS. The technical standards of the Minnesota Pollution Control Agency are hereby adopted by reference. Those standards encompass Minn. Rules chapters 7080 and 7081.

4.02 TYPE II, III, IV AND V SYSTEMS. Type II, III, IV and V systems shall only be allowed/permitted for existing lots of record (as defined in Section 5.01 A.) where a Type I system cannot be reasonably installed as determined by the Inspector. This applies regardless of whether or not a Permit is required from the County except as otherwise specified in Section 4.03 C. The SSTS shall meet all provisions contained in Minn. Rules parts 7080.2250 through 7080.2400, shall only be used to manage sewage from existing dwellings and Other Establishments, and shall not be used to accommodate the construction or expansion of a dwelling or Other Establishment or to accommodate an unacceptable increase in wastewater to the SSTS as determined by the Inspector. In addition to these standards, the following shall apply:

- A. All Type II, III, IV and V systems shall include a water meter. In addition, if the SSTS contains a pump chamber and dosing device, an electrical event counter shall be placed on the dosing device.
- B. An application to install or modify a Type IV or V system must include a Monitoring and Mitigation Plan. The Monitoring Plan shall identify the name of a licensed designer, inspector or installer along with a five-year contract with that SSTS professional to perform inspections and take whatever measurements or samples are agreed to by the Department in the Approved Monitoring Plan. The Mitigation Plan shall identify what measures will be taken within a specific Department-approved time frame to replace the SSTS or bring it into compliance with the standards approved in the Monitoring Plan. Alternate sites designated to accommodate replacement of the SSTS shall be protected and maintained.
- C. Type IV and V systems must be licensed as provided in section 6.04.

4.03 PRETREATMENT OF EFFLUENT. Providing that all standard components of an SSTS are designed and constructed in accordance with the provisions established herein, additional devices to screen, filter or pretreat septic tank effluent as approved by the Inspector:

- A. May be added to an SSTS providing adequate maintenance is clearly established.
- B. Shall be added for pretreatment of any wastewater which, after standard treatment in a septic tank designed in accordance with Minn. Rules part 7080.1900, fails to achieve any of the following standards:
 - 1. Biochemical Oxygen Demand (BOD) in excess of 220mg/l.
 - 2. Total Suspended Solids (TSS) in excess of 65mg/l.

3. Fats, Oils and Grease (FOG) in excess of 30mg/l.
- C. Shall be added to a CSTS for the purpose of enhancing the longevity of the drainfield component of the SSTS subject to approval by the Subordinate Service District (SSD).

All such pretreatment devices shall be subject to review and approval by the Inspector and are subject to the provisions in Section 6.04.

4.04 USE OF HOLDING TANKS. The operation and maintenance of a holding tank shall comply with all requirements as specified on forms provided by the Inspector. At a minimum, a monitoring and disposal contract signed by the owner and a licensed maintenance business is required unless the owner is a farmer exempt from licensing under Minnesota Statutes, section 115.56, subdivision 2 paragraph (b), clause (3). The owner is responsible for ensuring that the contract guarantees the proper removal of the tank contents before overflow or any discharge. Holding tanks shall only be used in the following circumstances:

- A. For replacement of an SSTS where it is impossible as determined by the Inspector to construct a Type I system;
- B. For seasonal buildings or facilities where the SSTS would be used less than four days per week during the winter months of November through March;
- C. To capture wastewater that cannot be treated in an SSTS as determined by the Inspector;
- D. For new construction or expansion as defined in 7.03 D, if the lot is scheduled to receive municipal sewer service within one year;
- E. For temporary uses as controlled by a development contract; or
- F. For temporary occupancy before a drainfield can be installed due to adverse soil conditions.

5.00 SITE EVALUATION AND PRESERVATION.

5.01 SITE EVALUATION FOR SSTS PERMIT APPLICATION.

- A. Site evaluations must be conducted in accordance with Minn. Rules parts 7080.1700 and 7081.0100 through 7081.0230, this section, or as otherwise provided in Minn. Rules chapters 7080 and 7081. Each SSTS permit application shall include a primary and an alternate site. Both sites shall meet the requirements of Minn. Rules parts 7080.2050 through 7080.2240. Soil boring and

percolation test locations and the one hundred-year flood elevation must be clearly marked on the design plans submitted.

On existing vacant lots recorded with the Scott County Land Records Office prior to May 12, 1992, where it is not possible to locate two Type I system sites, at least one Type I system site must be identified unless otherwise allowed by this Ordinance for the purposes of obtaining a building permit. The site shall meet the requirements of Minn. Rules parts 7080.2050 through 7080.2240. The building pad cannot be larger than 5,000 square feet if a larger pad would preclude the use of an alternate site on the lot.

- B. The following must be field staked before the Department will conduct a site inspection:
1. The septic and pump tanks.
 2. Soil boring and percolation test locations.
 3. The four corners of the sand and rockbed of a mound, drop boxes and both ends of each trench of a trench SSTS or as necessary to easily identify the location of other system types.
 4. The boundaries of the alternate site.
 5. Property lines, easements and other features requiring a setback as specified by the Inspector within 20 feet of any part of the SSTS. A survey may be required if the exact location of the property line, easement or feature cannot be determined.
- C. All new septic tanks shall be designed and constructed to meet the standards listed in Minn. Rules part 7080.1930 subp. 2 for a garbage disposal, and the top lid of any septic or pumping tank shall not be located more than four feet below the final grade as outlined in Minn. Rules part 7080.2000. These tank size and depth requirements may be waived by the Inspector for an existing ISTS.
- D. To determine the Hydraulic Loading Rate there must be a minimum of three percolation tests done within the primary site in accordance with Minn. Rules chapter 7080.2150 subp. 3, E. Table IXa. Additional percolation tests may be required in either or both sites if the Inspector determines that they are needed to accurately define the soil conditions. There must be a minimum of four soil borings done within the primary site, preferably one in each corner of the proposed SSTS. At least two soil borings shall also be done within the alternate site. Additional borings may be required in either or both sites if the Inspector determines that the borings have not accurately defined the soil conditions. Alternatively, two or more soil pits, a minimum of three feet deep, may be substituted per site to assess soil conditions in accordance with Minn. Rules chapter 7080.2150 subp. 3, E. Table IX. The pits must be left open or reopened to

accommodate site inspection and be fenced, roped off or refilled as needed to prevent accidents.

The soil treatment area shall be sized using the slowest tested percolation rate or be based upon the detailed soil description, whichever results in a larger absorption area if both sizing methods are used. If the absorption area is based on the percolation rate and five or more percolation tests are done, an average of all the percolation rates may be used to size the soil treatment area.

- E. Applications for ISTS permits which lack sufficient soils information for approval (due to weather/seasonal soil conditions), but which the Inspector believes contain sufficient information for conditional issuance of a building permit, shall be allowed to proceed through the permit process with the condition that final ISTS permit approval will not be granted until complete soil information is submitted and approved. An additional permit fee shall be paid as established by resolution of the County Board.
- F. An SSTS shall not be constructed within the boundaries of an easement nor shall any part of the SSTS cross an easement without written permission from the individual(s) or entity(ies) possessing the rights to the easement.
- G. Below ground pools shall meet the setback requirements established for buildings as described in this Ordinance.
- H. Fencing and Staking. Where the Inspector deems necessary, both the primary and alternate drainfield sites shall be fenced prior to applying for a permit to construct an SSTS. The fence shall consist of four-foot high orange construction fence, wooden snow fence, or two strands of weatherproof high-visibility roping attached to posts placed no more than 20 feet apart with either high visibility ribbon at least one-half inch wide tied to the rope no more than 6 feet apart or signs no smaller than 16 inches by 20 inches no more than 20 feet apart, that clearly identify the drainfield area and prohibit trespass. The fencing or roping and signs shall be clearly visible at least two feet above surrounding vegetation. The choice between fencing and roping with signs shall be at the discretion of the designer and property owner and should take into consideration any risk such barrier may present.

The stakes shall be clearly visible at least two feet above surrounding vegetation and the stake labeling shall be legible.
- I. The proposed alternate site shall be 5,000 square feet or of a size, location and configuration deemed suitable by the Inspector for the intended use.
- J. A management plan shall be developed by the designer and must be reviewed and approved before issuance of a construction permit for all new or replacement ISTS as described in Minn. Rule 7082.0600 Subpart 1.

5.02 SITE EVALUATION FOR CREATING NEW LOTS.

- A. All proposed development that requires rezoning or platting shall be submitted to the Inspector for review. No new lots shall be approved by Scott County unless the Inspector renders a favorable recommendation that a primary and alternate site can be located on each lot or be served by a CSTS. Each site shall meet the requirements of Minn. Rules parts 7080.2050 through 7080.2230 and shall be sized to accommodate a Type I system for a five bedroom dwelling. Appeal from an unfavorable recommendation hereunder, shall be in accordance with the provisions adopted in the Scott County Administrative Procedures Ordinance No. 13. The review and recommendation provided pursuant to this section shall not eliminate the need for compliance with section 5.01.
- B. There shall be a minimum of two percolation tests conducted on each lot of the proposed development except for those served by a CSTS. Additional percolation tests may be required in the primary or alternate sites if soil conditions, topography, land-use, etc., indicate a change of soil characteristics that would influence the percolation test results. Both percolation tests shall be conducted within the boundaries of the primary site.
- C. At least two soil borings shall be done within the boundary of each primary and alternate ISTS site. Additional soil borings may be required upon review of the information submitted. Alternatively, two or more soil pits a minimum of three feet deep may be substituted per site to assess soil conditions in accordance with Minn. Rules chapter 7080.2150 Subp. 3 (E). Care should be taken to prevent damage to a future drainfield site because the County may not approve a permit for a drainfield where significant soil disturbance has occurred.
- D. The following shall be located on each lot of a proposed preliminary plat layout where lots will be served by an ISTS on forms and to a level of detail acceptable to the Inspector:
 - 1. Contours, as required by the Scott County Land Subdivision Ordinance No. 7.
 - 2. A proposed building pad of 5,000 square feet and driveway.
 - 3. Two ISTS sites.
 - 4. All percolation tests and soil borings.
 - 5. Any drainage and utility easements, required buffer strips, bluff setbacks, trails, driveways and private drainage systems including tile, ditches, culverts and other similar restricted areas for construction of an ISTS as outlined in Minn. Rule part 7080.1720 subp. 3, C. & D.
 - 6. One hundred-year flood elevation, wetlands and the ordinary high water level of public waters.

7. Existing wells within 100 feet from any proposed ISTS site, 300 feet for public supply wells or as otherwise established by the Minnesota Department of Health.
- E. The drainfield locations for new residential lots shall be located on non-hydric soils and sized at a minimum of 5,000 square feet with sufficient information provided to the Inspector to demonstrate that the proposed sites are likely to be able to accommodate an ISTS of a standard design consistent with site soils and topography.
- F. Any drainfield site within fifty feet of proposed construction activities (i.e., road construction, house construction, or other construction or improvement activities associated with the plat) shall be fenced and staked by the developer in accordance with section 5.01 H.
- G. Design plans of a detail acceptable to the Inspector shall be submitted for consideration of a proposed preliminary plat for new lots to be served by a CSTS and:
1. The Subordinate Service District (SSD) or Sanitary District (SD) shall be fully established as required by state statutes.
 2. The SSD/SD shall review and approve the design of the CSTS in coordination with the Inspector.
 3. Preliminary plat layouts must include the information required in section 5.02 D. 1, 2, 5, 6 and 7. Sufficient information shall also be provided as deemed necessary by the Inspector to identify two acceptable drainfield infiltration locations per CSTS. These locations must be fenced and staked as outlined in section 5.02 F.
 4. The number of soil pits and percolation tests shall be sufficient to accurately depict soil conditions as determined by the Inspector in consideration of topography and soils.
 5. The infiltration area shall be based on the anticipated wastewater generated from all sources that could use the CSTS. All assumptions and estimates made for wastewater generation must be acceptable to the Inspector. Unless otherwise known, the estimated number of bedrooms to use per dwelling for wastewater generation determination shall be five.
 6. All plans for a CSTS shall be prepared by a licensed designer and qualified Minnesota Registered Engineer.
 7. Soils information shall also include hydraulic conductivity testing as specified in Minn. Rule part 7081.0170 and applicable ground water testing as specified in Minn. Rule part 7081.0210. The dispersal system

shall be configured to comply with all applicable requirements of Minn. Rule parts 7081.0080 through 7081.0300 which includes nutrient nitrogen and phosphorus and ground water mounding. Methods for determining the potential for ground water mounding shall be acceptable to the Inspector. Consideration should be given for the use of GMound and GPond and the findings and recommendations developed in the Scott County GMound Proofing Study.

5.03 PRESERVATION OF SITES.

- A. An area which has been identified for future use as an SSTS site shall be maintained in its original, natural soil condition so a future SSTS or device may be constructed that meets all Ordinance requirements unless a substitute alternate site acceptable to the Inspector can be identified and maintained. Each site shall be protected during lot development, road and building construction and during any other improvement, disturbance or activity to prevent any impairment of the treatment ability or hydraulic performance of the site.
- B. No permit shall be issued for grading, building, building expansion or remodel or for any other use that could, in the opinion of the Inspector:
 - 1. Damage or encroach upon an identified site unless a substitute alternate site acceptable to the Inspector can be identified and maintained. In situations where an alternate site is not available, a permit shall not be issued which will result in damage to or encroach upon a possible partial site.
 - 2. Destroy or eliminate a potential or partial alternate site regardless of when the lot was created unless an alternate or potential alternate site acceptable to the Inspector is identified.
 - 3. Increase sewage flow to an existing SSTS unless the additional sewage flow can be accommodated in conformance with this Ordinance.
- C. It is a violation of this Ordinance and may be cause for denial of a building permit if a site or potential site is damaged, regardless of when the lot was created.

6.00 PERMITS AND LICENSES.

6.01 PERMIT REQUIRED.

- A. Unless a site-specific permit to construct and operate an SSTS has been issued by the MPCA, no person shall install, alter, repair, replace or extend any SSTS in Scott County without first obtaining a permit from the Inspector for each specific installation, alteration, repair or extension; and, at the time of applying for said

permit, shall pay a fee as established by resolution of the County Board. Such permits shall be valid for a period of 12 months from the date of issuance unless the applicant pays a permit renewal fee as established by resolution of the County Board.

All SSTS design work, installation, alteration, repair, maintenance, operation, pumping, or inspection activities must be completed by a state licensed business or an acceptably certified qualified employee, or a person exempted under Minn. Rules part 7083.0700.

- B. No building permit shall be issued until all associated SSTS permits are approved and issued.
- C. No dwelling or Other Establishment shall be redesigned or enlarged if such redesign or enlargement results in exceeding the designed capacity of the SSTS unless a permit has been granted by the Inspector to enlarge or redesign the SSTS to accommodate the expected increase in sewage and the permittee agrees in writing, on forms provided by the County, to replace the SSTS within one year.
- D. No more than one dwelling or Other Establishment shall be connected to the same ISTS unless such connection was specified in the application submitted and in the permit issued for the SSTS and it can be demonstrated to the satisfaction of the Inspector that the existing SSTS can accommodate the additional effluent.
- E. The County will not issue an ISTS permit when a municipality has required the owner to connect to the municipal sewer system.

6.02 PERMIT NOT REQUIRED. An SSTS permit is not required to repair or replace the following: a crushed pipe, a pump, floats or other electrical devices of the pump, baffles in the septic tank or the septic tank cover. Permits may be required by other governmental agencies for activities related to or in conjunction with such activities.

6.03 PERMIT APPLICATION REQUIREMENTS.

- A. An application for an SSTS permit shall be made in writing on forms acceptable to the Inspector and shall be signed by the applicant. If the Inspector finds that the applicant has failed to submit all of the items required in this section or as otherwise required by the Inspector, the application will be considered incomplete. This may result in a delay in the issuance or denial of the permit application. Each application shall include the site evaluation information listed in section 5.01 and shall also contain the following:
 - 1. Estimated water usage and water use calculations.
 - 2. Pump selection procedure and pressure distribution worksheets.

3. One copy of an SSTS design, drawn to a scale no smaller than 1 inch equals 30 feet, which includes the items required in section 5.01, as appropriate, and the following:
 - a. All existing and anticipated future buildings and improvements on the lot, including additions, decks, three-season porches, roads and driveways.
 - b. Location and elevations of percolation tests, soil borings and soil pits.
 - c. Location, size and elevation of existing and proposed septic and pump tanks, distribution devices, and soil absorption area.
 - d. Cross-section of the SSTS.
 - e. Proposed well location. Also indicate all existing well locations and depths on or within 100 feet of the SSTS site.
 - f. Location of all existing and proposed utilities, setback areas and other restricted areas as outlined in 5.02 D. 5.
 - g. Water bodies.
 - h. Two-foot before and after contours when excavation, grading or fill will impact or be impacted by the soil absorption area.
 - i. Roof drains, sump pump discharge, water treatment devices, swimming pools and other potential sources of surface water run on point source discharge locations.
4. A management plan acceptable to the Inspector.
5. Any additional information that may be required by the Inspector to assure compliance with this Ordinance and ground water protection.

- B. All Other Establishments shall have a device installed suitable for measuring waste water flow.
- C. In the event of a change in the application information that served as the basis for issuing a permit, the permittee must file an amended application with acceptable supporting documentation and receive approval for the amended permit prior to initiating construction. An additional permit fee shall be paid as established by resolution of the County Board.

- D. Final approval of the SSTS shall be evidenced by a certificate of compliance issued by the Inspector.
- E. Setback conflicts between septic system locations and structures may be resolved through acceptable written documentation from an MPCA licensed SSTS professional who is also a qualified civil engineer demonstrating that the proposed activity will not adversely impact the structure or SSTS.

6.04 OPERATIONAL LICENSE REQUIRED.

- A. A CSTS not managed under an operational permit by the MPCA and Type IV and V systems shall be licensed and shall comply with the licensing provisions of this section. In addition, such SSTS shall comply with Minn. Rules parts 7080.2290, 7080.2350, and 7080.2400, and chapter 7081, as applicable. An annual license fee shall be paid as established by resolution of the County Board.
- B. Licenses shall be valid for a period of up to 12 months from the date of issuance and shall be renewed annually. The license period for a new SSTS shall commence on March 1 following the year of installation. The annual license period shall be from March 1 to February 28/29. Annual reports required as a license condition shall be due by January 31.
- C. A building permit shall not be issued on any lot that has an SSTS in use as identified in item A. where the SSTS is not licensed as required in this section.
- D. Prior to issuing an SSTS license, the licensee must demonstrate that the SSTS is designed and installed to accommodate the current daily flow of wastewater and provide for adequate treatment. A current certificate of compliance may also be required. The compliance inspection must include a flow diagram for all sewage and commercial and industrial wastewaters.
- E. Licensees shall demonstrate at the time of license renewal that the SSTS has been monitored, properly maintained and is functioning in accordance with the approved design.
- F. Type I systems with only septic tank effluent screens are exempt from the operational license requirements.

7.00 INSPECTIONS.

- 7.01 INSPECTION REQUIRED.** Inspections are required by the Department for all County regulated SSTS prior to design approval, during construction and before being placed into service, in part or in whole. No SSTS shall be covered, in part or in whole, prior to an inspection by this Department unless prior verbal approval has been given by the Inspector.

- A. It shall be the responsibility of the permittee to notify the Inspector that the job is ready for inspection. The Department shall be notified before 9:00 A.M. on the requested day of the inspection. Failure to request an inspection before 9:00 A.M. on the requested day of the inspection may result in a scheduled inspection at a time other than requested and/or a delay or denial in the issuance of a Certificate of Compliance from the Inspector. The Department shall also be notified prior to commencement of any part of the installation if a weather event (such as freezing temperatures, rain or snow) that could adversely impact the SSTS during any part of the installation including final grading that is likely or predicted to occur.
- B. Failure of the Inspector to inspect the SSTS does not relieve or lessen the responsibility or liability of any person owning, controlling or installing any SSTS.
- C. The Inspector shall make every effort to inspect an SSTS within one hour of the scheduled inspection.
- D. The Inspector shall cause such inspections to be made as are necessary to determine compliance with this Ordinance. If upon inspection the Inspector discovers that any part of the SSTS is not constructed in accordance with the minimum standards provided in this Ordinance and the approved design, the Inspector shall give the licensed installer and/or the permittee written notification describing the defects.
- E. It shall be the responsibility of the permittee to provide the Inspector with free access to the property at reasonable times for the purpose of making inspections.
- F. The permittee shall pay applicable fees as established by resolution of the County Board.
- G. The permittee or installer, as determined by the Inspector, shall be responsible for the correction or elimination of all defects. No SSTS shall be placed or replaced in service until all defects have been corrected or eliminated. A Certificate of Compliance from the Inspector may be delayed or denied if the permittee or installer fails to correct or eliminate all defects as required by the Inspector.
- H. The permittee or SSTS professional representing the permittee shall be present during the installation inspection.

7.02 INSPECTION ALTERNATIVE.

- A. If the Inspector is unable to inspect within twenty-four hours, the SSTS professional responsible for the installation must:
 - 1. Have verbal approval from the Inspector before commencing the installation of the SSTS.

2. Complete and sign an as-built drawing of the SSTS as installed (a copy of the original design will not be accepted). The as-built shall include a cross-section of the drainfield and tanks showing the depth the tank(s) was installed, the location of all maintenance holes, the number and height of maintenance hole risers, and the size and height of all inspection pipes. In addition, the as-built shall include trench depth, trench length, the type of rock or pipe used, the amount of backfill, the dimensions of the rockbed and sand base, the depth of sand below the rock, the size and separation of the pipe, the size and separation of perforations, the size and length of the pump line, the model, size and horsepower of the pump, the type and location of the alarm, the well location and any other pertinent information that the Inspector deems necessary to approve the SSTS.
 3. Leave the SSTS open for inspection as required by the Inspector, including the ends of each trench and the distribution device, or the four corners of the sand and rockbed of a mound.
 4. Sign, date and submit for approval an as-built drawing that includes a certified statement that the SSTS was built in accordance with Minn. Rules chapters 7080, 7081 and this Ordinance.
- B. Failure to receive verbal approval from the Inspector to cover an SSTS prior to completion of an inspection shall be cause to order the SSTS to be exposed for inspection. The amount of the SSTS to be exposed for inspection shall be determined by the Inspector at the time of inspection.

7.03 COMPLIANCE INSPECTIONS REQUIRED. A compliance inspection is required:

- A. When an inspection is done for any new or replacement SSTS;
- B. If a permit or variance is applied for to alter an existing SSTS;
- C. Any other time an SSTS is reviewed to determine if the SSTS is in compliance;
- D. When a permit is applied for a bedroom, to build a horizontal addition onto an existing structure, or to build an accessory structure on a lot having an ISTS;
- E. Any time the Scott County Zoning Ordinance No. 3 requires an inspection of an SSTS;
- F. Where a permit or an amendment to an existing permit is required for a change in use of a property (i.e. residential to commercial, commercial to industrial, etc., or the addition of a business, or a change of a business type or use) including additional parking or outside storage area; or
- G. When any parcel of land is developed, subdivided, rezoned or split and there is an existing SSTS on any of the parcels.

- H. Exemptions: The compliance inspection requirement may be waived when Department records indicate that the existing SSTS is not a cesspool, drywell, seepage pit, leaching pit, or other pit in an area highly susceptible to ground water contamination, is not an imminent threat to public health; and
1. There are acceptable design, construction, maintenance and location records of the SSTS; or
 2. There are limited options to locate a replacement SSTS and the permit activity will not result in an increase in water usage.

Prior to approving the permit, the Inspector may require the identification of an alternate site and that the tank(s) be pumped if records show that it has been more than six years since the tank(s) was last pumped. The action proposed in the building permit application shall not encroach upon the alternate site or the existing SSTS.

7.04 REQUIREMENTS FOR A COMPLIANCE INSPECTION.

- A. A compliance inspection shall be submitted to the Department on forms approved by the Department. At a minimum, a compliance inspection must determine whether or not the existing SSTS is a failing system or poses an imminent threat to public health or safety.
- B. The Compliance Inspector may allow for up to a 15 percent reduction in the vertical separation distance as described in Minn. Rules part 7080.1500 subp. 4 D.
- C. After a compliance inspection is done, the licensed professional who conducted the compliance inspection must submit a Certificate of Compliance or a Notice of Noncompliance to the Department within 15 days of the date of the inspection or at the time of permit application, whichever is first.

7.05 SCHEDULE TO REPAIR OR REPLACE SSTS.

- A. Any SSTS for which a Notice of Noncompliance has been issued shall be replaced or repaired in accordance with Table 1, except as provided in item E. below. Table 1 does not supersede compliance with Federal Class V requirements. Table 1 is based on information supplied to the County by the Minnesota Geological Survey.
- B. All owners of new or replacement Class V injection wells, as defined in Code of Federal Regulations, title 40, part 144, must submit inventory information to the U. S. Environmental Protection Agency and Scott County. All Class V wells must be identified as such in property transfer disclosures.
- C. Those SSTS that pose an imminent threat to public health and safety must immediately have the threat to public health abated by pumping, restricted use, or other means approved or ordered by the Inspector. This abatement must continue,

as needed, until the SSTS is upgraded, repaired, replaced or the use of the SSTS is discontinued.

D. Compliance with Table 1 may be waived when the Inspector determines that the existing SSTS is not an imminent threat to public health and:

1. Municipal sewer service to the lot is likely within five years;
2. There are acceptable design, construction, maintenance and location records of the SSTS; or
3. Constraints due to small lot size, topography or hydric or wet soils severely limit the options for replacement.

The Inspector may revoke the waiver and require the SSTS to be replaced within a specified timeframe if there is a change to one or more of the conditions that originally allowed the waiver. The Inspector may also allow the timeline for replacement outlined in Table 1 to be postponed to a later date for good cause or extenuating circumstances when doing so will not jeopardize public health.

TABLE 1

	Imminent Health Threat	Cesspool, Drywell, Leaching Pit, Seepage Pit or other Pit.	Less than the Required Vertical Separation per Minn. Rules part 7080.1500 subp. 4 D. & 4 E.
Areas highly susceptible to ground water contamination	10 months	10 months	3 years
Areas moderately susceptible to ground water contamination	10 months	3 years	5 years
Areas with low susceptibility to ground water contamination	10 months	5 years	10 years

E. An applicant for a building permit for the addition of a bedroom to an existing residence shall obtain an SSTS permit, if necessary, to upgrade, repair, replace or discontinue use of the SSTS in accordance with the most restrictive applicable timeline below:

1. Table 1 if the SSTS is failing, or
2. Within one year of the approved SSTS permit date if the existing SSTS is inadequate in size to accommodate the increased use.

7.06 STOP WORK ORDER. Whenever any work is being done contrary to the provisions of this Ordinance, the Inspector may order all work stopped by the installer or owner of

the land. All installation and construction shall cease and desist until subsequent authorization to proceed is given by the Inspector.

7.07 SSTS PROFESSIONAL LISTS.

- A. The Inspector may provide lists of SSTS professionals to the public. The lists will be for compliance inspectors, installers, maintainers and designers. The lists should be updated annually and include those SSTS professionals for which there are records of having performed satisfactory SSTS services in Scott County as determined by the Inspector within the previous three calendar years.
- B. Exception: SSTS professionals who have acted out of compliance with this Ordinance, as determined by the Inspector, will not be listed. Reasons for not being listing include, but are not limited to: failure to submit information to the Inspector resulting in a delay for issuing a notice of compliance; failure to submit pumping permits or compliance inspections as required; failure to submit adequate site evaluation information which prevents the issuance of an SSTS permit; outstanding SSTS fees owed to Scott County; or unresolved violations of this Ordinance.

8.00 SSTS MAINTENANCE PROGRAM.

The SSTS and all its components must be maintained in compliance with this Ordinance, Minn. Rules chapters 7080, 7081 and 7083 and any manufacturer requirements which do not conflict with the requirements of this Ordinance or the Rules adopted herein.

This maintenance program shall apply throughout Scott County in accordance with section 1.02.

8.01 MANAGEMENT OF SEPTAGE.

- A. The owner of any septic tank or the owner's agent shall regularly, but in no case less frequently than every three years (unless otherwise approved by the Department due to limited use), inspect and measure the accumulations of sludge, including the settled materials at the bottom of the tank, and the accumulations of scum, which includes grease and other floating materials at the top of the tank. The owner of any septic tank or the owner's agent shall arrange for the removal and sanitary disposal of septage from the tank whenever the top of the sludge layer is less than 12 inches below the bottom of the outlet baffle or whenever the bottom of the scum layer is less than 3 inches above the bottom of the outlet baffle. Removal of septage shall include complete removal of scum and sludge.
- B. All septage removed from any portion of an SSTS shall be removed from the site in sealed tanks or containers and be managed in a manner approved by the Inspector and in accordance with all applicable rules and regulations.

- C. Recipients of septage used for the purpose of land application on their property shall obtain a license in accordance with the requirements of section 9.00 of this Ordinance.
- D. Any tank or related apparatus used for removing or transporting domestic septage shall be maintained and operated in such a manner as to avoid emission of offensive odors, spilling or loss of any septage.
- E. Septage removed from an SSTS shall be managed to prevent a nuisance or a menace to public health.
- F. Septage shall be land applied only at rates that will be agronomically beneficial.

8.02 MAINTENANCE REQUIREMENTS. Each pumping of every septic tank, holding tank, cesspool, interceptor, separator and flammable waste trap shall be reported by the maintainer to the Inspector on forms approved for that purpose by the end of the following month.

8.03 MAINTENANCE INSPECTION REQUIREMENTS. A maintenance inspection shall be conducted by a licensed SSTS professional and submitted on forms approved by the Department.

8.04 OWNER RESPONSIBILITY.

- A. It is the responsibility of the property owner or the owner's representative to maintain the SSTS and alternate sites in accordance with this Ordinance.
- B. The owner shall be responsible for assuring both access to the SSTS for maintenance and preventing damage to the SSTS from lot improvement activities such as landscaping, installing an irrigation system, construction or placement of small buildings, pools or other structures, and from activities that disturb or compact the soil such as planting crops, gardening, and driving vehicles over the SSTS.

8.05 NOTIFICATION. All owners who, according to Department records, have not had their SSTS pumped within the last three calendar years shall be notified by the Department.

8.06 PERMIT REQUIRED. A permit from the Department is required for each pumping and each maintenance inspection of a septic tank, cesspool, leaching pit, drywell, holding tank, pump chamber, or other portion of an SSTS. The licensed maintainer or permittee shall obtain the permit prior to any work being done. There shall be only one permit required for pumping all tanks one time in a single ISTS or per lot for a CSTS (unless performed by the Subordinate Service District in which case no permit is required). If there are more than one ISTS per property, a separate permit is required for each ISTS.

A permit is not needed to conduct a maintenance inspection.

Permit and other related fees shall be established by resolution of the County Board.

8.07 RECORD KEEPING. Scott County shall maintain a record of each SSTS inspected or pumped in Scott County.

9.00 LAND APPLICATION OF DOMESTIC SEPTAGE.

9.01 LICENSE REQUIRED. No person shall land apply septage without first obtaining a license to conduct such operation. The license shall be issued by the Department; shall be renewable and may be revoked or refused for cause, in accordance with the Scott County Administrative Procedures Ordinance No. 13.

9.02 LICENSE TERM. Unless otherwise provided by the County Board, each license granted pursuant to the provisions of this Ordinance shall be nontransferable and shall be for a period of not more than one year unless earlier suspended or revoked. The license year shall be from January 1 to December 31.

9.03 LICENSE APPLICATION. An applicant for a license shall complete and submit an application to the Department on a form approved by the Department. The application shall not be considered complete until the Department receives all applicable fees and all material required by this section. Applicants shall not commence any application activities until the license application has been reviewed and approved by the Department. In addition to the application form the applicant must submit the following:

- A. A license bond, in an amount established by the County Board, for each land application site.
- B. A certificate of insurance as established by the County Board.
- C. A field evaluation of each land application site.
- D. A map at a scale acceptable to the Inspector showing the location of each site that septage shall be applied. This shall include the parcel number, township, range, section number, and the name and address of all property owners.
- E. Soils information at each land application site. Soil information shall include soil borings and a soil survey map of each site.
- F. The proposed volumes of septage to be applied on each site.
- G. The proposed application method.
- H. The proposed date(s) of application.

- I. The maximum volume of septage that can be applied to each acre of land in each land application site. The following equation shall be used to determine the maximum volume applied:

$$\text{AAR} = \text{N}/0.0026$$

Where:

AAR = the annual application rate in gallons per acre per 365 day period.

N = the amount of Nitrogen in pounds per acre per 365 day period needed by the crop or vegetation to be grown on the land.

The maximum allowable volume of septage shall also take into account any nitrogen fertilizers applied in association with the septage.

9.04 SITE RESTRICTIONS AND APPLICATION REQUIREMENTS.

- A. Domestic septage shall either be injected or incorporated within six hours of surface application to a minimum depth of six inches. No significant amount of the domestic septage shall be present on the land surface within one hour after the domestic septage is injected.
- B. The site must be a non-public contact site.
- C. No land application is allowed in residential, shoreland, institutional or commercial/industrial zones.
- D. To avoid the uninformed public from coming into contact with the soil/septage mixture, the application site must be fenced, posted or at a remote location.
- E. Septage shall not be applied such that ponding or runoff occurs.
- F. Septage must not be applied to soils unless the soil has dried adequately from previous applications or rainfall so that ponding does not occur.
- G. Septage shall not be applied by spray irrigation or other methods that will cause aerosols to drift from the application site.

9.05 SOIL SUITABILITY. For the land application site to be suitable it must meet the following requirements:

- A. Have medium or fine surface textures with a surface permeability slower than twelve inches per hour (five minutes per inch). Land application shall not be done on sand or peat surface textures.
- B. Have a three-foot separation to the water table or bedrock.

- C. Have six inches of available water holding capacity between the application depth and the water table or bedrock.
- D. Must be free from flooding hazards.
- E. Have at least one horizon in the upper five feet that has a permeability of less than six inches per hour (ten minutes per inch).
- F. Must comply with Minn. Rules part 7041.1800 for pathogen reduction and vector control.

9.06 SETBACK REQUIREMENTS. The following separation distances (in feet) shall be met when land applying domestic septage:

	Surface Applied	Injected/Incorporated
Occupied Building	300	150
Residential Area	600	300
Recreational Area	600	300
Commercial Development	600	300
Recreational Trail	200	100
Municipal Well	1000	1000
Private Well	200	200
Property Line	25	25
Road Right-of-Way	50	25

Surface Water, drainage tile surface inlet, or sinkhole setback distances are as follows:

Percent Slope	May to October		November to April
	Injected	Surface applied Incorporated within 6 hours	Surface Applied Incorporated within 6 hours
0-2	150	300	600
2-6	300	600	not allowed
6-12	300	not allowed	not allowed

SLOPE RESTRICTIONS:

	Incorporated	Surface Applied
Unfrozen soil	12% or less	6% or less
Frozen soil	not allowed	2% or less

9.07 ANNUAL REPORTING. When septage is applied to the soil, the licensee shall submit to the Department the following information:

- A. The location of each site that septage is applied. This information shall include the Parcel Number, the Township, Range, and Section numbers and the name and address of the property owner(s).
- B. The total volume of septage that was land applied to each land application site.

- C. An annual report shall not be required for one time only application sites.
- D. The annual report must be submitted by January 31 of each year for the previous year.

10.00 ABANDONMENT OF AN SSTS.

- A. All tanks must be abandoned in accordance with Minn. Rules part 7080.2500.
- B. A maintenance permit is required whenever a tank is abandoned.

11.00 VARIANCES.

A variance from the provisions of this Ordinance may be applied for according to the provisions of section 6.00 of the Scott County Administrative Procedures Ordinance No. 13 as adopted herein. The County Board of Adjustment may grant variances from the provisions of this Ordinance upon such conditions as it may prescribe, consistent with the general purpose and intent of this Ordinance, the standards as adopted herein and according to the provisions of section 6.00 of the Scott County Administrative Procedures Ordinance No. 13.

12.00 LIABILITY.

The Inspector charged with the enforcement of this Ordinance, acting in good faith and without malice in the discharge of their duties, shall not thereby render themselves personally liable for any damage that may accrue to persons or property as a result of any act or by reason of any act or omission in the discharge of their duties. Any suit brought against the Inspector because of such act or omission performed by them in the enforcement of any provision of this Ordinance, shall be defended by this jurisdiction until final termination of such proceedings, and any judgment resulting there from shall be assumed by this jurisdiction. This Ordinance shall not be construed to relieve from or lessen the responsibility of any person owning or controlling any parcel of property for any damages to persons or property caused by defects, nor shall the Inspector or its parent jurisdiction be held as assuming any such liability by reason of the inspections authorized by this Ordinance or any certificates of inspection issued under this Ordinance.

13.00 VIOLATIONS AND PENALTIES.

13.01 MISDEMEANOR. Any person who fails to comply with the provisions of this Ordinance may be charged with a misdemeanor and upon conviction thereof shall be punished thereof as provided by law. Any person who violates, omits, neglects or refuses

to comply with the provisions or the enforcement of this Ordinance, shall be guilty of a misdemeanor. A separate offense shall be deemed committed upon each day during or on which a violation of any provision of this Ordinance occurs or continues.

13.02 INJUNCTIVE RELIEF. In the event of a violation of this Ordinance, the County may institute appropriate actions or proceedings, including requesting injunctive relief to prevent, restrain, correct or abate such violations.

13.03 CIVIL ACTION OR COST AS SPECIAL TAX. If a person fails to comply with the provisions of this Ordinance, the County may recover the cost incurred for corrective action in a civil action in any court of competent jurisdiction.

13.04 NOTICE ON PROPERTY TITLE. The County may, after giving the property owner of record 30 days' written notification by mailing said notice to the property owner at their last known address on file for that parcel with the Scott County Land Records' Office, file a notice of non-compliance of the SSTS on the property title for any property served by a non-complying SSTS in addition to or in lieu of other remedies intended to achieve compliance. The property owner shall be responsible for any fees established by the County Board of Commissioners for posting, removing said notice and any established administrative fees for that purpose.

14.00 EFFECTIVE DATE.

The standards, procedures and provisions adopted herein shall be effective immediately upon the publication of the minutes of these proceedings in the official newspaper of the County, unless otherwise noted.

15.00 SEVERABILITY.

It is hereby declared to be the intention that the several provisions of this Ordinance are severable in accordance with the following: If any court of competent jurisdiction shall adjudge any provision of this Ordinance to be invalid, such judgment shall not affect any other provisions of this Ordinance not specifically included in said judgment.

16.00 AMENDMENTS.

The procedure for amending this Ordinance is the same as prescribed by law for its adoption.

Adopted by the Scott County Board of Commissioners this 26th day of January, 2010.