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City-Cowley County
Health Department

115 E. Radio Lane
Arkansas City, KS 67005
Phone: (620) 442-3260
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**CITY-COWLEY COUNTY HEALTH
DEPARTMENT
RESIDENTIAL WASTEWATER SYSTEM
INSPECTION GUIDANCE DOCUMENT
NOVEMBER 10TH, 2022**

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Preface

The Cowley County Board of Commissioners is dedicated to serving and protecting the population of Cowley County. To this end, the Cowley County Sanitary Code was written and adopted. The City-Cowley County Health Department (CCCHD) is delegated the authority to enforce the provisions within the Sanitary Code, including inspections of private residential wastewater systems. These inspections are performed as a requirement before a home serviced by a private wastewater system is sold, and they provide a measure of security for new homeowners in the county. Inspections look for signs of failure or threats that could lead to failure within the wastewater system.

This document seeks to provide clarity and transparency in matters of jurisdiction, justification, process, and procedure regarding residential wastewater system inspections.

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Definitions

Area of concern: An observed condition or trait that may develop into a deficiency in the future but does not count as a deficiency for the purposes of inspection criteria.

Deficiency: A threat and/or abnormality that affects the safe and sanitary operation of a wastewater system in a negative way.

Design Deficiency: A deficiency in the design, placement, or sizing of a wastewater system

Inspection: The examination of a private wastewater system for deficiencies and/or areas of concern.

Lagoon (Wastewater Retention Pond): A private, decentralized wastewater system that utilizes wind and solar energy evaporation to treat wastewater. A lagoon may or may not have a septic tank that holds solid waste.

Kansas Department of Health and Environment (KDHE): The State Department of Health, KDHE works to protect and improve the health and environment of all Kansans.

Private Wastewater System: Any wastewater system that treats and disposes of the wastewater of a single property.

Operational Deficiency: A deficiency that directly impacts the functionality of a wastewater system.

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Authorities

Kansas Statutes Annotated (KSA) 19-3701 to 19-3709 et. seq, provide authority to counties to “...adopt a sanitary code or codes ... for the control of those environments and environmental conditions that may adversely affect the health and well-being of the public.”¹ Further, minimum design standards and safety considerations published in *Kansas Bulletin 4-2: Minimum Standards for Design and Construction of Onsite Wastewater Systems*² provide a basis of inspection criteria. Further inspection criteria can be found in K.A.R. 28-5-1 to 28-5-9³ governing sewage and excreta disposal.

The Cowley County Sanitary Code provides justification for inspection actions. Section 2-4.1 under Prohibited Practices states that “No person shall transfer the ownership of any property with a private wastewater system until it has been inspected by the Administrative Agency, the Cowley County Health Department, and the results of that inspection are made available to the transferee.”⁴ The Sanitation Code goes further into definitions and other requirements but does not specify what constitutes an inspection. This document shall clarify the inspection process in the interest of transparency.

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Wastewater System Inspection Procedure

Requesting an Inspection

All requests for residential inspection must be made to the CCCHD by completing the *Residential Inspection Request* (See Appendix A) in its entirety. The form can be found on Cowley County's website under Government -> Public Health -> Local Environmental Protection Program page⁵. Completed forms should be submitted electronically to septicinspections@cowleycountyks.gov, or by traditional mail via USPS, or in person at either of the CCCHD office locations in Arkansas City or Winfield.

With the exception of applications requiring a mailed or telephone response, the requesting party will be notified within one business day of receiving the request through electronic mail. If electronic mail is unavailable, then confirmation will be delivered by phone, or by mailed letter if no other option is available. If confirmation is not sent to the requesting party within this timeframe, the requesting party should follow up and verify that the request was delivered appropriately and received by the CCCHD. Incomplete forms or requests submitted by any other means will not be accepted.

Once the inspection request has been received by the CCCHD, a confirmation notification will be issued. This notification will include proof of receipt as well as proposed time and date of inspection. The proposed date will be based off the suggested times put forth by the requester on the inspection request form. The suggested times should be times that representatives of the buyer and/or seller are able to meet the inspector at the property. Once proposed, verification of the inspection time will be requested. If the proposed time is not verified due to no response, additional verification requests will be issued. Should the proposed time not be verified before the date and time of the inspection, then attempts will be made to reschedule.

Types of Inspections

In Cowley County there are 2 basic types of residential wastewater systems.

Septic tank and absorption field: This wastewater system is located entirely beneath the surface and utilizes a septic tank to hold solid waste and allow solids in the wastewater to separate before being drained into an absorption field for safe reintroduction into the environment.

Wastewater stabilization pond (lagoon): This wastewater system utilizes an above ground retention pond to allow for sunlight and wind to safely evaporate water off the surface of the pond. These systems may or may not have a septic tank for solids retention located between the building and the pond.

Conducting the On-Site Inspection

The inspector will meet with the designated representative at the property on the designated date and time. There are two main components of a residential wastewater system inspection, conducted on the interior and exterior of the residence/building.

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Buildings Utilizing a Septic Tank and Absorption Field System

On the interior of the building:

- Water fixtures (faucets, water closet, etc.) will be opened to observe drainage flows that can reveal any issues and indicate septic system troubles.
- When possible, waste line will be visually observed where it exits the building seeking to identify any issues as it enters the septic tank and drain field locations.

On the exterior of the building:

- Septic tank location will be identified and mapped
- Septic tank location will be visually checked for surface indications of structural deficiencies or damage
- The likeliest location of drain field will be identified and mapped
- Findings of system deficiencies and areas of concern will be noted

Buildings Utilizing a Wastewater Retention Pond System

On the interior of the property:

- Water fixtures (faucets, water closet, etc.) will be opened to observe drainage flows that can reveal any issues and indicate system troubles.
- When possible, waste line will be visually observed where it exits the building seeking to identify any issues as it flows to and enters the stabilization pond.

On the exterior of the property:

- Check that water within the lagoon is retained at adequate levels so that solid waste is not exposed to air
- Verify that cleanouts are installed at a minimum of one per 100 foot of waste line, along the run from the building to the lagoon
- Verify that proper fencing is in place around the lagoon
- Examine for any degradation of the berm or retention walls holding the wastewater in place
- Verify no large trees or other deep-rooted plants have grown around (within 10 foot) the lagoon
- Verify no other structural damage to the system

Following the inspection observations will be discussed with the representative(s) present. If noted in the inspection request form a water well sample will also be drawn at this time.

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Any inspections performed by entities other than the CCCHD will NOT be accepted as fulfilling the inspection requirement.

After the Site Visit

Once the on-site visit is completed, results will be compiled and published within five business days of the inspection date. The inspection report consists of the following parts:

- Letter of Findings (See Appendix B)
- Original Inspection Request
- Criteria checklist and visual report (See Appendix C)
- Well Water Test Results, if requested (See Appendix D)
- Invoice (See Appendix E)

Passing inspection results will note that no deficiencies were observed at the time of inspection, and that no further action is necessary at the time. A failed inspection result will denote what deficiencies caused the failed result and outline necessary remediation actions. Once these remediation actions are taken, a follow-up inspection will be conducted to examine the remediation and approve the inspection. If there is a deficiency observed that does not directly impact the operation of the system, i.e., undersized design, non-appropriate lot size or placement, etc., then the inspection results will note that as a condition and implement the provision that, when an operational deficiency is encountered, that the original deficiency be remediated at the time of repair.

The inspection results will be valid for ninety (90) days after the inspection is conducted. The inspection results verify the findings and condition of the inspected system on the date of the published inspection. It is not guaranteed that the condition after the inspection date will be the same as the original inspection.

If the results are not utilized within the 90-day validity period, a new inspection will need to be conducted.

Fee Structure

The fee structure for inspection services are as follows:

Residential Wastewater Inspection Fee: \$75.00

Private Well Water Screening: \$40.00

Subsequent Well Water Screening (within 30 days of previous screening): \$15.00

Payment of inspection fees must be remitted to the CCCHD or by electronic clearinghouse through the County web portal as available.

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External Links

1. <https://www.kdhe.ks.gov/DocumentCenter/View/8765/KSA-19-3701-to-19-3709-Sanitation-controls-PDF>
2. <https://www.kdhe.ks.gov/DocumentCenter/View/8770/Bulletin-4-2-Minimum-Standards-for-Design-and-Construction-of-Onsite-Wastewater-Systems-PDF>
3. <https://www.kdhe.ks.gov/DocumentCenter/View/8768/KAR-28-5-Sewage-and-Excreta-Disposal-PDF>
4. <https://www.kdhe.ks.gov/DocumentCenter/View/8873/Cowley-County-Environmental-Code-Adopted-March-2006-PDF>
5. <https://www.cowleycountyks.gov/departments/PublicHealth/LocalEnvironmentalProtectionProgram>

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Appendices

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Appendix A: Sample Residential Inspection Request Form

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Request for Residential Inspection

Submittal Date: 01/01/2023 Requesting Party: Seller's Agent
Requested Inspection Address: 12345 678th Road Test, Kansas 67000
Year Built: 1978 Acres: 7.9 Flood Zone: Yes No
Water Supply: Public/Rural Private
Wastewater System: Septic Tank Lagoon Alternative
Seller/Owner: Tom and Tammy Test
Phone: 555-555-5555 Email: tomtest@test.com
Seller Representative: EZ Realty - Tamara Test
Phone: 555-444-4444 Email: test@ezrealty.com
Purchaser: John and Jane Doe
Phone: 555-333-3337 Email: jnjdoe@test.com
Purchaser Representative: HomeSmart - Zoey Doey
Phone: 555-222-2222 Email: zdhomes@4u.com
Lender: Jetpack Mortgage - Jimmy Jake
Phone: 555-111-1111 Email: jjaken@jetpack.com
Anticipated Closing Date: 01/31/2023 Is the sale pending? Yes No

All completed inspection request forms are to be emailed to ins@cowleycountyks.gov. Cost of a septic inspection is \$75.00.

Party responsible for payment: Seller

Is a water sample requested? Yes No

Water samples are collected at the time of inspection and screened for EPA safe minimum standards for drinking water, including coliform bacteria presence, E. Coli presence, and concentrations of harmful nitrates. The cost of a water sample is \$40.00.

Party responsible for payment: Seller

Please indicate availability to meet the inspector on the property.

Option 1: 01/10/ 9:30AM Option 2: 01/15 2:30PM Option 3: 01/19 ANY

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Appendix B: Sample Letter of Findings

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January 20th, 2023

Tamara Test
EZ Realty
8675309 EZ Street
Fantasy, KS 66777

RE: 12345 678th Road Test, KS 67000

Mrs. Test,

This letter regards the above referenced address. An inspection was conducted at this address on January 15th, 2022. Currently, there are no observed deficiencies with the septic system as installed on the property. The septic tank was located at the top of the hill the house is perched on, near to the covered basement window. The location of the absorption field is out in the brome field.

The well water screening revealed alarming concentrations of harmful nitrates, coliform bacteria, and E. Coli. No corrective action is recommended at this time.

It is, as always, highly recommended that the tank be pumped and the interior inspected by a licensed sewage hauler, and the tank continue to be pumped every three to five years as part of routine upkeep and maintenance.

If there are any questions to the nature or results of this inspection, please reach out to me at the Health Department. I will do what I can to assist you.

Warmly,

01/20/2023

Tanner Langer, CFM
Environmental Health Specialist, Floodplain Manager
City-Cowley County Health Department
320 E 9th Ave, Suite B
Winfield, KS 67156-6001
620-221-1430 ext. 5582
620-218-1167 (Cell)

Date:

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Appendix C: Sample Criteria Checklist and Visual Report

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FIELD INSPECTION OF PRIVATE WATER SUPPLY AND/OR WASTE WATER SYSTEM

Inspector	Tanner Langer	Date	01/20/2023	Acreage	7.9
Address	12345 678 th Road Test, KS 67000				
Legal Description	Legal legal legal legal 123123123 N POB S				
Seller	Tom and Tammy Test	Phone	5555		
		Email	ttest@test.com		
Buyer	John and Jane Doe	Phone	555-333-3333		
		Email	jjdoe@test.com		
Agent(s)	(S) EZ Realty – Tamara Test (B) Homes 4 U – Zoey Doe	Phone	(S) 555-444-4444 (S) ttest@ezrealty.com (B) 555-222-2222 (B) zdhomes@4u.com		
Lender	Jetpack Mortgage	Phone	555-111-1111		
	by lake	Email	jjaken@jetpack.com		



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Section I. **WATER SUPPLY SYSTEM** - Location: *Backyard*

Deficiencies Observed

- Well head terminates in a pit
- Well not adequately sealed
- Well located within 50 feet of wastewater system surface water or animal confinement

Comments/Findings:

Section II. **WASTEWATER SYSTEM** - Location: *West side of home*

Deficiencies Observed

- Lateral Field or lagoon located within 50 feet of surface water or well header.
- Cesspool**
- Wastewater discharges upon ground/watercourse**
- Laundry drain discharges upon ground/watercourse**
- Lagoon area not adequately fenced**
- Damage to wastewater system components

Comments / Findings: Cleanout port near house has sufficient clearance and is exposed – needs repaired as soon as possible. Absorption field is undersized for comparative property.

- ✓ **Property owner is responsible for proper maintenance of private wastewater system including periodic septic tank pumping and inspection and ongoing monitoring of the soil absorption (lateral) field. Any indication of wastewater seepage or pooling at surface should promptly investigated and in order to ensure proper system function.**

Any item marked in Section I or II indicates that the system does not meet current recommended standards as outlined in Bulletin 4-1 or Bulletin 4-2 by the Kansas Department of Health and Environment. In Section I, if an item is marked that contains an asterisk it is considered a health risk according to the Environmental Protection Agency (EPA) drinking water standards and guidelines. If any items marked in Section II contain an asterisk it is considered a health hazard and a violation of state and/or local regulations. It is advisable to upgrade any system to current standards.

WATER SUPPLY SYSTEM - (APPROVED) Comments:

WASTEWATER SYSTEM - (APPROVED) Comments:

1/20/2023

Authorized Signature
Tanner Langer, CFM
Environmental Health Specialist, Floodplain Manager
City-Cowley County Health Department
320 E 9th Ave, Suite B
Winfield, KS 67156-6001

Date:

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Appendix D: Sample Water Test Results

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City-Cowley County Health Department
Drinking Water Screening Lab
Well Water Analysis

Sample #: RI-23-01 SAMPLE Purpose: Home Sale

Sample Source: Kitchen Sink Legal Address: _____

Collected By: TL Location: See Attached Invoice

Sampled For: _____ Date: _____

Sample Address: 12345 678th Road Test, KS 67000

Comments / Recommendations: _____

ANALYSIS	Results	Date Sampled	Date Analyzed	Date Reported	Analyst
Nitrate-Nitrogen - SM 8039		1/15/2023	1/16/2023	1/16/2023	TL
Coliform Bacteria Presence/Absence - SM 922A-B	Absent	1/15/2023	1/16/2023	1/16/2023	TL
E. Coli Bacteria Presence/Absence - SM 922A-B	Absent	1/15/2023	1/16/2023	1/16/2023	TL

*mg/L = milligrams per liter

GENERAL WATER REPORT GUIDELINES
DRINKING WATER

Nitrate-Nitrogen: Levels between 0-10 mg/L are acceptable

Coliform Bacteria & E. Coli bacteria: If bacteria is detected in the water, the well should be treated immediately.

This water was analyzed using the "Colilert" system developed by IDEXX Laboratories. The Colilert system detects only the presence of coliform and E. coli bacteria, not the actual number of bacteria colonies. The presence of coliform organisms in water indicates possible contamination by soil or human or animal contact. A positive result for E. coli indicates the presence of a proven disease-causing organism that is generally spread through fecal contamination. Naturally occurring nitrate concentrations in groundwater seldom exceed 10 mg/l (ppm). Higher nitrate levels may indicate nitrate contamination sources in the immediate area. The City-Cowley County Health Department is not a Kansas Department of Health and Environment Certified Laboratory. The results listed above are for water screening purposes only. Further testing should be completed if a problem has been indicated.

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Appendix E: Sample Invoice



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Invoice No.

INVOICE

Customer				Misc	
Name	Tom and Tammy Test			Date	2023
Address	12345 678th Road			Order No.	23-01 SAMPLE
City	Test	State	KS	Rep	
Phone		ZIP	67000	FOB	

Qty	Description	Unit Cost
1	Residential Wastewater Inspection	\$ 75.00
1	Well Water Screening	\$ 40.00
TOTAL		\$ 115.00

Paym

Comments
 Name _____

Office Use Only

The report provided for this service does not provide a warranty that this system will function properly in the future, but does require the owner to be responsible for proper operation, maintenance and abatement of any public health nuisance that should arise from this installation in the future.