

RWD4 Residential Development Policy

The purpose of this policy is to provide a standardized procedure for all new residential customers and developers which will allow RWD4 (District) to continue providing water service to existing customers while ensuring future sustainability and growth. RWD4 currently provides water service for residential and commercial customers throughout the District's service area. RWD4 reserves the right to modify this policy, through agreement or approval by the Board, for any project and/or for any reason, at its sole discretion if it determines such modifications are in the best interest of the District and its members. This policy applies to any service not yet approved by the Board on the date the policy is enacted.

Residential Single-Family New Water Benefit Unit:

1. Every single-family residence, stand-alone or located within a development, requesting a Water Benefit Unit within the service area of RWD4 shall be subject to the Residential Single-Family New Water Benefit Unit Section.
2. There is no guarantee that RWD4 can supply water to any new customer until a hydraulic study has been completed and service capacity confirmed, except when capacity has previously been reserved for a residence within a development.
 - a. Once hydraulic capacity is confirmed by the hydraulic study and the required Residential Impact Fee has been collected by RWD4, the water system capacity to serve the water unit(s) is reserved for a single residence or residences located within an approved development.
3. The pricing below assumes a water main is in front of the property (either same side of the road or across the road). Any main line extension requests to reach a new property will be handled on a case-by-case basis and will require a quote to determine additional costs, which are the requesting customer's responsibility.
4. There are four basic costs for residential single-family homes requesting water service when a water main is located next to the property:
 - a. Residential Impact Fee: This is a one-time fee per single-family home and includes the cost of a hydraulic study. The fee is based on the finished square feet of the above ground living space. Basements, decks, garages, and/or porches should not be included in this calculation. (The Residential Impact Fee shall be set by the Board and may be adjusted periodically).

Rural Water District No. 4, Sedgwick County

Square Feet of Living Space	Residential Impact Fee
0-1,999	\$1,940.00
2,000-2,999	\$3,880.00
3,000-3,999	\$5,820.00
4,000-4,999	\$7,760.00
5,000-5,999	\$9,700.00
>6,000 sq ft	Add \$1,940.00 for each add'l 1,000 sqft

- b. Water Benefit Unit Cost: This is the cost for one water meter. (The cost and monthly rate shall be set by the Board and may be adjusted periodically).

Meter Size	GPM	Cost: same side of road	Cost: Crossing Road	Ongoing Monthly Rate
5/8 x 3/4"	25	\$3,300.00	\$4,000.00	\$40.00
1"	60	\$4,050.00	\$4,450.00	\$58.33
2"	160	Quote	Quote	\$126.38

- c. Service Line Installation: The customer is responsible for the service line from the meter to the residence and maintains the responsibility for upkeep, maintenance, repairs, etc of the service line ongoing.

- i. All water lines shall be installed and maintained by the member-owner in compliance with the District's by-laws and all state, local, and federal statutes, rules and regulations, including all KDHE standards regarding the transmission and delivery of potable water.

- d. Monthly Water Cost: Cost of water used in gallons. (The water cost shall be set by the Board and may be adjusted periodically).

Gallons Used	0-5,000	5,001-10,000	10,001-15,000	>15,001
Cost Per 1,000 Gallons	\$5.00	\$6.00	\$7.00	\$8.00

The RWD4 Residential Development Policy does not replace or supersede the By-laws of RWD4 and is created with the powers given to the Board by those By-laws to ensure continued operation of the District.

Residential Subdivision Policy

1. This policy applies to any residential development (subdivision) proposed within the boundaries of RWD4 that contains 10 or more single family homes. There is no guarantee that RWD4 can supply water to any new customer until water capacity has been reserved. Additionally, RWD4 cannot supply fire hydrants or suppression systems. RWD4, at its sole discretion, may accept or deny service to any proposed development within the district, with or without cause.
 - a. Notice to the Board:
 - i. The developer must submit the plat requesting Board approval, a hydraulic study, and capacity reservation.
 - b. Hydraulic Study: Once the Board approves the submitted plan, the hydraulic study payment is due within 30 days. The cost is \$1,500.00, regardless of development size, and a completed study is valid for six months. This payment non-refundable. (The hydraulic study cost shall be set by the Board and may be adjusted periodically).
 - i. The determination of the District's ability to provide water service to a subdivision is subject to the above study. This study will include analyzing the proposed location of service; how it will affect the entire system including but not limited to: pressures at proposed delivery site, change in pressure to current customers, capacity availability, meter sizes, flow restrictions, proposed area/users to be served, and/or operational limitations and well as any line extensions or infrastructure improvements required to provide or enable service, if such service is reasonably possible and economically and operationally feasible. This study is dependent upon accurate plats, easements, proposed usages, number and locations of lots, timings, etc that the developer will provide to the engineer.
 - ii. RWD4 reserves the right to review the study and approve or deny continuation of the project based on the outcome of the study based on, but not limited to, all of the factors above and how continuation of the development may adversely affect current and future customers.
 - c. Developer Impact Fee: Once the hydraulic study confirms capacity, the developer will pay the Developer Impact Fee which reserves capacity for the development in the RWD4 system. This payment is due within 30 days unless a different timeline is requested and approved by the Board. This payment is non-refundable.
 - i. The Developer Impact Fee is \$0.044 per square foot, inclusive of the entire development including, but not limited to, lots, reservation areas, retention ponds, sidewalks, streets, right of way, etc. (the Developer Impact Fee shall be set by the Board and may be adjusted periodically).

Rural Water District No. 4, Sedgwick County

- ii. The Developer Impact Fee is due for the entire development (not by phases) upon confirmation of capacity.
 - iii. Once the Developer Impact Fee is paid, capacity is reserved in RWD4's system for the entire development as submitted.
- d. Letter of Credit: A letter of credit is required from a financial institution reflecting the creditworthiness of the developer in order to move forward with infrastructure planning.
- e. Infrastructure Installation: The developer is responsible for 100% of installation costs and any costs for main line extensions, if needed. Once the water structure layout is known, RWD4's operator will provide an estimated cost for installation and materials.
- i. Approval by KDHE may be required and RWD4's engineer will prepare and submit the design and construction plans as required. The timeframe to receive an approval from KDHE varies and can take months.
 - ii. The Developer has two choices to pay for infrastructure costs:
 - 1. Developer may pay 100% of the estimated costs in full to RWD4. Once the estimated costs are paid, RWD4 will acquire, if available, and stockpile the necessary pipes and materials to be used for the project at a time closest to when the estimate was prepared. OR,
 - 2. Developer may pay 50% of installation cost upfront and the remaining 50% upon approval from KDHE. In this situation, RWD4 will not acquire or stockpile any pipes or materials for the project. The timeframe between the cost estimate and KDHE's approval may require a revised estimate based upon any increases in pipe or material needed for the installation. Any difference in costs in the revised estimate shall be paid by developer prior to the contract of construction and any commencement of construction.
 - iii. Developers are required to provide required easements to the District from the point of connection with the District to and throughout the development including all costs of acquisition, if any. All easements shall be in form and substance satisfactory to the District.
 - iv. All line extensions (to the closest District line of sufficient capacity) and throughout the development shall be at developer's sole cost and expense as required by the District's Main Extension Rule and shall include all direct and indirect construction costs (including but not limited to actual construction costs, legal, engineering and inspection).

Rural Water District No. 4, Sedgwick County

1. The District shall contract for and supervise and control the building of all water lines and appurtenances up to the meter locations on each lot. The developer or homeowner shall be responsible for all lines from the District's meter to the improvements on the property.
 2. The lines up to the District's meter and the meter box, pressure regulator, and check valves shall be the property of the District.
 3. After construction of the lines, all maintenance and operation of the District's lines shall be at the sole cost and expense of the District and shall be subject to its rules, regulations, policies and by-laws.
 4. All designs within a development shall provide for water service to all lots without the necessity of additional road bores or additional line extensions (except in phased developments where such is agreed to specifically in writing by the District).
- v. Unless otherwise specifically agreed to by the District in writing, all developers shall be required to comply with the following terms regarding utility easements and rights-of-way, crossovers of existing lines and comply with all federal, state and local statutes, laws, rules and regulations, including specifically KDHE regulations, relating to potable water lines:
1. Along main exterior roads (mile roads) the District requires a 30' easement adjacent to and parallel to the road right-of-way (this may overlap platted subdivision utility easements) and an easement/consent from the landowner for the District's use of any public right of way on the landowners' property, if any.
 2. On all interior streets the District requires a minimum 15' easement adjacent to and parallel to the street right-of-way. This may be by plat or grant of easement.
 3. In all development situations where streets are or will be constructed crossing existing District water lines or where water lines are to be constructed across roadways, minimum cover to be maintained over the water line is 36" and maximum coverage is 54". The line shall be raised or lowered to maintain this coverage. Measurement of minimum coverage shall be from the lowest point (center line of ditch, etc.) above the water line. All lines shall be encased at road crossings from a minimum of the center line of the drainage ditch to the center line of the drainage ditch on the opposite side of the road or a minimum of 5' from each edge of the roadway, whichever is further. All work shall be performed and supervised by the District and the cost of modifying existing lines to comply with these requirements and costs of all such encasements shall be borne by the Developer, whether or not the Developer acquires water service for the

Rural Water District No. 4, Sedgwick County

development, as a condition precedent to any use or crossing of the District's easement or the District's prior use of public right of way.


4. The Protection Considerations (Attachment A), as currently adopted or hereinafter revised, promulgated by the Kansas Department of Health and Environment as part of its policies governing the design of Public Water Supply Systems in Kansas are hereby adopted and incorporated as part of the requirements of Rural Water District No.4, Sedgwick County, Kansas.
 5. All sewers, septic tanks, septic tank absorption fields and other pollution sources constructed after the construction of the District's water lines shall meet the criteria set forth in the following KDHE Protection Considerations, as set forth on Attachment A or as hereafter adopted by KDHE.
- vi. The following terms and conditions shall be applicable to the provision of water service and acquisition of Water Benefit Units:
1. The minimum monthly payment per Water Benefit Unit will commence upon the first day of the month following completion of line construction and/or the acceptance of the application for water service by the District, whichever is later.
 2. Water Benefit Units shall be assigned to specific lots or parcels at the time acceptance of an application for a Water Benefit Unit within the development is approved by the District and its engineer.
 3. All applications and transfers of Water Benefit Units are subject to RWD's policies regarding applications, transfers, costs, and subject to approval of the Board.
- vii. RWD4 reserves the right to review with developer the proposed development and the benefits, if any, which may be derived by the District and any costs or other problems which may occur and to make arrangements, changes, and charges different from those set forth herein, as shall be determined to be in the best interests of the District, in the sole judgment of the District's Board.
- f. Customer Purchase of Property: The customer is then subject to the Residential Single-Family policy above.
- g. If the developer fails to proceed with the development, assigns its ownership to persons other than consumer lot buyers or turns over possession of the property to any lender or lienholder, for any reason, RWD4 shall discontinue application of this policy until such time as the lender or assignee agrees to obligate itself to these policies. Absent agreement, at its sole discretion, RWD4 will not be obligated to reinstate this policy.

Rural Water District No. 4, Sedgwick County


The RWD4 Residential Development Policy does not replace or supersede the By-laws of RWD4 and is created with the powers given to the Board by those by-laws to ensure continued operation of the District.

EXAMPLES:

Single-Family Home:

	<p>2500sqft finished living space:</p> <ol style="list-style-type: none">1. Meter Impact Fee: \$3,880.002. Water Benefit Unit: \$3,300.00 (SSOR) <p>Total Up Front Costs to District: \$7,180.00</p> <ol style="list-style-type: none">3. Installation of service line from meter to house: Cost varies.4. Monthly Cost: \$40.00 + Water Usage
---	--

Subdivision Policy:

	<p>25-acre new development:</p> <ol style="list-style-type: none">1. Notice.2. Hydraulic Study: \$1500.00.3. Developer Impact Fee: \$47,916.00 $1,089,000 \times \\$0.044 = \\$47,916.00.$4. Letter of credit worthiness.5. Infrastructure Installation Costs.6. Once lot sells, customer follows the Residential single-family home policy above.
---	--

Attachment A: Protection Considerations, (Partial List)

B. PROTECTION CONSIDERATIONS

1. SEPARATION OF WATER MAINS AND SEWERS

a. GRAVITY SANITARY SEWERS

- 1) Parallel Placements – When potable water pipes and gravity sanitary sewers are laid parallel to each other, the horizontal distance between them shall not be less than 10 ft. (3.0 m). The distance of separation shall be measured from edge to edge. The laying of water pipes and sanitary sewers shall be in separate trenches with undisturbed earth between them. Where it is not practical to maintain a 10 ft. (3.0 m) separation, KDHE will consider proposals providing equivalent protection by other methods on a case-by-case basis, if supported by data from the design engineer. Equivalent protection may require sanitary sewer construction with one of the following additional protective features: concrete encasement, vacuum sewers, or jointless pipe such as fused HDPE or cured-in-place pipe liner.
- 2) Crossing Placements – When a water pipe and a sanitary sewer cross and the sewer is 2 ft. (0.6 m) or more (clear space) below the water pipe, no special requirements or limitations are provided herein. At all other crossings, the sanitary sewer is to be constructed of one of the following materials (or approved equal) and pressure tested to assure water tightness pursuant to the most recent revision of KDHE's *Minimum Standards of Design of Water Pollution Control Facilities*:
 - a) Ductile iron pipe conforming to ASTM A536 or ANSI/AWWA C151/A21.51 with minimum thickness class 50, and gasketed, push-on, or mechanical joints in conformance with ANSI/AWWA C110/A21.10 or ANSI/AWWA C111/A21.11.
 - b) PVC pipe conforming to ASTM D3034 with minimum wall thickness of SDR41, ASTM F679, or ASTM F794, with gasketed push-on joints in conformance with ASTM D3212.
 - c) Reinforced concrete pipe conforming to ASTM C76 with gasketed joints in conformance with ASTM C361 or ASTM C443.

Joints in the sewer pipe shall be located as far as practical from the intersected water main.

Where a water main is laid across or through an area where there is an existing sanitary sewer, which is not constructed of one of the above specified materials and is 2 ft. (0.6 m) or less below the water pipe, the existing sewer shall be encased in concrete with a minimum thickness of 6 inches (15.2 cm) for a 10 ft. (3.0 m) distance on each side of the crossing or the crossed section of sewer replaced to meet the above specified construction requirements. The above requirements shall also apply where a water main must cross under an existing sanitary sewer. KDHE will consider proposals providing equivalent protection by other means on a case-by-case basis, if supported by data from the design engineer.

When a water main and a sanitary sewer must cross, it is preferred that the water main cross over the sanitary sewer, regardless of whether the sanitary sewer is new or existing.

Special provisions may be required to ensure adequate structural support for, and to maintain minimum pipe-to-pipe clearances between, a water main and a sanitary sewer at a water main and sanitary sewer crossing.

- b. **SEWER CONNECTIONS** – There are to be no physical connections between any parts of a potable water system and building sewers, sanitary sewers, or wastewater treatment facilities by means of which it would be possible for sewage, even under exceptional circumstances, to reach a well, storage reservoir, or distribution system.
- c. **PRESSURE SEWER LINES** – When pressure sewer lines (force mains) run parallel to water lines, the separation distance shall be as far as practical, maintaining a minimum horizontal separation distance of at least 10 ft. (3.0 m). There shall be at least a 2 ft. (0.6 m) vertical separation at crossings with the water main always crossing above the sewer force main. Where it is not practical to maintain the required horizontal or vertical separation distance between a water line and a sanitary sewer force main, KDHE will consider proposals providing equivalent protection by other methods on a case-by-case basis, if supported by data from the design engineer.
- d. **SEWER MANHOLES** – No water pipe shall pass through or come in contact with any part of a sewer manhole. Required horizontal separation distances between water mains and manholes are equivalent to those for water mains and gravity sanitary sewers.
- e. **STORM SEWERS** – The separation distance between a storm sewer (which is not a combined storm/sanitary sewer) and a water main should be based on geotechnical considerations. Required separation distances between water

mains and combined storm/sanitary sewers are equivalent to those for water mains and gravity sanitary sewers.

- f. DRAINS – Underground drains from fire hydrants, pits, or underground structures in general (valve pits, meter pits, underground pump stations, etc.) shall not be directly connected to sanitary or storm drains.

2. SEPARATION OF WATER MAINS AND OTHER POLLUTION SOURCES – It is of the utmost importance that potable water lines be protected from any source of pollution. The following shall pertain to instances where septic tanks, absorption fields, waste stabilization ponds, feedlots, or other sources of pollution are encountered.

- a. A minimum distance of 25 ft. (7.6 m) shall be maintained between all potable water lines and all pollution sources, e.g., septic tanks, septic tank absorption fields, waste stabilization ponds, sewage contamination, wastewater, landfill leachate, and all CAFO facilities.
- b. Under no circumstances shall a water line be extended through an area that is a real or potential source of contamination to the water line or water supply.
- c. Under no conditions shall the encasement of a water line be considered as adequate protection of a water line or a water supply for the purpose of extending the water line through a real or potential source of contamination.

3. CROSS CONNECTIONS – There shall be no physical connection between the PWSS and any pipes, pumps, hydrants, tanks, or non-potable waters supplies whereby unsafe water or other contaminating materials may be discharged or drawn into the system. KDHE approval shall be obtained for interconnections between potable water supplies. KDHE does not approve of the interconnection of any public water supply water line with any individual or independent water supply source such as a home well. Neither steam condensate nor cooling water from engine jacket or other heat exchange devices shall be returned to the potable water supply.

KSA 65-171g prohibits the contamination of water (and air) by sewage through direct connection or back siphonage and KAR 28-15-18 (f) requires each PWSS to have a formal cross-connection prevention program. KDHE must approve the program used to accomplish the control. Publications regarding cross-connection control are available from AWWA (2004a), USEPA (2003c), and University of Southern California (1993).

The water purveyor should be aware of any situation requiring an inspection and/or a reinspection necessary to detect hazardous conditions resulting from cross connections. If, in the opinion of the water purveyor, effective measures consistent with the degrees of the hazards created by the cross-connections have not been taken,

then the water purveyor should immediately take such measures as are deemed necessary to ensure that the PWSS is protected from any contamination arising from any of the cross-connections. Appropriate measures may include requiring the installation of a backflow protection device consistent with the degree of hazard or discontinuance of service.

4. LINE CROSSINGS – Special precautions should be taken to prevent possible damage to line crossings.

a. SURFACE WATER CROSSINGS – Surface water crossings, both over and under water, present special problems which should be discussed with KDHE before final plans are prepared. Where the ground has inadequate bearing capacity, pile supports, stringers, or other acceptable methods shall be used. A pipeline crossing of a perennial stream having 50 or more square miles (130 km²) of drainage area above the proposed project site requires a permit from DWR, except for a directionally bored crossing or a crossing consisting of a pipeline non-obstructively attached to an existing bridging structure.

1) Above-Water Crossings – The pipe shall be adequately supported, protected from damage and freezing, and accessible for repair or replacement.

2) Underwater Crossings – Underground pipelines shall be buried at a sufficient depth below streambeds to prevent exposure.

a) On navigable streams, underground pipelines shall be buried at a minimum depth of 7 ft. (2.1 m) beneath the streambed.

b) On all other streams, underground pipelines shall be buried at a minimum depth of 5 ft. (1.5 m) beneath the streambed.

c) When crossing water courses which are greater than 15 ft. (4.6 m) in width,

(1) The pipe should be of special construction, having flexible, restrained or welded watertight joints.

(2) Valves should be provided at both ends of water crossings so that the section can be isolated for testing and repair; the valves should be easily accessible, and not subject to flooding.

Permanent taps or other provisions to allow operators to determine leakage and obtain water samples should be made.

- b. **RAILROAD CROSSING AND MAINS NEAR TRACKS** – where a water main crosses under railroad tracks, all joints lying within 10 ft. (3.0 m) of the rails shall be either mechanical joints with rubber gaskets or pipe with bell joints. Also, local requirements should be investigated. Some railroads require that the water main be enclosed in a culvert, tunnel, or conduit to reduce the effects of vibration, to provide drainage in case of leakage or rupture of the pipe, to reduce damage to the track, and to facilitate repairs.

- c. **MECHANICAL ENCASEMENT** – Where a water line must be sleeved within a pipe in order to protect the water line, such as at road, railroad, or pipe way crossings, the water line must be sleeved with seamless, jointless pipe of equal or greater mechanical strength for distance of at least 10 ft. (3.0 m) beyond the crossing in both direction, kept separate from the sleeve pipe with plastic spacers or wooden skids, and the annular spaces formed at the ends of the carrier/sleeve pipes must be made watertight with flexible boot type end seals.

16. Plumbing - Water services and plumbing shall conform to all local plumbing codes.