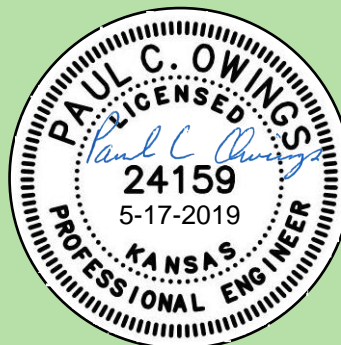




## PRELIMINARY ENGINEERING REPORT LINN VALLEY, KANSAS



May 2019  
17-1451E



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## SECTION 1

**PROJECT PLANNING**1.1 REPORT OBJECTIVE

This report has been compiled based on the guidelines set forth by the United States Department of Agriculture, Rural Development Program. The primary objective of this report is to evaluate water distribution alternatives to improve system performance; however this evaluation is also intended to be a comprehensive tool that the local community can use for future planning and development. This evaluation will help community leaders create a program of capital improvements and upgrades considered necessary to provide a safe and more reliable water system to the citizens of the Community.

1.2 LOCATION

The City of Linn Valley is located approximately 2 miles northwest of the intersection of U.S. Highway 69 and KS Highway 152 in Linn County, Sections 23, 24, 25, and 26, Township 19 South, and Range 24 East. Topography and City Maps are located in the Appendix.

1.3 BACKGROUND

Linn Valley is a community that has developed around Linn Valley Lake. The development began in the 1970s and was established with a Property Owners Association (POA). Prior to incorporation, the POA acted similar to a municipal government providing utilities and other services. In 1998, the City incorporated. Since the POA predated the establishment of the City, the POA continued to provide services such as utilities. The City has experienced relatively rapid growth and existing utilities including the potable water system are becoming limited. In recent years, the community is transitioning to City control of utilities.

Linn Valley's water demand is different than typical communities. The City has a blend of part time and full time residents. Part time residents utilize the community as a second home while full time residents have a permanent home in Linn Valley. Further, during holidays and at other times the community experiences an influx of visitors to the lake. Due to these factors, the communities water demand is not typical of other communities that primarily have full time residents.

In terms of potable water services, the community is also unique. The community has the following four different methods of potable water service:

- ***Water Distribution Mains by Linn Valley:*** a portion of the City has water distribution mains and water meters owned by the City of Linn Valley.
- ***Water Distribution Mains by Linn RWD #1:*** a portion of the City has water distribution mains and water meters owned by Linn RWD #1.
- ***Bulk Distribution:*** some users within the distribution system pay for water to be hauled to their homes. Water is stored in cisterns and refilled as required.



- **Bulk Purchase:** some users within the distribution system purchase water at a bulk water station and haul the water to their homes. Water is stored in cisterns and refilled as required.

The variability of water service options presents unique challenges in terms of expansion of the system and maintenance of standards throughout the system.

#### 1.4 ENVIRONMENTAL RESOURCES

A general summary of typically encountered environmental issues is located in the Appendix. This report is not a comprehensive environmental review; however these typical environmental conditions have been taken into consideration when evaluating each project alternative. Additional environmental reviews may be necessary depending on project scope and funding.

#### 1.5 POPULATION TRENDS

US Census results from 2000 to 2010 shown in Table 1.1 indicate that the population of Linn Valley has increased at a rate of 4.31% per year, the community was not incorporated for the 1980 and 1990 censuses and therefore data is not available. For the purposes of this report, the current population of the City of Linn Valley is considered to be 905. The annual growth rate for Linn Valley is anticipated to be 6% of the current population based on input from City Officials and recent growth rates (Straight-line growth based on 6% of 905 residents or approximately 54.3 people per year). The design population for 2038 is 1,991.

City	Year			
	1980	1990	2000	2010
Humboldt	N/A	N/A	562	804

Table 1.1 – Population of the City of Linn Valley from the U.S. Census Bureau.

#### 1.6 WATER DEMAND

The City currently produces potable water with a surface water treatment plant and purchases potable water from Linn RWD No. 1 for use in their water distribution system. In addition, a portion of Linn Valley Residents receive water directly from Linn RWD No. 1’s distribution system. Proposed waterline improvements incorporate Linn RWD #1 users into Linn Valley’s distribution system, and therefore increased water demand is anticipated and is estimated based on information in the following paragraph.

The data shown in Table 1.2 is for Linn Valley only and does not include water demand from Residents connected to Linn RWD #1’s distribution system. Linn Valley Personnel have indicated that their community has approximately 636 commercial and residential users (including full time campers) requiring water. Six of the users are commercial and have water meters. Approximately 114 are residential dwellings and have water meters through Linn Valley’s distribution system. Approximately 106 are dwellings or commercial buildings and have water meters through Linn RWD #1’s distribution system. The remaining 416 dwellings purchase water in bulk. This report will review data from Linn Valley in evaluation



of water demand, assuming that metered connection to Linn RWD #1 will consume water proportional to users within Linn Valley's distribution system.

The City's annual water use information is summarized in Table 1.2. As shown in the table, the raw water diverted from 2013 through 2017 averaged approximately 9,169,000 gallons per year (25,120 gallons per day (GPD)) and the water purchased averaged 1,823,000 gallons per year (5,994 GPD). 2017 was the highest water usage when 12,710,000 gallons (34,821 gpd) of water were diverted and purchased. The maximum monthly water usage occurred in November 2013 when 1,545,000 gallons (50,795 gpd) were diverted and purchased. This is approximately 1.72 times the average daily demand from 2013. The population of Linn Valley was assumed to be 804 in 2013, and 16.4% of the population were assumed to have connections to Linn RWD #1 water meters. Based on these assumptions, the approximate number of people using water on Linn Valley's system in 2013 would be approximately 672. Based on this approximation, the average per capita water use during the peak month is approximately 76 GPD. For the purpose of this report, peak day demand is assumed to be 2.3 times the average day demand or approximately 175 GPD per capita.

**As shown in Table 1.2, the unaccounted for water or water loss from 2013-2017 averaged 28.15%. The highest water loss occurred in 2017 at 36.3%.** There are several factors that could contribute to unaccounted for water loss including breaks, leaks, unmetered water line flushing and unmetered flow due to inaccurate or aging meters. Based on information from the City, water loss is primarily due to unmetered water use by the POA. The City's water use reports for 2013-2017 can be found in the Appendix.

	Water (1,000 Gallons)					
	2013	2014	2015	2016	2017	Average
Raw Water Diverted	10,358	9,490	7,499	9,203	9,297	9,169
Water Purchased From All Sources	436	571	2,592	2,103	3,413	1,823
Water Sold to Other Public Suppliers	-	-	-	-	-	-
Water Sold to Bulk Customers	5,077	5,276	5,132	5,201	5,254	5,188
Water Sold to Commercial & Residential	1,587	1,582	1,709	2,162	2,258	1,860
Metered Water Provided Free	928	798	905	818	584	807
Unaccounted for Water	3,202	2,405	2,345	3,125	4,614	3,138
<b>Total Water Used</b>	<b>10,794</b>	<b>10,061</b>	<b>10,091</b>	<b>11,306</b>	<b>12,710</b>	<b>10,992</b>
Average Month	900	838	841	942	1,059	916
Maximum Month	1,545	1,307	1,444	1,427	1,429	1,430
Percent Loss	29.66%	23.90%	23.24%	27.64%	36.30%	28.15%

Table 1.2. - Summary of Municipal Water Use Reports (2011-2017) (Linn Valley Only)

Average water use in 2017 was approximately 46 GPD per capita. Water users with meters were found to utilize approximately 20-percent more water than bulk water users. Long term goals of the City are to trend toward a traditional metered water system eliminating bulk water users. Increases in water demand are anticipated with decreasing numbers of bulk water users. For the purposes of this report, the average daily demand is assumed to be 20% larger than the calculated average demand or approximately 56 GPD per capita. As discussed above the peak day demand is approximated at 175 GPD per capita. Utilizing these values and population projections the following table summarizes increases in water demand for the next 20-years:



Year	Population	Ave. Day (GPD)	Projected Peak Day (GPD)
2018	905	41,000	158,375
2020	1014	56,000	177,380
2022	1122	62,000	196,385
2024	1231	68,000	215,390
2026	1339	74,000	234,395
2028	1448	80,000	253,400
2030	1557	86,000	272,405
2032	1665	92,000	291,410
2034	1774	98,000	310,415
2036	1882	104,000	329,420
2038	1991	110,000	348,425

\*2018 Average Day is Based on Data

Table 1.3. – Projected Peak Demand Approximation

END OF SECTION



## SECTION 2

**EXISTING FACILITIES**2.1. LOCATION MAP

An existing system map outlining water system components (Figure 1) is located at the end of Section 2B. Section 2 Existing Facilities is separated into two subsections:

- Section 2A: Water Supply, Treatment, and Storage
- Section 2B: Distribution System Analysis

2.2. EXISTING RATE STRUCTURE

The current water use rate includes a minimum charge of \$20.00/month for the first 1,500 gallons of water and an additional \$0.01 per gallon of water metered to consumers. Water can also be purchased and delivered in bulk or purchased and hauled in bulk. The cost to have water delivered in bulk is \$22.00 for 1,000 gallons or \$33.00 for 2,000 gallons. Water can be purchased in bulk and hauled for \$10.00 per 1,000 gallons. Water sales are administered by the Property Owners Association (POA). A copy of the current Water and Sewer Policy is included in the Appendix.

Currently a 5,000 gallons per month customer within the City limits with a water meter would have a monthly water bill of \$55.00. A customer buying 5,000 gallons of water in bulk and having it delivered would have a monthly bill of \$82.50. A customer buying \$5,000 and hauling the water themselves would have a bill of \$50.00.

2.3. ANNUAL OPERATING BUDGET

The annual expenses for the City of Linn Valley Water Fund were taken from Budgets that were provided by the POA. Table 2.1 shows a summary of the Water Utility fund expenditures for 2013-2017. The actual budgets are located in the Appendix.

Year	Salaries & Wages	Commodities	Contractual	Total O&M	WTP Only	Distribution Only
2013	\$ 52,567	\$ 74,007	\$ 4,479	\$ 131,053	\$ 80,038	\$ 51,015
2014	\$ 59,919	\$ 76,005	\$ 5,236	\$ 141,160	\$ 80,321	\$ 60,840
2015	\$ 63,258	\$ 92,214	\$ 4,808	\$ 160,279	\$ 95,347	\$ 64,933
2016	\$ 49,571	\$ 82,289	\$ 2,184	\$ 134,044	\$ 97,132	\$ 36,912
2017	\$ 67,886	\$ 85,101	\$ 2,123	\$ 155,110	\$ 105,085	\$ 50,026
Average	\$ 58,640	\$ 81,923	\$ 3,766	\$ 144,329	\$ 91,584	\$ 52,745

Table 2.1 – Water Fund Expenditure Summary



2.4. METERS AND EQUIVALENT DWELLING UNITS (EDU)

According to information provided by the City, residential water usage accounts for approximately 38% of the total usage. There are currently a total of **121 active water meters**. Average water usage for each of the City's meters is listed in the table below in addition to the calculated Equivalent Dwelling Unit (EDU).

	Number of Meters	Average Monthly Usage (gallons)	Usage per Meter (gal/month/meter)	EDUs
Residential Meters	114	188,167	1,651	114
Commercial Meters	6	48,667	8,111	29
Other (Bulk Haul Station)	1	437,833	437,833	265
<b>Total</b>	121	486,500		409

Table 2.2 – 2017 Water Usage per Meter Type (Linn RWD #1 Meters not Included)

END OF SECTION



## SECTION 2A

**WATER SUPPLY, TREATMENT, AND STORAGE****2A.1. WATER SUPPLY**

The City of Linn Valley's raw water is diverted from Linn Valley Lake near the southern portion of the main dam. Diverted water is drawn into a potable water treatment plant. Linn Valley also purchase water from Linn RWD #1 in bulk.

**2A.2. WATER TREATMENT**

Linn Valley operates a potable water treatment plant. The facility supplies water to a public water distribution system. The treatment facility utilizes surface water from the Linn Valley Lake as a source. The process primarily consists of coagulation, filtration, and disinfection. The treatment facility is rated for 50 gallons per minute (GPM), although plant personnel have indicated that the facility cannot process more than 30 GPM. The following chemicals are added to the treatment process:

- Aluminum Sulfate (Alum)
- Polymer
- Soda Ash
- Chlorine (Gaseous Source)
- Liquid Ammonia Sulfate (LAS)
- Disinfection: Combined Chlorine

The treatment facility was constructed in 1995. The treatment facility primarily consists of a steel package plant manufactured by Wheelabrator Engineered Systems, Inc. A consent order has been issued due to incompliant water quality in terms of total organic carbon (TOC), see appendix for consent order. Refer to the following photos of the water treatment plant:



Photo 1: Water Treatment Package Plant Exterior

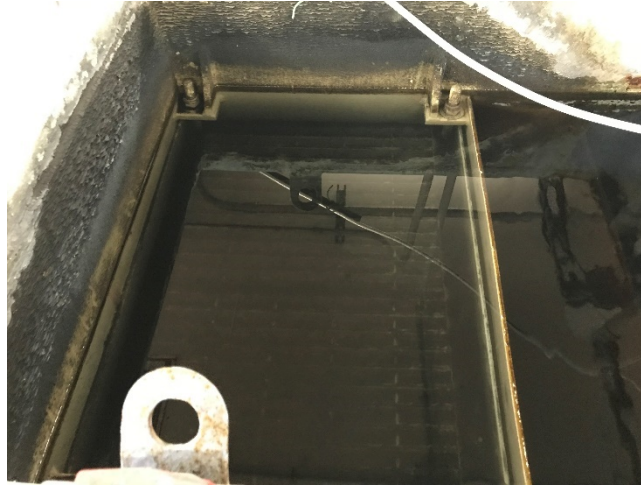


Photo 2: Water Treatment Package Plant Interior



Photo 3: Chemical Feed Units



Photo 4: Piping to Clearwell



Photo 5: Backwash Pump



Photo 6: Chlorine Room



In general, the condition of the water treatment plant is poor. The facility does not have adequate instrumentation to accurately control the process. The main treatment unit is constructed of steel and is corroded. The facility does not have a redundant treatment unit, and therefore to rehabilitate the existing unit the facility cannot operate. The existing building does not have sufficient space to add an additional treatment unit. Pumps, compressors, and other mechanical components are near the end of their useful life and would require replacement or repair.

### 2A.3. WATER STORAGE

The City does not own any storage tanks outside of the treatment plant.

END OF SECTION



## SECTION 2B

**DISTRIBUTION SYSTEM ANALYSIS****2B.1. EXISTING CONDITIONS**

Water is distributed to users in Linn Valley by the following methods:

- ***Water Distribution Mains by Linn Valley:*** a portion of the City has water distribution mains and water meters owned by the City of Linn Valley.
- ***Water Distribution Mains by Linn RWD #1:*** a portion of the City has water distribution mains and water meters owned by Linn RWD #1.
- ***Bulk Distribution:*** some users within the distribution system pay for water to be hauled to their homes. Water is stored in cisterns and refilled as required.
- ***Bulk Purchase:*** some users within the distribution system purchase water at a bulk water station and haul the water to their homes. Water is stored in cisterns and refilled as required.

A map of the water distribution system for the City of Linn Valley (Figure 1) is included at the end of this Section. The City's first waterlines were constructed of PVC in 1995. As houses were built, waterlines were extended to houses depending on their location. The City's water distribution system currently consists of approximately 21,800 linear feet of PVC waterline. The distribution system is in fair condition. Service lines throughout the distribution system are polyethylene. Approximately 120 dwellings and commercial buildings are served from distribution mains and have water meters in the City of Linn Valley.

A majority of homes in Linn Valley, approximately 416, participate in the bulk water distribution system. Water can be purchased in bulk and delivered with a truck owned and operated by the Property Owners Association (POA), or water can be purchased by individuals at the bulk water station and hauled to homes. Water is typically held in cisterns located at homes. Cisterns are refilled as required.

**2B.2. ANALYSIS OF THE EXISTING SYSTEM****2B.2.1. Fire Flow Protection**

This report and the recommendations listed herein are not targeted at providing improved fire protection. The information presented in the following paragraphs is required for this report to be a comprehensive tool that the local community can use for future planning and development. The following sections are intended to give community leaders a broad overview of some of the components involved in providing fire protection and to report on the status of their current distribution system.

Current KDHE guidelines recommend a minimum of 6" diameter waterlines to provide fire protection. All of the City's water distribution mains are 6" diameter and larger. **The City has approximately 5 fire hydrants. None of the fire hydrants function properly.**



### 2B.2.2. Fire Hydrant Spacing

Fire hydrant spacing is largely set by individual cities and is normally at the discretion of the Fire Chief. This spacing is largely dependent upon the amount of hose each fire truck has available. The objective is that any location within the protection area can be reached by one or more fire hydrants of ample flow. The minimum standard for most cities require fire hydrants to be placed no further than 800 feet apart. This would allow any location to be accessed by 400 feet of fire hose.

The Kansas Department of Health and Environment *Policies, General Considerations, and Design Requirements for Public Water Supply Systems in Kansas* states that fire hydrants should be placed at each street intersection and at intermediate points between intersections. Generally, hydrant spacing may range from 350 feet to 600 feet. This is the same standard as the Ten-States Standard (1997) and as recommended by the State Insurance Service Office (ISO).

### 2B.3. OVERVIEW

The primary purpose of this report is to comment on the existing state of the City's water distribution system and evaluate proposed improvements. **Many of the users within the City haul water in bulk and store in cisterns.**

**The City has no functional fire hydrants.** In addition, the City does not have any storage to provide water to fire hydrants.

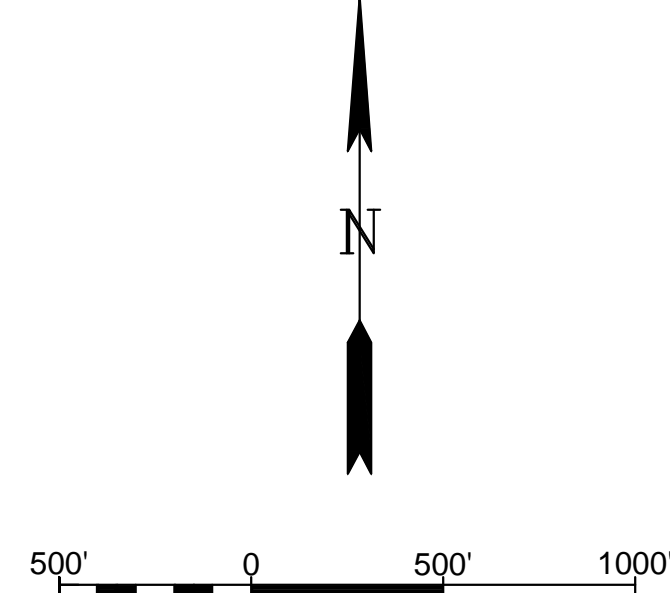
The potential distribution system improvements discussed later in this report are targeted at expanding the existing water distribution system. Improvements seek to decrease potential health and sanitation risks associated with bulk hauling of water. The proposed system allows for growth within city limits, and allows for flows similar to other communities in the region.

END OF SECTION



**LEGEND**

	WATERLINE (SIZE)
LINN VALLEY LAKES WATERLINES	— (Green line)
LINN RWD #1 WATERLINES	— (Red line)



NO.	REVISIONS	DATE	INITIALS

PRELIMINARY  
FOR REVIEW ONLY

LINN VALLEY, KANSAS  
WATER PER  
FIGURE 1: EXISTING  
WATER DISTRIBUTION SYSTEM

Engineer: PCO	
Drafter: PCO	
Date: 1-21-2019	
Project No. 17-1451L	
Sht. No.	Total Shts.
	X





## SECTION 3

**NEED FOR PROJECT**3.1. AGING INFRASTRUCTURE

The condition of the water treatment plant is poor. The facility does not have adequate instrumentation to accurately control the process. The main treatment unit is constructed of steel and is corroded. The facility does not have a redundant treatment unit, and therefore to rehabilitate the existing unit the facility cannot operate. The existing building does not have sufficient space to add an additional treatment unit. Pumps, compressors, and other mechanical components are near the end of their useful life and would require replacement or repair. KDHE has issued a consent order on the treatment unit for incompliant water quality for total organic carbon (TOC). An alternative source of water is necessary to increase the reliability of supply.

3.2. REASONABLE GROWTH

The infrastructure needs identified in this report will account for normal population growth conditions expected for this type of community. No new industry, which could potentially require addition of larger capacity infrastructure, is driving the need for system component replacement.

3.3. HEALTH SAFETY AND SECURITY

A majority of potable water users in Linn Valley participate in the bulk haul system. Bulk hauling water has health, safety, and security risks that are not associated with a traditional distribution system. Hauling equipment including hoses, nozzles, pumps, and tanks must be suitable for contact with potable water. Hauling equipment must be adequately disinfected to avoid contamination of water. Airborne contaminants are more likely to come into contact with water in a hauling system. Since individuals haul their own water, monitoring of hauling vehicles for compliance with safe drinking water standards would be difficult. Cisterns at houses must be kept clean and sanitized. The reliability of a hauling system is lower than that of a traditional system.

Portions of Linn Valley are served directly by Linn RWD #1. The City seeks to expand their distribution system into areas where Linn RWD #1 water mains exist and serve customers in these areas. The expansion of the water distribution mains will be developed in conjunction with the City's long term planning and growth objectives. Linn RWD #1's distribution system does not meet the standards the City seeks to maintain in the development of their water distribution system, which decrease system security.

The City does not have any above ground storage tank. Above ground storage units greatly increase the security of water distribution system by providing pressure during peak demand times, providing water and maintaining pressure when equipment fails, and by providing water during other emergencies situations.



The existing water treatment plant has deficiencies due to aging infrastructure and population growth. Development of new water sources is required to increase the reliability and security of the drinking water system. Water suppliers in the region can provide water to Linn Valley for use.

END OF SECTION



## SECTION 4

**ALTERNATIVE ANALYSIS**4.1. WATER DISTRIBUTION ALTERNATIVES

- 4.1.1 General – There are few alternatives available other than installation of waterlines to expand a distribution system.
- 4.1.2 Construction methods – Pipe line can be installed in a variety of ways. The most common is open trench construction. Pipe line can also be bored in, which typically costs more, but can save surface restoration costs.

The proposed replacement method for this project would be open trench construction and bored stream crossings. In residential areas the most cost effective installation method is open trench construction. Directional boring under hard surfaced streets can provide some savings, however the main benefit is a reduced disruption to the community. Directional boring under streams is always preferred to reduce the environmental impact of the project. We would recommend that the contractor have the option to bore, at their cost, any area that is designated as open trench.

4.2. PROPOSED ALTERNATIVES

## 4.2.1 Water Distribution Alternatives

Water Distribution Alternatives include the expansion of the distribution system in phases. Alternatives were development based on the inclusion of priority areas. Priority areas were selected based on input from the City, the density of housing, and planning and design factors such as looping. The following water distribution alternatives are considered:

- Distribution Alternative #1 – Area 1 Expansion
- Distribution Alternative #2 – Area 1 and 2 Expansion
- Distribution Alternative #3 – Area 1, 2, and 3 Expansion
- Distribution Alternative #4 – Area 1, 2, 3, and 4 Expansion

## 4.2.2 Water Storage Alternatives

Water Storage Alternatives include a 100,000, 150,000, and 250,000 gallon elevated storage tank. Elevated storage tanks increase the security and reliability of a water distribution system because they operate off of gravity to pressurize the distribution system. In addition, pumps operate more efficiently when filling a tank than trying to match water demands. The following three alternatives are considered for elevated storage tanks of various sizes:

- Storage Alternative #1 – 100,000 Gallon Storage Tank



- Storage Alternative #2 – 150,000 Gallon Storage Tank
- Storage Alternative #3 – 250,000 Gallon Storage Tank

#### 4.2.3 Water Supply Alternatives

For the Water Supply Alternatives, the City has indicated preference toward abandoning their existing water treatment plant and purchasing water from a regional supplier. Regional Water Suppliers that have indicated interest in supply water are Linn RWD #1 and the City of La Cygne. The following two regional alternatives are considered:

- Regional Supply Alternative #1 – Linn RWD #1
- Regional Supply Alternative #2 – City of La Cygne

A third regional supply alternative was considered, connection to Public Wholesale 13 (PW13). Information was requested in writing at a board meeting in August of 2018 including the cost to connect to the wholesale district, the cost to purchase water from the wholesale district, the quantity of water that could be provided, and the hydraulic grade line at the connection point. Information from potential water sources was accepted until early January of 2019. Requested information was not received from PW13, and therefore the option was not considered viable.

Another potential option is the construction of a water treatment facility. An economic analysis of treatment facility construction has been complete, and the option was found to be highly cost prohibitive. The present worth of a treatment alternative ranged from 1.56 to 1.98 times that of the selected regional alternative. In addition, the City has indicated that they are opposed to the construction of a water treatment plant. This alternative is cost prohibitive, would be difficult to implement, and the City does not prefer the option. Due to these factors, treatment facility construction is not considered to be a practical solution. If in the future this option is to be considered, a Waste Stream Summary Review must be complete for the facility prior to inclusion as an option.

#### 4.3. DESIGN CRITERIA

A model was developed to size proposed waterlines within the Linn Valley water distribution system. The model included waterlines to service all areas with lots. Demands were approximated based on similar population density and lot occupation to existing conditions.

At a minimum, water storage should provide sufficient capacity to equalize hourly variations in daily water demand to limit fluctuations in distribution system pressure and provide reserve storage for power outages and emergencies. Generally, systems should at least have storage equal to an average day's usage for all persons within the service area. This will allow the City 24 hours of water reserve in case the supply is interrupted by an electrical outage or equipment failure. Elevated water tanks typically have a 100-year useful life, and therefore selection of a tank size should



consider economic factors such as initial cost and water demand over time. The operating elevation of water towers can be adjusted to control water age if necessary.

Currently, Linn Valley produces water at approximately 30 GPM and purchases water in bulk from Linn RWD #1. Linn RWD #1 does not produce water, water is purchased from the Public Wholesale 13 (PW 13) and the City of La Cygne. In addition, Linn RWD #1 directly serves Linn Valley residents. Linn Valley WTP plant personnel have indicated that during peak demand events they operate the WTP continuously. Assuming the WTP can produce 30 GPM as indicated by WTP personnel, the maximum daily production would be approximately 43,200 GPD. If the regional approach is taken water from Linn Valley’s treatment plant will not be available to users.

Linn RWD #1 has indicated that they can provide approximately 119,000 GPD on a peak day and the City of La Cygne has indicated that they can provide approximately 100,000 GPD on a peak day. To evaluate if regional water suppliers have sufficient capacity to serve Linn Valley, a scenario where Linn Valley, Linn RWD #1, and La Cygne all have peak days at once can be considered. Data suggests that between 2024 and 2026 the peak day demand may exceed the quantity of water Linn RWD #1 and La Cygne can provide if all three entities simultaneously had a peak day. If this occurred, storage that Linn Valley has would be depleted. The following table shows this information:

Year	Population	Ave. Day (GPD)	Ave. Day Peak Month (GPD)	Projected Peak Day (GPD)	Storage Depletion	Consecutive Peak Days
2018	905	41,000	69,000	158,375	(60,625)	
2020	1014	56,000	78,000	177,380	(41,620)	
2022	1122	62,000	86,000	196,385	(22,615)	
2024	1231	68,000	94,000	215,390	(3,610)	
2026	1339	74,000	102,000	234,395	15,395	16.24
2028	1448	80,000	111,000	253,400	34,400	7.27
2030	1557	86,000	119,000	272,405	53,405	4.68
2032	1665	92,000	127,000	291,410	72,410	3.45
2034	1774	98,000	135,000	310,415	91,415	2.73
2036	1882	104,000	144,000	329,420	110,420	2.26
2038	1991	110,000	152,000	348,425	129,425	1.93

\*Storage depletion is based on 250,000 Gallons of Storage

Table 4.3 – Water Fund Expenditure Summary

The last column of the table shows the number of peak day events that would have to occur consecutively to completely deplete the water storage. As can be seen, by the end of the 20-year period the storage would be depleted prior to experiencing two consecutive peak days. Additional water required in 2038 is approximately 129,000 GPD or 90 GPM. Through discussion with PW 13, they could provide this



additional water to Linn RWD #1 with upgrades to their transmission system that could be used to meet this demand. In addition, the City of La Cygne has indicated that they could provide additional water during peak days if they upgrade some equipment but cannot commit a specific quantity of water at this time.

Proposed transmission mains will be sized to handle flows in excess of project peak day demands. For a typical water system, at minimum a water supply should exceed the peak day demand. Since the City of Linn Valley experiences an influx of people on weekends and holidays, peak flows are projected to be significantly higher than average daily flows. For an average day, proposed sources can provide significantly more water than required by Linn Valley. If peak water demand begins to reach the capacity of sources, it is recommended that Linn Valley work with suppliers to upgrade their equipment to provide additional water or since Linn Valley has unusually high peak day demands, it may be more cost effective to increase storage capacity during peak times.

#### 4.4. MAPS

Maps detailing the proposed system improvements are located in the Appendix of this report.

#### 4.5. ENVIRONMENTAL IMPACTS

The proposed system improvements will require surface disturbance for installation of the proposed infrastructure. Stream crossings would be directionally bored to minimize environmental impact. An Environmental Report is not being completed in concurrence with this Preliminary Engineering Report. However, a general summary of typically encountered environmental issues is located in the appendix. Currently there are no significant environmental concerns identified for this project.

Construction of water transition mains for regional alternatives may cross flood plains. Proposed improvements does not include construction of permanent structures in flood plains.

#### 4.6. LAND REQUIREMENTS

Proposed waterline line improvements are to be located within City Property, City or County right of way, or existing utility easements. Land acquisition will be required for the water tower site and booster pump station. Easements may be required for the water transmission main.

#### 4.7. POTENTIAL CONSTRUCTION PROBLEMS

Subsurface rock is prevalent in the area. Trenching through rock will likely be required.

#### 4.8. SUSTAINABILITY CONSIDERATIONS



Proposed pumping systems will utilize efficient motors to decrease electric consumption. Pumps will be of the quality that is standard to the industry, rated for continual use to promote longevity.

Water distribution piping, meters, and accessories will be constructed and installed based on industry standards utilized by similar sized communities in the area. High quality materials and construction techniques will increase the service life of piping and decrease maintenance requirements.

4.9. REGIONAL CONSIDERATIONS

Proposed supply alternatives consider regionalization of the water source.

4.10. OPINION OF PROBABLE COST

A detailed opinion of cost and present worth calculation for the proposed improvements is included in the appendix. O&M costs and short lived assets are included in the present worth calculations.

END OF SECTION



## SECTION 5

**SELECTION OF AN ALTERNATIVE**5.1. NON-MONETARY FACTORS

Distribution Alternatives #1 through #4 include the expansion of the distribution system to users within Linn Valley. Providing service to more users would have the greatest impact in increasing the health and sanitation of the system by decreasing the number of individuals hauling water.

Storage Alternatives #1 through #3 include the construction of various sizes of elevated storage tanks. A larger storage tank provides more room for growth within the community. A larger storage tank can be operated at different elevations to control water age. A larger storage tank would also increase the reliability of the distribution system.

Regional Supply Alternatives #1 and #2 look at utilizing water from two potential water suppliers. Linn Valley already utilizes water from Linn RWD #1, who purchases water from La Cygne, and therefore water quality is not believed to be an issue. The primary concern with water supply is economical.

5.2. PRESENT WORTH ANALYSIS

The primary consideration relating to the distribution and storage alternatives is the cost benefit of alternatives. To equitably compare distribution alternatives, a phased approach could be compared to completing a bigger project. Construction of waterlines in phases will likely result in higher prices due to inflation and increased soft costs. As can be seen by the total capital cost of storage alternatives, for **45%** more investment a storage tank 2.5 times as large can be constructed. A present worth analysis cannot be used to compare construction of a smaller water tower to that of a larger tower equitably, since one option provides greater storage than the other.

A present worth analysis was complete for the two regional supply alternatives. Since Linn RWD #1 and Linn Valley have water interconnections, Regional Supply Alternative #1 evaluated the present value based on the cost to purchase water as an annuity. The present value of Regional Supply Alternative #2 included the cost to build improvements and connect to La Cygne's water distribution system, the cost to purchase water as an annuity, and the cost to replace short-lived assets. The present value of Regional Supply Alternative #1 was **31%** more than the cost of Regional Supply Alternative #2.

END OF SECTION





SECTION 6

**PROPOSED PROJECT (RECOMMENDED ALTERNATIVE)**

6.1. RECOMMENDATIONS

Based on the information presented in this report, the following alternatives are recommended:

- Distribution Alternative #4 – Area 1, 2, 3, and 4 Expansion
- Storage Alternative #3 – 250,000 Gallon Storage Tank
- Regional Supply Alternative #2 – City of La Cygne

The City may determine this is financially unfeasible and may need to perform the project in multiple phases.

6.2 PROJECT SCHEDULE

The following is a project schedule for the above recommended alternative:

Final Engineering Report Submittal	May, 2019
Submit for Project Funding	September, 2019
Notice to Proceed with Engineering	March, 2020
Submit Final Engineering Plans to KDHE	December, 2020
Advertise for Bids	February, 2021
Substantial Completion of Construction	April, 2022
Final Completion of Construction	June, 2022

6.3 PERMIT REQUIREMENTS

The permits that will likely be required for this project are as follows:

- Kansas Department of Health and Environment (KDHE) Water Supply Permit
- KDHE Stormwater Pollution Prevention Plan (SWPPP)
- Kansas Department of Transportation (KDOT)
- County Road Crossing Permit

6.4 FUNDING SOURCES

The City should consult with a registered municipal financial advisor for recommendations on funding sources as the City could have several options available for funding this project. BG CONSULTANTS INC is not recommending an action to the City. BG CONSULTANTS INC is not acting as an advisor to the City and does not owe a fiduciary duty pursuant to Section 15B of the Exchange Act to the City with respect to the information and material contained in this communication. The City should discuss any information and material contained in this communication with any and all internal or



external advisors and experts that the City deems appropriate before acting on this information or material.

The following is a brief description of typical funding options:

6.4.1 Community Development Block Grant

This grant is administered through the Kansas Department of Commerce within the Community Development program. It is a competitive program with multiple Cities applying for a pool of money. One requirement of this program is that the City makes the Low to Moderate Income requirement of 51% or better. The maximum grant possible is \$600,000 with a ceiling of \$2,000 per beneficiary. A local match is generally required to be competitive with other applications.

6.4.2 KDHE – State Revolving Loan Fund

The Kansas Department of Health and Environment State Revolving Loan Fund (KDHE-SRF) is a 20 year loan with an interest rate and service fee of around 2%-3%. This loan is competitive with other Cities and the qualifications are that you can repay the loan and make the priority list. Projects are typically selected for funding in May of each year and placed on the priority list. The application for funding is a three month process and works very well with CDBG. SRF can apply up to 30% principal forgiveness for qualified projects. Qualifying projects currently consist of projects involving MCL compliance, replacement of lead service lines, or regionalization projects.

6.4.3 Rural Development-USDA

This funding will have a loan and possible grant paired together. The Rural Development (RD) loan is a 40 year loan with an interest rate that may vary from 2.5%-4.5%. Rates vary depending on the median household income (MHI) of the community. If the City qualifies, Rural Development has a grant program that combines with the loan. The grants are based on a percentage of the project and generally do not exceed 45%, however under certain circumstances grants may go up to 75%. The Rural Development funding is from a federal pool of money that typically becomes available in October of each year. A pre application must be submitted to Rural Development.

6.4.4 Private Sector Bonds

These bonds are similar to a loan and are funded through the private sector. Competitive rates are ensured by bidding on the financing of the bond. These bonds require a minimum of 45 days to prepare the application and can be applied for throughout the year.

6.5 PROJECT COSTS

The recommended improvements for the City's water system are projected to cost approximately **\$15,904,458**. Water purchase is approximated at \$85,000 based on an average water consumption of 41,000 GPD and water cost of \$5.63 per 1,000 gallons. O&M is estimated at \$103,000 based on a contract maintenance service of \$52,000 per year,



additional administration cost of \$36,000 per year, and miscellaneous costs of \$15,000 per year.

A schedule for replacement of short lived assets is included in the appendix. The projected short lived assets for the system require an annual budget of approximately \$19,540.

The following options are a combination of different grants and loans that the City may be eligible for to fund the recommended project. The cost impact is calculated two ways, the first being the average rate required to generate the required revenue. The second is assessing the cost of the improvements evenly to each of the **636 active paying water services** as an increase to the current base rate.

In the appendix, proposed projects are presented as a single phase project and a two phase project. Depending on the availability of funding, the project may be complete in one or more phases.



	Meter Count Evaluation					
	KDHE Loan & CDBG Grant	USDA-RD Loan	USDA-RD Loan & 10% Grant	USDA-RD Loan & 20% Grant	USDA-RD Loan & 30% Grant	USDA-RD Loan & 45% Grant
Project Cost	\$ 15,904,458	\$ 15,904,458	\$ 15,904,458	\$ 15,904,458	\$ 15,904,458	\$ 15,904,458
Search Grant Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Existing Debt	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Financing Required	\$ 15,904,458	\$ 15,904,458	\$ 15,904,458	\$ 15,904,458	\$ 15,904,458	\$ 15,904,458
SRF Loan Forgiveness	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
USDA Grant		\$ -	\$ 1,590,446	\$ 3,180,892	\$ 4,771,337	\$ 7,157,006
Loan Amount Financed	\$ 15,904,458	\$ 15,904,458	\$ 14,314,012	\$ 12,723,566	\$ 11,133,120	\$ 8,747,452
Annual Interest (%)	2.33	3.38	3.38	3.38	3.38	3.38
Terms of Loan	20	40	40	40	40	40
Term per Year	2.0	2.0	2.0	2.0	2.0	2.0
Terms	40.0	80.0	80.0	80.0	80.0	80.0
Loan Payment per Term	\$499,694.78	\$364,040.91	\$327,636.82	\$291,232.73	\$254,828.64	\$200,222.50
Annual Loan Payment	\$999,389.56	\$728,081.82	\$655,273.64	\$582,465.46	\$509,657.28	\$400,445.00
Water Purchase	\$85,000.00	\$85,000.00	\$85,000.00	\$85,000.00	\$85,000.00	\$85,000.00
O&M	\$103,000.00	\$103,000.00	\$103,000.00	\$103,000.00	\$103,000.00	\$103,000.00
Annual SLA	\$19,540.00	\$19,540.00	\$19,540.00	\$19,540.00	\$19,540.00	\$19,540.00
Total Annual Expenses	\$1,206,929.56	\$935,621.82	\$862,813.64	\$790,005.46	\$717,197.28	\$607,985.00
Number of Users	636	636	636	636	636	636
Minimum Avg. Monthly Fee	\$ 158.14	\$ 122.59	\$ 113.05	\$ 103.51	\$ 93.97	\$ 79.66

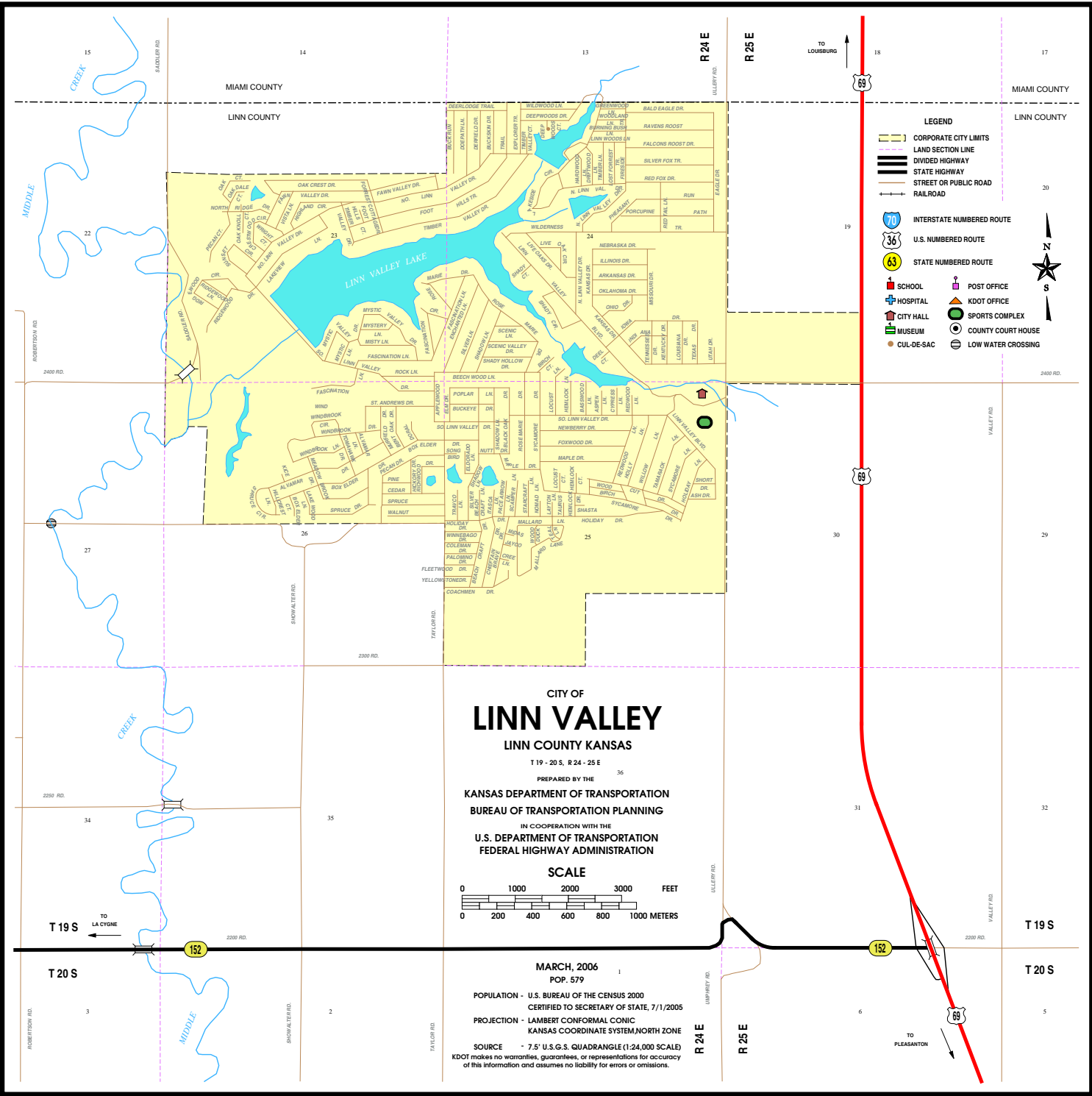
End of Section



## SECTION 7

### **APPENDIX**

- City Map
- Topographic Maps
- Typical Environmental Concerns
- 2011-2015 Water Use Reports
- Water and Sewer Policy
- 2011-2015 Water Fund Information
- Consent Order
- Proposed Improvements Map – Distribution Alternate #1
- Proposed Improvements Map – Distribution Alternate #2
- Proposed Improvements Map – Distribution Alternate #3
- Proposed Improvements Map – Distribution Alternate #4
- Proposed Improvements Map – Regional Water Supply Alternate #2
- EOPC – Distribution Alternatives #1 through #4
- EOPC – Regional Storage Alternatives #1 through #3
- EOPC – Regional Supply Alternatives #1 through #4
- Phasing Considerations
- Short Lived Assets
- Present Worth Analysis

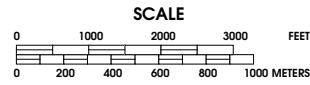


CITY OF  
**LINN VALLEY**

LINN COUNTY KANSAS

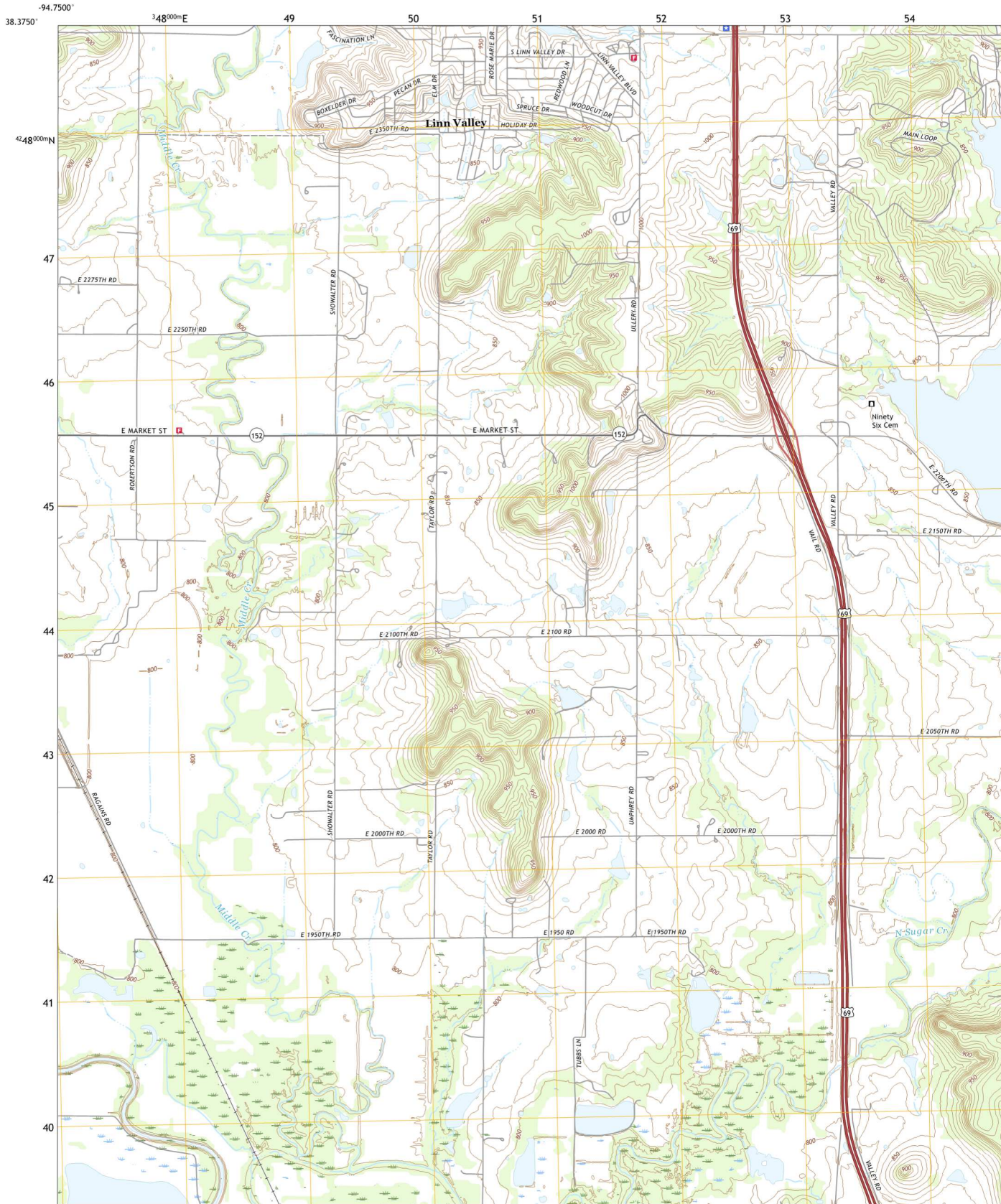
T 19 - 20 S, R 24 - 25 E

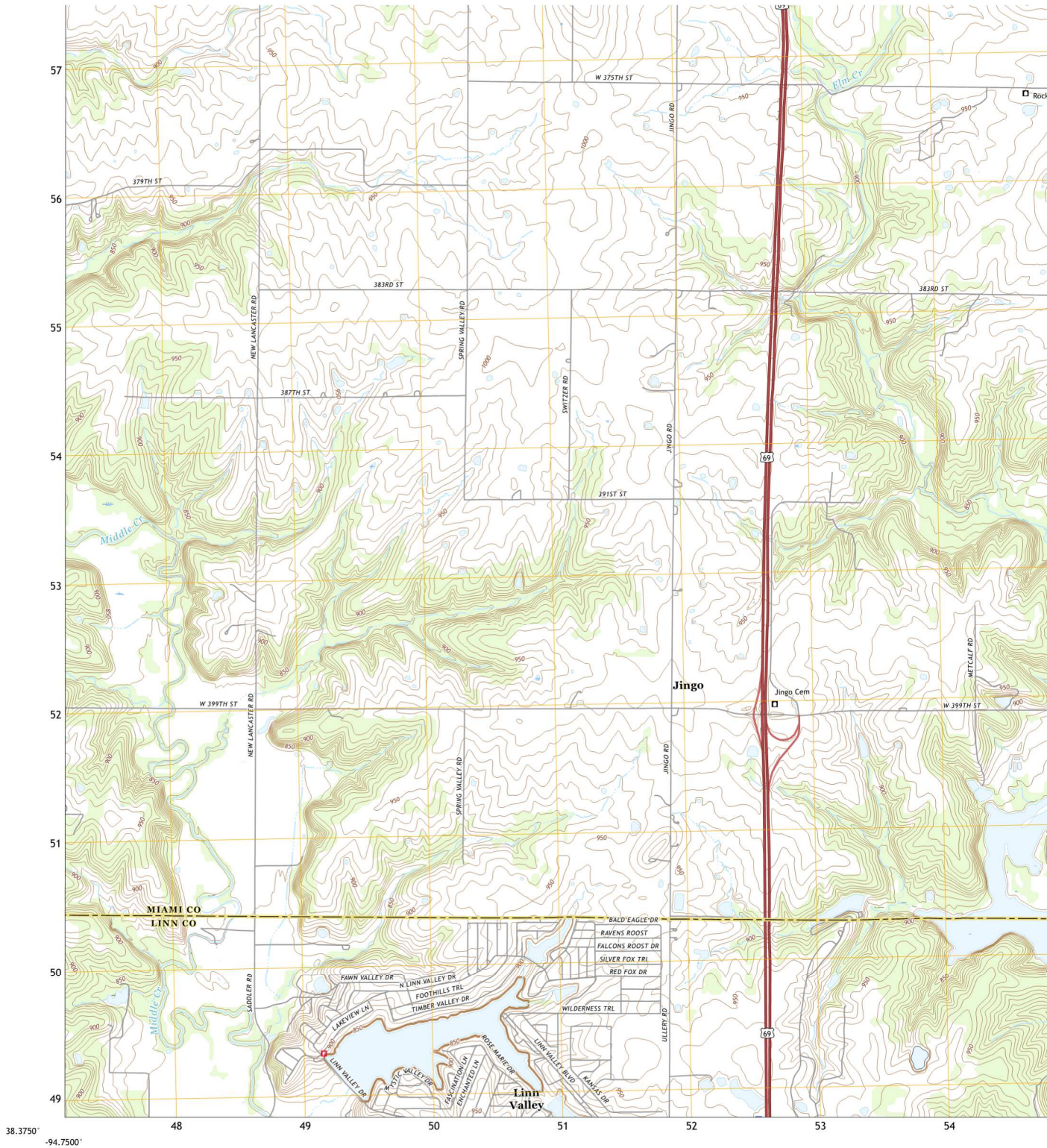
PREPARED BY THE  
**KANSAS DEPARTMENT OF TRANSPORTATION**  
**BUREAU OF TRANSPORTATION PLANNING**  
IN COOPERATION WITH THE  
**U.S. DEPARTMENT OF TRANSPORTATION**  
**FEDERAL HIGHWAY ADMINISTRATION**



MARCH, 2006  
POP. 579

POPULATION - U.S. BUREAU OF THE CENSUS 2000  
CERTIFIED TO SECRETARY OF STATE, 7/1/2005  
PROJECTION - LAMBERT CONFORMAL CONIC  
KANSAS COORDINATE SYSTEM, NORTH ZONE  
SOURCE - 7.5' U.S.G.S. QUADRANGLE (1:24,000 SCALE)  
KDOT makes no warranties, guarantees, or representations for accuracy  
of this information and assumes no liability for errors or omissions.



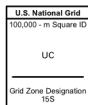
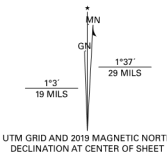


**Produced by the United States Geological Survey**

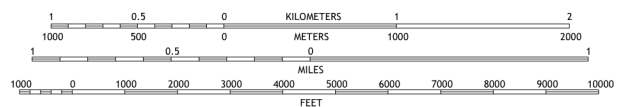
North American Datum of 1983 (NAD83)  
 World Geodetic System of 1984 (WGS84). Projection and  
 1 000-meter grid: Universal Transverse Mercator, Zone 15S

This map is not a legal document. Boundaries may be  
 generalized for this map scale. Private lands within government  
 reservations may not be shown. Obtain permission before  
 entering private lands.

Imagery.....	NAIP, August 2017 - September 2017
Roads.....	U.S. Census Bureau, 2015 - 2018
Names.....	GNIS, 1978 - 2016
Hydrography.....	National Hydrography Dataset, 2000 - 2018
Contours.....	National Elevation Dataset, 2004 - 2008
Boundaries.....	Multiple sources; see metadata file 2016 - 2017
Public Land Survey System.....	BLM, 2016
Wetlands.....	FWS National Wetlands Inventory 1986



**SCALE 1:24 000**



CONTOUR INTERVAL 10 FEET  
 NORTH AMERICAN VERTICAL DATUM OF 1988  
 This map was produced to conform with the  
 National Geospatial Program US Topo Product Standard, 2011.  
 A metadata file associated with this product is draft version 0.6.18



## **TYPICAL ENVIRONMENTAL CONCERNS**

The US Army Corps of Engineers will be contacted if the proposed project includes the discharge of dredged or fill material into waters of the United States.

If the proposed project includes construction beneath state highways or within its right of way the Kansas Department of Transportation will be contacted.

If during construction any oil field related problems or wells are located or encountered, the district supervisor for the Kansas Corporation Commission will be contacted.

The State Historical Preservation Office will be contacted. However, a historical determination cannot be made until final plans are issued for review by the State Historic Preservation Office. Final plans will be delivered before construction begins.

If the proposed project includes converting any farmlands into non-agricultural uses, a Farmland Conversion Impact Rating for the Natural Resources Conservation Service will be completed and authorization will be obtained before construction begins.

Should the proposed project include the removal of any structures, the structures will first be inspected for the presence of asbestos materials and a Demolition Form will be sent to the Kansas Department of Health and Environment.

Should the proposed project include the removal of any paint, a lead based paint inspection will be performed. Should any lead based paint be discovered or the possibility of lead based paint exists, all proper permits and authorization will be obtained before construction/demolition begins.

Should the proposed project impact any crucial wildlife habitats, current state-listed threatened and endangered species, species in need of conservation, or public recreation areas the Kansas Department of Wildlife and Parks will be contacted.

If the proposed project should occur during the migratory bird nesting season in habitat capable of supporting bird nesting, as requested by the US Department of the Interior-Fish and Wildlife Service, a field survey during the nesting season of the affected habitats and structures shall be conducted to determine the presence of active nests. If the presence of nesting is discovered, all reasonable measures shall be taken to protect the migratory birds.

Should any suspected cultural or historical resources be discovered during construction, all activities will be halted until the proper authorities and agencies are contacted and the cultural or historical significance of the resources is determined.

~~2011~~  
**MUNICIPAL WATER USE REPORT**  
**(PUBLIC WATER SUPPLY)**

**IMPORTANT: YOU MUST REPORT ANNUAL USAGE OR THE REASON FOR NON-USAGE, IN ORDER TO PROTECT YOUR RIGHT TO USE WATER**

This is the annual Water Use Report **required** to retain all Vested or Appropriation Rights. Please begin by reading the instructions for Part A on the reverse side of this page. Also present are instructions for name and address changes, **which include information needed if you have disposed of your interest in any one or more of the water right file numbers listed below**. If you have any questions on how to complete this form, please contact the Water Use Coordinator at (785) 296-1054. Please make a copy of the entire Water Use Report for your records, and return the original report to:

Water Use Coordinator  
 Kansas Department of Agriculture  
 Division of Water Resources  
 109 SW 9th, Second Floor  
 Topeka, Kansas 66612-1283

**COMPLETE AND RETURN BY MARCH 1, 2012**

**PART A: POINTS OF DIVERSION**

Water Right File Number	Legal Descriptions Point(s) of Diversion	Water Meter Data			UNIT	Hours	Pump Rate (gpm)	Well Data		
		Beginning Water Meter Reading	Ending Water Meter Reading	Metered Quantity Of Water				Well Depth	Depth to Water	Date
. 42333-00 AKA: STRUCTURE PERMIT #DLN-0099	950N 2720W 23-19S-24E 1	M 13,266.10 <sup>00</sup>	19,032.6 <sup>00</sup>	5,766.50 <sup>00</sup>	g					

Check here if you are purchasing from or selling water to other public water suppliers and report amounts on **PART B**, Columns 2 and 3, and **PART E**.

Date: 2/27/12 Telephone: (913) 757 4591

I submit this report as the best information available. I understand that knowingly falsifying the report is a violation of state law.

762698

11 29765 1 1 - MUN Top LN 70 2371  
 Office Use FO CO GMD

Marjean K HORMANN  
 Name (Printed or Typed)

**LINN VALLEY LAKE PROPERTY OWNERS ASSN**

Marjean K Hormann  
 Name (Signature)

→ 9 ~~5174~~ VALLEY AVE  
 LINN VALLEY, KS 66040

MAR 01 2012  
 Owner \_\_\_\_\_ Tenant \_\_\_\_\_  Agent

2011  
MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)

**PART B: MONTHLY WATER USE SUMMARY**

762700

WATER RESOURCES RECEIVED  
MAR 01 2012  
KS DEPT OF AGRICULTURE

NOTE: REPORT WATER PUMPED, PURCHASED, AND SOLD FOR THE MONTH OF ACTUAL USE. REPORT ALL AMOUNTS IN UNITS OF **1000 GALLONS**.

- Column 1: The amount of water diverted, by month, from all points of diversion (wells or intakes). If possible, raw water meters should be read at the same time of the month as customer meters. The total amount in this column should equal the total of the amounts reported in PART A.
- Column 2: The amount of water purchased, by month, from all other public water supply systems or the Kansas Water Office. Please provide further detail in PART E.
- Column 3: The amount of water sold, by month, to all other public water supply systems. Please provide further detail in PART E.
- Column 4: The amount of water sold, by month, to all industrial, pasture, stockwater, feedlot, and bulk water service connections. For rural water districts, include the amount of water sold to farmsteads using at least 200,000 gallons of water per year. Also include metered power plant usage, even if this water is supplied free.
- Column 5: The amount of water sold, by month, to your residential, commercial and institutional customers (include hospitals, schools and prisons).
- Column 6: The amount of water used, by month, that is metered at individual service connections and supplied free, such as for public service, treatment processes, and connections receiving free water. Please record metered power plant usage with industrial water use in Column 4.
- Column 7: The amount of unaccounted for water, by month. The gallons reported in this column are found by adding the numbers in Columns 1 and 2 and subtracting the numbers in Columns 3, 4, 5, and 6. If you do not sell water to your customers, this column simply represents the total amount of water that you diverted or purchased.

Month	Column 1 Raw Water Diverted Under Your Rights (1000 Gallons)	Column 2 Water Purchased From All Sources (1000 Gallons)	Column 3 Water Sold to Other Public Water Suppliers (1000 Gallons)	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers (1000 Gallons)	Column 5 Water Sold to Your Residential and Commercial Customers (1000 Gallons)	Column 6 Metered Water Provided Free (1000 Gallons)	Column 7 Unaccounted For Water (See Above Explanation) (1000 Gallons)
Jan.	642.9	91.7		395.3	133.5	5.4	200.4
Feb.	660.3	0		370.7	115.3	11.9	162.4
Mar.	286.7	196.3		391.7	125.2	24.4	-58.3
Apr.	273.1	636.2		352.0	122.1	19.8	415.4
May	827.8	0		390.7	147.5	113.2	176.4
June	1,123.6	378.6		914.7	223.1	302.3	62.1
July	703.1	689.0		496.1	208.2	172.5	515.3
Aug.	1,005.0	0		492.3	172.0	174.3	166.4
Sept.	702.2	79.3		434.6	218.5	89.1	39.3
Oct.	551.5	27.9		414.5	189.1	31.8	-56.0
Nov.	0	431.9		370.4	112.0	47.3	-97.8
Dec.	517.8	328.3		368.2	111.5	32.8	333.6
Total	7,294.0	2,859.2		5,391.2	1,878.0	1,024.8	1,859.2

**PART C: POPULATION, SERVICE CONNECTIONS, AND WATER RATES**

LINN VALLEY LAKE PROPERTY OWNERS ASSN

- Population served: \_\_\_\_\_ Estimate the number of persons served directly by your distribution system (Columns 5, 6, and 7).
- Number of **ACTIVE** water service connections as of December 31: 29765
  - 89 Residential
  - 3 Commercial/Institutional
  - Industrial
  - Pasture/Stockwater/Feedlot
  - 1 Other (specify) Bulk Haul Station
  - Total ACTIVE Service Connections
- If you are a city, how many of the active residential water service connections shown in 2a. are located outside of your city limits. 0
- Date of last water rate change (Month and Year); 2/2008 If rates changed during the previous year, please attach a copy of new rate structures that apply to residential users.

**2012  
MUNICIPAL WATER USE REPORT  
(PUBLIC WATER SUPPLY)**

**IMPORTANT: YOU MUST REPORT ANNUAL USAGE OR THE REASON FOR NON-USAGE, IN ORDER TO PROTECT YOUR RIGHT TO USE WATER**

This is the annual Water Use Report required to retain all Vested or Appropriation Rights. Please begin by reading the instructions for Part A on the reverse side of this page. Also present are instructions for name and address changes, **which include information needed if you have disposed of your interest in any one or more of the water right file numbers listed below.** If you have any questions on how to complete this form, please contact the Water Use Coordinator at (785) 296-1054. Please **return** the entire Water Use Report for your records, and return the original report to:

Water Use Coordinator  
Kansas Department of Agriculture  
Division of Water Resources  
109 SW 9th, Second Floor  
Topeka, Kansas 66612-1283

**COMPLETE AND RETURN BY MARCH 1, 2013**

**PART A: POINTS OF DIVERSION**

Water Right File Number	Legal Descriptions Point(s) of Diversion	Water Meter Data			U N I T	Hours	Pump Rate (gpm)	Well Data		
		Beginning Water Meter Reading	Ending Water Meter Reading	Metered Quantity Of Water				Well Depth	Depth to Water	Date
42333-00	950N 2720W 23-19S-24E 1 AKA: STRUCTURE PERMIT #DLN-0099	19,032.600	29,396.600	10,364,000	g					

Check here if you are purchasing from or selling water to other public water suppliers and report amounts on **PART B**, Columns 2 and 3, and **PART E**.

Date: 2-18-13 Telephone: (913) 757-4591

WATER RESOURCES DIVISION  
RECEIVED  
Submit this report as the best information available. I understand that knowingly falsifying the report is a violation of state law.

FEB 20 2013

811966

KS DEPT OF AGRICULTURE

12 29765 1 1 - MUN Top LN 76 2698

Office Use FO CO GMD

LINN VALLEY LAKE PROPERTY OWNERS ASSN

9 LINN VALLEY AVE  
LINN VALLEY, KS 66040

Marjean K Hormann  
Name (Printed or Typed)

Marjean K Hormann  
Name (Signature)

\_\_\_\_ Owner      \_\_\_\_ Tenant      X Agent

MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)

PART B: MONTHLY WATER USE SUMMARY

NOTE: REPORT WATER PUMPED, PURCHASED, AND SOLD FOR THE MONTH OF ACTUAL USE. REPORT ALL AMOUNTS IN UNITS OF 1000 GALLONS.

- Column 1: The amount of water diverted, by month, from all points of diversion (wells or intakes). If possible, raw water meters should be read at the same time of the month as customer meters. The total amount in this column should equal the total of the amounts reported in PART A.
- Column 2: The amount of water purchased, by month, from all other public water supply systems or the Kansas Water Office. Please provide further detail in PART E.
- Column 3: The amount of water sold, by month, to all other public water supply systems. Please provide further detail in PART E.
- Column 4: The amount of water sold, by month, to all industrial, pasture, stockwater, feedlot, and bulk water service connections. For rural water districts, include the amount of water sold to farmsteads using at least 200,000 gallons of water per year. Also include metered power plant usage, even if this water is supplied free.
- Column 5: The amount of water sold, by month, to your residential, commercial and institutional customers (include hospitals, schools and prisons).
- Column 6: The amount of water used, by month, that is metered at individual service connections and supplied free, such as for public service, treatment processes, and connections receiving free water. Please record metered power plant usage with industrial water use in Column 4.
- Column 7: The amount of unaccounted for water, by month. The gallons reported in this column are found by adding the numbers in Columns 1 and 2 and subtracting the numbers in Columns 3, 4, 5, and 6. If you do not sell water to your customers, this column simply represents the total amount of water that you diverted or purchased.

811967

WATER RESOURCES RECEIVED  
FEB 2 0 2012  
KS DEPT OF AGRICULTURE

RECEIVED  
FEB 20 2012  
DIRECTOR OF WATER RESOURCES

Month	Column 1 Raw Water Diverted Under Your Rights (1000 Gallons)	Column 2 Water Purchased From All Sources (1000 Gallons)	Column 3 Water Sold to Other Public Water Suppliers (1000 Gallons)	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers (1000 Gallons)	Column 5 Water Sold to Your Residential and Commercial Customers (1000 Gallons)	Column 6 Metered Water Provided Free (1000 Gallons)	Column 7 Unaccounted For Water (See Above Explanation) (1000 Gallons)
Jan.	699.4	0		385.6	111.1	36.5	166.2
Feb.	794.3	0		412.6	167.9	29.2	184.6
Mar.	680.3	0		359.2	110.4	25.7	185.0
Apr.	662.9	0		371.0	125.8	79.0	87.1
May	991.7	89.8		501.5	228.9	106.2	244.1
June	1,132.0	83.7		530.6	239.8	64.8	380.5
July	793.3	379.9		545.3	287.2	192.1	148.6
Aug.	1,049.5	108.5		517.8	194.4	136.6	301.2
Sept.	689.8	0		374.5	170.8	48.0	96.5
Oct.	687.2	10.9		389.7	240.9	52.7	14.8
Nov.	739.2	51.9		415.3	117.7	45.3	212.8
Dec.	662.2	133.8		341.0	95.2	44.9	314.9
Total	9582.9	849.7	850	5144.1	2090.8	861.0	2,336.3

PART C: POPULATION, SERVICE CONNECTIONS, AND WATER RATES

LINN VALLEY LAKE PROPERTY OWNERS ASSN

1. Population served: 818 Estimate the number of persons served directly by your distribution system (Columns 5, 6, and 7).
2. Number of ACTIVE water service connections as of December 31:
  - a. 89 Residential
  - b. 3 Commercial/Institutional
  - c. \_\_\_\_\_ Industrial
  - d. \_\_\_\_\_ Pasture/Stockwater/Feedlot
  - e. 1 Other (specify) \_\_\_\_\_
  - f. 93 Total ACTIVE Service Connections
3. If you are a city, how many of the active residential water service connections shown in 2a. are located outside of your city limits. 0
4. Date of last water rate change (Month and Year); 2/2008 If rates changed during the previous year, please attach a copy of new rate structures that apply to residential users.

29765

**2013  
MUNICIPAL WATER USE REPORT  
(PUBLIC WATER SUPPLY)**

**IMPORTANT: YOU MUST REPORT ANNUAL USAGE OR THE REASON FOR NON-USAGE, IN ORDER TO PROTECT YOUR RIGHT TO USE WATER**

This is the annual Water Use Report **required** to retain all Vested or Appropriation Rights. Please begin by reading the instructions for Part A on the reverse side of this page. Also present are instructions for name and address changes, **which include information needed if you have disposed of your interest in any one or more of the water right file numbers listed below.** If you have any questions on how to complete this form, please contact the Water Use Coordinator at (785) 296-1054. Please make a copy of the entire Water Use Report for your records, and return the original report to:

Water Use Coordinator  
Kansas Department of Agriculture  
Division of Water Resources  
109 SW 9th, Second Floor  
Topeka, Kansas 66612-1283

**IMPORTANT**

**COMPLETE AND RETURN BY MARCH 1, 2014**

**PART A: POINTS OF DIVERSION**

**CERTIFIED MAIL RECOMMENDED**

Water Right File Number	Legal Descriptions Point(s) of Diversion	Water Meter Data			U N I T	Hours	Pump Rate (gpm)	Well Data		
		Beginning Water Meter Reading	Ending Water Meter Reading	Metered Quantity Of Water				Well Depth	Depth to Water	Date
42333-00 AKA: STRUCTURE PERMIT #DLN-0099	950N 2720W 23-19S-24E 1	29,396,600	37,454,000	8,057,400	g					

WATER RESOURCES RECEIVED  
FEB 27 2014  
KS DEPT OF AGRICULTURE

Check here if you are purchasing from or selling water to other public water suppliers and report amounts on **PART B**, Columns 2 and 3, and **PART E**.

Date: 2-25-14 Telephone: (913) 757-4591

I submit this report as the best information available. I understand that knowingly falsifying the report is a violation of state law.

853110

13 10218 29765 1 1 - MUN Top LN  
Office Use FO CO GMD

LINN VALLEY LAKE PROPERTY OWNERS ASSN

9 LINN VALLEY AVE  
LINN VALLEY, KS 66040

*Marjean K*

Name (Printed or Typed)

*Marjean K Hormann*

Name (Signature)

\_\_\_\_ Owner

\_\_\_\_ Tenant

*X* Agent

MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)

PART B: MONTHLY WATER USE SUMMARY

NOTE: REPORT WATER PUMPED, PURCHASED, AND SOLD FOR THE MONTH OF ACTUAL USE. REPORT ALL AMOUNTS IN UNITS OF 1000 GALLONS.

- Column 1: The amount of water diverted, by month, from all points of diversion (wells or intakes). If possible, raw water meters should be read at the same time of the month as customer meters. The total amount in this column should equal the total of the amounts reported in PART A.
- Column 2: The amount of water purchased, by month, from all other public water supply systems or the Kansas Water Office. Please provide further detail in PART E.
- Column 3: The amount of water sold, by month, to all other public water supply systems. Please provide further detail in PART E.
- Column 4: The amount of water sold, by month, to all industrial, pasture, stockwater, feedlot, and bulk water service connections. For rural water districts, include the amount of water sold to farmsteads using at least 200,000 gallons of water per year. Also include metered power plant usage, even if this water is supplied free.
- Column 5: The amount of water sold, by month, to your residential, commercial and institutional customers (include hospitals, schools and prisons).
- Column 6: The amount of water used, by month, that is metered at individual service connections and supplied free, such as for public service, treatment processes, and connections receiving free water. Please record metered power plant usage with industrial water use in Column 4.
- Column 7: The amount of unaccounted for water, by month. The gallons reported in this column are found by adding the numbers in Columns 1 and 2 and subtracting the numbers in Columns 3, 4, 5, and 6. If you do not sell water to your customers, this column simply represents the total amount of water that you diverted or purchased.

Month	Column 1 Raw Water Diverted Under Your Rights (1000 Gallons)	Column 2 Water Purchased From All Sources (1000 Gallons)	Column 3 Water Sold to Other Public Water Suppliers (1000 Gallons)	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers (1000 Gallons)	Column 5 Water Sold to Your Residential and Commercial Customers (1000 Gallons)	Column 6 Metered Water Provided Free (1000 Gallons)	Column 7 Unaccounted For Water (See Above Explanation) (1000 Gallons)
Jan.	835.4	0		444.2	125.1	80.2	185.9
Feb.	789.3	100		400.2	125.1 est.	21.6	242.5
Mar.	563.9	8.9		524.0	92.5	73.2	-116.9
Apr.	626.5	100		345.1	102.4	21.6	157.5
May	802.2	0		396.4	131.1	97.9	176.8
June	956.3	26.5		445.9	152.4	151.2	233.3
July	863.6	65.4		504.3	212.3	125.1	88.2
Aug.	983.7	182.3		447.3	168.6	249.8	300.3
Sept.	896.0	97.1		416.0	156.5	54.7	365.9
Oct.	878.3	26.8		413.3	116.3	27.3	348.2
Nov.	1,531.5	13.1		376.2	104.9	16.6	1,046.9
Dec.	631.0	15.7		366.0	100.3	7.9	172.5
Total	10,357	436		5,078.9	1,587.5	927.1	3,201.1 3200

PART C: POPULATION, SERVICE CONNECTIONS, AND WATER RATES

LINN VALLEY LAKE PROPERTY OWNERS ASSN

Population served: 724 230 Estimate the number of persons served directly by your distribution system (Columns 5, 6, and 7).

Number of ACTIVE water service connections as of December 31:

29765

- a. 9 Residential
- b. 2 Commercial/Institutional
- c. 96 (2.4) Industrial
- d. 100 Pasture/Stockwater/Feedlot
- e. 1 Other (specify) Bulk Haul Station
- f. 100 Total ACTIVE Service Connections

If you are a city, how many of the active residential water service connections shown in 2a. are located outside of your city limits. 0

Date of last water rate change (Month and Year); 2/2008 If rates changed during the previous year, please attach a copy of new rate structures that apply to residential users.

853111

KANSAS DEPT. OF AGRICULTURE  
 WATER RESOURCES CENTER  
 FEB 27 2014

2014  
MUNICIPAL WATER USE REPORT  
(PUBLIC WATER SUPPLY)

**IMPORTANT: YOU MUST REPORT ANNUAL USAGE OR THE REASON FOR NON-USAGE, IN ORDER TO PROTECT YOUR RIGHT TO USE WATER**

This is the annual Water Use Report **required** to retain all Vested or Appropriation Rights. Please begin by reading the instructions for Part A on the reverse side of this page. Also present are instructions for name and address changes, **which include information needed if you have disposed of your interest in any one or more of the water right file numbers listed below.** If you have any questions on how to complete this form, please contact the Water Use Coordinator at (785) 564-6638. Please make a copy of the entire Water Use Report for your records, and return the original report to:

Water Use Coordinator  
Kansas Department of Agriculture  
Division of Water Resources  
1320 Research Park Drive  
Manhattan, Kansas 66502

**IMPORTANT**

**COMPLETE AND RETURN BY MARCH 1, 2015**

**PART A: POINTS OF DIVERSION**

**CERTIFIED MAIL RECOMMENDED**

Water Right File Number	Legal Descriptions Point(s) of Diversion	Water Meter Data			U N I T	Hours	Pump Rate (gpm)	Well Data		
		Beginning Water Meter Reading	Ending Water Meter Reading	Metered Quantity Of Water				Well Depth	Depth to Water	Date
. 42333-00 AKA: STRUCTURE PERMIT #DLN-0099	950N 2720W 23-19S-24E 1	M 37929500	47343400	9,413.900	g					

WATER RESOURCES RECEIVED  
MAR 06 2015  
KS DEPT OF AGRICULTURE

RECEIVED  
FEB 27 2015

Topeka Field Office  
DIVISION OF WATER RESOURCES

Check here if you are purchasing from or selling water to other public water suppliers and report amounts on **PART B**, Columns 2 and 3, and **PART E**.

Date: 2-24-15 Telephone: (913) 757 4591

I submit this report as the best information available. I understand that knowingly falsifying the report is a violation of state law.

901947

14 10302 29765 1 1 - MUN Top LN  
Office Use FO CO GMD

LINN VALLEY LAKE PROPERTY OWNERS ASSN

9 LINN VALLEY AVE  
LINN VALLEY, KS 66040

Marjean Hormann  
Name (Printed or Typed)

Marjean Hormann  
Name (Signature)

\_\_\_\_ Owner      \_\_\_\_ Tenant      X Agent

*MJE*



MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)

PART B: MONTHLY WATER USE SUMMARY

NOTE: REPORT WATER PUMPED, PURCHASED, AND SOLD FOR THE MONTH OF ACTUAL USE. REPORT ALL AMOUNTS IN UNITS OF 1000 GALLONS.

- Column 1: The amount of water diverted, by month, from all points of diversion (wells or intakes). If possible, raw water meters should be read at the same time as the month as customer meters. The total amount in this column should equal the total of the amounts reported in PART A.
- Column 2: The amount of water purchased, by month, from all other public water supply systems or the Kansas Water Office. Please provide further detail in PART E.
- Column 3: The amount of water sold, by month, to all other public water supply systems. Please provide further detail in PART E.
- Column 4: The amount of water sold, by month, to all industrial, pasture, stockwater, feedlot, and bulk water service connections. For rural water districts, include the amount of water sold to farmsteads using at least 200,000 gallons of water per year. Also include metered power plant usage, even if this water is supplied free.
- Column 5: The amount of water sold, by month, to your residential, commercial and institutional customers (include hospitals, schools and prisons).
- Column 6: The amount of water used, by month, that is metered at individual service connections and supplied free, such as for public service, treatment processes, and connections receiving free water. Please record metered power plant usage with industrial water use in Column 4.
- Column 7: The amount of unaccounted for water, by month. The gallons reported in this column are found by adding the numbers in Columns 1 and 2 and subtracting the numbers in Columns 3, 4, 5, and 6. If you do not sell water to your customers, this column simply represents the total amount of water that you diverted or purchased.

WATER RESOURCES RECEIVED  
 MAR 06 2015  
 KS DEPT OF AGRICULTURE

RECEIVED  
 FEB 27 2015  
 Topeka Field Office  
 DIVISION OF WATER RESOURCES

Month	Column 1 Raw Water Diverted Under Your Rights (1000 Gallons)	Column 2 Water Purchased From All Sources (1000 Gallons)	Column 3 <del>Water Sold to Other Public Water Suppliers (1000 Gallons)</del>	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers (1000 Gallons)	Column 5 Water Sold to Your Residential and Commercial Customers (1000 Gallons)	Column 6 Metered Water Provided Free (1000 Gallons)	Column 7 Unaccounted For Water (See Above Explanation) (1000 Gallons)
Jan.	745.0	59.4		436.4	100.2	12.3	136.6 256
Feb.	515.0	111.1		533.5	144.0	7.2	-280.8 -59
Mar.	523.4	188.7		397.4	113.3	14.4	-190.4 148
Apr.	753.1	0		427.2	132.8	23.4	169.6 170
May	868.0	13.2		431.7	134.4	124.2	164.4 191
June	855.5	31.2		443.1	125.3	114.2	141.6 205
July	895.5	147.9		439.9	158.7	163.7	-14.88 291
Aug.	1,300.0	7.4		478.9	161.5	165.3	486.8 502
Sept.	823.5	0		457.2	139.3	138.3	88.5 90
Oct.	768.9	0		458.6	112.8	20.9	176.3 176
Nov.	732.5	12.8		404.2	130.3	9.7	175.4 201
Dec.	708.4	0		368.1	130.0	7.3	202.8 203
Total	<del>9,488.8</del> 9,489	571.7 572		<del>4,880.3</del> 5,276	1,583.0	<del>801.5</del> 802 799	<del>1,652.1</del> 2,404 2,796

PART C: POPULATION, SERVICE CONNECTIONS, AND WATER RATES

- Population served: 746 Estimate the number of persons served directly by your distribution system (Columns 5, 6, and 7). LINN VALLEY LAKE PROPERTY OWNERS ASSN
- Number of ACTIVE water service connections as of December 31:
  - a. 93 Residential
  - b. 3 Commercial/Institutional
  - c. \_\_\_\_\_ Industrial
  - d. \_\_\_\_\_ Pasture/Stockwater/Feedlot
  - e. 1 Other (specify) BULK HAUL STATION
  - f. 97 Total ACTIVE Service Connections
- If you are a city, how many of the active residential water service connections shown in 2a. are located outside of your city limits. 0
- Date of last water rate change (Month and Year); 2/2008 If rates changed during the previous year, please attach a copy of new rate structures that apply to residential users.

MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)

PART D: WASTEWATER DISCHARGE

Check one:  
 No wastewater treatment     Pond or lagoon     Wastewater treatment facility     Other facility treats wastewater

If lagoon or treatment facility discharges to a stream, complete the following:

Amount of Discharge, in 1,000 gallons: 6,000

Does the above amount include rainwater:     Yes     No

Name of stream receiving discharge: Middle Creek via LINN VALLEY LAKES UN-NAMED Tributary

PART E: WATER SOLD TO OR PURCHASED FROM OTHER ENTITIES (Report all amounts in units of 1000 gallons)

Please provide the name of each ENTITY that water was sold to or purchased from during the year. Water purchased from the Kansas Water Office should also be recorded here. Report all quantities in units of 1000 gallons. Copy this form as needed to completely report sold and purchased water. The total amount of water purchased each month should be entered in Column 2 of PART B, and the total amount sold each month should be entered in Column 3 of Part B.

Name:	<u>RURAL WATER DIST. #1</u>	
County:	<u>LINN</u>	<u>33757</u>
	<input type="checkbox"/> Sold To	<input checked="" type="checkbox"/> Purchased From
Jan.	<u>59.4</u>	
Feb.	<u>111.1</u>	
Mar.	<u>188.7</u>	
Apr.	<u>0</u>	
May	<u>13.2</u>	
June	<u>31.2</u>	
July	<u>147.9</u>	
Aug.	<u>7.4</u>	
Sept.	<u>0</u>	
Oct.	<u>0</u>	
Nov.	<u>12.8</u>	
Dec.	<u>0</u>	
Total	<u><del>571.7</del> 572</u>	

Name:		
County:		
	<input type="checkbox"/> Sold To	<input type="checkbox"/> Purchased From
Jan.		
Feb.		
Mar.		
Apr.		
May		
June		
July		
Aug.		
Sept.		
Oct.		
Nov.		
Dec.		
Total		

Name:		
County:		
	<input type="checkbox"/> Sold To	<input type="checkbox"/> Purchased From
Jan.		
Feb.		
Mar.		
Apr.		
May		
June		
July		
Aug.		
Sept.		
Oct.		
Nov.		
Dec.		
Total		

Name:		
County:		
	<input type="checkbox"/> Sold To	<input type="checkbox"/> Purchased From
Jan.		
Feb.		
Mar.		
Apr.		
May		
June		
July		
Aug.		
Sept.		
Oct.		
Nov.		
Dec.		
Total		

2015  
MUNICIPAL WATER USE REPORT  
(PUBLIC WATER SUPPLY)



**IMPORTANT: YOU MUST REPORT ANNUAL USAGE OR THE REASON FOR NON-USAGE, IN ORDER TO PROTECT YOUR RIGHT TO USE WATER**

This is the annual Water Use Report required to retain all Vested or Appropriation Rights. Please begin by reading the instructions for Part A on the reverse side of this page. Also present are instructions for name and address changes, **which include information needed if you have disposed of your interest in any one or more of the water right file numbers listed below.** If you have any questions on how to complete this form, please contact the Water Use Coordinator at (785) 564-6638. Please make a copy of the entire Water Use Report for your records, and return the original report to:

Water Use Coordinator  
Kansas Department of Agriculture  
Division of Water Resources  
1320 Research Park Drive  
Manhattan, Kansas 66502

**IMPORTANT**

**COMPLETE AND RETURN BY MARCH 1, 2016**

**PART A: POINTS OF DIVERSION**

**CERTIFIED MAIL RECOMMENDED**

Water Right File Number	Legal Descriptions Point(s) of Diversion	Water Meter Data			UNIT	Hours	Pump Rate (gpm)	Well Data		
		Beginning Water Meter Reading	Ending Water Meter Reading	Metered Quantity Of Water				Well Depth	Depth to Water	Date
42333-00 AKA: STRUCTURE PERMIT #DLN-0099	950N 2720W 23-19S-24E 1  Water Plant Meter Serial # 0703 734 (gray) located RIGHT inside water plant.	M ↑ 47343400	↑ Jenn 55477600	↑ 81342.80	G					

WATER RESOURCES RECEIVED  
MAR 14 2016  
KS DEPT OF AGRICULTURE

Check here if you are purchasing from or selling water to other public water suppliers and report amounts on PART B, Columns 2 and 3, and PART E.

942121

Date: 2/25/16 Telephone: (913) 7574591

I submit this report as the best information available. I understand that knowingly falsifying the report is a violation of state law.

15 10252 29765 1 1 - MUN Top LN  
YEAR PIN PERSON ID FO CO GMD

Marjean Hormann  
Name (Printed or Typed)

LINN VALLEY LAKE PROPERTY OWNERS ASSN

Marjean K Hormann  
Name (Signature)

9 LINN VALLEY AVE  
LINN VALLEY, KS 66040

Owner \_\_\_\_\_ Tenant \_\_\_\_\_  Agent

*Handwritten initials*



**WATER USE REPORT  
MUNICIPAL USE (PUBLIC WATER SUPPLY)**

**NOTE:** If you hold water rights for uses other than municipal, the appropriate Water Use Report(s) will be mailed under separate cover.

**INSTRUCTIONS AND DEFINITIONS FOR PART A:**

- Water Right File Number:** The file number that was originally assigned by the Division of Water Resources to the application for permit to appropriate water for beneficial use or the file number that was originally assigned to the order determining and establishing a vested right to continue the beneficial use of water.
- Point of Diversion:** The point from which water is obtained, be it a well, dam or intake. **If no water was used from one or more points of diversion, then the reason for non-usage must be given for each of the points of diversion.**
- Legal Descriptions:** **If an error exists in a legal description, mark through the incorrect portion and enter the correct description immediately above it.** The location of each point of diversion is given by a qualifier followed by the section, township, and range. The qualifier is used to describe the specific location of the point of diversion within the section. For example, "NC S2 NW" reads "near the center of the South Half of the Northwest Quarter." The qualifiers may be the number of feet North and number of feet West of the Southeast corner of the section. In some cases, a portion is included on the next line following the term "aka" (also known as).
- Water Meter Data:** If the meter has malfunctioned during the year, please indicate in this space and provide hours pumped and pump rate.
- Beginning Meter Reading:** If a WATER METER is installed, report this year's BEGINNING METER READING (this is the same as last year's ending meter reading), APPLYING ANY MULTIPLICATION FACTOR SHOWN ON THE FACE OF THE METER.
- Ending Meter Reading:** If a WATER METER is installed report this year's ENDING METER READING, APPLYING ANY MULTIPLICATION FACTOR SHOWN ON THE FACE OF THE METER.
- Metered Quantity:** If a WATER METER is installed, subtract this year's beginning meter reading from this year's ending meter reading and report the difference, APPLYING ANY MULTIPLICATION FACTOR SHOWN ON THE FACE OF THE METER. Please have the water meter checked to verify its accuracy, if it has not been checked by a qualified person within the past three years.
- Meter Unit:** Indicate the unit of measure recorded by your water meter (enter "A" for acre-feet, "AI" for acre-inches or "G" for gallons).
- Hours Pumped:** Enter the number of hours the pump was operated during the calendar year.
- Est. Pump Rate:** Enter the average rate of pumping in gallons per minute.
- Well Data:** Well Depth: enter the depth to bottom of well in feet.  
Depth to Water: enter the depth to water in feet.  
Date Measured: enter the date of the last depth to water measurement.

**INSTRUCTIONS FOR NAME, ADDRESS CHANGES:**

1. Please check your name and address, which is printed on the reverse side of this page in the lower left corner. If it is incorrect or incomplete, make any necessary changes in the space provided below. If you are no longer the person responsible for completing this report for one or more of the water right file numbers listed on the reverse side of this page, please print or type the information requested below.

Check one:       Address Correction       New Correspondent       New Owner

Water Right File Number(s): \_\_\_\_\_

Name of New Owner/Title: \_\_\_\_\_

Address: \_\_\_\_\_

Date of Change:      Month \_\_\_\_\_      Year \_\_\_\_\_      Telephone: (\_\_\_\_) \_\_\_\_\_

IF YOU HAVE ADDITIONAL INFORMATION REGARDING THIS WATER USE REPORT, PROVIDE BELOW OR ATTACH ANOTHER PAGE.

2015  
MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)

**PART B: MONTHLY WATER USE SUMMARY**

NOTE: REPORT WATER PUMPED, PURCHASED, AND SOLD FOR THE MONTH OF ACTUAL USE. REPORT ALL AMOUNTS IN UNITS OF **1000 GALLONS**.

- Column 1: The amount of water diverted, by month, from all points of diversion (wells or intakes). If possible, raw water meters should be read at the same time of the month as customer meters. The total amount in this column should equal the total of the amounts reported in PART A.
- Column 2: The amount of water purchased, by month, from all other public water supply systems or the Kansas Water Office. Please provide further detail in PART E.
- Column 3: The amount of water sold, by month, to all other public water supply systems. Please provide further detail in PART E.
- Column 4: The amount of water sold, by month, to all industrial, pasture, stockwater, feedlot, and bulk water service connections. For rural water districts, include the amount of water sold to farmsteads using at least 200,000 gallons of water per year. Also include metered power plant usage, even if this water is supplied free.
- Column 5: The amount of water sold, by month, to your residential, commercial and institutional customers (include hospitals, schools and prisons).
- Column 6: The amount of water used, by month, that is metered at individual service connections and supplied free, such as for public service, treatment processes, and connections receiving free water. Please record metered power plant usage with industrial water use in Column 4.
- Column 7: The amount of unaccounted for water, by month. The gallons reported in this column are found by adding the numbers in Columns 1 and 2 and subtracting the numbers in Columns 3, 4, 5, and 6. If you do not sell water to your customers, this column simply represents the total amount of water that you diverted or purchased.

Month	Column 1 Raw Water Diverted Under Your Rights (1000 Gallons)	Column 2 Water Purchased From All Sources (1000 Gallons)	Column 3 Water Sold to Other Public Water Suppliers (1000 Gallons)	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers (1000 Gallons)	Column 5 Water Sold to Your Residential and Commercial Customers (1000 Gallons)	Column 6 Metered Water Provided Free (1000 Gallons)	Column 7 Unaccounted For Water (See Above Explanation) (1000 Gallons)
Jan.	817.2	18.2		438.4	131 136.7	9.0	257.3
Feb.	83 82.5	349 348.8		342 341.7	108.2	5.4	23 24.1
Mar.	303 302.7	583 582.8		402.0	118 117.4	14.2	352 351.4
Apr.	593 592.5	141.4		436 435.5	114.1	30 29.5	154 154.8
May	222 221.7	598 597.8		413.2	110 109.7	109 108.7	188 187.9
June	731 730.7	0		382 381.6	184 183.6	156 155.6	9 9.9
July	1,101.2	54 53.8		489 488.8	166 165.7	161.2	339.3
Aug.	987.0	457 456.6		519.1	176 175.5	192.1	557 556.9
Sept.	86 85.9	351.4		409 408.8	159 158.7	73 72.5	-205.9 -204
Oct.	878 877.5	11.1		494 493.7	177 176.9	25 24.8	193.2
Nov.	838.1	0		410 409.6	138 137.5	26.1	-264.9 264
Dec.	860 859.7	30.4		398.3	128 127.5	105.2	259.1
Total	7499 7498.5	2,592.3		5132 5130.7	1,706.8	907.3	2345

**PART C: POPULATION, SERVICE CONNECTIONS, AND WATER RATES**

1. Population served: 774 Estimate the number of persons served directly by your distribution system (Columns 5, 6, and 7). LINN VALLEY LAKE PROPERTY OWNERS ASSN
2. Number of ACTIVE water service connections as of December 31: 29765
- a. 94 Residential                      c. \_\_\_\_\_ Industrial                      e. 1 Other (specify) Bulk Haul Station
- b. 6 Commercial/Institutional                      d. \_\_\_\_\_ Pasture/Stockwater/Feedlot                      f. 101 Total ACTIVE Service Connections
3. If you are a city, how many of the active residential water service connections shown in 2a. are located outside of your city limits. \_\_\_\_\_
4. Date of last water rate change (Month and Year); 3/1/15 If rates changed during the previous year, please attach a copy of new rate structures that apply to residential users.

MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)

PART D: WASTEWATER DISCHARGE

Check one:

- No wastewater treatment    
  Pond or lagoon    
  Wastewater treatment facility    
  Other facility treats wastewater

If lagoon or treatment facility discharges to a stream, complete the following:

Amount of Discharge, in 1,000 gallons: 0

Does the above amount include rainwater:  Yes      No

Name of stream receiving discharge: Middle Creek via Linn Valley Lakes Un-named Tributary

PART E: WATER SOLD TO OR PURCHASED FROM OTHER ENTITIES (Report all amounts in units of 1000 gallons)

Please provide the name of each ENTITY that water was sold to or purchased from during the year. Water purchased from the Kansas Water Office should also be recorded here. Report all quantities in units of 1000 gallons. Copy this form as needed to completely report sold and purchased water. The total amount of water purchased each month should be entered in Column 2 of PART B, and the total amount sold each month should be entered in Column 3 of Part B.

Name:	<u>Rural Water Dist. #1</u>	
County:	<u>33757</u>	
	<input type="checkbox"/> Sold To	<input checked="" type="checkbox"/> Purchased From
Jan.	<u>18.2</u>	
Feb.	<u>348.8</u>	<u>349</u>
Mar.	<u>582.8</u>	<u>583</u>
Apr.	<u>141.4</u>	
May	<u>597.8</u>	<u>598</u>
June	<u>0</u>	
July	<u>53.8</u>	<u>54</u>
Aug.	<u>456.6</u>	<u>457</u>
Sept.	<u>351.4</u>	
Oct.	<u>11.4</u>	
Nov.	<u>0</u>	
Dec.	<u>30.4</u>	
Total	<u>2,592.3</u>	

Name:		
County:		
	<input type="checkbox"/> Sold To	<input type="checkbox"/> Purchased From
Jan.		
Feb.		
Mar.		
Apr.		
May		
June		
July		
Aug.		
Sept.		
Oct.		
Nov.		
Dec.		
Total		

Name:		
County:		
	<input type="checkbox"/> Sold To	<input type="checkbox"/> Purchased From
Jan.		
Feb.		
Mar.		
Apr.		
May		
June		
July		
Aug.		
Sept.		
Oct.		
Nov.		
Dec.		
Total		

Name:		
County:		
	<input type="checkbox"/> Sold To	<input type="checkbox"/> Purchased From
Jan.		
Feb.		
Mar.		
Apr.		
May		
June		
July		
Aug.		
Sept.		
Oct.		
Nov.		
Dec.		
Total		

2015  
MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)



**PART B: MONTHLY WATER USE SUMMARY**

NOTE: REPORT WATER PUMPED, PURCHASED, AND SOLD FOR THE MONTH OF ACTUAL USE. REPORT ALL AMOUNTS IN UNITS OF **1000 GALLONS**.

- Column 1: The amount of water diverted, by month, from all points of diversion (wells or intakes). If possible, raw water meters should be read at the same time of the month as customer meters. The total amount in this column should equal the total of the amounts reported in PART A.
- Column 2: The amount of water purchased, by month, from all other public water supply systems or the Kansas Water Office. Please provide further detail in PART E.
- Column 3: The amount of water sold, by month, to all other public water supply systems. Please provide further detail in PART E.
- Column 4: The amount of water sold, by month, to all industrial, pasture, stockwater, feedlot, and bulk water service connections. For rural water districts, include the amount of water sold to farmsteads using at least 200,000 gallons of water per year. Also include metered power plant usage, even if this water is supplied free.
- Column 5: The amount of water sold, by month, to your residential, commercial and institutional customers (include hospitals, schools and prisons).
- Column 6: The amount of water used, by month, that is metered at individual service connections and supplied free, such as for public service, treatment processes, and connections receiving free water. Please record metered power plant usage with industrial water use in Column 4.
- Column 7: The amount of unaccounted for water, by month. The gallons reported in this column are found by adding the numbers in Columns 1 and 2 and subtracting the numbers in Columns 3, 4, 5, and 6. If you do not sell water to your customers, this column simply represents the total amount of water that you diverted or purchased.

Month	Column 1 WATER PLANT Raw Water Diverted Under Your Rights (1000 Gallons)	Meter #200 RWD #1 Column 2 At CLUB HOUSE Water Purchased From All Sources (1000 Gallons)	#1 Add Column 3 #2 Water Sold to Other Public Water Suppliers (1000 Gallons)	SUBTRACT FARM COL. 3 Haul Station Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers (1000 Gallons)	LVL Metered Cust. Column 5 Water Sold to Your Residential and Commercial Customers (1000 Gallons)	Free Stat. Golf Course Column 6 Club House Metered Water Provided Free (1000 Gallons)	Column 7 Unaccounted For Water (See Above Explanation) (1000 Gallons)
Jan.	817,200	18,200	835,400	438,400	130,774	9,090	257,136
Feb.	82,500	348,800	431,300	341,700	108,234	5,450	-24,084
Mar.	302,700	582,800	885,500	402,000	117,950	14,290	351,260
Apr.	592,500	141,400	733,900	435,500	114,120	29,520	1154,760
May	221,700	597,800	819,500	413,200	109,705	108,780	5187,813
June	730,740	-	730,740	381,600	183,665	155,610	9,865
July	1,101,260	53,800	1,155,060	488,800	165,769	161,270	339,221
Aug.	987,000	456,600	1,443,600	519,100	175,598	192,170	556,752
Sept.	85,700	351,400	437,100	408,800	158,788	72,500	-202,983
Oct.	877,500	11,100	888,600	493,700	1176,980	24,800	193,120
Nov.	838,100	0	838,100	409,600	137,550	26,140	264,810
Dec.	859,700	30,400	890,100	398,300	127,500	105,210	259,090
Total	7,496,600	2,592,300	10,088,900	5,130,700	1,706,610	904,830	2,346,760

**PART C: POPULATION, SERVICE CONNECTIONS, AND WATER RATES**

- Population served: 774 Estimate the number of persons served directly by your distribution system (Columns 5, 6, and 7). LINN VALLEY LAKE PROPERTY OWNERS ASSN
- Number of ACTIVE water service connections as of December 31: 94
  - 94 Residential
  - 0 Commercial/Institutional
  - 1 Industrial
  - 0 Pasture/Stockwater/Feedlot
  - 1 Other (specify) Bulk Haul Station
  - 94 Total ACTIVE Service Connections
- If you are a city, how many of the active residential water service connections shown in 2a. are located outside of your city limits. \_\_\_\_\_
- Date of last water rate change (Month and Year); 3/1/15 If rates changed during the previous year, please attach a copy of new rate structures that apply to residential users.

29765

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MAR 14 2015

WATER RESOURCES RECEIVED

MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)

NOV 17 2010

PART D: WASTEWATER DISCHARGE

Check one:

No wastewater treatment

Pond or lagoon

Wastewater treatment facility

Other facility treats wastewater

RECEIVED  
MAY 14 11 20 2010

If lagoon or treatment facility discharges to a stream, complete the following:

Amount of Discharge, in 1,000 gallons: \_\_\_\_\_

Does the above amount include rainwater:  Yes  No

Name of stream receiving discharge: Middle Creek via LINN VALLEY LAKES UN-NAMED tributary

PART E: WATER SOLD TO OR PURCHASED FROM OTHER ENTITIES (Report all amounts in units of 1000 gallons)

Please provide the name of each ENTITY that water was sold to or purchased from during the year. Water purchased from the Kansas Water Office should also be recorded here. Report all quantities in units of 1000 gallons. Copy this form as needed to completely report sold and purchased water. The total amount of water purchased each month should be entered in Column 2 of PART B, and the total amount sold each month should be entered in Column 3 of Part B.

Name:	<u>Rural Water Dist. #1</u>	
County:	<u>LINN</u>	
	<input type="checkbox"/> Sold To	<input checked="" type="checkbox"/> Purchased From
Jan.	<u>18,200</u>	
Feb.	<u>348,800</u>	
Mar.	<u>582,800</u>	
Apr.	<u>141,400</u>	
May	<u>597,800</u>	
June	<u>0</u>	
July	<u>53,800</u>	
Aug.	<u>456,600</u>	
Sept.	<u>351,400</u>	
Oct.	<u>11,100</u>	
Nov.	<u>0</u>	
Dec.	<u>30,400</u>	
Total	<u>2,592,300</u>	

Name:	_____	
County:	_____	
	<input type="checkbox"/> Sold To	<input type="checkbox"/> Purchased From
Jan.	_____	_____
Feb.	_____	_____
Mar.	_____	_____
Apr.	_____	_____
May	_____	_____
June	_____	_____
July	_____	_____
Aug.	_____	_____
Sept.	_____	_____
Oct.	_____	_____
Nov.	_____	_____
Dec.	_____	_____
Total	_____	_____

Name:	_____	
County:	_____	
	<input type="checkbox"/> Sold To	<input type="checkbox"/> Purchased From
Jan.	_____	_____
Feb.	_____	_____
Mar.	_____	_____
Apr.	_____	_____
May	_____	_____
June	_____	_____
July	_____	_____
Aug.	_____	_____
Sept.	_____	_____
Oct.	_____	_____
Nov.	_____	_____
Dec.	_____	_____
Total	_____	_____

Name:	_____	
County:	_____	
	<input type="checkbox"/> Sold To	<input type="checkbox"/> Purchased From
Jan.	_____	_____
Feb.	_____	_____
Mar.	_____	_____
Apr.	_____	_____
May	_____	_____
June	_____	_____
July	_____	_____
Aug.	_____	_____
Sept.	_____	_____
Oct.	_____	_____
Nov.	_____	_____
Dec.	_____	_____
Total	_____	_____



2016  
MUNICIPAL WATER USE REPORT  
(PUBLIC WATER SUPPLY)

**IMPORTANT: YOU MUST REPORT ANNUAL USAGE OR THE REASON FOR NON-USAGE, IN ORDER TO PROTECT YOUR RIGHT TO USE WATER**

This is the annual Water Use Report required to retain all Vested or Appropriation Rights. Please begin by reading the instructions for Part A on the reverse side of this page. Also present are instructions for name and address changes, **which include information needed if you have disposed of your interest in any one or more of the water right file numbers listed below.** If you have any questions on how to complete this form, please contact the Water Use Coordinator at (785) 564-6638. Please make a copy of the entire Water Use Report for your records, and return the original report to:

Water Use Coordinator  
Kansas Department of Agriculture  
Division of Water Resources  
1320 Research Park Drive  
Manhattan, Kansas 66502

**IMPORTANT**

**COMPLETE AND RETURN BY MARCH 1, 2017**

**PART A: POINTS OF DIVERSION**

**CERTIFIED MAIL RECOMMENDED**

Water Right File Number	Legal Descriptions Point(s) of Diversion	Water Meter Data			UNIT	Hours	Pump Rate (gpm)	Well Data		
		Beginning Water Meter Reading	Ending Water Meter Reading	Metered Quantity Of Water				Well Depth	Depth to Water	Date
. 42333-00 AKA: STRUCTURE PERMIT #DLN-0099	950N 2720W 23-19S-24E 1	m 55477600	63960600	8'483'000	G					

WATER RESOURCES RECEIVED  
MAR 01 2017  
KS DEPT OF AGRICULTURE

Check here if you are purchasing from or selling water to other public water suppliers and report amounts on PART B, Columns 2 and 3, and PART E. 981944

Date: 23 Feb 2017 Telephone: (913) 757 4591  
Email: marjean@linnvalleylakes.com

I submit this report as the best information available. I understand that knowingly falsifying the report is a violation of state law.

16 10166 29765 1 1 - MUN Top LN  
YEAR PIN PERSON ID FO CO GMD

LINN VALLEY LAKE PROPERTY OWNERS ASSN

9 LINN VALLEY AVE  
LINN VALLEY, KS 66040

Marjean K Hermann  
Name (Printed or Typed)

Marjean K Hermann  
Name (Signature)

Owner \_\_\_\_\_ Tenant \_\_\_\_\_  Agent

**WATER USE REPORT  
MUNICIPAL USE (PUBLIC WATER SUPPLY)**

**NOTE:** If you hold water rights for uses other than municipal, the appropriate Water Use Report(s) will be mailed under separate cover.

**INSTRUCTIONS AND DEFINITIONS FOR PART A:**

- Water Right File Number:** The file number that was originally assigned by the Division of Water Resources to the application for permit to appropriate water for beneficial use or the file number that was originally assigned to the order determining and establishing a vested right to continue the beneficial use of water.
- Point of Diversion:** The point from which water is obtained, be it a well, dam or intake. **If no water was used from one or more points of diversion, then the reason for non-usage must be given for each of the points of diversion.**
- Legal Descriptions:** **If an error exists in a legal description, mark through the incorrect portion and enter the correct description immediately above it.** The location of each point of diversion is given by a qualifier followed by the section, township, and range. The qualifier is used to describe the specific location of the point of diversion within the section. For example, "NC S2 NW" reads "near the center of the South Half of the Northwest Quarter." The qualifiers may be the number of feet North and number of feet West of the Southeast corner of the section. In some cases, a portion is included on the next line following the term "aka" (also known as).
- Water Meter Data:** If the meter has malfunctioned during the year, please indicate in this space and provide hours pumped and pump rate.
- Beginning Meter Reading:** If a WATER METER is installed, report this year's BEGINNING METER READING (this is the same as last year's ending meter reading), APPLYING ANY MULTIPLICATION FACTOR SHOWN ON THE FACE OF THE METER.
- Ending Meter Reading:** If a WATER METER is installed report this year's ENDING METER READING, APPLYING ANY MULTIPLICATION FACTOR SHOWN ON THE FACE OF THE METER.
- Metered Quantity:** If a WATER METER is installed, subtract this year's beginning meter reading from this year's ending meter reading and report the difference, APPLYING ANY MULTIPLICATION FACTOR SHOWN ON THE FACE OF THE METER. Please have the water meter checked to verify its accuracy, if it has not been checked by a qualified person within the past three years.
- Meter Unit:** Indicate the unit of measure recorded by your water meter (enter "A" for acre-feet, "AI" for acre-inches or "G" for gallons).
- Hours Pumped:** Enter the number of hours the pump was operated during the calendar year.
- Est. Pump Rate:** Enter the average rate of pumping in gallons per minute.
- Well Data:** Well Depth: enter the depth to bottom of well in feet.  
Depth to Water: enter the depth to water in feet.  
Date Measured: enter the date of the last depth to water measurement.

**INSTRUCTIONS FOR NAME, ADDRESS CHANGES:**

1. Please check your name and address, which is printed on the reverse side of this page in the lower left corner. If it is incorrect or incomplete, make any necessary changes in the space provided below. If you are no longer the person responsible for completing this report for one or more of the water right file numbers listed on the reverse side of this page, please print or type the information requested below.

Check one:       Address Correction                       New Correspondent                       New Owner

Water Right File Number(s): \_\_\_\_\_

Name of New Owner/Title: \_\_\_\_\_

Address: \_\_\_\_\_

Date of Change:              Month \_\_\_\_\_              Year \_\_\_\_\_                                      Telephone: (\_\_\_\_) \_\_\_\_\_

IF YOU HAVE ADDITIONAL INFORMATION REGARDING THIS WATER USE REPORT, PROVIDE BELOW OR ATTACH ANOTHER PAGE.

MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)

2016

PART B: MONTHLY WATER USE SUMMARY

NOTE: REPORT WATER PUMPED, PURCHASED, AND SOLD FOR THE MONTH OF ACTUAL USE. REPORT ALL AMOUNTS IN UNITS OF 1000 GALLONS.

- Column 1: The amount of water diverted, by month, from all points of diversion (wells or intakes). If possible, raw water meters should be read at the same time of the month as customer meters. The total amount in this column should equal the total of the amounts reported in PART A.
- Column 2: The amount of water purchased, by month, from all other public water supply systems or the Kansas Water Office. Please provide further detail in PART E.
- Column 3: The amount of water sold, by month, to all other public water supply systems. Please provide further detail in PART E.
- Column 4: The amount of water sold, by month, to all industrial, pasture, stockwater, feedlot, and bulk water service connections. For rural water districts, include the amount of water sold to farmsteads using at least 200,000 gallons of water per year. Also include metered power plant usage, even if this water is supplied free.
- Column 5: The amount of water sold, by month, to your residential, commercial and institutional customers (include hospitals, schools and prisons).
- Column 6: The amount of water used, by month, that is metered at individual service connections and supplied free, such as for public service, treatment processes, and connections receiving free water. Please record metered power plant usage with industrial water use in Column 4.
- Column 7: The amount of unaccounted for water, by month. The gallons reported in this column are found by adding the numbers in Columns 1 and 2 and subtracting the numbers in Columns 3, 4, 5, and 6. If you do not sell water to your customers, this column simply represents the total amount of water that you diverted or purchased.

WATER RESOURCES RECEIVED

MAR 01 2017

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Month	Column 1 Raw Water Diverted Under Your Rights (1000 Gallons)	Column 2 Water Purchased From All Sources (1000 Gallons)	Column 3 Water Sold to Other Public Water Suppliers (1000 Gallons)	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers (1000 Gallons)	Column 5 Water Sold to Your Residential and Commercial Customers (1000 Gallons)	Column 6 Metered Water Provided Free (1000 Gallons)	Column 7 Unaccounted For Water (See Above Explanation) (1000 Gallons)
Jan.	695.1	11 10.6		318.8	125 124.9	15 14.5	248 247.8
Feb.	797.8 798	0		390 389.9	101.4	10 9.9	297 296.4
Mar.	872.4	0		431 430.7	168.1	12.4	261.0
Apr.	900.7 901	27.1		438 437.5	173 172.5	30.4	287.3
May	1066.2	361.0		448.4	235.0	136 135.8	608 607.8
June	608.1	569.0		594.6	312.1	200 199.5	71 70.7
July	930.7 931	78 77.7		446 445.7	213.1	163 162.8	187 186.7
Aug.	906.8 907	86 85.9		452.2	196 195.6	168.3	177 176.4
Sept.	742.6 742	171 170.8		383.4	163 162.8	41.3	326 324.8
Oct.	728.0	177.5		442 441.7	172 171.5	24.0	267 268.2
Nov.	491.3	242.4		405.0	149 148.6	14 13.9	165 166.0
Dec.	464.4	381.3		454 453.6	155.3	5 4.9	231.8
Total	9,203.1	2,103.3		5,201.0	2162 2,161.5	818.4	3,125.4

PART C: POPULATION, SERVICE CONNECTIONS, AND WATER RATES

- Population served: 774 Estimate the number of persons served directly by your distribution system (Columns 5, 6, and 7). LINN VALLEY LAKE PROPERTY OWNERS ASSN
- Number of ACTIVE water service connections as of December 31:
  - a. 94 Residential
  - b. 6 Commercial/Institutional
  - c. \_\_\_\_\_ Industrial
  - d. \_\_\_\_\_ Pasture/Stockwater/Feedlot
  - e. 1 Other (specify) BULK HAUL STATION
  - f. 101 Total ACTIVE Service Connections
- If you are a city, how many of the active residential water service connections shown in 2a. are located outside of your city limits. \_\_\_\_\_
- Date of last water rate change (Month and Year): 3/1/15 If rates changed during the previous year, please attach a copy of new rate structures that apply to residential users.

MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)

PART D: WASTEWATER DISCHARGE

Check one:

- No wastewater treatment    
  Pond or lagoon    
  Wastewater treatment facility    
  Other facility treats wastewater

If lagoon or treatment facility discharges to a stream, complete the following:

Amount of Discharge, in 1,000 gallons: AS OF 2-17-17 NO DISCHARGE PER MIKE PAGE OF PAGE ENTERPRISE

Does the above amount include rainwater:  Yes      No

Name of stream receiving discharge: Middle Creek via LINN Valley LAKES UN-NAMED tributary

PART E: WATER SOLD TO OR PURCHASED FROM OTHER ENTITIES (Report all amounts in units of 1000 gallons)

Please provide the name of each ENTITY that water was sold to or purchased from during the year. Water purchased from the Kansas Water Office should also be recorded here. Report all quantities in units of 1000 gallons. Copy this form as needed to completely report sold and purchased water. The total amount of water purchased each month should be entered in Column 2 of PART B, and the total amount sold each month should be entered in Column 3 of Part B.

Name:	<u>LINN COUNTY Rural Water Dist. #1</u>	
County:	<u>LINN</u>	<u>33757</u>
	<input type="checkbox"/> Sold To	<input checked="" type="checkbox"/> Purchased From
Jan.	<u>10.6</u>	<u>11</u>
Feb.	<u>0</u>	
Mar.	<u>0</u>	
Apr.	<u>27.1</u>	
May	<u>361.0</u>	
June	<u>569.0</u>	
July	<u>77.7</u>	<u>78</u>
Aug.	<u>85.9</u>	<u>86</u>
Sept.	<u>170.8</u>	<u>171</u>
Oct.	<u>177.5</u>	<u>178</u>
Nov.	<u>242.4</u>	
Dec.	<u>381.3</u>	
Total	<u>2,103.3</u>	

Name:	_____	
County:	_____	_____
	<input type="checkbox"/> Sold To	<input type="checkbox"/> Purchased From
Jan.	_____	_____
Feb.	_____	_____
Mar.	_____	_____
Apr.	_____	_____
May	_____	_____
June	_____	_____
July	_____	_____
Aug.	_____	_____
Sept.	_____	_____
Oct.	_____	_____
Nov.	_____	_____
Dec.	_____	_____
Total	_____	_____

Name:	_____	
County:	_____	_____
	<input type="checkbox"/> Sold To	<input type="checkbox"/> Purchased From
Jan.	_____	_____
Feb.	_____	_____
Mar.	_____	_____
Apr.	_____	_____
May	_____	_____
June	_____	_____
July	_____	_____
Aug.	_____	_____
Sept.	_____	_____
Oct.	_____	_____
Nov.	_____	_____
Dec.	_____	_____
Total	_____	_____

Name:	_____	
County:	_____	_____
	<input type="checkbox"/> Sold To	<input type="checkbox"/> Purchased From
Jan.	_____	_____
Feb.	_____	_____
Mar.	_____	_____
Apr.	_____	_____
May	_____	_____
June	_____	_____
July	_____	_____
Aug.	_____	_____
Sept.	_____	_____
Oct.	_____	_____
Nov.	_____	_____
Dec.	_____	_____
Total	_____	_____

MUNICIPAL WATER USE REPORT  
(PUBLIC WATER SUPPLY)

IMPORTANT: YOU MUST REPORT ANNUAL USAGE OR THE REASON FOR NON-USAGE, IN ORDER TO PROTECT YOUR RIGHT TO USE WATER

This is the annual Water Use Report required to retain all Vested or Appropriation Rights. Please begin by reading the instructions for Part A on the reverse side of this page. Also present are instructions for name and address changes, **which include information needed if you have disposed of your interest in any one or more of the water right file numbers listed below.** If you have any questions on how to complete this form, please contact the Water Use Coordinator at (785) 564-6638. Please make a copy of the entire Water Use Report for your records, and return the original report to:

Water Use Coordinator  
Kansas Department of Agriculture  
Division of Water Resources  
1320 Research Park Drive  
Manhattan, Kansas 66502

**IMPORTANT**

**COMPLETE AND RETURN BY MARCH 1, 2018**

PART A: POINTS OF DIVERSION

CERTIFIED MAIL RECOMMENDED

Water Right File Number	Legal Descriptions Point(s) of Diversion	Water Meter Data			U N I T	Hours	Pump Rate (gpm)	Well Data		
		Beginning Water Meter Reading	Ending Water Meter Reading	Metered Quantity Of Water				Well Depth	Depth to Water	Date
42333-00 AKA: STRUCTURE PERMIT #DLN-0099	950N 2720W 23-19S-24E 1	639,606.00	723,085.00	8,347.900	G					

Water Resources  
Received  
MAR 02 2018  
KS Dept Of Agriculture

Check here if you are purchasing from or selling water to other public water suppliers and report amounts on PART B, Columns 2 and 3, and PART E. **031799**

Date: 2/27/18 Telephone: (913) 757-4591  
Email: marjean@linnvalleylakes.com

I submit this report as the best information available. I understand that knowingly falsifying the report is a violation of state law.

17 10056 65869 1 1 - MUN Top LN  
YEAR PIN PERSON ID FO CO GMD

CITY OF LINN VALLEY  
22412 E 2400 ROAD  
LINN VALLEY, KS 66040

Marjean K Hormann  
Name (Printed or Typed)  
Marjean K Hormann  
Name (Signature)

Owner \_\_\_\_\_ Tenant \_\_\_\_\_ X Agent

20

**WATER USE REPORT  
MUNICIPAL USE (PUBLIC WATER SUPPLY)**

**NOTE:** If you hold water rights for uses other than municipal, the appropriate Water Use Report(s) will be mailed under separate cover.

**INSTRUCTIONS AND DEFINITIONS FOR PART A:**

- Water Right File Number:** The file number that was originally assigned by the Division of Water Resources to the application for permit to appropriate water for beneficial use or the file number that was originally assigned to the order determining and establishing a vested right to continue the beneficial use of water.
- Point of Diversion:** The point from which water is obtained, be it a well, dam or intake. **If no water was used from one or more points of diversion, then the reason for non-usage must be given for each of the points of diversion.**
- Legal Descriptions:** **If an error exists in a legal description, mark through the incorrect portion and enter the correct description immediately above it.** The location of each point of diversion is given by a qualifier followed by the section, township, and range. The qualifier is used to describe the specific location of the point of diversion within the section. For example, "NC S2 NW" reads "near the center of the South Half of the Northwest Quarter." The qualifiers may be the number of feet North and number of feet West of the Southeast corner of the section. In some cases, a portion is included on the next line following the term "aka" (also known as).
- Water Meter Data:** If the meter has malfunctioned during the year, please indicate in this space and provide hours pumped and pump rate.
- Beginning Meter Reading:** If a WATER METER is installed, report this year's BEGINNING METER READING (this is the same as last year's ending meter reading), APPLYING ANY MULTIPLICATION FACTOR SHOWN ON THE FACE OF THE METER.
- Ending Meter Reading:** If a WATER METER is installed report this year's ENDING METER READING, APPLYING ANY MULTIPLICATION FACTOR SHOWN ON THE FACE OF THE METER.
- Metered Quantity:** If a WATER METER is installed, subtract this year's beginning meter reading from this year's ending meter reading and report the difference, APPLYING ANY MULTIPLICATION FACTOR SHOWN ON THE FACE OF THE METER. Please have the water meter checked to verify its accuracy, if it has not been checked by a qualified person within the past three years.
- Meter Unit:** Indicate the unit of measure recorded by your water meter (enter "A" for acre-feet, "AI" for acre-inches or "G" for gallons).
- Hours Pumped:** Enter the number of hours the pump was operated during the calendar year.
- Est. Pump Rate:** Enter the average rate of pumping in gallons per minute.
- Well Data:** Well Depth: enter the depth to bottom of well in feet.  
Depth to Water: enter the depth to water in feet.  
Date Measured: enter the date of the last depth to water measurement.

**INSTRUCTIONS FOR NAME, ADDRESS CHANGES:**

1. Please check your name and address, which is printed on the reverse side of this page in the lower left corner. If it is incorrect or incomplete, make any necessary changes in the space provided below. If you are no longer the person responsible for completing this report for one or more of the water right file numbers listed on the reverse side of this page, please print or type the information requested below.

Check one:       Address Correction                       New Correspondent                       New Owner

Water Right File Number(s): \_\_\_\_\_

Name of New Owner/Title: \_\_\_\_\_

Address: \_\_\_\_\_

Date of Change:                      Month \_\_\_\_\_                      Year \_\_\_\_\_                      Telephone: (    ) \_\_\_\_\_

IF YOU HAVE ADDITIONAL INFORMATION REGARDING THIS WATER USE REPORT, PROVIDE BELOW OR ATTACH ANOTHER PAGE.

MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)

2017

PART B: MONTHLY WATER USE SUMMARY

NOTE: REPORT WATER PUMPED, PURCHASED, AND SOLD FOR THE MONTH OF ACTUAL USE. REPORT ALL AMOUNTS IN UNITS OF 1000 GALLONS.

- Column 1: The amount of water diverted, by month, from all points of diversion (wells or intakes). If possible, raw water meters should be read at the same time of the month as customer meters. The total amount in this column should equal the total of the amounts reported in PART A.
- Column 2: The amount of water purchased, by month, from all other public water supply systems or the Kansas Water Office. Please provide further detail in PART E.
- Column 3: The amount of water sold, by month, to all other public water supply systems. Please provide further detail in PART E.
- Column 4: The amount of water sold, by month, to all industrial, pasture, stockwater, feedlot, and bulk water service connections. For rural water districts, include the amount of water sold to farmsteads using at least 200,000 gallons of water per year. Also include metered power plant usage, even if this water is supplied free.
- Column 5: The amount of water sold, by month, to your residential, commercial and institutional customers (include hospitals, schools and prisons).
- Column 6: The amount of water used, by month, that is metered at individual service connections and supplied free, such as for public service, treatment processes, and connections receiving free water. Please record metered power plant usage with industrial water use in Column 4.
- Column 7: The amount of unaccounted for water, by month. The gallons reported in this column are found by adding the numbers in Columns 1 and 2 and subtracting the numbers in Columns 3, 4, 5, and 6. If you do not sell water to your customers, this column simply represents the total amount of water that you diverted or purchased.

Water Resources Received  
MAR 02 2018  
KS Dept Of Agriculture

Month	Column 1 Raw Water Diverted Under Your Rights (1000 Gallons)	Column 2 Water Purchased From All Sources (1000 Gallons)	Column 3 Water Sold to Other Public Water Suppliers (1000 Gallons)	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers (1000 Gallons)	Column 5 Water Sold to Your Residential and Commercial Customers (1000 Gallons)	Column 6 Metered Water Provided Free (1000 Gallons)	Column 7 Unaccounted For Water (See Above Explanation) (1000 Gallons)
Jan.	<del>464.3</del>	<del>402.8</del> 403		395.2	135.3	<del>5.1</del>	<del>331.3</del> 332
Feb.	<del>302.7</del> 303	416.4		<del>386.7</del> 387	127.2	<del>8.6</del> 9	<del>196.5</del>
Mar.	<del>551.7</del> 552	189.3		408.4	<del>142.8</del> 143	8.4	<del>181.3</del> 182
Apr.	<del>687.7</del> 688	<del>28.5</del> 29		<del>380.6</del> 381	<del>150.8</del> 151	15.1	<del>169.5</del> 170
May	<del>638.0</del>	428.3		480.3	199.2	<del>89.6</del> 90	<del>297.1</del>
June	1,007.2	<del>358.8</del> 359		483.4	214.4	<del>139.8</del> 140	<del>528.3</del> 529
July	<del>1,019.6</del> 1020	171.2		550.2	284.3	153.4	<del>202.8</del> 204
Aug.	<del>880.9</del> 881	<del>222.6</del> 223		273.2	197.2	<del>74.5</del> 75	<del>558.5</del> 559
Sept.	<del>932.0</del>	228.0		<del>490.7</del> 491	232.0	<del>53.8</del> 54	<del>383.4</del>
Oct.	1,020.1	343.3		464.3	200.1	18.0	<del>680.9</del> 681
Nov.	<del>843.7</del> 844	143.0		<del>468.9</del> 469	193.1	10.2	<del>314.5</del> 315
Dec.	948.2	481.1		<del>472.5</del> 473	<del>182.6</del> 183	<del>6.7</del> 7	<del>767.3</del> 766
Total	<del>9,296.1</del> 9297	3,413.3		5,254.2	<del>2,259.6</del> 2,258	<del>583.7</del> 584	<del>4,611.8</del> 4,614

PART C: POPULATION, SERVICE CONNECTIONS, AND WATER RATES

- Population served: 900 Estimate the number of persons served directly by your distribution system (Columns 5, 6, and 7). CITY OF LINN VALLEY
- Number of ACTIVE water service connections as of December 31: 65869
  - 114 Residential
  - 6 Commercial/Institutional
  - Industrial
  - Pasture/Stockwater/Feedlot
  - 1 Other (specify) BULK HAUL STATION
  - 121 Total ACTIVE Service Connections
- If you are a city, how many of the active residential water service connections shown in 2a. are located outside of your city limits. 0
- Date of last water rate change (Month and Year); 3/1/15 If rates changed during the previous year, please attach a copy of new rate structures that apply to residential users.

MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)

PART D: WASTEWATER DISCHARGE

Check one:

- No wastewater treatment    
  Pond or lagoon    
  Wastewater treatment facility    
  Other facility treats wastewater

If lagoon or treatment facility discharges to a stream, complete the following:

Amount of Discharge, in 1,000 gallons: NO VISUAL DISCHARGE

Does the above amount include rainwater:    
 Yes    
 No

Name of stream receiving discharge: Middle Creek via Linn Valley Lakes via Un-named Tributary

PART E: WATER SOLD TO OR PURCHASED FROM OTHER ENTITIES (Report all amounts in units of 1000 gallons)

Please provide the name of each ENTITY that water was sold to or purchased from during the year. Water purchased from the Kansas Water Office should also be recorded here. Report all quantities in units of 1000 gallons. Copy this form as needed to completely report sold and purchased water. The total amount of water purchased each month should be entered in Column 2 of PART B, and the total amount sold each month should be entered in Column 3 of Part B.

Name: LINN COUNTY RURAL WATER DIST. #1  
 County: LINN 33757  
 \_\_\_\_\_ Sold To      Purchased From

Jan.	<del>402.8</del> 403	
Feb.	416.4	
Mar.	189.3	
Apr.	<del>28.5</del> 29	
May	<del>428.3</del>	
June	358.8 359	
July	171.2	
Aug.	<del>222.6</del> 223	
Sept.	228.0	
Oct.	343.3	
Nov.	143.0	
Dec.	481.1	
Total	<del>3,413.3</del>	

Name: \_\_\_\_\_  
 County: \_\_\_\_\_  
 \_\_\_\_\_ Sold To     \_\_\_\_\_ Purchased From

Jan.		
Feb.		
Mar.		
Apr.		
May		
June		
July		
Aug.		
Sept.		
Oct.		
Nov.		
Dec.		
Total		

Name: \_\_\_\_\_  
 County: \_\_\_\_\_  
 \_\_\_\_\_ Sold To     \_\_\_\_\_ Purchased From

Jan.		
Feb.		
Mar.		
Apr.		
May		
June		
July		
Aug.		
Sept.		
Oct.		
Nov.		
Dec.		
Total		

Name: \_\_\_\_\_  
 County: \_\_\_\_\_  
 \_\_\_\_\_ Sold To     \_\_\_\_\_ Purchased From

Jan.		
Feb.		
Mar.		
Apr.		
May		
June		
July		
Aug.		
Sept.		
Oct.		
Nov.		
Dec.		
Total		



**2014 MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)  
NON-PRIMARY WATER USE CORRESPONDENT**

**MONTHLY WATER USE SUMMARY**

NOTE: REPORT WATER PUMPED, PURCHASED, AND SOLD FOR THE MONTH OF ACTUAL USE. REPORT ALL AMOUNTS IN UNITS OF **(1000 Gallons)**.

- Column 1: The amount of water diverted, by month, from all points of diversion (wells or intakes). If possible, raw water meters should be read at the same time of the month as customer meters. The total amount in this column should equal the total of the amounts reported in PART A.
- Column 2: The amount of water purchased, by month, from all other public water supply systems or the Kansas Water Office. Please provide further detail in PART E.
- Column 3: The amount of water sold, by month, to all other public water supply systems. Please provide further detail in PART E.
- Column 4: The amount of water sold, by month, to all industrial, pasture, stockwater, feedlot, and bulk water service connections. For rural water districts, include the amount of water sold to farmsteads using at least 200,000 gallons of water per year. Also include metered power plant usage, even if this water is supplied free.
- Column 5: The amount of water sold, by month, to your residential, commercial and institutional customers (include hospitals, schools and prisons).
- Column 6: The amount of water used, by month, that is metered at individual service connections and supplied free, such as for public service, treatment processes, and connections receiving free water. Please record metered power plant usage with industrial water use in Column 4.
- Column 7: The amount of unaccounted for water, by month. The gallons reported in this column are found by adding the numbers in Columns 1 and 2 and subtracting the numbers in Columns 3, 4, 5, and 6. If you do not sell water to your customers, this column simply represents the total amount of water that you diverted or purchased.

LINN RWD 01

33757 1

Month	Column 1 Raw Water Diverted Under Your Rights (1000 Gallons)	Column 2 Water Purchased From All Sources (1000 Gallons)	Column 3 Water Sold to Other Public Water Suppliers (1000 Gallons)	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers (1000 Gallons)	Column 5 Water Sold to Your Residential and Commercial Customers (1000 Gallons)	Column 6 Metered Water Provided Free (1000 Gallons)	Column 7 Unaccounted For Water (See Above Explanation) (1000 Gallons)
Jan.		3237	59	657	1921		(718)
Feb.		3404	111	644	2746		(125)
Mar.		3526	189	587	2176		(952)
Apr.		3341	—	625	2133		(583)
May		3608	13	582	2188		(851)
June		3129	31	519	2391		(250)
July		3202	148	661	1982		(707)
Aug.		4041	8	600	2977		(472)
Sept.		3806	—	438	3516		(148)
Oct.		3076	—	477	1782		(811)
Nov.		3021	13	371	2488		(175)
Dec.		3045	—	432	2115		(498)
Total		40,436	572	6593	28,415		<del>6,000</del> 4,856

**POPULATION, SERVICE CONNECTIONS, AND WATER RATES**

1. Population served: Approx. 1200 <sup>1,113</sup> Estimate the number of persons served directly by your distribution system (Columns 5, 6, and 7). <sup>Census</sup>  
= 2.24 (497)
2. Number of **ACTIVE** water service connections as of December 31:
- a. 497 Residential                      c. 1 Industrial                      e. \_\_\_\_\_ Other (specify) \_\_\_\_\_
- b. 27 Commercial/Institutional                      d. \_\_\_\_\_ Pasture/Stockwater/Feedlot                      f. 525 **Total ACTIVE Service Connections**
3. If you are a city, how many of the active residential water service connections shown in 2a. are located outside of your city limits. \_\_\_\_\_
4. Date of last water rate change (Month and Year): June, 2007 If rates changed during the previous year, please attach a copy of new rate structures that apply to residential users.

**WATER RESOURCES  
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**JAN 16 2015**

**KS DEPT OF AGRICULTURE**

*RP*

**MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)  
NON-PRIMARY WATER USE CORRESPONDENT**

**WASTEWATER DISCHARGE**

Check one:

- No wastewater treatment       Pond or lagoon       Wastewater treatment facility       Other facility treats wastewater

If lagoon or treatment facility discharges to a stream, complete the following:

Amount of Discharge, in 1,000 gallons: \_\_\_\_\_

Does the above amount include rainwater:       Yes       No

Name of stream receiving discharge: \_\_\_\_\_

**WATER SOLD TO OR PURCHASED FROM OTHER ENTITIES (Report all amounts in units of 1000 gallons)**

Please provide the name of each ENTITY that water was sold to or purchased from during the year. Water purchased from the Kansas Water Office should also be recorded here. Report all quantities in units of 1000 gallons. Copy this form as needed to completely report sold and purchased water. The total amount of water purchased each month should be entered in Column 2 of PART B, and the total amount sold each month should be entered in Column 3 of Part B.

Name: P.W.W.S.D. #13 57325  
County: Linn  
\_\_\_\_\_ Sold To       Purchased From

Jan.	3224
Feb.	3386
Mar.	3513
Apr.	3000
May	3000
June	3054
July	3003
Aug.	3000
Sept.	3000
Oct.	3061
Nov.	3000
Dec.	3000
Total	37241

Name: City of La Cygne 10036  
County: Linn  
\_\_\_\_\_ Sold To       Purchased From

Jan.	13
Feb.	18
Mar.	13
Apr.	341
May	608
June	75
July	199
Aug.	1.041
Sept.	806
Oct.	15
Nov.	21
Dec.	45
Total	3,195

Name: Linn Valley, Kansas  
County: Linn 29565  
 Sold To      \_\_\_\_\_ Purchased From

Jan.	59
Feb.	111
Mar.	189
Apr.	—
May	13
June	31
July	148
Aug.	8
Sept.	—
Oct.	—
Nov.	13
Dec.	—
Total	572

Name: \_\_\_\_\_  
County: \_\_\_\_\_  
\_\_\_\_\_ Sold To      \_\_\_\_\_ Purchased From

Jan.	
Feb.	
Mar.	
Apr.	
May	
June	
July	
Aug.	
Sept.	
Oct.	
Nov.	
Dec.	
Total	

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MAY 11 2012

**2015 MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)  
NON-PRIMARY WATER USE CORRESPONDENT**

**MONTHLY WATER USE SUMMARY**

NOTE: REPORT WATER PUMPED, PURCHASED, AND SOLD FOR THE MONTH OF ACTUAL USE. REPORT ALL AMOUNTS IN UNITS OF **(1000 Gallons)**.

- Column 1: The amount of water diverted, by month, from all points of diversion (wells or intakes). If possible, raw water meters should be read at the same time of the month as customer meters. The total amount in this column should equal the total of the amounts reported in PART A.
- Column 2: The amount of water purchased, by month, from all other public water supply systems or the Kansas Water Office. Please provide further detail in PART E.
- Column 3: The amount of water sold, by month, to all other public water supply systems. Please provide further detail in PART E.
- Column 4: The amount of water sold, by month, to all industrial, pasture, stockwater, feedlot, and bulk water service connections. For rural water districts, include the amount of water sold to farmsteads using at least 200,000 gallons of water per year. Also include metered power plant usage, even if this water is supplied free.
- Column 5: The amount of water sold, by month, to your residential, commercial and institutional customers (include hospitals, schools and prisons).
- Column 6: The amount of water used, by month, that is metered at individual service connections and supplied free, such as for public service, treatment processes, and connections receiving free water. Please record metered power plant usage with industrial water use in Column 4.
- Column 7: The amount of unaccounted for water, by month. The gallons reported in this column are found by adding the numbers in Columns 1 and 2 and subtracting the numbers in Columns 3, 4, 5, and 6. If you do not sell water to your customers, this column simply represents the total amount of water that you diverted or purchased.

LINN RWD 01

Person ID 33757 1

PIN Number 12419

Month	Column 1 Raw Water Diverted Under Your Rights <b>(1000 Gallons)</b>	Column 2 Water Purchased From All Sources <b>(1000 Gallons)</b>	Column 3 Water Sold to Other Public Water Suppliers <b>(1000 Gallons)</b>	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers <b>(1000 Gallons)</b>	Column 5 Water Sold to Your Residential and Commercial Customers <b>(1000 Gallons)</b>	Column 6 Metered Water Provided Free <b>(1000 Gallons)</b>	Column 7 Unaccounted For Water (See Above Explanation) <b>(1000 Gallons)</b>
Jan.		2785	18		2274		511 493
Feb.		3285	349		2937		348 -1
Mar.		3124	583		3452		(-325) -94
Apr.		3782	141		3068		714 573
May		3015	598		2940	WATER RESOURCES RECEIVED	25 -573
June		3450	231		3265	APR 21 2016	185 -46
July		3522	54		2777		745 691
Aug.		3361	54		2779	KS DEPT OF AGRICULTURE	582 528
Sept.		3224	457		3095		129 -328
Oct.		3883	352		3601		282 -70
Nov.		3299	11		3106		193 182
Dec.		2797	—		2569		228
Total		39527	2848		35913		3614 766

**POPULATION, SERVICE CONNECTIONS, AND WATER RATES**

2.29(501) Census 2014

- Population served: approx 200,147 Estimate the number of persons served directly by your distribution system (Columns 5, 6, and 7).
- Number of **ACTIVE** water service connections as of December 31:
  - 501 Residential
  - 25 Commercial/Institutional
  - \_\_\_\_\_ Industrial
  - \_\_\_\_\_ Pasture/Stockwater/Feedlot
  - 2 Other (specify) Church
  - 528 **Total ACTIVE Service Connections**
- If you are a city, how many of the active residential water service connections shown in 2a. are located outside of your city limits. N/A
- Date of last water rate change (Month and Year); 04/07 If rates changed during the previous year, please attach a copy of new rate structures that apply to residential users.

*JP 20*

**MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)  
NON-PRIMARY WATER USE CORRESPONDENT**

**WASTEWATER DISCHARGE**

Check one:  
 No wastewater treatment     
  Pond or lagoon     
  Wastewater treatment facility     
  Other facility treats wastewater

If lagoon or treatment facility discharges to a stream, complete the following:

Amount of Discharge, in 1,000 gallons: \_\_\_\_\_

Does the above amount include rainwater:       Yes       No

Name of stream receiving discharge: \_\_\_\_\_

**WATER SOLD TO OR PURCHASED FROM OTHER ENTITIES (Report all amounts in units of 1000 gallons)**

Please provide the name of each ENTITY that water was sold to or purchased from during the year. Water purchased from the Kansas Water Office should also be recorded here. Report all quantities in units of 1000 gallons. Copy this form as needed to completely report sold and purchased water. The total amount of water purchased each month should be entered in Column 2 of PART B, and the total amount sold each month should be entered in Column 3 of Part B.

Name: P.W.W.S.D. # 13      57325  
 County: Linn  
     Sold To       Purchased From

Jan.	<u>2476</u>
Feb.	<u>3285</u>
Mar.	<u>3124</u>
Apr.	<u>3132</u>
May	<u>2961</u>
June	<u>3420</u>
July	<u>2764</u>
Aug.	<u>2437</u>
Sept.	<u>3163</u>
Oct.	<u>3751</u>
Nov.	<u>3286</u>
Dec.	<u>2781</u>
Total	<u>36,580</u>

Name: City of LaCygne      10036  
 County: Linn  
     Sold To       Purchased From

Jan.	<u>309</u>
Feb.	<u>—</u>
Mar.	<u>—</u>
Apr.	<u>650</u>
May	<u>54</u>
June	<u>30</u>
July	<u>758</u>
Aug.	<u>924</u>
Sept.	<u>61</u>
Oct.	<u>132</u>
Nov.	<u>13</u>
Dec.	<u>16</u>
Total	<u>2947</u>

Name: Linn Valley      29565  
 County: Linn  
     Sold To       Purchased From

Jan.	<u>18</u>
Feb.	<u>349</u>
Mar.	<u>583</u>
Apr.	<u>141</u>
May	<u>598</u>
June	<u>231</u>
July	<u>54</u>
Aug.	<u>54</u>
Sept.	<u>457</u>
Oct.	<u>352</u>
Nov.	<u>11</u>
Dec.	<u>—</u>
Total	<u>2848</u>

Name: \_\_\_\_\_  
 County: \_\_\_\_\_  
     Sold To       Purchased From

Jan.	_____
Feb.	_____
Mar.	_____
Apr.	_____
May	_____
June	_____
July	_____
Aug.	_____
Sept.	_____
Oct.	_____
Nov.	_____
Dec.	_____
Total	_____

**2016 MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)  
NON-PRIMARY WATER USE CORRESPONDENT**

**MONTHLY WATER USE SUMMARY**

NOTE: REPORT WATER PUMPED, PURCHASED, AND SOLD FOR THE MONTH OF ACTUAL USE. REPORT ALL AMOUNTS IN UNITS OF **(1000 Gallons)**.

- Column 1: The amount of water diverted, by month, from all points of diversion (wells or intakes). If possible, raw water meters should be read at the same time of the month as customer meters. The total amount in this column should equal the total of the amounts reported in PART A.
- Column 2: The amount of water purchased, by month, from all other public water supply systems or the Kansas Water Office. Please provide further detail in PART E.
- Column 3: The amount of water sold, by month, to all other public water supply systems. Please provide further detail in PART E.
- Column 4: The amount of water sold, by month, to all industrial, pasture, stockwater, feedlot, and bulk water service connections. For rural water districts, include the amount of water sold to farmsteads using at least 200,000 gallons of water per year. Also include metered power plant usage, even if this water is supplied free.
- Column 5: The amount of water sold, by month, to your residential, commercial and institutional customers (include hospitals, schools and prisons).
- Column 6: The amount of water used, by month, that is metered at individual service connections and supplied free, such as for public service, treatment processes, and connections receiving free water. Please record metered power plant usage with industrial water use in Column 4.
- Column 7: The amount of unaccounted for water, by month. The gallons reported in this column are found by adding the numbers in Columns 1 and 2 and subtracting the numbers in Columns 3, 4, 5, and 6. If you do not sell water to your customers, this column simply represents the total amount of water that you diverted or purchased.

LINN RWD 01

Person ID 33757 1  
PIN Number 12341

Month	Column 1 Raw Water Diverted Under Your Rights (1000 Gallons)	Column 2 Water Purchased From All Sources (1000 Gallons)	Column 3 Water Sold to Other Public Water Suppliers (1000 Gallons)	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers (1000 Gallons)	Column 5 Water Sold to Your Residential and Commercial Customers (1000 Gallons)	Column 6 Metered Water Provided Free (1000 Gallons)	Column 7 Unaccounted For Water (See Above Explanation) (1000 Gallons)
Jan.		2437	31		2564		+158
Feb.		2914	11		2531		372
Mar.		2782	—		2258		524
Apr.		2409	—		2662		+ 253
May		3077	27		2760		290
June		2919	361		2181		377
July		4153	569		9579		5
Aug.		4511	78		4166		267
Sept.		3718	86		3612		20
Oct.		3742	171		3659		+ 88
Nov.		2678	177		2434		67
Dec.		2722	242		2728		+248
Total		38062	1753		35134		1175

WATER RESOURCES RECEIVED

JAN 13 2017

KS DEPT OF AGRICULTURE

**POPULATION, SERVICE CONNECTIONS, AND WATER RATES**

- Population served: 2500 Estimate the number of persons served directly by your distribution system (Columns 5, 6, and 7).
- Number of **ACTIVE** water service connections as of December 31:
  - a. 514 Residential
  - b. 20 Commercial/Institutional
  - c. \_\_\_\_\_ Industrial
  - d. \_\_\_\_\_ Pasture/Stockwater/Feedlot
  - e. \_\_\_\_\_ Other (specify) \_\_\_\_\_
  - f. 534 Total ACTIVE Service Connections
- If you are a city, how many of the active residential water service connections shown in 2a. are located outside of your city limits. \_\_\_\_\_
- Date of last water rate change (Month and Year) June, 2005 If rates changed during the previous year, please attach a copy of new rate structures that apply to residential users.

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**MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)  
NON-PRIMARY WATER USE CORRESPONDENT**

**WASTEWATER DISCHARGE**

Check one:

- No wastewater treatment       Pond or lagoon       Wastewater treatment facility       Other facility treats wastewater

If lagoon or treatment facility discharges to a stream, complete the following:

Amount of Discharge, in 1,000 gallons: \_\_\_\_\_

Does the above amount include rainwater:       Yes       No

Name of stream receiving discharge: \_\_\_\_\_

**WATER SOLD TO OR PURCHASED FROM OTHER ENTITIES (Report all amounts in units of 1000 gallons)**

Please provide the name of each ENTITY that water was sold to or purchased from during the year. Water purchased from the Kansas Water Office should also be recorded here. Report all quantities in units of 1000 gallons. Copy this form as needed to completely report sold and purchased water. The total amount of water purchased each month should be entered in Column 2 of PART B, and the total amount sold each month should be entered in Column 3 of Part B.

Name: City of LaCygne  
County: Linn 10036  
\_\_\_\_\_ Sold To       Purchased From

Jan.	<u>14</u>
Feb.	<u>15</u>
Mar.	<u>18</u>
Apr.	<u>26</u>
May	<u>79</u>
June	<u>77</u>
July	<u>666</u>
Aug.	<u>138</u>
Sept.	<u>806</u>
Oct.	<u>962</u>
Nov.	<u>37</u>
Dec.	<u>35</u>
Total	<u>2873</u>

Name: P.W.W.S.D. #13  
County: Linn 57325  
\_\_\_\_\_ Sold To       Purchased From

Jan.	<u>2423</u>
Feb.	<u>2899</u>
Mar.	<u>2764</u>
Apr.	<u>2383</u>
May	<u>2998</u>
June	<u>2842</u>
July	<u>3487</u>
Aug.	<u>4373</u>
Sept.	<u>2912</u>
Oct.	<u>2780</u>
Nov.	<u>2674</u>
Dec.	<u>2687</u>
Total	<u>35189</u>

Name: Linn Valley POA  
County: Linn 29765  
 Sold To      \_\_\_\_\_ Purchased From

Jan.	<u>31</u>
Feb.	<u>11</u>
Mar.	<u>—</u>
Apr.	<u>—</u>
May	<u>27</u>
June	<u>361</u>
July	<u>569</u>
Aug.	<u>78</u>
Sept.	<u>86</u>
Oct.	<u>171</u>
Nov.	<u>177</u>
Dec.	<u>242</u>
Total	<u>1753</u>

Name: \_\_\_\_\_  
County: \_\_\_\_\_  
\_\_\_\_\_ Sold To      \_\_\_\_\_ Purchased From

Jan.	_____
Feb.	_____
Mar.	_____
Apr.	_____
May	_____
June	_____
July	_____
Aug.	_____
Sept.	_____
Oct.	_____
Nov.	_____
Dec.	_____
Total	_____

**2017 MUNICIPAL WATER USE REPORT (PUBLIC WATER SUPPLY)  
NON-PRIMARY WATER USE CORRESPONDENT**

**MONTHLY WATER USE SUMMARY**

NOTE: REPORT WATER PUMPED, PURCHASED, AND SOLD FOR THE MONTH OF ACTUAL USE. REPORT ALL AMOUNTS IN UNITS OF **(1000 Gallons)**.

- Column 1: The amount of water diverted, by month, from all points of diversion (wells or intakes). If possible, raw water meters should be read at the same time of the month as customer meters. The total amount in this column should equal the total of the amounts reported in PART A.
- Column 2: The amount of water purchased, by month, from all other public water supply systems or the Kansas Water Office. Please provide further detail in PART E.
- Column 3: The amount of water sold, by month, to all other public water supply systems. Please provide further detail in PART E.
- Column 4: The amount of water sold, by month, to all industrial, pasture, stockwater, feedlot, and bulk water service connections. For rural water districts, include the amount of water sold to farmsteads using at least 200,000 gallons of water per year. Also include metered power plant usage, even if this water is supplied free.
- Column 5: The amount of water sold, by month, to your residential, commercial and institutional customers (include hospitals, schools and prisons).
- Column 6: The amount of water used, by month, that is metered at individual service connections and supplied free, such as for public service, treatment processes, and connections receiving free water. Please record metered power plant usage with industrial water use in Column 4.
- Column 7: The amount of unaccounted for water, by month. The gallons reported in this column are found by adding the numbers in Columns 1 and 2 and subtracting the numbers in Columns 3, 4, 5, and 6. If you do not sell water to your customers, this column simply represents the total amount of water that you diverted or purchased.

LINN RWD 01

Person ID 33757 1  
PIN Number 12232

Month	Column 1 Raw Water Diverted Under Your Rights (1000 Gallons)	Column 2 Water Purchased From All Sources (1000 Gallons)	Column 3 Water Sold to Other Public Water Suppliers (1000 Gallons)	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers (1000 Gallons)	Column 5 Water Sold to Your Residential and Commercial Customers (1000 Gallons)	Column 6 Metered Water Provided Free (1000 Gallons)	Column 7 Unaccounted For Water (See Above Explanation) (1000 Gallons)
Jan.		3,114	381		2,654		- 79
Feb.		3,190	403		2,137		- 650
Mar.		3,094	416		2,770		+ 92
Apr.		2,854	189		2,750		+ 85
May		3,067	285		2,432		- 350
June		3,520	428		2,444		- 648
July		3,982	467		3,889		+ 374
Aug.		4,552	171		3,815		- 566
Sept.		3,246	223		3,377		+ 226
Oct.		3,724	77		3,388		- 259
Nov.		3,018	191		2,664		- 163
Dec.		3,156	143		3,072		+ 59
Total		48,117	3,374		35,412		2,331

**POPULATION, SERVICE CONNECTIONS, AND WATER RATES**

- Population served: 2500 Estimate the number of persons served directly by your distribution system (Columns 5, 6, and 7).
- Number of **ACTIVE** water service connections as of December 31:
  - 520 Residential
  - 20 Commercial/Institutional
  - \_\_\_\_\_ Industrial
  - \_\_\_\_\_ Pasture/Stockwater/Feedlot
  - \_\_\_\_\_ Other (specify) \_\_\_\_\_
  - 540 Total ACTIVE Service Connections
- If you are a city, how many of the active residential water service connections shown in 2a. are located outside of your city limits. \_\_\_\_\_
- Date of last water rate change (Month and Year); June, 2005 If rates changed during the previous year, please attach a copy of new rate structures that apply to residential users.

WATER RESOURCES  
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## WATER AND SEWER POLICY

The Property Owners Association provides water and sewer hauling service to property owners on the development. The following fees are set at a rate that requires the service to be operated in the most efficient and time saving manner.

Water or Sewage (Mon. through Fri)	\$22.00/1,000 gal. \$33.00/2,000 gal.
Linn Valley metered water charge	\$20.00 Minimum 1 <sup>st</sup> 1,500 gallons \$10.00 per each additional 1/000

Coin Operated water fill located on the corner of N. Linn Valley Dr and Lakeview Ln-\$10.00/1000 gallon.

It is therefore necessary to implement the following water and sewage hauling policies:

1. Water or Sewage ordered in 1,000 gallon deliveries or pick up, shall be charged \$22.00 for 1,000 load, 2,000 gallon deliveries, or pickup, shall be charged \$33.00 for the 2,000 gallon load.
2. Payment and a numbered ticket must accompany all water and/or sewage requests. Attach your check or money order to your ticket and deposit it in the drop box located by the mailboxes or the water fill station. If you are paying with cash, payment must be made at the office and your ticket will be stamped "paid".
3. You should then deposit the ticket in either drop box. **DO NOT PLACE CASH IN THE DROP BOXES.** There is a mail slot at the front office door for cash payments.
4. When a water and sewage hauling ticket is submitted and service cannot be provided on the first attempt because of driveway blockage or any other reason, an extra fee of \$10.00 will be charged to customer.
5. After Hours Water/Sewer Service Fees – Monday through Friday after 3:00 pm and all-day Saturday, Sunday, and Holidays (New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas) - \$80.00 for 1,000 gallons or \$100.00 for 2,000 gallons. After Hours service is contingent upon availability of a truck driver.
6. Each property owner has the responsibility to place the water and sewage holding tanks in a location adjacent to the driveway that is within or less than 20 feet of where the truck must be parked.
7. Each property owner has the responsibility to have a driveway that is of sufficient width for access by the service truck and is free and clear of all obstructions such as steps, trees, walls, etc.
8. Each water tank shall have a proper sized opening to accommodate a three (3) inch hose and shall be properly vented to allow an unloading time of 1,000 gallons in ten (10)

minutes or less. An additional charge of \$10.00 may apply if unloading time falls into the 20-30 minute or more range.

**ARCHITECTURAL CONTROL REGULATIONS**  
**LINN VALLEY PROPERTY OWNERS ASSOCIATION**  
**REVISED OCTOBER, 2002**

The regulations are hereby established to clarify and supplement Article III, Restrictions, Covenants and Restrictions, and Article VII, Architectural Control Committee, of the Declaration of Covenants and Restrictions.

**LOT REGULATIONS.** For the purpose of regulation lot development at Linn Valley, there are three types of lots.

1. **Building Lots.** These lots are restricted to permanent living structures (double-wide, modular home, prefabricated or conventional build homes) with a minimum of 600 square feet of interior living space on main floor level. All interior living area must be of solid frame construction and finished with exterior and interior walls, with access provided by conventional pedestrian size doors. Screened-in areas, such as porches, are not considered interior living area. A camper, mobile, tent or recreational vehicle may be placed on a temporary basis only, provided it is used for camping purposes and occupied by the lot owner. No permanent water, sewage, or electrical services may be connected to any vehicle or living structure with less than the minimum square footage of living area, all camping and recreational vehicles must be removed from the lot within 24-hours when not occupied by the owner. However, an extension can be issued to a lot owner by Linn Valley Lakes Property Owners Association, acting as an agent of the City for this purpose, or an occupied recreational vehicle or camping trailer for up to and additional fourteen (14) day period. A lot owner shall be limited to a maximum of three (3) extensions per calendar year, any approved time extension by the Linn Valley Property Owners Association shall be on a written form with copies provided to the property owner and to the City Codes Enforcement Officer within twenty-four (24) hours of approval. The Property Owners Association shall maintain records of said approvals.
2. **Mobile Home Lots.** These lots are designated as Multi-Purpose Lots and may be used for permanent living structures, including singlewide mobile homes, campers, and recreation vehicles. A permanent living structure must have a minimum of 600 square feet of interior living space. The same restrictions apply concerning accessory buildings that are set forth under Building Lot Regulations.
3. **Camping Lots.** These lots are designated as Multi-Purpose lot and may be used for any type of living structure and recreational or camping vehicle, as specified under Building Lots and Mobile Home Lots.

**Linn Valley Lakes POA**  
**Water/Sewer**  
 December 2013

	Dec 13	Dec 12	Jan - Dec 13
<b>Income</b>			
3050 · Water Fees	5,880.00	5,055.00	67,330.00
3075 · Sewage Fees	11,365.00	10,270.00	134,114.00
3286 · Return Check Charges	0.00	0.00	30.00
<b>Total Income</b>	<b>17,245.00</b>	<b>15,325.00</b>	<b>201,474.00</b>
<b>Gross Profit</b>	<b>17,245.00</b>	<b>15,325.00</b>	<b>201,474.00</b>
<b>Expense</b>			
6000 · Wages-Exempt	1,009.00	1,029.87	4,094.20
6010 · Wages	3,224.85	2,880.58	36,993.18
6139 · Payroll Taxes	277.21	254.90	3,659.17
6160 · Supplies	-16.37	0.00	807.07
6188 · Employee Insurance	0.00	0.00	165.00
6202 · Repairs & Maint-Bldg & Grounds	0.00	0.00	2,108.43
6205 · Repairs and Maint-Equipment	263.98	29.94	7,086.16
6223 · Electric Utility	169.04	118.76	2,049.94
6224 · Water Utility	67.94	68.04	408.02
6237 · Taxes and Licenses	0.00	0.00	185.00
6244 · Fuel and Oil	1,458.21	2,486.44	23,652.43
6257 · Repairs & Maint-Water Trucks	365.21	378.15	4,212.46
6258 · Repairs & Maint-Sewer Trucks	5,139.80	253.60	15,955.94
6266 · Travel Expense	0.00	0.00	264.86
6286 · Bank Charges	0.00	5.00	25.00
6293 · Misc. Expense	0.00	0.00	363.10
<b>Total Expense</b>	<b>11,958.87</b>	<b>7,505.28</b>	<b>102,029.96</b>
<b>Net Income</b>	<b>5,286.13</b>	<b>7,819.72</b>	<b>99,444.04</b>

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Cash Basis

Linn Valley Lakes POA  
Water/Sewer  
December 2014

	Dec 14	Dec 13	Jan - Dec 14
<b>Income</b>			
3050 · Water Fees	6,810.00	5,880.00	75,990.00
3075 · Sewage Fees	10,530.00	11,365.00	132,000.00
<b>Total Income</b>	<u>17,340.00</u>	<u>17,245.00</u>	<u>207,990.00</u>
<b>Gross Profit</b>	17,340.00	17,245.00	207,990.00
<b>Expense</b>			
6000 · Wages-Exempt	1,301.99	1,009.00	5,650.72
6010 · Wages	3,317.82	3,224.85	47,633.31
6139 · Payroll Taxes	488.77	277.21	5,734.91
6160 · Supplies	-14.00	-16.37	103.39
6188 · Employee Insurance	0.00	0.00	21.09
6205 · Repairs and Maint-Equipment	0.00	263.98	773.28
6223 · Electric Utility	178.86	169.04	2,460.39
6224 · Water Utility	33.97	67.94	408.91
6237 · Taxes and Licenses	0.00	0.00	435.00
6244 · Fuel and Oil	1,520.00	1,458.21	19,757.45
6257 · Repairs & Maint-Water Trucks	2,041.77	365.21	11,810.16
6258 · Repairs & Maint-Sewer Trucks	7,428.94	5,139.80	26,753.86
6286 · Bank Charges	5.00	0.00	45.00
6293 · Misc. Expense	0.00	0.00	91.59
<b>Total Expense</b>	<u>16,303.12</u>	<u>11,958.87</u>	<u>121,679.06</u>
<b>Net Income</b>	<u>1,036.88</u>	<u>5,286.13</u>	<u>86,310.94</u>

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 Cash Basis

**Linn Valley Lakes POA**  
**Water/Sewer**  
 December 2015

	Dec 15	Dec 14	Jan - Dec 15
<b>Income</b>			
3050 · Water Fees	7,184.00	6,810.00	84,345.00
3075 · Sewage Fees	7,993.00	10,530.00	113,943.00
<b>Total Income</b>	<u>15,177.00</u>	<u>17,340.00</u>	<u>198,288.00</u>
<b>Gross Profit</b>	15,177.00	17,340.00	198,288.00
<b>Expense</b>			
6000 · Wages-Exempt	1,259.12	1,301.99	6,399.42
6010 · Wages	3,734.88	3,317.82	46,596.43
6139 · Payroll Taxes	480.05	488.77	6,304.09
6160 · Supplies	0.00	-14.00	420.79
6188 · Employee Insurance	-53.07	0.00	2,584.65
6202 · Repairs & Maint-Bldg & Grounds	0.00	0.00	1,208.75
6205 · Repairs and Maint-Equipment	0.00	0.00	9,187.38
6223 · Electric Utility	108.54	178.86	1,900.61
6224 · Water Utilty	34.08	33.97	374.22
6237 · Taxes and Licenses	0.00	0.00	185.00
6244 · Fuel and Oil	1,311.88	1,520.00	12,349.01
6257 · Repairs & Maint-Water Trucks	1,136.13	2,041.77	14,560.25
6258 · Repairs & Maint-Sewer Trucks	196.73	7,428.94	27,789.91
6286 · Bank Charges	0.00	5.00	5.00
<b>Total Expense</b>	<u>8,208.34</u>	<u>16,303.12</u>	<u>129,865.51</u>
<b>Net Income</b>	<u><u>6,968.66</u></u>	<u><u>1,036.88</u></u>	<u><u>68,422.49</u></u>

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Cash Basis

Linn Valley Lakes POA  
**Water/Sewer**  
December 2016

	<u>Dec 16</u>	<u>Dec 15</u>	<u>Jan - Dec 16</u>
<b>Income</b>			
3050 · Water Fees	7,859.00	7,184.00	87,794.00
3075 · Sewage Fees	7,527.00	7,993.00	89,810.00
<b>Total Income</b>	<u>15,386.00</u>	<u>15,177.00</u>	<u>177,604.00</u>
<b>Gross Profit</b>	<u>15,386.00</u>	<u>15,177.00</u>	<u>177,604.00</u>
<b>Expense</b>			
6000 · Wages-Exempt	976.33	1,259.12	2,158.08
6010 · Wages	4,025.57	3,734.88	35,425.62
6139 · Payroll Taxes	480.50	480.05	3,743.74
6160 · Supplies	15.94	0.00	15.36
6188 · Employee Insurance	0.00	-53.07	392.00
6202 · Repairs & Maint-Bldg & Grounds	0.00	0.00	2,110.00
6223 · Electric Utility	0.00	108.54	618.94
6224 · Water Utility	34.08	34.08	408.96
6226 · Sewer Dump Fee	1,338.00	0.00	13,100.00
6237 · Taxes and Licenses	0.00	0.00	754.50
6244 · Fuel and Oil	1,672.39	1,311.88	8,444.20
6257 · Repairs & Maint-Water Trucks	37.25	1,136.13	2,564.54
6258 · Repairs & Maint-Sewer Trucks	37.25	196.73	6,969.80
6293 · Misc. Expense	0.00	0.00	-2,881.00
<b>Total Expense</b>	<u>8,617.31</u>	<u>8,208.34</u>	<u>73,824.74</u>
<b>Net Income</b>	<u><u>6,768.69</u></u>	<u><u>6,968.66</u></u>	<u><u>103,779.26</u></u>

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Cash Basis

Linn Valley Lakes POA  
Water/Sewer  
December 2017

	Dec 17	Dec 16	Jan - Dec 17
<b>Income</b>			
3050 · Water Fees	6,847.01	7,859.00	89,067.01
3075 · Sewage Fees	7,398.00	7,527.00	95,586.50
<b>Total Income</b>	<b>14,245.01</b>	<b>15,386.00</b>	<b>184,653.51</b>
<b>Gross Profit</b>	<b>14,245.01</b>	<b>15,386.00</b>	<b>184,653.51</b>
<b>Expense</b>			
6000 · Wages-Exempt	2,626.78	976.33	5,190.28
6010 · Wages	4,177.38	4,025.57	36,349.60
6139 · Payroll Taxes	671.05	480.50	4,384.22
6160 · Supplies	-8.00	15.94	-8.44
6188 · Employee Insurance	168.41	0.00	375.45
6202 · Repairs & Maint-Bldg & Grounds	0.00	0.00	-209.03
6205 · Repairs and Maint-Equipment	0.00	0.00	164.20
6223 · Electric Utility	0.00	0.00	59.00
6224 · Water Utility	34.08	34.08	408.96
6226 · Sewer Dump Fee	1,555.95	1,338.00	18,954.10
6237 · Taxes and Licenses	0.00	0.00	982.75
6244 · Fuel and Oil	1,728.35	1,672.39	10,585.56
6257 · Repairs & Maint-Water Trucks	1,936.85	37.25	5,064.28
6258 · Repairs & Maint-Sewer Trucks	2,206.92	37.25	17,750.13
<b>Total Expense</b>	<b>15,097.77</b>	<b>8,617.31</b>	<b>100,051.06</b>
<b>Net Income</b>	<b>-852.76</b>	<b>6,768.69</b>	<b>84,602.45</b>

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Cash Basis

Linn Valley Lakes POA  
Water Plant  
December 2013

	Dec 13	Dec 12	Jan - Dec 13
<b>Income</b>			
3055 · Metered Water	2,136.83	1,858.36	23,683.45
3060 · Water Fill Station	698.50	585.25	9,349.75
3080 · Water Meter Hookup	0.00	0.00	2,000.00
3180 · Miscellaneous Income	0.00	0.00	17,990.51
<b>Total Income</b>	<b>2,835.33</b>	<b>2,443.61</b>	<b>53,023.71</b>
<b>Gross Profit</b>	<b>2,835.33</b>	<b>2,443.61</b>	<b>53,023.71</b>
<b>Expense</b>			
5175 · Contractual Services	300.00	4,140.36	4,479.00
6000 · Wages-Exempt	359.91	351.78	3,304.78
6010 · Wages	2,239.56	2,979.29	24,582.96
6139 · Payroll Taxes	145.25	140.13	1,995.89
6160 · Supplies	66.58	62.87	671.15
6162 · Chemicals	1,134.52	1,944.34	14,608.15
6174 · Postage	11.67	18.50	606.85
6202 · Repairs & Maint-Bldg & Grounds	0.00	106.58	2,526.94
6205 · Repairs and Maint-Equipment	229.81	7,622.71	11,939.07
6216 · Telephone Service	73.78	77.59	741.24
6223 · Electric Utility	902.19	838.64	10,574.81
6224 · Water Utility	0.00	6,000.00	0.00
6240 · Dues and Subscriptions	0.00	0.00	135.10
6244 · Fuel and Oil	0.00	0.00	386.35
6266 · Travel Expense	276.29	202.40	2,877.34
6293 · Misc. Expense	0.00	0.00	608.54
<b>Total Expense</b>	<b>5,739.56</b>	<b>24,485.19</b>	<b>80,038.17</b>
<b>Net Income</b>	<b>-2,904.23</b>	<b>-22,041.58</b>	<b>-27,014.46</b>



**Linn Valley Lakes POA**  
**Water Plant**  
 December 2014

	Dec 14	Dec 13	Jan - Dec 14
<b>Income</b>			
3055 · Metered Water	2,170.22	2,136.83	24,837.34
3060 · Water Fill Station	825.25	698.50	8,919.00
3080 · Water Meter Hookup	0.00	0.00	2,000.00
<b>Total Income</b>	<u>2,995.47</u>	<u>2,835.33</u>	<u>35,756.34</u>
<b>Gross Profit</b>	2,995.47	2,835.33	35,756.34
<b>Expense</b>			
5175 · Contractural Services	300.00	300.00	5,236.00
6000 · Wages-Exempt	369.33	359.91	677.10
6010 · Wages	2,000.76	2,239.56	27,392.70
6139 · Payroll Taxes	145.98	145.25	2,011.49
6160 · Supplies	19.39	66.58	875.92
6162 · Chemicals	1,260.26	1,134.52	10,266.84
6174 · Postage	27.61	11.67	266.08
6202 · Repairs & Maint-Bldg & Grounds	0.00	0.00	624.74
6205 · Repairs and Maint-Equipment	1,907.95	229.81	17,826.18
6216 · Telephone Service	74.98	73.78	893.00
6223 · Electric Utility	919.07	902.19	10,809.26
6240 · Dues and Subscriptions	0.00	0.00	100.10
6266 · Travel Expense	241.92	276.29	3,015.55
6293 · Misc. Expense	0.00	0.00	325.84
<b>Total Expense</b>	<u>7,267.25</u>	<u>5,739.56</u>	<u>80,320.80</u>
<b>Net Income</b>	<u><u>-4,271.78</u></u>	<u><u>-2,904.23</u></u>	<u><u>-44,564.46</u></u>

**Linn Valley Lakes POA**  
**Water Plant**  
 December 2015

	<u>Dec 15</u>	<u>Dec 14</u>	<u>Jan - Dec 15</u>
<b>Income</b>			
3055 · Metered Water	2,598.31	2,170.22	29,041.08
3060 · Water Fill Station	494.50	825.25	9,536.10
3080 · Water Meter Hookup	0.00	0.00	1,000.00
<b>Total Income</b>	<u>3,092.81</u>	<u>2,995.47</u>	<u>39,577.18</u>
<b>Gross Profit</b>	3,092.81	2,995.47	39,577.18
<b>Expense</b>			
5175 · Contractural Services	0.00	300.00	4,808.00
6000 · Wages-Exempt	186.51	369.33	186.51
6010 · Wages	3,643.10	2,000.76	29,789.76
6139 · Payroll Taxes	212.05	145.98	2,216.16
6160 · Supplies	162.17	19.39	1,212.27
6162 · Chemicals	1,466.37	1,260.26	7,891.60
6174 · Postage	27.85	27.61	379.87
6202 · Repairs & Maint-Bldg & Grounds	0.00	0.00	2,316.46
6205 · Repairs and Maint-Equipment	47.55	1,907.95	24,653.59
6216 · Telephone Service	75.41	74.98	906.18
6223 · Electric Utility	1,168.60	919.07	10,154.30
6224 · Water Utility	0.00	0.00	4,498.21
6240 · Dues and Subscriptions	0.00	0.00	122.80
6244 · Fuel and Oil	0.00	0.00	1,988.75
6266 · Travel Expense	201.25	241.92	3,805.77
6293 · Misc. Expense	0.00	0.00	416.42
<b>Total Expense</b>	<u>7,190.86</u>	<u>7,267.25</u>	<u>95,346.65</u>
<b>Net Income</b>	<u><u>-4,098.05</u></u>	<u><u>-4,271.78</u></u>	<u><u>-55,769.47</u></u>

3:16 PM  
07/30/18  
Cash Basis

Linn Valley Lakes POA  
Water Plant  
December 2016

	Dec 16	Dec 15	Jan - Dec 16
<b>Income</b>			
3055 · Metered Water	2,782.96	2,598.31	34,027.76
3060 · Water Fill Station	649.75	494.50	10,395.50
3080 · Water Meter Hookup	0.00	0.00	6,000.00
<b>Total Income</b>	<b>3,432.71</b>	<b>3,092.81</b>	<b>50,423.26</b>
<b>Gross Profit</b>	<b>3,432.71</b>	<b>3,092.81</b>	<b>50,423.26</b>
<b>Expense</b>			
5175 · Contractual Services	0.00	0.00	2,184.00
6000 · Wages-Exempt	60.00	186.51	2,008.84
6010 · Wages	2,407.26	3,643.10	24,845.65
6139 · Payroll Taxes	44.80	212.05	1,374.52
6160 · Supplies	81.03	162.17	1,757.15
6162 · Chemicals	174.13	1,466.37	10,578.04
6174 · Postage	49.88	27.85	565.82
6202 · Repairs & Maint-Bldg & Grounds	166.12	0.00	9,187.74
6205 · Repairs and Maint-Equipment	681.40	47.55	11,990.10
6216 · Telephone Service	42.21	75.41	744.23
6223 · Electric Utility	1,175.47	1,168.60	13,787.28
6224 · Water Utility	0.00	0.00	15,000.00
6240 · Dues and Subscriptions	0.00	0.00	104.60
6266 · Travel Expense	219.78	201.25	2,549.16
6293 · Misc. Expense	0.00	0.00	454.51
<b>Total Expense</b>	<b>5,102.08</b>	<b>7,190.86</b>	<b>97,131.64</b>
<b>Net Income</b>	<b>-1,669.37</b>	<b>-4,098.05</b>	<b>-46,708.38</b>

**Linn Valley Lakes POA**  
**Water Plant**  
 December 2017

	Dec 17	Dec 16	Jan - Dec 17
<b>Income</b>			
3055 · Metered Water	3,841.18	2,782.96	35,832.20
3060 · Water Fill Station	1,609.50	649.75	12,166.26
3080 · Water Meter Hookup	0.00	0.00	31,000.00
<b>Total Income</b>	<u>5,450.68</u>	<u>3,432.71</u>	<u>78,998.46</u>
<b>Gross Profit</b>	5,450.68	3,432.71	78,998.46
<b>Expense</b>			
5175 · Contractural Services	0.00	0.00	2,123.00
6000 · Wages-Exempt	1,290.00	60.00	1,563.00
6010 · Wages	3,810.00	2,407.26	31,459.15
6139 · Payroll Taxes	386.65	44.80	2,107.88
6160 · Supplies	120.65	81.03	2,987.37
6162 · Chemicals	0.00	174.13	8,229.33
6174 · Postage	252.50	49.88	997.44
6188 · Employee Insurance	691.48	0.00	7,294.68
6202 · Repairs & Maint-Bldg & Grounds	74.32	166.12	3,465.62
6205 · Repairs and Maint-Equipment	238.65	681.40	12,698.37
6216 · Telephone Service	65.36	42.21	646.33
6223 · Electric Utility	1,310.98	1,175.47	12,927.78
6224 · Water Utility	15,000.00	0.00	15,000.00
6237 · Taxes and Licenses	0.00	0.00	20.00
6240 · Dues and Subscriptions	0.00	0.00	109.10
6266 · Travel Expense	386.27	219.78	3,002.40
6293 · Misc. Expense	0.00	0.00	453.14
<b>Total Expense</b>	<u>23,626.86</u>	<u>5,102.08</u>	<u>105,084.59</u>
<b>Net income</b>	<u><u>-18,176.18</u></u>	<u><u>-1,669.37</u></u>	<u><u>-26,086.13</u></u>

**STATE OF KANSAS**  
**DEPARTMENT OF HEALTH AND ENVIRONMENT**

In the Matter of: )  
 )  
City of Linn Valley )  
Cindy Smith, Mayor ) Case No. 18-E-06 BOW  
22412 E 2400 Rd )  
Linn Valley, KS 66040 )  
 )  
Federal Water Supply ID No.: KS2010712 )  
Proceeding Under K.S.A. 65-163, *et seq.* )  
Concerning Compliance with )  
K.A.R. 28-15a-135 )  
 )

**CONSENT ORDER**

Now on this \_\_\_\_ day of \_\_\_\_\_, 2018, the Kansas Department of Health and Environment (“KDHE”) and the City of Linn Valley (“PWS”) (collectively, the “Parties”), having agreed that settlement of this matter is in the best interests of the Parties and conducive to protection of public health and the environment, hereby represent and state as follows:

The Parties acknowledge that this Consent Order (“CO”), upon execution by the Secretary of KDHE (“Secretary”), shall be a final agency order. The PWS shall not contest the authority of the Secretary to issue this CO or any action by KDHE to enforce this CO. The PWS voluntarily and knowingly waives the right to an appeal or review of matters leading up to the execution of the CO and execution of the CO under the Kansas Administrative Procedure Act, K.S.A. 77-501, *et seq.* (“KAPA”), and the Kansas Judicial Review Act, K.S.A. 77-601, *et seq.* KAPA authorizes KDHE to enter into an informal settlement of this matter without the necessity of proceeding to a formal hearing. K.S.A. 77-505.

The Secretary and the PWS deems that the Findings of Fact and Conclusions of Law in this CO are true and correct.

**Findings of Fact**

1. The PWS operates a community public water supply system located in Linn County. The PWS serves a population of 813 individuals and has 88 service connections.

2. The PWS utilizes water from Linn Valley Lake, Site ID# 80002200 as the source of water for the public water supply system. The point of entry to the distribution system is identified as TP001, Site ID# 00136138.
3. Table 1, attached hereto and incorporated by reference, summarizes the quarterly Total Organic Carbon (“TOC”) removal ratio results from 4<sup>th</sup> Quarter 2016 to 1<sup>st</sup> Quarter 2018.
4. Table 2, attached hereto and incorporated by reference, summarizes the TOC running annual average (“RAA”) removal ratio results from January 2016 to March 2018.
5. The PWS has obtained the services of a professional engineer licensed by the Kansas State Board of Technical Professions (KSBTP) to practice in Kansas.

### **Conclusions of Law**

6. The KDHE is a duly authorized agency of the state of Kansas, created by an act of the legislature. KDHE has general jurisdiction over matters involving public water supply and protection of public health under the authority of K.S.A. 65-163 *et seq.*
7. The PWS operates a public water supply system as defined by K.S.A. 65-162a. A public water supply system is defined as “a system for the provision to the public of piped water for human consumption, which has at least ten (10) service connections or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year. Such term includes any source, treatment, storage or distribution facilities under control of the operator of the system and used primarily in connection with the system, and any source, treatment, storage or distribution facilities not under such control but which are used in connection with such system.”
8. K.S.A. 65-163 states in part:  
  
“(b)(2) Whenever an investigation of any public water supply system is undertaken by the Secretary, it shall be the duty of the supplier of water under investigation to furnish to the Secretary information to determine the sanitary quality of the water supplied to the public and to determine compliance with applicable state laws and rules and regulations. The Secretary may issue an order requiring changes in the source or sources of the public water supply system or in the manner of storage, purification or treatment utilized by the public water supply system before delivery to consumers, or distribution facilities, collectively or individually, as may in the Secretary’s judgment be necessary to safeguard the sanitary quality of the water and bring about compliance with applicable state law and rules and regulations. The supplier of water shall comply with the order of the Secretary.”

9. K.S.A. 65-171m states in part:

“The Secretary of Health and Environment shall adopt rules and regulations for the implementation of this act. In addition to procedural rules and regulations, the Secretary may adopt rules and regulations providing for but not limited to: (a) primary drinking water standards applicable to all public water supply systems in the state. The primary drinking water standards may (1) identify contaminants which may have an adverse effect on the health of persons; (2) specify for each contaminant either a maximum contaminant level that is acceptable in water for human consumption...; (b) establish the requirements for adequate monitoring, maintenance of records and submission of reports, sampling and analysis of water...”

10. A TOC RAA removal ratio of at least 1.00 is required as identified in 40 CFR 141.135, adopted by reference by K.A.R. 28-15a-135. The results of drinking water analysis summarized in Table 1 and 2 indicate the PWS’s quarterly and running annual average TOC removal ratio. The PWS’s RAA was below the required 1.00 from the 2<sup>nd</sup> quarter of 2016 through 4<sup>th</sup> quarter of 2017 resulting in violations of K.A.R. 28-15a-135.

11. K.S.A. 65-171r prohibits the following acts:

“(e) the failure of a supplier of water to comply with a primary drinking water standard established under K.S.A. 65-171m, and amendments thereto, and rules and regulations adopted pursuant thereto unless a variance or exception has been granted;”

12. K.S.A. 65-171s states in part:

“(a) Any person who violates any provision of K.S.A. 65-171r... shall incur, in addition to any other penalty provided by law, a civil penalty in an amount not more than \$5,000 per day for each day in which such violation occurs or failure to comply continues.”

13. The PWS is in violation of K.S.A. 65-171r by violating the provisions of K.A.R. 28-15a-135 for providing drinking water to the public that does not meet the running annual average removal rate of greater than 1.00 for TOC.

### **ORDER**

14. Based upon the above-referenced Findings of Fact and Conclusions of Law and pursuant to the authority granted under K.S.A. 65-163, the Secretary hereby orders and the PWS consents to comply with the following Compliance Schedule.

15. The following required actions are necessary to protect public health during periods of non-compliance and shall be fulfilled as outlined below until full compliance is achieved.

16. The PWS shall continue to monitor the TOC removal rate at Linn Valley Lake, Site ID# 80002200, and TP001, site ID# 00136138, once a month. The PWS may use the KDHE laboratory or a private KDHE-certified laboratory for analysis. If a private laboratory is used, results for the previous month shall be submitted to the KDHE, Bureau of Water by the 10<sup>th</sup> day of the following month.
17. When the TOC RAA removal ratio is less than 1.00, the PWS shall distribute notice of the violation(s) to the public as required by K.A.R. 28-15a-201. Copies of the notice shall be furnished to all customers; area health care providers including medical doctors, clinics and hospitals; the county health department; and the KDHE. Notice of the violation(s) shall also be included in the annual Consumer Confidence Report (“CCR”) as required by K.A.R. 28-15a-153.
18. Within thirty (30) day of the effective date of this CO, the PWS shall submit to KDHE engineering plans, specifications, and a permit application for the addition of the unpermitted chemical being used in the treatment plant.
19. In order to rectify the violations referenced in this CO, the PWS shall comply with the following compliance schedule:
  - A. Within thirty (30) days of the effective date of this CO, the PWS shall contact KDHE to schedule a consultation regarding deliverables required pursuant to this CO. Please contact:

Amelia Springer  
(785) 296-5523  
amelia.springer@ks.gov
  - B. Within two hundred forty (240) days of KDHE approval of 19.A, the PWS shall submit to the KDHE an engineering report for review. The engineering report shall include options to bring the PWS into compliance.
  - C. Within thirty (30) days of the KDHE approval of 19.B, the PWS shall submit to the KDHE the option selected by the PWS to achieve compliance.
  - D. Upon receipt of 19.C, KDHE will amend the order to match the schedule of the option selected.
20. The PWS shall submit semi-annual status reports to the KDHE by January 1st and July 1st of every year while the PWS is in non-compliance for the TOC RAA Removal Ratios. The status reports shall summarize the PWS progress toward achieving compliance and shall include but not be limited to:
  - A. Progress on any projects or improvements being made to the water system;



- B. A summary of efforts being made to develop an annual budget, capital improvement plan, and an operation and maintenance plan;
  - C. Efforts made to comply with this CO; and
  - D. Any changes to the deadline for which the PWS anticipates to achieve full compliance.
21. All documentation required pursuant to this CO shall reference the case number (Case No. 18-E-06 BOW) and be mailed to:

Kansas Department of Health and Environment  
Public Water Supply Section  
Attn: Amelia Springer  
1000 SW Jackson, Suite 420  
Topeka, KS 66612-1367

#### **Terms of Settlement**

22. All actions required to be undertaken pursuant to this CO shall be undertaken in accordance with the requirements of all applicable local, state and federal laws and regulations.
23. This CO shall apply to and be binding upon the KDHE and the PWS, its agents, successors and assigns. No change in the ownership or corporate status of the PWS shall alter its responsibilities under this CO.
24. The PWS shall provide a copy of this CO to any subsequent owners or successors before ownership rights are transferred. The PWS shall provide a copy of this CO to all contractors, sub-contractors and consultants who are retained to conduct any work performed under this CO, within fourteen (14) days after the effective date of this CO or the date of retaining their services. Notwithstanding the terms of any contract, the PWS is responsible for compliance with, and for insuring that its contractors and agents comply with this CO.
25. The activities conducted under this CO are subject to approval by the KDHE, and the PWS shall provide all necessary information consistent with this CO requested by the KDHE.
26. The PWS agrees to meet every term and condition of this CO. Failure to meet the terms of the Compliance Schedule or any term or condition of, or scheduled date of performance in this CO or any report, work plan or other writing prepared pursuant to and incorporated into this CO, shall constitute a violation of this CO and may subject the

PWS to further enforcement action including, but not limited to, the assessment of civil penalties not to exceed \$5,000 per day for each day in which such violation occurs or failure to comply continues. KDHE reserves the right to unilaterally withdraw this CO for substantial non-compliance.

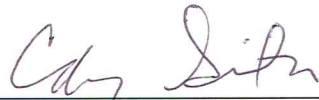
27. This CO shall be terminated upon the PWS's receipt of written notice from KDHE that the PWS has demonstrated the terms of this CO to have been satisfactorily completed, including any additional tasks the KDHE has deemed necessary.
28. The PWS shall perform the requirements under this CO within the time limits set forth herein unless the performance is prevented or delayed solely by events which constitute a force majeure.
  - A. For purposes of this CO a force majeure is defined as any event beyond the control of the PWS which could not be overcome by due diligence and which delays or prevents performance by a date required by this CO. Such events do not include increased costs of performance or changed economic circumstances. Any delay caused in whole or in part by action or inaction by federal or state authorities shall be considered a force majeure and shall not be deemed a violation of any obligations required by this CO.
  - B. The PWS shall have the burden of proving all claims of force majeure. Failure to comply by reason of force majeure shall not be construed as a violation of this CO.
  - C. The PWS shall notify the KDHE in writing within seven (7) days after becoming aware of an event which the PWS knew, or should have known, constituted force majeure. Such notice shall estimate the anticipated length of delay, its cause, measures to be taken to minimize the delay, and an estimated timetable for implementation of these measures. Failure to comply with the notice provision of this section shall constitute a waiver of the PWS's right to assert a force majeure claim and shall be grounds for the KDHE to deny the PWS an extension of time for performance.
  - D. Within seven (7) days of the receipt of written notice from the PWS of a force majeure event, the KDHE shall notify the PWS of the extent to which modifications to this CO are necessary. In the event the KDHE and the PWS cannot agree that a force majeure event has occurred, or if there is no agreement on the length of the extension, the dispute shall be resolved by the Director of the Division of Environment, KDHE, under the Dispute Resolution Procedure provided herein.
  - E. Any modifications to any provision of this CO shall not alter the Schedule of Actions or completion of other tasks required by this CO unless specifically agreed to by the parties in writing and incorporated into this CO.

29. This CO may be amended by mutual agreement of the KDHE and the PWS. Such amendments shall be in writing, shall have as their effective date the date on which they are signed by both parties, and shall be incorporated into this CO.
30. Dispute Resolution Procedure:
- A. The parties recognize that a dispute may arise between them regarding implementation of the action to be taken as herein set forth or other terms or provisions of this CO. If such dispute arises, the parties will endeavor to settle it by informal negotiations between themselves. If the parties cannot resolve the issue informally within a reasonable period of time, either of the parties may notify the other in writing stating specifically:
    - i. that informal negotiations have failed,
    - ii. that formal dispute resolution under this paragraph has commenced, and
    - iii. the position with regard to the dispute and the reason therefore.
  - B. A party receiving such a notice of dispute will respond in writing within ten (10) working days stating its position. The parties shall have an additional ten (10) working day period to prepare written arguments and evidence for submission to the other party. Any settlement shall be reduced to writing, signed by representatives of each party and incorporated into this CO. If the parties are unable to reach an agreement following this procedure, the matter shall be referred to the Director of the Division of Environment, KDHE, who shall decide the matter and provide a written statement of his decision which shall be incorporated into this CO.
  - C. This dispute resolution procedure shall not preclude any party from having direct recourse to court if otherwise available by applicable law.
31. The requirements of this CO represent the best professional judgment of the KDHE at this time based on the available information. If circumstances change significantly so that data indicates an immediate threat of danger to the public health or safety, or the environment, or a significantly different threat other than the alleged deficiencies addressed herein, then the KDHE reserves the right to modify dates or requirements herein as is deemed reasonably necessary and the PWS reserves the right to appeal any such modifications or additional requirements.
32. Nothing contained in this CO shall affect any right, claim, interest, defense or cause of action of any party hereto with respect to any person or entity not a party to this CO. This CO does not constitute a waiver, suspension or modification of the requirements of applicable statutes or regulations which remain in full force and effect.

33. The parties hereto have affixed their signatures on the dates inserted below to acknowledge their agreement to this CO. The signatories to this CO certify that they are authorized to execute and legally bind the parties they represent to this CO.

**IT IS SO ORDERED AND AGREED.**  
**Please sign and date.**

\_\_\_\_\_  
Jeff Andersen  
Secretary  
Kansas Department of Health & Environment

  
\_\_\_\_\_  
Cindy Smith, Mayor  
City of Linn Valley

Date: \_\_\_\_\_

Date: 5 Jul 2018

TABLE 1  
SUMMARY OF QUARTERLY TOC REMOVAL RATIO RESULTS  
4<sup>th</sup> Quarter 2016 – Present

Quarter	Quarterly Removal Ratio Results	Required Removal Ratio >1.0
4th QTR 2016	1.10	1.0
1st QTR 2017	0.89	1.0
2nd QTR 2017	0.98	1.0
3rd QTR 2017	0.73	1.0
4th QTR 2017	1.35	1.0
1st QTR 2018	1.55	1.0

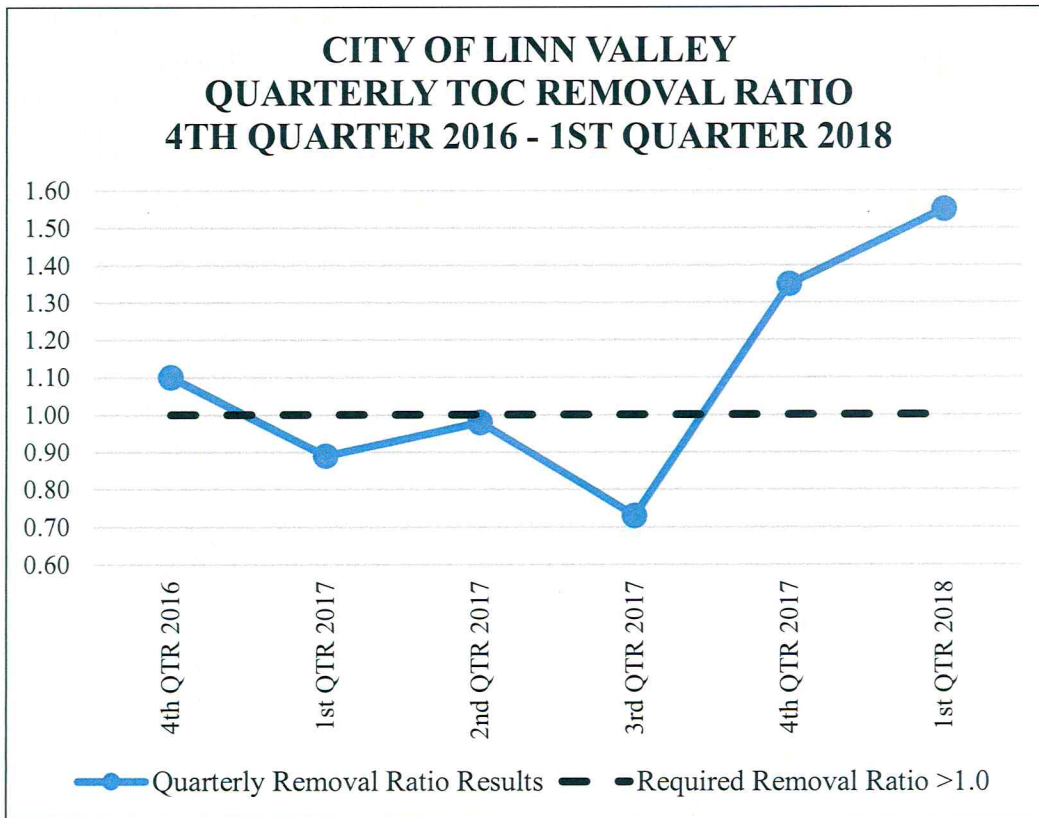
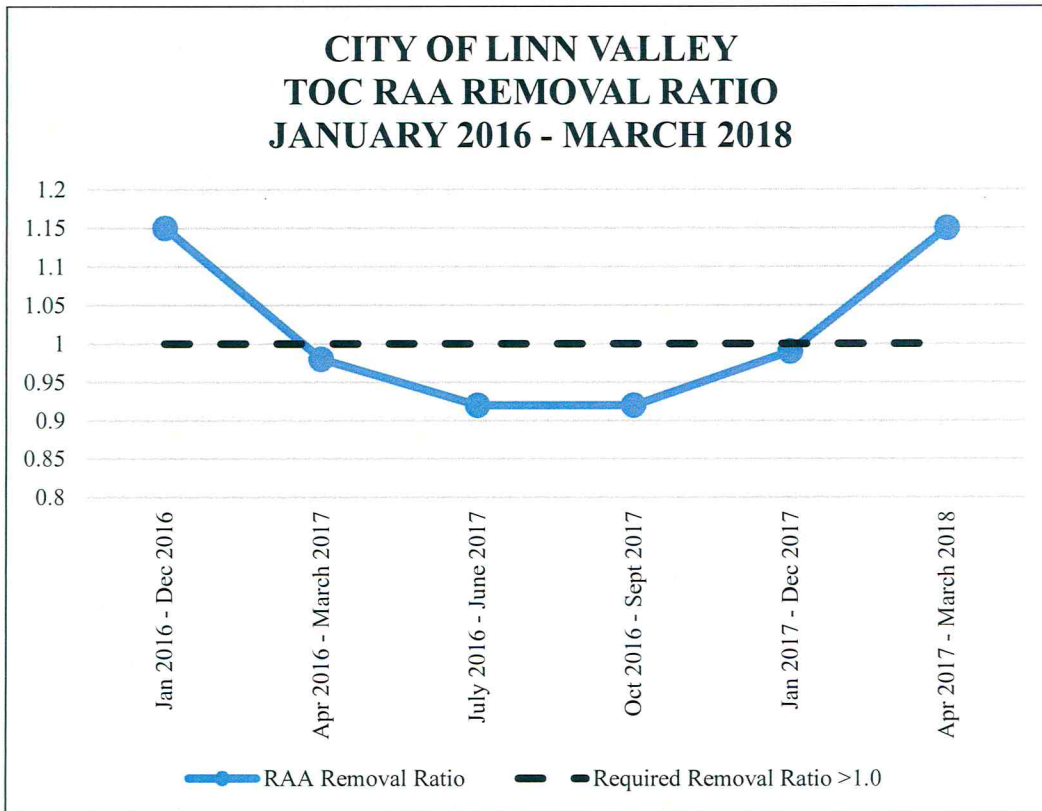
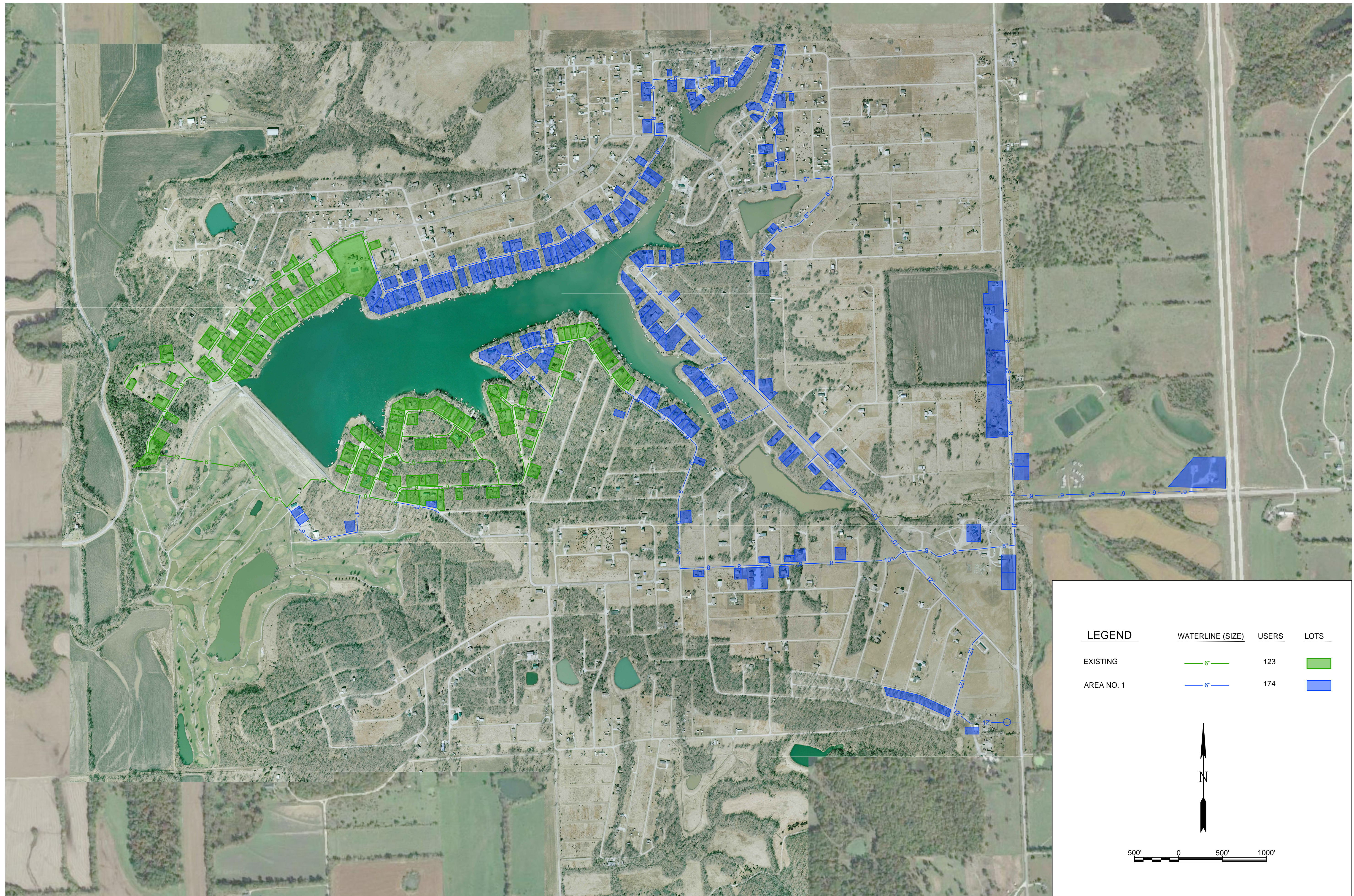


TABLE 2  
 SUMMARY OF TOC RUNNING ANNUAL AVERAGE (RAA)  
 REMOVAL RATIO RESULTS  
 January 2016 – March 2018

Compliance Period	RAA Removal Ratio	Required Removal Ratio >1.0
Jan 2016 - Dec 2016	1.15	1.0
Apr 2016 - March 2017	0.98	1.0
July 2016 - June 2017	0.92	1.0
Oct 2016 - Sept 2017	0.92	1.0
Jan 2017 - Dec 2017	0.99	1.0
Apr 2017 - March 2018	1.15	1.0





**LEGEND**

	WATERLINE (SIZE)	USERS	LOTS
EXISTING	6"	123	Green
AREA NO. 1	6"	174	Blue

N

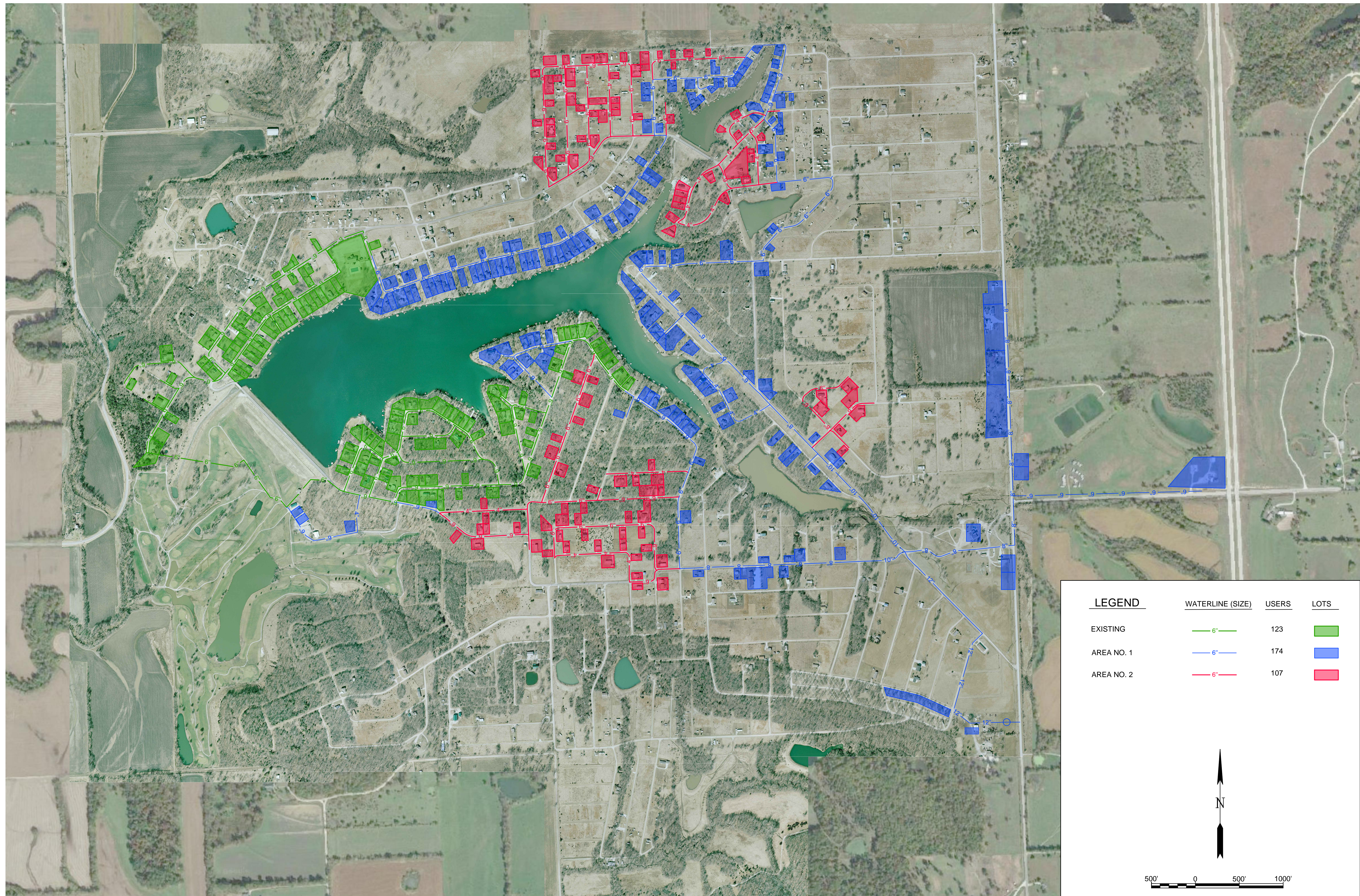
500' 0 500' 1000'

NO.	REVISIONS	DATE	INITIALS

WATER DISTRIBUTION IMPROVEMENTS  
LINN VALLEY, KANSAS

DISTRIBUTION ALTERNATIVE 1

Engineer: PCO  
 Drafter: PCO  
 Check:   
 Date: 5-17-2019  
 Project No. 17-1451L  
 Sht. No. Total Shts. XX



**LEGEND**

	WATERLINE (SIZE)	USERS	LOTS
EXISTING	6"	123	Green
AREA NO. 1	6"	174	Blue
AREA NO. 2	6"	107	Red

500' 0 500' 1000'

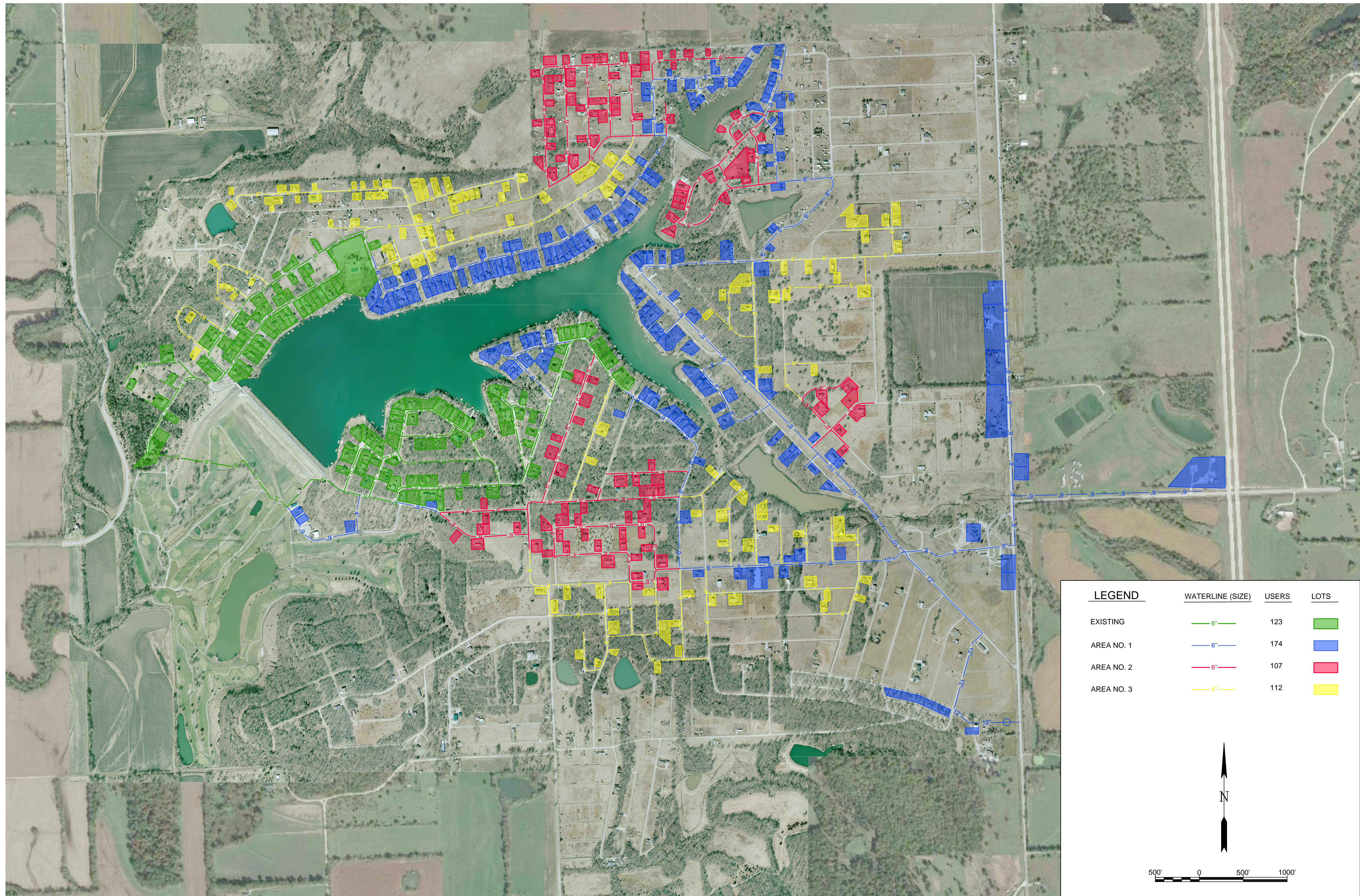
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NO.	REVISIONS	DATE	INITIALS

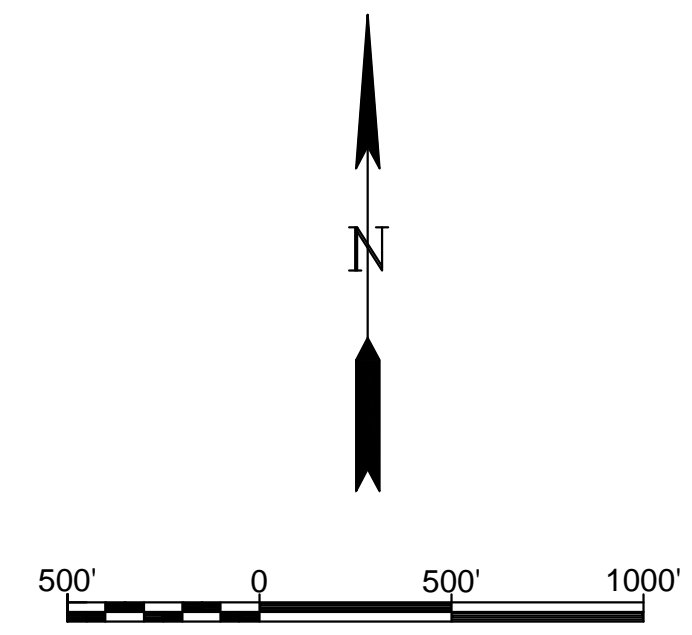
WATER DISTRIBUTION IMPROVEMENTS  
LINN VALLEY, KANSAS  
DISTRIBUTION ALTERNATIVE 2

Engineer:	PCO
Drafter:	PCO
Check:	
Date:	5-17-2019
Project No.	17-1451L
Sht. No.	Total Shts.
	XX





LEGEND			
	WATERLINE (SIZE)	USERS	LOTS
EXISTING	6"	123	Green
AREA NO. 1	6"	174	Blue
AREA NO. 2	6"	107	Red
AREA NO. 3	6"	112	Yellow

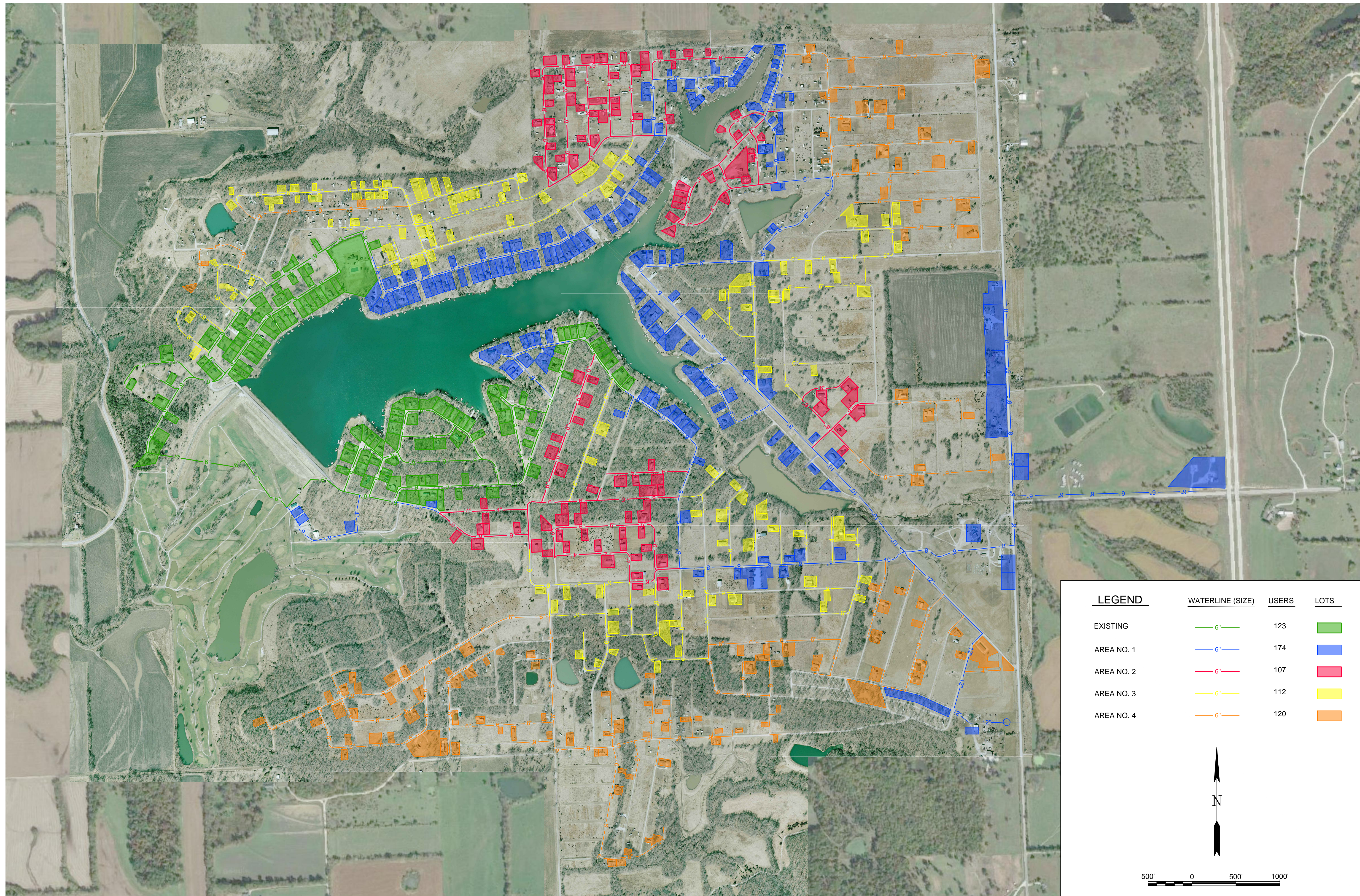


NO.	REVISIONS	DATE	INITIALS

WATER DISTRIBUTION IMPROVEMENTS  
LINN VALLEY, KANSAS

DISTRIBUTION ALTERNATIVE 3

Engineer: PCO  
 Drafter: PCO  
 Check: PCO  
 Date: 5-17-2019  
 Project No. 17-1451L  
 Sht. No. Total Shts. XX



**LEGEND**

	WATERLINE (SIZE)	USERS	LOTS
EXISTING	6"	123	Green
AREA NO. 1	6"	174	Blue
AREA NO. 2	6"	107	Red
AREA NO. 3	6"	112	Yellow
AREA NO. 4	6"	120	Orange

500' 0 500' 1000'

N

NO.	REVISIONS	DATE	INITIALS

WATER DISTRIBUTION IMPROVEMENTS  
LINN VALLEY, KANSAS

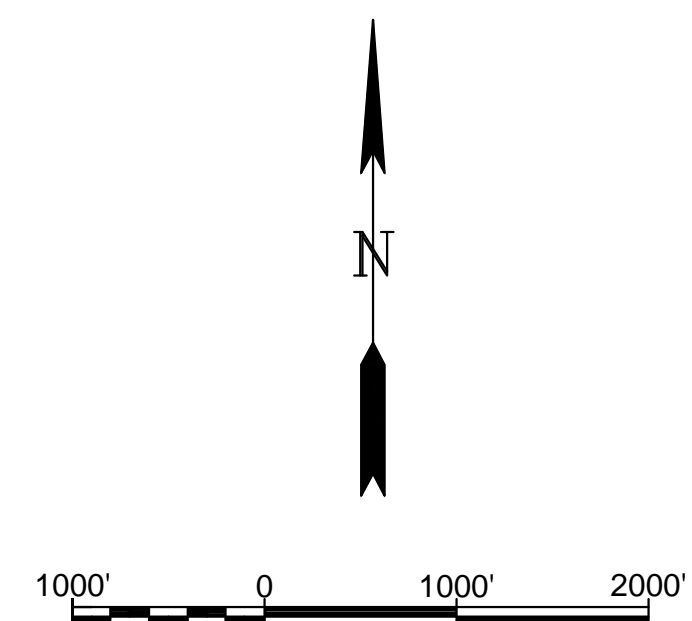
DISTRIBUTION ALTERNATIVE 4

Engineer: PCO  
 Drafter: PCO  
 Check:   
 Date: 5-17-2019  
 Project No. 17-1451L  
 Sht. No. Total Shts. XX



**LEGEND**

	WATERLINE (SIZE)
EXISTING	6"
BENEFIT DISTRICT NO. 1	6"



NO.	REVISIONS	DATE	INITIALS

WATER DISTRIBUTION IMPROVEMENTS  
LINN VALLEY, KANSAS

REGIONAL SUPPLY ALTERNATIVE 2

Engineer:	PCO
Drafter:	PCO
Check:	
Date:	5-17-2019
Project No.	17-1451L
Sht. No.	Total Shts.
	XX

## City of Linn Valley, Kansas

### Water System Improvements

Engineer's Opinion of Probable Cost

**17-1451L**

### Distribution Alternative 1 - Area 1 Expansion

<u>No</u>	<u>Description</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Total Price</u>
1	Mobilization & Incidentals	1	L.S.	\$ 205,000	\$ 205,000
2	12" Waterline (In Place)	2,900	Lin Ft	\$ 110	\$ 319,000
3	10" Waterline (In Place)	1,860	Lin Ft	\$ 90	\$ 167,400
4	10" Waterline (Directional Bore)	300	Lin Ft	\$ 130	\$ 39,000
5	8" Waterline (In Place)	7,340	Lin Ft	\$ 56	\$ 411,040
6	8" Waterline (Directional Bore)	640	Lin Ft	\$ 116	\$ 74,240
7	6" Waterline (In Place)	20,519	Lin Ft	\$ 35	\$ 718,165
8	6" Waterline (Directional Bore)	300	Lin Ft	\$ 90	\$ 27,000
9	4" Waterline (In Place)	2,920	Lin Ft	\$ 32	\$ 93,440
10	Service Line (In Place)	174	Each	\$ 1,000	\$ 174,000
11	Water Meter Assembly w/ Meter	297	Each	\$ 1,000	\$ 297,000
12	AMR Meter Reading System	1	L.S.	\$ 40,000	\$ 40,000
13	Gate Valve w/Box	92	Each	\$ 1,500	\$ 138,000
14	Fire Hydrant Setting	88	Each	\$ 4,000	\$ 352,000
15	Connect to Existing Waterline	1	L.S.	\$ 35,000	\$ 35,000
16	Remove & Replace Surfacing	1	L.S.	165,506	\$ 165,506
<b>Subtotal</b>					<b>\$ 3,255,791</b>
Contingency					\$ 162,790
<b>Total Opinion of Construction Cost</b>					<b>\$ 3,418,581</b>
Design Engineering					\$ 330,600
Construction Observation					\$ 302,600
Construction Engineering					\$ 39,000
Grant Administration					\$ 30,000
Legal Administration					\$ 40,000
Easements/Property Acquisition					\$ 25,000
Temporary Financing					\$ 81,000
Bond Counsel					\$ 11,000
<b>Total Opinoin of Cost</b>					<b>\$ 4,277,781</b>

## City of Linn Valley, Kansas

### Water System Improvements

Engineer's Opinion of Probable Cost

**17-1451L**

### Distribution Alternative 2 - Area 1 & 2 Expansion

<u>No</u>	<u>Description</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Total Price</u>
1	Mobilization & Incidentals	1	L.S.	\$ 310,000	\$ 310,000
2	12" Waterline (In Place)	2,900	Lin Ft	\$ 110	\$ 319,000
3	10" Waterline (In Place)	1,860	Lin Ft	\$ 90	\$ 167,400
4	10" Waterline (Directional Bore)	300	Lin Ft	\$ 130	\$ 39,000
5	8" Waterline (In Place)	7,890	Lin Ft	\$ 56	\$ 441,840
6	8" Waterline (Directional Bore)	640	Lin Ft	\$ 116	\$ 74,240
7	6" Waterline (In Place)	40,170	Lin Ft	\$ 35	\$ 1,405,950
8	6" Waterline (Directional Bore)	300	Lin Ft	\$ 90	\$ 27,000
9	4" Waterline (In Place)	10,130	Lin Ft	\$ 32	\$ 324,160
10	Service Line (In Place)	281	Each	\$ 1,000	\$ 281,000
11	Water Meter Assembly w/ Meter	404	Each	\$ 1,000	\$ 404,000
12	AMR Meter Reading System	1	L.S.	\$ 40,000	\$ 40,000
13	Gate Valve w/Box	161	Each	\$ 1,500	\$ 241,500
14	Fire Hydrant Setting	122	Each	\$ 4,000	\$ 488,000
15	Connect to Existing Waterline	1	L.S.	\$ 65,000	\$ 65,000
16	Remove & Replace Surfacing	1	L.S.	288,855	\$ 288,855
<b>Subtotal</b>					<b>\$ 4,916,945</b>
Contingency					\$ 245,847
<b>Total Opinion of Construction Cost</b>					<b>\$ 5,162,792</b>
Design Engineering					\$ 486,300
Construction Observation					\$ 457,000
Construction Engineering					\$ 58,000
Grant Administration					\$ 30,000
Legal Administration					\$ 40,000
Easements/Property Acquisition					\$ 25,000
Temporary Financing					\$ 121,000
Bond Counsel					\$ 11,000
<b>Total Opinoin of Cost</b>					<b>\$ 6,391,092</b>

## City of Linn Valley, Kansas

### Water System Improvements

Engineer's Opinion of Probable Cost

**17-1451L**

### Distribution Alternative 3 - Area 1, 2, & 3 Expansion

<u>No</u>	<u>Description</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Total Price</u>
1	Mobilization & Incidentals	1	L.S.	\$ 447,000	\$ 447,000
2	12" Waterline (In Place)	2,900	Lin Ft	\$ 110	\$ 319,000
3	10" Waterline (In Place)	1,860	Lin Ft	\$ 90	\$ 167,400
4	10" Waterline (Directional Bore)	300	Lin Ft	\$ 130	\$ 39,000
5	8" Waterline (In Place)	8,520	Lin Ft	\$ 56	\$ 477,120
6	8" Waterline (Directional Bore)	640	Lin Ft	\$ 116	\$ 74,240
7	6" Waterline (In Place)	70,260	Lin Ft	\$ 35	\$ 2,459,100
8	6" Waterline (Directional Bore)	300	Lin Ft	\$ 90	\$ 27,000
9	4" Waterline (In Place)	16,890	Lin Ft	\$ 32	\$ 540,480
10	Service Line (In Place)	393	Each	\$ 1,000	\$ 393,000
11	Water Meter Assembly w/ Meter	516	Each	\$ 1,000	\$ 516,000
12	AMR Meter Reading System	1	L.S.	\$ 40,000	\$ 40,000
13	Gate Valve w/Box	255	Each	\$ 1,500	\$ 382,500
14	Fire Hydrant Setting	173	Each	\$ 4,000	\$ 692,000
15	Connect to Existing Waterline	1	L.S.	\$ 65,000	\$ 65,000
16	Remove & Replace Surfacing	1	L.S.	457,515	\$ 457,515
<b>Subtotal</b>					<b>\$ 7,096,355</b>
Contingency					\$ 354,818
<b>Total Opinion of Construction Cost</b>					<b>\$ 7,451,173</b>
Design Engineering					\$ 683,300
Construction Observation					\$ 660,000
Construction Engineering					\$ 84,000
Grant Administration					\$ 30,000
Legal Administration					\$ 40,000
Easements/Property Acquisition					\$ 25,000
Temporary Financing					\$ 173,000
Bond Counsel					\$ 11,000
<b>Total Opinoin of Cost</b>					<b>\$ 9,157,473</b>

## City of Linn Valley, Kansas

### Water System Improvements

Engineer's Opinion of Probable Cost

**17-1451L**

### Distribution Alternative 4 - Area 1, 2, 3, & 4 Expansion

<u>No</u>	<u>Description</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Total Price</u>
1	Mobilization & Incidentals	1	L.S.	\$ 615,000	\$ 615,000
2	12" Waterline (In Place)	2,900	Lin Ft	\$ 110	\$ 319,000
3	10" Waterline (In Place)	1,860	Lin Ft	\$ 90	\$ 167,400
4	10" Waterline (Directional Bore)	300	Lin Ft	\$ 130	\$ 39,000
5	8" Waterline (In Place)	8,520	Lin Ft	\$ 56	\$ 477,120
6	8" Waterline (Directional Bore)	640	Lin Ft	\$ 116	\$ 74,240
7	6" Waterline (In Place)	113,030	Lin Ft	\$ 35	\$ 3,956,050
8	6" Waterline (Directional Bore)	300	Lin Ft	\$ 90	\$ 27,000
9	4" Waterline (In Place)	20,180	Lin Ft	\$ 32	\$ 645,760
10	Service Line (In Place)	513	Each	\$ 1,000	\$ 513,000
11	Water Meter Assembly w/ Meter	636	Each	\$ 1,000	\$ 636,000
12	AMR Meter Reading System	1	L.S.	\$ 40,000	\$ 40,000
13	Gate Valve w/Box	370	Each	\$ 1,500	\$ 555,000
14	Fire Hydrant Setting	244	Each	\$ 4,000	\$ 976,000
15	Connect to Existing Waterline	1	L.S.	\$ 65,000	\$ 65,000
16	Remove & Replace Surfacing	1	L.S.	664,785	\$ 664,785
<b>Subtotal</b>					<b>\$ 9,770,355</b>
Contingency					\$ 488,518
<b>Total Opinion of Construction Cost</b>					<b>\$ 10,258,873</b>
Design Engineering					\$ 915,000
Construction Observation					\$ 908,000
Construction Engineering					\$ 115,000
Grant Administration					\$ 30,000
Legal Administration					\$ 40,000
Easements/Property Acquisition					\$ 25,000
Temporary Financing					\$ 236,000
Bond Counsel					\$ 11,000
<b>Total Opinoin of Cost</b>					<b>\$ 12,538,873</b>

## City of Linn Valley, Kansas

### Water System Improvements

Engineer's Opinion of Probable Cost

**17-1451L**

### Storage Alternative 1 - 100,000 Gallon Water Tower

<u>No</u>	<u>Description</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Total Price</u>
1	Mobilization	1	L.S.	\$ 41,000	\$ 41,000
2	Clearing and Grubbing	1	L.S.	\$ 2,000	\$ 2,000
3	Contractor Construction Staking	1	L.S.	\$ 2,000	\$ 2,000
4	Seeding and Surface Restoration	1	L.S.	\$ 2,000	\$ 2,000
5	Erosion Control	1	L.S.	\$ 1,500	\$ 1,500
6	100,000 Water Tower	1	L.S.	\$ 593,000	\$ 593,000
7	12" Waterline (In Place)	200	Lin Ft	\$ 120	\$ 24,000
8	12" Gate Valve w/Box	1	Each	\$ 3,100	\$ 3,100
9	Fire Hydrant Setting	1	Each	\$ 3,500	\$ 3,500
10	Concrete Pavement (Uniform)(AE)	455	SY	\$ 75	\$ 34,125
11	Flowable Fill	60	Cu Yds	\$ 120	\$ 7,200
12	Chain Link Fence (6' High)	400	Lin. Ft.	\$ 50	\$ 20,000
13	Gate (Sliding) (15')	1	Each	\$ 2,500	\$ 2,500
<b>Subtotal</b>					<b>\$ 735,925</b>
Contingency (10%)					\$ 73,593
<b>Total Opinion of Construction Cost</b>					<b>\$ 809,518</b>
Design Engineering					\$ 76,500
Construction Observation					\$ 64,350
Construction Engineering					\$ 28,800
Grant Administration					\$ 30,000
Legal Administration					\$ 40,000
Easements/Property Acquisition					\$ 25,000
Geotechnical					\$ 8,000
Temporary Financing					\$ 21,700
Bond Counsel					\$ 11,000
<b>Total Opinoin of Cost</b>					<b>\$ 1,114,868</b>



## City of Linn Valley, Kansas

### Water System Improvements

Engineer's Opinion of Probable Cost

**17-1451L**

### Storage Alternative 2 - 150,000 Gallon Water Tower

<u>No</u>	<u>Description</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Total Price</u>
1	Mobilization	1	L.S.	\$ 53,000	\$ 53,000
2	Clearing and Grubbing	1	L.S.	\$ 2,000	\$ 2,000
3	Contractor Construction Staking	1	L.S.	\$ 2,000	\$ 2,000
4	Seeding and Surface Restoration	1	L.S.	\$ 2,000	\$ 2,000
5	Erosion Control	1	L.S.	\$ 1,500	\$ 1,500
6	150,000 Water Tower	1	L.S.	\$ 805,000	\$ 805,000
7	12" Waterline (In Place)	200	Lin Ft	\$ 120	\$ 24,000
8	12" Gate Valve w/Box	1	Each	\$ 3,100	\$ 3,100
9	Fire Hydrant Setting	1	Each	\$ 3,500	\$ 3,500
10	Concrete Pavement (Uniform)(AE)	455	SY	\$ 70	\$ 31,850
11	Flowable Fill	60	Cu Yds	\$ 120	\$ 7,200
12	Chain Link Fence (6' High)	400	Lin. Ft.	\$ 50	\$ 20,000
13	Gate (Sliding) (15')	1	Each	\$ 2,500	\$ 2,500
<b>Subtotal</b>					<b>\$ 957,650</b>
Contingency (10%)					\$ 95,765
<b>Total Opinion of Construction Cost</b>					<b>\$ 1,053,415</b>
Design Engineering					\$ 76,500
Construction Observation					\$ 64,350
Construction Engineering					\$ 28,800
Grant Administration					\$ 30,000
Legal Administration					\$ 40,000
Easements/Property Acquisition					\$ 25,000
Geotechnical					\$ 8,000
Temporary Financing					\$ 26,900
Bond Counsel					\$ 11,000
<b>Total Opinoin of Cost</b>					<b>\$ 1,363,965</b>

## City of Linn Valley, Kansas

### Water System Improvements

Engineer's Opinion of Probable Cost

17-1451L

### Storage Alternative 3 - 250,000 Gallon Water Tower

No	Description	Quantity	Units	Unit Price	Total Price
1	Mobilization	1	L.S.	\$ 64,000	\$ 64,000
2	Clearing and Grubbing	1	L.S.	\$ 2,000	\$ 2,000
3	Contractor Construction Staking	1	L.S.	\$ 2,000	\$ 2,000
4	Seeding and Surface Restoration	1	L.S.	\$ 2,000	\$ 2,000
5	Erosion Control	1	L.S.	\$ 1,500	\$ 1,500
6	250,000 Water Tower	1	L.S.	\$ 992,000	\$ 992,000
7	12" Waterline (In Place)	200	Lin Ft	\$ 120	\$ 24,000
8	12" Gate Valve w/Box	1	Each	\$ 3,100	\$ 3,100
9	Fire Hydrant Setting	1	Each	\$ 3,500	\$ 3,500
10	Concrete Pavement (Uniform)(AE)	455	SY	\$ 70	\$ 31,850
11	Flowable Fill	60	Cu Yds	\$ 120	\$ 7,200
12	Chain Link Fence (6' High)	400	Lin. Ft.	\$ 50	\$ 20,000
13	Gate (Sliding) (15')	1	Each	\$ 2,500	\$ 2,500
				<b>Subtotal</b>	<b>\$ 1,155,650</b>
				Contingency (10%)	\$ 115,565
				<b>Total Opinion of Construction Cost</b>	<b>\$ 1,271,215</b>
				Design Engineering	\$ 76,500
				Construction Observation	\$ 64,350
				Construction Engineering	\$ 28,800
				Grant Administration	\$ 30,000
				Legal Administration	\$ 40,000
				Easements/Property Acquisition	\$ 25,000
				Geotechnical	\$ 8,000
				Temporary Financing	\$ 32,800
				Bond Counsel	\$ 11,000
				<b>Total Opinoin of Cost</b>	<b>\$ 1,587,665</b>

**City of Linn Valley, Kansas**  
**Water System Improvements**  
 Engineer's Opinion of Probable Cost  
**17-1451L**  
**Regional Supply Alternative 2 - La Cygne**

<u>No</u>	<u>Description</u>	<u>Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Total Price</u>
1	Mobilization	1	L.S.	\$ 80,000	\$ 80,000
2	Clearing and Grubbing	1	L.S.	\$ 8,000	\$ 8,000
3	Seeding	1	L.S.	\$ 8,000	\$ 8,000
4	Erosion Control	1	L.S.	\$ 4,000	\$ 4,000
5	Meter Vault	2	Each	\$ 30,000	\$ 60,000
6	8" Waterline (In Place)	19,665	Lin Ft	\$ 40	\$ 786,600
7	8" Waterline (Directional Bore)	1,035	Lin Ft	\$ 80	\$ 82,800
8	Gate Valve w/Box	4	Each	\$ 2,000	\$ 8,000
9	Surface Restoration	1	L.S.	\$ 15,000	\$ 15,000
10	Booster Pump Station	1	L.S.	\$ 225,000	\$ 225,000
11	Telemetry and Controls	1	L.S.	\$ 25,000	\$ 25,000
<b>Subtotal</b>					<b>\$ 1,302,400</b>
Contingency					\$ 65,120
<b>Total Opinion of Construction Cost</b>					<b>\$ 1,367,520</b>
Connection Cost					\$ 25,000
Design Engineering					\$ 115,000
Construction Observation					\$ 108,000
Construction Engineering					\$ 21,800
Grant Administration					\$ 30,000
Legal Administration					\$ 40,000
Easements/Property Acquisition					\$ 25,000
Temporary Financing					\$ 34,600
Bond Counsel					\$ 11,000
<b>Total Opinoin of Cost</b>					<b>\$ 1,777,920</b>

**City of Linn Valley, Kansas**  
**Water System Improvements**  
 Engineer's Opinion of Probable Cost  
**17-1451L**  
**Phasing Considerations**

**Single Phase Project**

<u>No</u>	<u>Description</u>	<u>Total Project</u>
1	Distribution Alternative 4	\$ 12,538,873
2	Storage Alternative 3	\$ 1,587,665
3	Regional Supply Alternative 2	\$ 1,777,920
<b>Total Opinion of Cost</b>		<b>\$ 15,904,458</b>

**Multi Phase Project**

**Phase 1**

<u>No</u>	<u>Description</u>	<u>Total Project</u>
1	Distribution Alternative 4 (Part 1)	\$ 4,586,644
2	Storage Alternative 3	\$ 1,587,665
3	Regional Supply Alternative 2	\$ 1,777,920
<b>Subtotal Opinion of Cost</b>		<b>\$ 7,952,229</b>

**Phase 2**

<u>No</u>	<u>Description</u>	<u>Total Project</u>
1	Distribution Alternative 4 (Part 2)	\$ 7,952,229
<b>Subtotal Opinion of Cost</b>		<b>\$ 7,952,229</b>
<b>Total Opinion of Cost</b>		<b>\$ 15,904,458</b>

**City of Linn Valley, Kansas**  
**Water System Improvements**  
 Engineer's Opinion of Probable Cost  
**17-1451L**  
**Life Cycle Cost Analysis**

**Present Worth Summary:**

	La Cygne	Linn RWD 1		
Total Capital Costs	\$ 1,777,920	\$ -	\$ -	\$ -
Annual O&M*	\$ 84,253	\$ 179,580	\$ -	\$ -
Annual Short Lived Assets Fund	\$ 1,573	\$ -	\$ -	\$ -
20 Year Present Worth (O&M + Reserve)	\$ 1,629,620	\$ 3,409,761	\$ -	\$ -
Salvage Value	\$ 888,960	\$ -	\$ -	\$ -
20 Year Present Worth (Salvage Value)	\$ 804,565	\$ -	\$ -	\$ -
Life Cycle Cost	\$ 2,602,975	\$ 3,409,761	\$ -	\$ -

*Life Cycle based upon 20 years and a discount rate of 0.5%*

\*O&M includes the cost to purchase water. Other O&M Cost are equivalent for either option

**Present Worth of O&M and Short Lived Assets:**

$$P = \frac{A[(1+i)^N - 1]}{[i(1+i)^N]}$$

	Alternative #1	Alternative #2	Alternative #3	Alternative #4
A= Annual O&M + Short Lived Assets Fund	\$ 85,826	\$ 179,580	\$ -	\$ -
N= Number of Years	20	20	20	20
I = Discount Rate	0.50%	0.50%	0.50%	0.50%
Present Worth (O&M)	\$ 1,629,620	\$ 3,409,761	\$ -	\$ -

**Salvage Value Calculation:**

$$P = S(1+i)^{-N}$$

	Alternative #1	Alternative #2	Alternative #3	Alternative #4
Capital Cost	\$ 1,777,920	\$ -	\$ -	\$ -
Useful Life	40	40	40	40
N = Number of Years	20	20	20	20
Remaining Useful Life	50%	50%	50%	50%
S = Salvage Value	\$ 888,960	\$ -	\$ -	\$ -
i = discount rate	0.50%	0.50%	0.50%	0.50%
P = Present Worth (Salvage Value)	\$ 804,565	\$ -	\$ -	\$ -

**City of Linn Valley, Kansas**  
**Water System Improvements**  
Engineer's Opinion of Probable Cost  
**17-1451L**  
**Short Lived Assets**

**Distribution**

Item	Quantity	Unit	Replacement Cost	Anticipated Life (Years)	Annual Equivalent Cost
Water Meters	478	Each	\$ 250.00	15	\$ 7,966.67
Elev. Storage Tank Paint	1	Each	\$ 150,000.00	15	\$ 10,000.00

Engineer's Opinion of Annual Reserve Deposit \$ 17,966.67

**Supply**

Item	Quantity	Unit	Cost	(Years)	Equivalent Cost
Controls	1	Each	\$ 1,200.00	5	\$ 240.00
Pumps	2	Each	\$ 10,000.00	15	\$ 1,333.33

Engineer's Opinion of Annual Reserve Deposit \$ 1,573.33

Total Engineer's Opinion of Annual Reserve Deposit \$ 19,540.00