AGENDA
CITY COUNCIL WORKSHOP
7651 E. Central Park Ave, Bel Aire, KS
Video Available at belaireks.gov
August 08, 2023 6:30 PM

I. UTILITIES

A. Burns & McDonnell – Introduction and information on the new wastewater pretreatment program.

B. PEC - Presentation on the water and sewer system study.

II. BUDGET

A. Final review of the 2024 proposed City of Bel Aire Budget.

III. OTHER?

IV. DISMISS

Additional Attachments

A. Manager's Report - August 8, 2023

Notice

It is possible that sometime between 6:00 and 6:30 PM immediately prior to this meeting, during breaks, and directly after the meeting, a majority of the Governing Body may be present in the Council Chambers or the lobby of City Hall. No one is excluded from these areas during these times. Video of this meeting can be streamed on www.belaireks.gov and on YouTube. Please make sure all cell phones and other electronics are turned off and put away.

BURNS McDONNELL

Bel Aire Sewer Use Framework

August 8, 2023

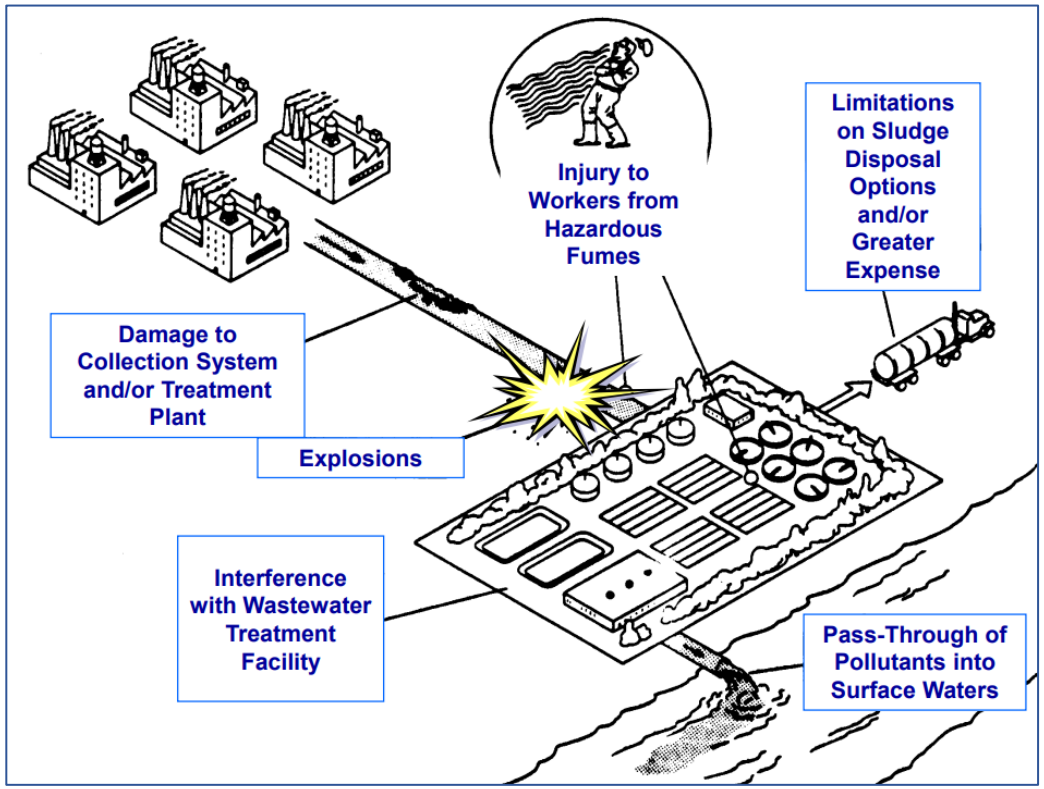
Agenda

- Goals and Objectives
- Sewer Use Ordinance
- Collection System Sampling
- Odor and Corrosion Control
- Consent Order
- Next Steps

SEWER USE ORDINANCE

Background

National Pretreatment Program Objectives – 40 CFR § 403.2



- Prevent introduction of pollutants that interfere with operation of Wastewater Treatment Plant (WWTP)
  - Sanitary Sewer Stoppages / Overflows
  - Exposure to pollutants result in causing harm to workers and / or the public
  - WWTP Upsets
- Prevent introduction of pollutants that pass through the WWTP
  - Results in a violation of the WWTP Discharge Permit (NPDES)
- Improve opportunities to reuse wastewater and biosolids

EPA Pretreatment Program Requirements

- WWTP Design Flows greater than 5 Million Gallons per Day (MGD)
  - Potential to receive pollutants from industrial users that result in pass through or interference
  - Significant Industrial Users (SIU) that are identified by EPA as Categorical Industrial Users*
- WWTP Design Flow Less than 5 MGD
  - If KDHE or EPA determines a program is required to prevent pass through or interference
  - Has SIU contribution or chronic NPDES violations due to non-domestic dischargers

**** KDHE assumes responsibility of regulating Categorical SIUS in non-pretreatment cities.***

Semi-Conductor manufactures are classified as a Categorial SIU –
40 CFR Part 469 –Electrical and Electronic Components

Approved Pretreatment Program Components: 40 CFR § 403.8 (f)

1. Sewer Use Ordinance - procedures to protect WWTP from pollutants that cause interference or pass-through
2. Industrial Waste Survey - mechanism to identify Significant Industrial Users (SIU) in service area
3. Develop and Monitor technically based local limits
4. Legal Authority
5. Enforcement Response Plan (ERP)
6. Funding – Mechanism in place to finance pretreatment program implementation

- ***Bel Aire to complete first 2 components for non-program City.***

Recommended Regulatory Standards For "Non-pretreatment City"

ITEM	PURPOSE
General Provisions	Purpose and Policy of the SUO
Definitions	Defines terms and phrases in the SUO
Wastewater Discharge Prohibitions	Applicable to commercial and industrial facilities (collectively referred to as Industrial Users: IUs)
Right of Entry	Establishes ability to inspect nondomestic sources and collect wastewater samples
Industrial Waste Surveys	Authority to gather information used to characterize IU contributions
Additional Considerations: • **Implementation Procedures EPA Streamlining Initiatives** • **Notification, Reporting and Recordkeeping** • **Enforcement** • **Trucked, Hauled, RV Waste Controls in the service area**	Provides the ability to address discharge or regulatory requirements unique to the City

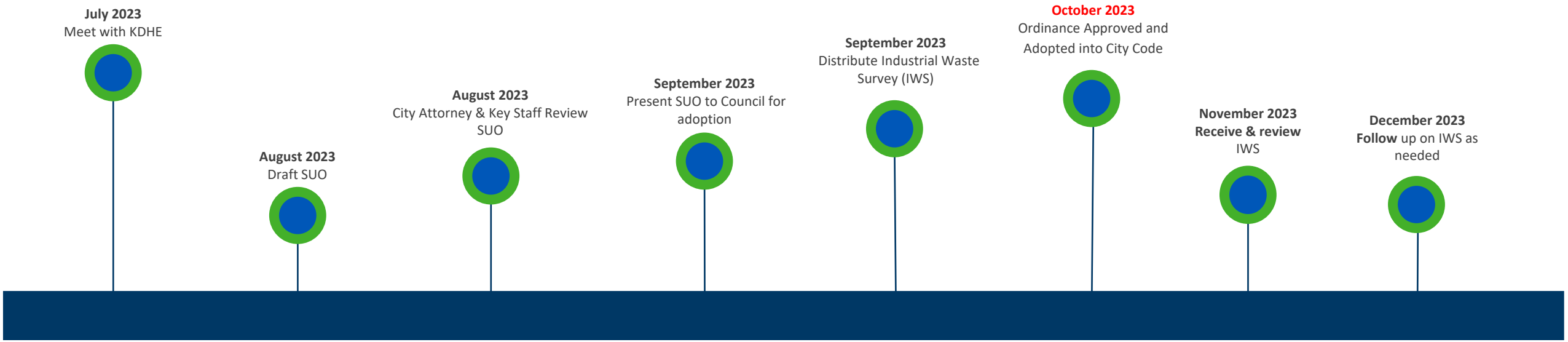
Industrial Waste Surveys

- Compiles a list of IUs contributing pollutants that potentially have an adverse impact of the WWTP and/or collection system
  - Reduction in WWTP efficiencies
  - Damage to WWTP or collection system
  - Causes NPDES Permit violation
  - Fish Kill
- Re-evaluate any current Permitted IUs
- Communicate with business community any applicable pretreatment requirements

Bel Aire Program Goals

- Develop mechanism to control discharges from non-domestic sources in the form of a Sewer Use Ordinance which establishes that authority
- Meet City's responsibilities for pretreatment under Consent Order
- Measure and Document Bel Aire sewer use contributions to CCUA

Sewer Use Ordinance (SUO) Schedule



Key Assumptions:

- Does not require EPA review and approval
- Use of standard Sewer Use Ordinance template recommended by KDHE
- City Attorney and Staff Review is 4 weeks
- Council Approval and Adoption into Code is 4 weeks
- Establishes the basic framework to protect the Wastewater Treatment Plant and its workers against impacts from pollutants of non-domestic wastewater to assure compliance with all NPDES Permit requirements

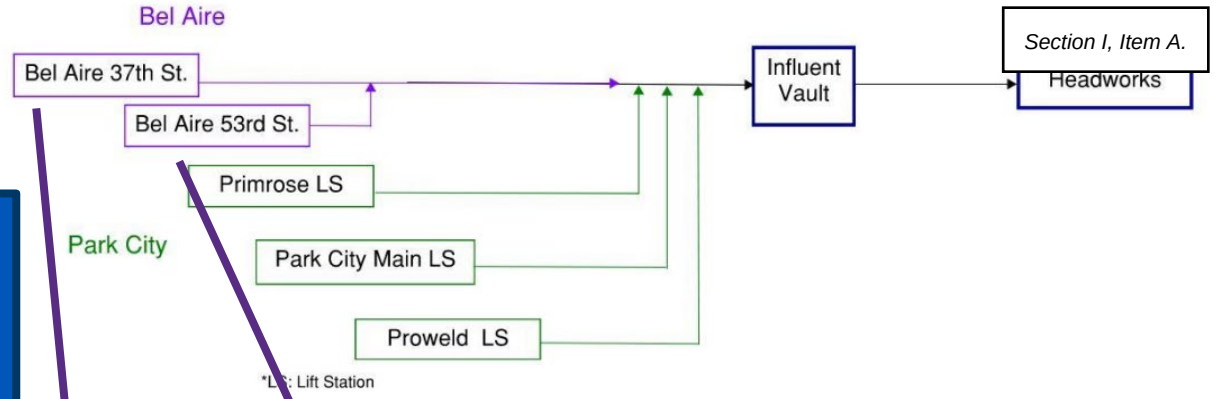
Long-Term Program Management

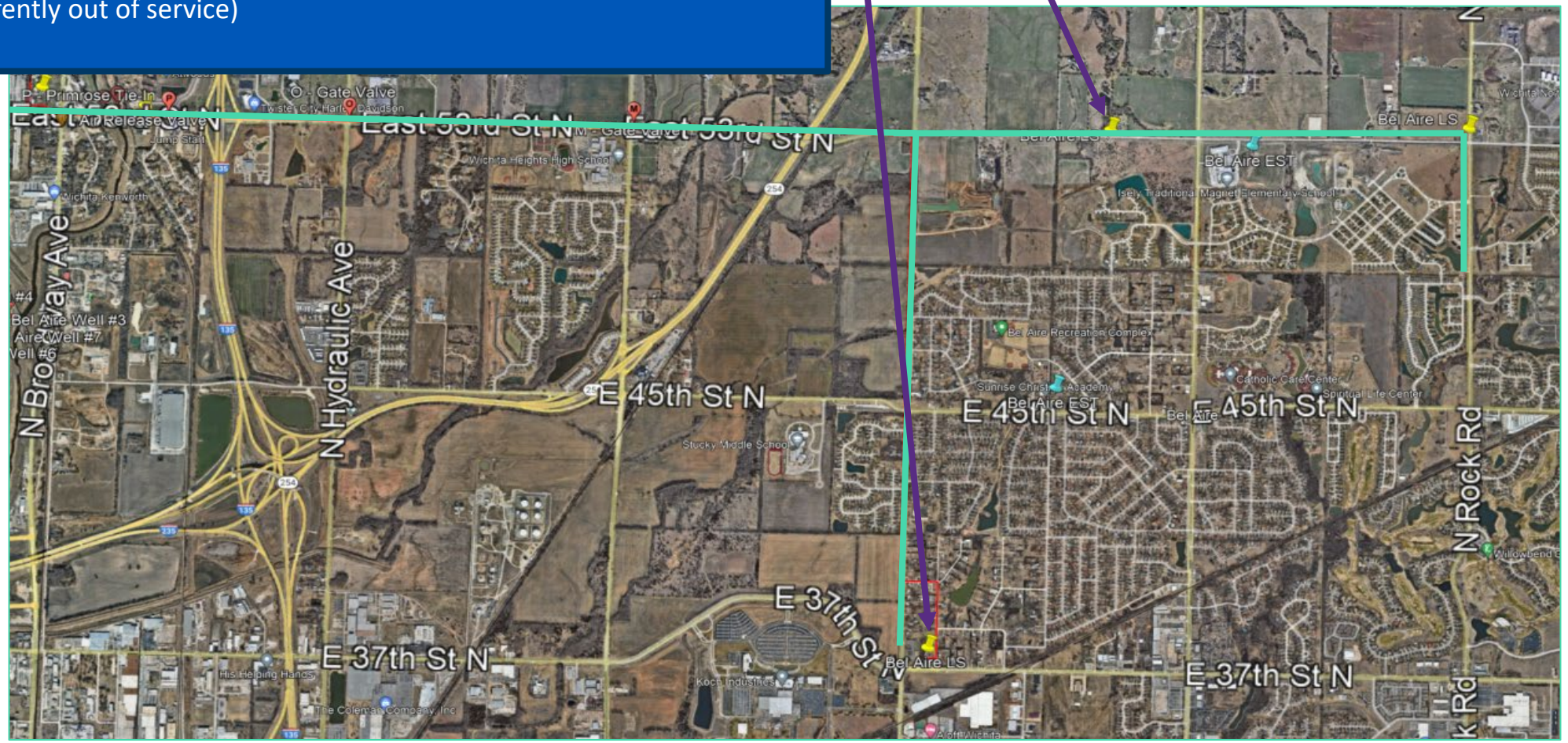
- A plan for long-term sewer use program management will set the City up for success
  - **Economic Development Support**
  - **Continuous Industrial Waste Survey Procedures**
  - **Other Considerations**
    - ***Hauled Waste***
    - ***Restaurants***

Collection System Sampling & Support

Sampling Locations

- Proposed locations collect majority of wastewater from Bel Aire prior to introduction of wastewater from Park City
- Major Lift Stations selected due to available power and fenced security
- Flow Monitoring available at both sites (37th Street flow monitor currently out of service)





Sampling Activities

Autosampler on order for Harding Lift Station monitoring. Wastewater is currently collected by using a portable autosampler borrowed from the City of Wichita.

New Autosampler at 53rd Street N Lift Station

Odor & Corrosion Control

Areas of Odor and Corrosion Detected

- Odor Complaints from residents near the 53rd St. Lift Station (LS) located at 5859 E 53rd Street N Substantial grease build-up in LS wetwell
- Significant corrosion of manhole vaults and lids on sanitary sewer line serving 53rd St N LS
- Odors and corrosion result of excess hydrogen sulfide (H_2S) present in the sewage likely due to extended mean residence time of wastewater in the collection system

KDHE Consent Order

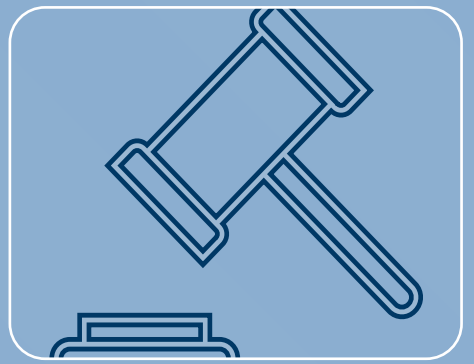
Consent Order Objectives

The Chisholm Creek Utility Authority entered into a Consent Order with KDHE in November 2022. The Consent Order includes the following directives:

- Submit Expansion Project Plan for CCUA WWTP - October 31, 2023 (Original date of May 31, 2023 extension granted by KDHE at request of CCUA)
- Complete Expansion Construction Project – September 30, 2025
- Submit Quarterly Progress reports describing progress made on expansion project and/or maintaining interim Permit Compliance

Burns & McDonnell shall assist the City in developing and reviewing KDHE correspondence applicable to the Consent Order

NEXT STEPS



Sewer Use Ordinance Development and Approval

Sampling Program Assistance

Odor and Corrosion Control Assistance

City of Bel Aire

LIFE'S better ON THE EDGE!

CREATE AMAZING.

BURNS McDONNELL

PRELIMINARY REPORT

CITY OF BEL AIRE

WATER MASTER PLAN

PEC PROJECT NO. 35-220925-000-2564

JUNE 2023

PREPARED BY
PROFESSIONAL ENGINEERING CONSULTANTS PA
303 S. Topeka Wichita, KS 67202 316-262-2691 **www.pec1.com**

Table of Contents

List of Tables

List of Figures

List of Appendices

1.0 Introduction

The City of Bel Aire retained the services of Professional Engineering Consultants to develop a working computer model of the City's water distribution system and perform a detailed analysis of the system's capabilities in order to prepare a plan for addressing current and projected future system deficiencies. This Water Distribution System Master Plan presents the information utilized to prepare the hydraulic water model, evaluation of the model to determine system deficiencies, alternatives to address identified system deficiencies, and a summary of recommended system improvements.

1.1 Study Objective

The primary objective of this study is to determine water distribution system improvements needed to address current system deficiencies and anticipated future conditions. This included analyzing potential demand growth and system expansion, distribution system piping, pumping capabilities, and storage volumes.

The computerized model of the distribution system was developed using the Bentley WaterGEMS software. The model was analyzed to determine if there was adequate system pressure, available fire flows, water storage, and conveyance infrastructure for current and future flows. This study presents an evaluation of alternatives to address current and anticipated future deficiencies. The study period for analysis of the distribution system is twenty years (2043) divided into three development-based scenarios. Total project cost estimates were prepared for each recommended improvement for incorporation into the City's Capital Improvement Plan.

1.2 Scope of Study

This study includes the following elements:

- Description of the existing water distribution system.
- Development of projected water demands for a 20-year planning period based on projected development and historical water usage data.
- Development of a computerized water model of the existing distribution system with 4-inch piping and larger, and smaller piping as necessary.
- Calibration of the water model based on field flow testing information.
- Evaluation of the water model for current and projected average day, maximum day, and peak hour demands to determine distribution system deficiencies.
- Evaluation of the water model for fire flow scenarios to determine available fire flow with existing infrastructure.
- Evaluation of the water model to determine water age throughout the distribution system.
- Development of system improvement alternatives and recommendations to address identified deficiencies.
- Development of preliminary construction cost estimates for recommended improvements.

2.0 Water Demands

Current water demands and demands for in-progress development must be determined to accurately analyze current system performance and identify improvements needed for future growth. Average daily demand (ADD) usage is typically utilized as the base demand for a water system. In addition to the average daily use, the distribution system must also be able to supply adequate flow and pressure for the maximum daily demand (MDD) and peak hour demand (PHD) conditions.

The MDD accounts for seasonal and annual fluctuations in flow while PHD accounts for typical daily usage patterns. Water usage is typically higher in dry years and during the summer months. The increase in demand in summer months is mainly due to the increase in irrigation and water recreation (pools, splashpads, etc.). Water usage also typically follows a diurnal pattern during the day with low usage at night and peak usage in the early morning and early evening hours. The high water use during the early morning and early evening is due to the normal daily pattern of typical residential customer water use activities (showering, cooking, laundry, etc.).

2.1 Historical Water Demands

The City provided historical water use reports from 2017 through 2022. The monthly reported quantity of total water pumped from Wichita and CCUA was utilized to determine the ADD. The ADD was calculated by dividing the total water usage for the year by 365 days for each year. The MDD was calculated by taking the maximum amount of raw water diverted in one month for each year and dividing by 31 days. The City's historical demand data is summarized in Table 1.

Table 1: Historical Water Demands

Year	Total Annual Usage (MGY)	Average Day Demand (MGD)	Maximum Day Demand (MGD)
2017	240.44	0.66	1.07
2018	284.17	0.78	1.31
2019	261.49	0.72	1.52
2020	318.84	0.87	1.79
2021	314.71	0.86	1.51
2022	335.53	0.92	1.84
Average	**292.53**	**0.80**	**1.51**

The average annual usage over this period was 292.53 million gallons per year (MGY) or 0.80 million gallons per day (MGD). This demand divided by the City's population of 8,262 people (per 2020 US Census Bureau data) equates to an average water demand per capita in the system of approximately 97 gallons per day (gpd). For comparison, the City of Derby and the City of Haysville currently have an average water demand per capita of approximately 92 gpd and 84 gpd, respectively. The approximate annual growth rate over this period is 6.9%.

Since the City has seen significant growth over the last five years, the 2022 water demand is likely a more accurate representation of the City's existing system compared to utilizing the

average use of the last five years. Therefore, the 2022 ADD and MDD will be utilized as the existing baseline demand for this evaluation.

MDD factors are calculated by determining the ratio between the maximum day and average day demands to account for the higher use days of the year. Based on the available data, the calculated factor for maximum day to average day demand over the six-year period is 1.88. Based on 2022 data only, the calculated factor for maximum day to average day demand is 2.01. A typical peaking factor between peak hour and average day demands is between 2.0 and 3.5 for most systems, depending on the type of usage. A typical peak hour to average day peaking factor of 3.0 was utilized for all users in the system.

Water loss refers to the water pumped that is not included in the quantity of water sold. This can include water lost during fire hydrant testing, waterline flushing, waterline breaks, raw water to waste stream discharge, or due to inaccurate/faulty meters. The monthly water loss percentages ranged from roughly 1% to 30% of the total water pumped with an average loss of 8% from 2017 through 2022, excluding months with negative or no water loss.

2.2 Top Water Users

The City provided billing records from April through September of 2022 for the top 10 users. The top users account for approximately 20% of the total demand with the Catholic Care Center being the top water user accounting for approximately 6% of the City's total demand. Similar to the total system demand, the MDD factor of 2.01 was utilized for the top users when calculating their individual MDD. Water demand for the top 10 users is summarized in Table 2. A map showing the locations of the top 10 users in the City is shown in Figure 1.

Table 2: Top Water Users

User	Average Day Demand (GPD)	Maximum Day Demand (GPD)	% of Total City Demand
Catholic Care Center	50,367	101,238	6.3%
Courtyards at Elk Creek HOA	24,834	49,916	3.1%
Villas at Elk Creek	18,690	37,568	2.4%
Tree Top Nursery	17,702	35,581	2.2%
Central Park 4th HOA	15,393	30,940	1.9%
Broadstone Villas	10,805	21,718	1.4%
Irongate HOA	7,238	14,547	0.9%
Villas at Prestwick	5,699	11,455	0.7%
USD 259	4,114	8,269	0.5%
Bel Aire Recovery Center	3,499	7,032	0.4%

2.3 Projected Water Demands

Due to the large amount of current and planned development in the City, a straight growth projection analysis for the planning period was not utilized due to concerns of inaccuracies.

Rather, projections for future water demands were calculated using a scenario-based approach, where scenarios were designated as shown below. A visual representation of the existing and scenario-based development areas is shown in Figure 2.

- **Scenario 1:** In-Progress Development
- **Scenario 2:** Planned Development
- **Scenario 3:** Full Comprehensive Plan Growth

When calculating the projections, the 2022 water use was utilized as the existing ADD and MDD. The demand associated with growth areas was calculated using the Kansas Department of Health and Environment (KDHE) assumed flowrates based on the land use. The projected demand for each growth area is shown in Table 3.

Table 3: Projected Demand of Growth Areas

	Development	Lots/Area	Units	Projected ADD (GPD)
1	Homestead Senior Living	120	Lots	34,340
2	Chapel Landing, Phase 2	40	Lots	11,447
3	Prairie Preserve	12	Lots	3,434
4	Chapel Landing 6th	50	Lots	14,308
5	Chapel Landing 3rd	86	Lots	24,610
6	Bristol Hollows	122	Lots	34,912
7	Chapel Landing 5th	113	Lots	32,336
8	Chapel Landing	58	Lots	16,597
9	Chapel Landing 4th	12	Lots	3,434
10	Chapel Landing 2nd	0	Lots	0
11	Central Park 3rd	69	Lots	19,745
12	Villas at Prestwick	36	Lots	10,302
13	Elk Creek	37	Lots	10,588
14	Courtyards at Elk Creek*	0	Lots	0
15	Elk Creek 2nd	9	Lots	2,575
16	Elk Creek 3rd	10	Lots	2,862
17	Deer Run	130	Lots	37,201
18	Rock Spring*	0	Lots	0
19	Rock Spring	23	Lots	6,582
20	Rock Spring 2nd*	0	Lots	0
21	Rock Spring 3rd	112	Lots	32,050
22	Sham Way Estate	213	Lots	60,953
23	Cedar Pass (Rock Spring 5th)	177	Lots	50,651
24	Rock Spring 4th	108	Lots	30,906
25	Skyview at Block 49	108	Lots	30,906
26	Skyview at Block 49 2nd	90	Lots	25,755

27	Skyview at Block 49 3rd	16	Acres	15,521
28	Tierra Verde	60	Acres	100,000
29	Bel Aire Industrial Park	60	Acres	200,000
30	Sunflower Commerce Park	87	Acres	145,000
31	Sunflower Commerce Park 2nd	65	Acres	108,333
32	Integra Technologies	-	-	1.2/2.4M
A1	Residential	160	Acres	155,207
A2	Commercial	40	Acres	66,667
A3	Commercial	80	Acres	133,333
A4	Light Industrial	240	Acres	400,000
A5	Commercial	320	Acres	533,333
A6	Light Industrial	160	Acres	266,667
A7	Commercial	40	Acres	66,667

*Due to the amount of lots already developed by the end of 2022, it was assumed that the demand associated with this development was already captured in the 2022 demand data.

Scenario 1 development areas represent the developments in progress of construction with individual lots expected to be developed within the next 1-2 years. The majority of these developments are residential. The City's existing demand (2022 use) and the projected demand from the Scenario 1 developments (which were calculated based on lot counts) were added together to get a total Scenario 1 demand. The Scenario 1 distribution system analysis will analyze the system based on this combined demand.

Scenario 2 development areas represent the developments that are planned/platted but individual lots are expected to be developed in approximately 5 years. The demand for the Scenario 2 developments is based on residential lot counts or approximate commercial/ industrial areas. In addition, Scenario 2 also includes the demand of one new 1.2-MGD water user, Integra Technologies (Integra), that the City will be adding to their system. It is assumed this Integra water demand will be constant over 24 hours and that it will not have any increase for MDD or PHD. The Scenario 2 total demand and distribution system analysis will include existing demand, Scenario 1 developments, Scenario 2 developments, and Integra (1.2-MGD user).

Scenario 3 development areas were determined based on the remaining development in the "Preferred Balanced Growth Scenario" of the City's 2018 Comprehensive Plan and upgrading Integra to a 2.4-MGD user. These areas are expected to be developed within the next 20 years. The demand for the remaining comprehensive plan growth is based on approximate areas since the majority of the development was identified as being either commercial or industrial. The Scenario 3 total demand and distribution system analysis will include existing demand, Scenario 1 developments, Scenario 2 developments, Scenario 3 developments, and Integra (2.4-MGD user).

Cumulative projected demands for each scenario can be found in Table 4.

Table 4: Cumulative Projected Demands

Scenario	Cumulative ADD (MGD)	Cumulative MDD (MGD)	Cumulative PHD (MGD)
1	1.52	3.04	4.55
2	3.19	5.18	7.17
3	6.01	9.62	13.23

For comparison purposes only, annual growth rates to approximately match the Scenarios' projections were calculated. The growth rate determined is specifically based on water demands and not population. To match Scenario 2 demands based on a 2028 (5-year) projection, the annual growth rate is 28.2%. To match Scenario 3 demands based on a 2043 (20-year) projection, the annual growth rate is 9.8%. To match Scenario 3 demands based on a quicker 2033 (10-year) projection, the annual growth rate is 20.6%.

3.0 Existing Water Distribution System

The City of Bel Aire gets water supplied from the City of Wichita and from the Chisholm Creek Utility Authority (CCUA). Water supplied from Wichita enters the distribution system near 37th & Woodlawn and water supplied from CCUA enters the distribution system near 53rd & Hillside. Bel Aire also has a water supply connection with the City of Park City, located near 45th & Hydraulic, but this connection only serves a few meters and is isolated from the remainder of the distribution system. The distribution system includes approximately 68 miles of water mains, 400+ fire hydrants serving over 2,600 service connections, two storage towers, and one booster pump station. An overview of the existing water distribution system is presented in Figure 3.

3.1 Water Mains

The original water distribution system was constructed in the mid 1900's to serve the core area of the City with upgrades occurring as required to accommodate new service areas. The City has also completed many waterline replacement projects of the older lines. All distribution system pipes installed since roughly 1970 are polyvinyl chloride (PVC) piping. Before the 1970s, the City primarily installed either CI piping or transite (asbestos cement) piping. The distribution system piping materials are shown in Figure 4.

Distribution system hydraulics are influenced by waterline material and age. As waterlines age, buildup may occur within the pipe that reduces the effective inner diameter and creates poor hydraulic flow characteristics. Roughness coefficients are assigned to pipes in the model to represent the anticipated hydraulic conditions within the pipe.

Waterline sizes in the distribution system also greatly affect the amount of water that can be distributed throughout the system. Generally, larger diameter water mains provide flow to each major service area with smaller service lines branching off as required. Current waterline sizes are shown in Figure 5.

3.2 Fire Hydrant Coverage Area

The distribution system was evaluated to determine current fire hydrant coverage assuming each hydrant covers a 400-foot radius based on standard fire department hose lengths. A map showing the fire hydrant coverage for the City is shown in Figure 6. In general, the overall system has adequate fire hydrant coverage.

Evaluation of fire hydrant coverage should also consider the ability to serve future development areas. As additional development occurs, fire hydrants should be installed to ensure that the system can continue to provide adequate coverage.

3.3 Water Metering System

The majority of water service connections in the City are residential meters. The number of meters by customer type are shown in Table 5.

Table 5: Number of Customers

Year	Water Service Connections				
	Residential	Commercial	Common	Bulk	Total
2017	2,767	91	2	0	2,860
2018	2,854	92	2	0	2,947
2019	2,967	95	5	8	3,075
2020	3,055	95	2	3	3,155
2021	3,142	100	2	4	3,247
2022	3,285	100	1	4	3,390

3.4 Storage

The City currently has 1.5 MG of storage capacity in the distribution system with a summary of the system storage facilities shown in Table 6.

Table 6: Summary of System Storage Facilities

Name	Type of Storage Tank	Size
53rd St Tower	Elevated	1.00 MG
45th St Tower	Elevated	0.50 MG

3.5 Pump Stations

The distribution system pressure is supplied by the CCUA supply connection and with four booster pumps (BPs) at Wichita's water supply connection. The design flow and head conditions for all the Wichita connection pumps are 600 GPM and 130 feet of head, respectively.

3.6 System Controls

The Supervisory Control and Data Acquisition (SCADA) system is utilized to implement the City's system controls. There are two flow control valves at the CCUA water supply connection that open and close based on the 53rd St water tower level. Both valves are currently set to allow approximately 600 gpm each to flow through them when open. The Wichita connection booster pumps do not have setpoints for operation, but rather, they are manually operated on a day-to-day basis to supply the remainder of the demand that CCUA cannot. Current distribution system control setpoints are summarized in Table 7.

Table 7: Distribution System Control Setpoints

Location	Setpoint Based On	Pump/Valve	Open	Close
CCUA Connection	53rd St Tower Level	North Flow Control Valve (600 gpm) South Flow Control Valve (600 gpm)	21 ft 21 ft	26 ft 26 ft

4.0 Distribution System Model

A computer model of the City's existing distribution system was developed utilizing the WaterGEMS software program from Bentley Systems, Incorporated. The WaterGEMS program is a network model that allows the user to construct a graphical pressure system and analyze the hydraulics with the program's algorithms. The program calculates theoretical system pressures at pipe junctions (nodes) for specific water demands and can estimate how a system operates over an extended period. The user can manipulate demands and other input parameters to model different usage conditions or improvements that are planned for the system.

The computer model is used as a tool to evaluate the distribution system. Final recommendations for improvements are based on a balance of the computer results, experience, and input from the City.

4.1 Information Required

The WaterGEMS model operates based on characteristics of each pipe, pump, and storage unit that is entered into the computer program. Parameters required for each pipe section include the diameter, length, and roughness coefficient. The roughness coefficient, or "C" value, is a measure of the relative roughness of the pipe. The rougher the interior of the pipe is, the more pressure loss that will occur as water travels through the pipe. The values are initially estimated during model development based on the type and age of the pipe and are modified during calibration.

Storage units can include below grade reservoirs, at grade standpipes, or elevated tanks. Each storage unit is included in the model as a tank of a known diameter (or cross-sectional area) with a maximum water surface elevation, a minimum water surface elevation, and an assumed starting water surface elevation for model analysis. The head and flow conditions for each pump are modeled based on the manufacturer's pump curve. Additional system elements that can be analyzed by WaterGEMS include system isolation, pressure reducing, or flow control valves; fire hydrants; and system operational controls.

4.2 Model Development

The computer model was developed utilizing GIS files and mapping information provided by the City. All pipes, hydrants, and valves (isolation and pressure reducing) were added to the model. All distribution system pumps were specified with design flow and head conditions, and the storage towers were dimensionally specified.

Based on SCADA data, the City of Wichita connection was modeled with a constant 58 psi supply and the CCUA connection was modeled with a constant 80 psi supply. While the CCUA connection is controlled/limited by the flow control valves, the model does not include any limitation on the volume of water available from the source itself.

4.3 Demand Distribution

Demands are modeled by applying an outlet flow load to junctions (nodes) in the system. The total demands established for the current system and projected future growth scenarios must be distributed among the model nodes to reasonably represent the actual allocation of demand throughout the City's system.

Concentrations of high demand should be modeled as closely as possible to their actual location. Demands associated with the top 10 water users were included in the model on a single node or various nodes near the user's meter address(es) as indicated on the City's billing reports.

Based on the determined existing demand, the remaining ADD was evenly distributed throughout the distribution system.

The demands associated with the projected increases in water use due to areas of potential development indicated for future scenarios were added to the model. The demands were distributed among nodes in the model at the locations of the identified growth areas.

The MDD and PHD factors were added to the model to simulate the MDD and PHD. The demand associated with Integra was held constant.

4.4 Model Calibration

The model was calibrated using data collected from field flow testing to confirm that the model represents actual system conditions. PEC conducted the field flow testing with City staff in May 2023 at the ten locations shown in Figure 7.

There are typically two tests performed at each location. The first test isolates a single water line from the system and measures the pressure loss through that section of pipe. This information is utilized to calculate the "C" value of that specific pipe. The first test is most effective for older pipe materials such as cast iron where there is significant pressure loss. It is not as effective at determining "C" values for newer plastic pipes because the pressure loss is low and challenging to accurately capture with field testing. Due to this, the first test was only performed at a single location (Location 4).

The second test simply captures flow and pressure information, without any isolation, to be utilized during calibration. All tower levels and flows from the water supply connections were obtained for each location at the exact time of each test location.

Initial "C" values were defined to be universally accepted values for the various materials. Using the flow and tower level information, the pressure readings from the second test were then compared to the modeled pressure result to adjust the initial "C" values. The initial "C" values are summarized in Table 8 along with the final "C" values after the model calibration.

The results from the model calibration are summarized in Table 9.

Table 8: "C" Values Before and After Model Calibration

Pipe Material	Initial "C" Value	Final "C" Value
AC	140	145
CI	130	130
PVC	150	130

Table 9: Model Calibration Results

Area	Location	Field Pressure (psi)	Model Pressure (psi)	Pressure Difference (psi)
1	Along Auburn St between 39th and Cox	50	49	-1
2	Along Harding St and Battin St north of 39th St	51	50	-1
3	Along Auburn St between 45th and Memphis	46	46	0
4	Along Glendale St between 46th and 48th St	41	40	-1
5	Along Homestead St between 47th and 49th St	39	39	0
6	Along Saint James Pl/Mission Rd north of Danbury St	46	48	2
7	Along Indian Oak St north of Elk Creek Dr	51	50	-1
8	Along Tierra Lakes Pkwy south of 49th St	42	44	2
9	Along Toler Dr south of between 50th and 53rd St	44	45	1
10	Along Chris St and Rock Spring St east of Lycee St	45	47	2

5.0 System Analysis

The model was evaluated under two operational conditions, Steady State Simulation (SSS) and Extended Period Simulation (EPS). The SSS is a snapshot evaluation of the system at a specific point in time. The model was analyzed for average day, maximum day, and peak hour demand conditions to assess the performance of the existing system. Available fire flows were evaluated under the maximum day demand SSS. These conditions were evaluated with the scenario-based demands.

An EPS was used to model how the system operates and behaves over a specified time frame. The EPS was conducted for a 72-hour time frame and 240-hour time frame with current and projected demands using a standard American Water Works Association (AWWA) diurnal curve. This evaluation indicated when water towers drain and fill, if there is sufficient storage provided, how often pumps operate to supply adequate flow and pressure, if the pumps have adequate capacity, how system pressure fluctuates, and what the water age is based on the scenario-based demands.

Pumping system and water storage analyses were subsequently performed to determine if the system's existing pump capacity and storage capacity, respectively, is adequate for current and projected future demands.

5.1 Existing Distribution System with Scenario 1 Demands

The model was evaluated under the existing system conditions using Scenario 1 demands to determine existing deficiencies and problem areas.

5.1.1 System Pressures

System pressures range from approximately 38 (along 53rd St between Woodlawn and Rock) to 71 psi (downstream of the CCUA connection) at the ADD. The lower pressure location on 53rd Street between Woodlawn and Rock Road is mainly due to higher elevation.

System pressures range from approximately 37 to 71 psi at the MDD and at peak hour conditions. The ADD, MDD, and PHD pressure distributions are similar. The MDD pressure distribution is shown in Figure 8.

All observed pressures are above Kansas Department of Health and Environment's (KDHE's) minimum system pressure requirement of 20 psi. The lowest observed pressure for all demand conditions is above or equal to 37 psi.

5.1.2 Fire Flow Analysis

The most strenuous demands on a distribution system are the flows required for fire suppression. Fire flows are applied in the model in addition to the MDD to simulate the worst-case scenario of a fire on a hot summer day. The maximum available fire flow is found at each hydrant to correspond with the minimum pressure at any location in the

distribution system being equal to 20 psi per KDHE. The existing system was analyzed to determine the available fire flow at each system hydrant.

Typical fire flow requirements are 1,000 to 1,500 gpm for residential development, 1,500 to 2,000 gpm for commercial development, and 2,500 to 3,000 gpm for industrial development. For the purposes of this model analysis, the minimum fire flow required varies between 1,200 gpm and 3,000 gpm depending on the associated type of development.

Analysis of the model indicates that approximately 97% of the system hydrants can provide at least 1,200 gpm, 85% can provide at least 2,000 gpm, and 67% can provide at least 3,000 gpm under the current MDD. Only one hydrant in the modeled system provided less than 500 gpm of fire flow. Fire hydrants that did not meet flow requirements in the model generally fall into one of two location categories: hydrants located on waterline dead ends and hydrants on CI pipes. The available fire flow based on current system demands is shown in Figure 9.

5.1.3 Extended Period Simulation

Since the City manually controls the Wichita connection booster pumps, an EPS was run utilizing only the CCUA connection per the current controls. Under Scenario 1 MDD, both the 53rd St and 45th St towers empty over a 72-hour EPS. However, by turning on a City of Wichita connection pump, as the City manually does, the system is able to sustain tower levels and system pressures. Additional pumps and control options would allow for better regulation of the tower levels.

It should be noted that the single pump operating has a flowrate in the model of approximately 1500 gpm throughout the EPS. This is significantly above the pump design point of 600 gpm and the pump operates far right on the pump curve. Based on SCADA information, it appears this may be typical. This is likely due to differing head conditions potentially associated with higher City of Wichita pressure and lower tower water level. Operating outside the approved operating range may cause damage to the pumps.

5.1.4 Water Age

Water age refers to the length of time water has been in the system. Typically, the oldest water in the distribution system contains the highest levels of disinfection byproducts (DBPs) and the lowest chlorine residuals. DBPs are formed through naturally occurring reactions of the treated water with organic matter. DBPs can include Chloroform, Bromodichloromethane, Dibromochloromethane, and Bromoform which have been linked to adverse health effects. Analyzing water age is important so that system operation can be adjusted to reduce the levels of DBPs while maintaining an adequate chlorine residual.

Water age was evaluated using an EPS at the ADD for ten consecutive days (240 hours). For modeling purposes of this scenario, the City's typical operation was assumed to include CCUA controls and a closed Wichita connection. As Figure 10 illustrates, the water age in the system is relatively low near the CCUA connection and increases as water travels through the system southward and eastward. The water age is the greatest east of Rock Road. This indicates insufficient turnover of water in the system due to the presence of only one modeled water supply source and the lack of turnover in the water towers. Turning the Wichita connection pumps on may reduce the water age, as long as the towers are allowed to cycle, but the east end of the system will still have the highest age.

Water quality and chlorine residuals are typically acceptable if the water age is less than 10 days. Model results indicate a water age of up to 8 to 10 days east of Rock Road, which may cause a low chlorine residual. Other causes of low chlorine residual may include inadequate dosing at the source, poor turnover in storage towers, or contamination entering the distribution system.

5.2 Distribution System with Scenario 3 Demands

Scenario 3 includes serving all of the growth areas. In order to do this, additional piping will be required to supply water to these areas. This recommended piping is shown in Figure 11. These pipe improvements were added to the model and the adjacent growth area demands were applied to these proposed lines.

With the new lines added, Scenario 3 was evaluated in the model. It was determined the existing system was not able to supply the projected demands. Under an EPS, the towers would empty, and the system would fail. The water supply into the system was not adequate to fill and maintain tower levels.

Due to this, additional recommended system improvements required to maintain the system with Scenario 3 demands were determined. These recommended improvements include a new connection to the City of Wichita's system at 53rd and Rock and a new water tower. The recommended improvements are further discussed below and are fully presented in Section 6.0.

Because Scenario 2 includes a significant demand increase and the timing between the Integra development building phases may be short, Scenario 2 was not evaluated sperate from Scenario 3. The recommended improvements will accommodate both Scenario 2 and Scenario 3.

5.2.1 System Pressures

With the improvements, system pressures range from approximately 34 (at Integra) to 71 psi (downstream of the CCUA connection) under ADD. System pressures range from approximately 33 to 71 psi at the MDD and 32 to 71 psi at the peak hour conditions. The MDD, ADD, and PHD pressure distributions are similar. The MDD pressure distribution is shown in Figure 12.

All observed pressures are above Kansas Department of Health and Environment's (KDHE's) minimum system pressure requirement of 20 psi. The lowest observed pressure for all demand conditions is above or equal to 32 psi.

5.2.2 Fire Flow Analysis

The system with improvements was evaluated to determine available fire flows under the Scenario 3 MDD. Approximately 97% of the modeled system hydrants can provide at least 1,200 gpm under Scenario 3 maximum day demands, 87% can provide at least 2,000 gpm, and 73% can provide at least 3,000 gpm. Only 1 hydrant in the modeled system provided less than 500 gpm of fire flow. Like Scenario 1 demand conditions, most of the fire hydrants not meeting flow requirements in the model fall into one of two location categories: hydrants located on waterline dead ends and hydrants on CI pipes. The available fire flow based on Scenario 3 system demands is shown in Figure 13.

5.2.3 Extended Period Simulation

The model was evaluated under an EPS for 72 hours using the projected Scenario 3 ADD and MDD. As noted above, the existing system without improvements cannot sustain tower levels and pressures. This is mostly correlated to the large Integra demand and the limitation of the water supply into the system.

To increase supply into the system an additional connection to Wichita's system is recommended near 53rd St and Rock Road. The City of Wichita has an existing waterline at this location within their Northeast pressure zone. From discussions with the City of Wichita, it is believed that this connection can supply approximately 3.2 MGD at 55 psi.

To better sustain system pressures near the large demand of Integra, it is recommended that a 2.0 MG water tower be added to the system in the proximity of 53rd St and Webb Road. For this evaluation, it is assumed that the operating elevations of the tower will match that of the existing towers.

Conceptual set points for the system with the proposed improvements are as follows:

- If the 45th St Tower percent full is ≤ 70% and ≥ 95%, then three Wichita booster pumps will turn on and off, respectively.
- If the 53rd St Tower percent full is ≤ 70% and ≥ 95%, then both CCUA FCVs will open (600 gpm each) and close, respectively.
- If the New 2.0 MG Tower percent full is ≤ 70% and ≥ 95%, then the new Wichita FCV will open (maximum allowable flowrate of 2,222 gpm) and close, respectively.

Under a MDD EPS, the 45th St Tower had a turnover rate of approximately 2-3 times per day with water volumes oscillating between approximately 65% and 95%. The 53rd St Tower had a turnover rate of approximately 1-2 times per day with water volumes oscillating between approximately 50% and 80%. The proposed tower had a turnover

rate of approximately 1 time per day with water volumes oscillating between approximately 30% and 65%.

The three Wichita connection pumps operate approximately 20 hours a day with a combined flowrate of approximately 4,300 gpm. Note that this flowrate is well above the design flowrate of the pumps. The CCUA connection and new Wichita connection remain open all day with flowrates of 1,200 GPM and 2,222 GPM, respectively.

With these improvements, the lowest pressure observed in the MDD EPS is 29 psi.

The system does struggle to fill the proposed storage tower. The system would benefit from additional water supply above what this scenario provides. An additional 4,000 gpm supply into the system allowed all the towers to maintain levels between 70-95% with consistent oscillations.

5.2.4 Water Age

An EPS was completed using the Scenario 3 ADD for ten consecutive days (240 hours). The water age in the system is relatively low throughout the majority of the City where the water age typically doesn't exceed 48 hours. The water age is the greatest within the distribution system east of Webb Road. Model results indicate that water age in this area decreases from 8-10 days based on Scenario 1 ADD conditions to approximately 3 days based on Scenario 3 ADD conditions. The Water Age for Scenario 3 is shown in Figure 14.

5.3 Pumping System Analysis

The distribution system needs to have the ability to pump or otherwise supply water at adequate pressure to meet the MDD. The current water supply to Bel Aire from Wichita and CCUA are not adequate to deliver the Scenario 3 MDD to the distribution system. The existing Wichita connection booster pumps and the total allowable flowrate from the existing CCUA connection have a total capacity of approximately 5.21 MGD.

Total capacity assumes that all the Wichita connection pumps are in service and CCUA is able to supply their total allowable flowrate (per contract) of 1.75 MGD. However, KDHE requires that the Firm capacity, not total capacity, be equal to or greater than the MDD. Firm capacity is typically calculated as the total pumping capacity of a pump station when the largest pump is out of service. For Bel Aire's system, Firm capacity can be evaluated using two different situations:

- **Situation 1:** CCUA is not able to supply any flow and one of the Wichita connection pumps is out of service.
- **Situation 2:** The largest pump at the CCUA WTP is out of service and one of the Wichita connection pumps is out of service.

The total projected MDD for Scenario 3 for the overall system is 9.62 MGD. The firm capacity in Situation 1 is 2.59 MGD, and the firm capacity in Situation 2 is 4.34 MGD. In Situation 2, CCUA

can supply the total allowable flowrate of 1.75 MGD with their largest pump out of service. So, the 1.75 MGD volume is the limiting factor.

An additional 5.28 MGD of supply is needed in the system. With the potential 3.2 MGD proposed connection to Wichita, an additional 2.08 MGD supply is still required.

It is recommended that either the Wichita connection pumps be upsized, the total allowable flowrate from CCUA be increased, or both in order for either firm capacity to meet or exceed the Scenario 2 MDD and Scenario 3 MDD. The ability for those flows to be increased may be limited by the City of Wichita's system or CCUA's system.

This shortage indicates that the system will not be able to sustain itself with these future demands. That aligns with the Scenario 3 modeling which showed the system struggling to keep towers filled and in need of additional supply. The Wichita connection pumps were well above design flows during the EPS, which helped prevent the system from failing.

5.4 Water Storage Analysis

The pressure in the City's distribution system is primarily maintained with the 53rd St. and 45th St. water towers. The water storage also provides flow equalization and storage for emergency use and fire flows. The City has a total storage volume of approximately 1.5 MG.

5.4.1 Flow Equalization Volume

Pump stations are designed to deliver the volume of water required to meet the MDD into the system. System storage provides the difference between the MDD volume and the peak hourly demand volume, which is the maximum quantity of water utilized during one hour of the day. The peak hour demand is approximately 1.49 times higher than the MDD. Supplying this peak hour demand from source water pumping significantly increases the pump capacity needed for only a few hours a day. This operation is not efficient; thus, storage is utilized to provide this peak flow volume.

The required flow equalization volume can be determined through multiple methods. One method is to take the difference between water demand in the system and the water being supplied to the system. This method produces a volume specific to the system but requires hourly flow data from the time period with the highest demand. An alternative method is to assume an equalization volume based on a percentage of the MDD. Most water systems require a volume equal to 10% to 15% of the MDD. For this study, the volume required for equalization was calculated as 15% of the MDD to provide a conservative estimate.

5.4.2 Emergency Volume

Emergency water storage may be required for a loss of water supply due to a water supply main failure, a power failure at the source water wells/WTP, or other catastrophic failures. The amount of water volume needed depends on the reliability of the distribution system and how quickly repairs can be made to place the system back

into normal operation. The emergency storage volume is typically calculated as the volume corresponding to anywhere from 8 to 24 hours of MDD, depending on the estimated time to restore water supply. For this study, a period of 8 hours was utilized to calculate the emergency storage volume.

5.4.3 Fire Protection Volume

Fire protection volume is the amount of water storage needed to meet the desired fire demand flow for the system. The City mainly consists of residential users, a few prominent commercial users, and a major incoming industrial user (Integra) on the north side of the City. Based on current and future development, a fire flow of 3,000 gallons per minute (gpm) for a duration of 3 hours was utilized for the total system analysis, resulting in a required fire flow storage volume of 0.54 MG.

5.4.4 System Storage Analysis

Two methods are commonly utilized to calculate the total elevated, or pump-independent, water storage volume recommended for a system. The first method is to assume a worst-case scenario by adding the flow equalization, emergency storage, and fire protection volumes together for the total needed volume. This method provides a very conservative estimate but also increases water age in the system since a much higher demand is needed for turnover.

The second and more common method is to add the emergency storage volume to the flow equalization volume and the fire protection volume to the flow equalization volume and utilize the higher resulting volume. This method is still conservative but reduces the amount of storage volume required while still providing an adequate volume in case of emergency. These two volume sums are shown in Table 10 and can be used to make storage capacity decisions for the future.

Table 10: Recommended Total System Storage Volumes

Scenario	Average Day Demand (MGD)	Maximum Day Demand (MGD)	Equalization Volume (MG)	Emergency Volume (MG)	Fire Protection Volume (MG)	Sum of Equalization and Emergency Volume (MG)	Sum of Equalization and Fire Protection Volume (MG)
1	1.52	3.04	0.46	1.01	0.54	1.47	1.00
2	3.19	5.18	0.78	1.73	0.54	2.51	1.32
3	6.01	9.62	1.44	3.21	0.54	4.65	1.98

The current storage volumes provide adequate storage for Scenario 1 demands but do not provide the recommended storage for Scenario 2 or 3 demands (the sum of the equalization and emergency volume). If the lower resulting volume acquired utilizing the second method is used (in this case, the sum of the equalization and fire protection

volume), then the current storage volumes would be expected to provide enough storage for Scenario 2 demands but not Scenario 3 demands.

Based on the results from the storage capacity analysis and the City's risk tolerance, decisions based on the reliability of the existing infrastructure can be made to determine what is and isn't necessary for emergency readiness. Factors to consider when evaluating system reliability may include the condition of the existing system infrastructure, reliability of water supply sources, and the magnitude of emergency vulnerability.

6.0 Conclusions and Recommendations

Recommendations for improvements were identified based on the current condition assessment of the existing water distribution system and water flow projections. Pipe looping improvements supply projected growth demand for Scenario 3 while maintaining adequate system pressures. Water storage improvements address the need for additional water storage in the future. The water supply improvements address the need for additional water supply to meet future demands and maintain system operation. System-wide improvements will reduce pressure losses in the system, increase available fire flows, and reduce the long-term operation and maintenance cost of the system by replacing old pipes.

6.1 Pipe Looping Improvements

Based on the City's projected development for Scenarios 2 and 3, it is recommended that the City create pipe loops to service these new users north and east of the existing system. The primary recommended pipe improvements are to connect and loop together the areas shown in Figure 13 with primarily 12" piping. The pipe sizing was determined with considerations to water demands and available fire flows.

6.2 Water Storage Improvements

Based on the storage analysis, it is recommended that at least 2.0 MG of elevated storage is added to the system. This would meet all of the equalization and fire protection needs. Along with the existing towers, this would provide approximately 8 hours of emergency water. It is recommended that this tower be added to the system in proximity to 53rd and Webb as this location is near the area of large future demands. Other locations in the area could be considered, including the Integra property.

6.3 Water Supply Improvements

Due to the projected demands, and limited water supply, water supply improvements will be required. This can include the 3.2 MG connection with Wichita at 53rd and Rock, but an additional 2.08 MG supply above that will still be required. This additional supply could potentially come from CCUA or a new pipeline/connection with the City of Wichita capable of that larger flowrate.

6.4 System Wide Improvements

All CI piping is recommended to be replaced with 8” PVC piping. The City has already completed some of these replacements, but it is recommended to complete all of them. The replacement of these results in reduced pressure losses and an increase in available fire flow due to the material roughness difference between CI and PVC and the occasional pipe upsizing. It is recommended that the order of replacement is first based on which CI pipes break the most frequently. The next set of criteria should then be based on pipe size, where CI pipes are replaced from smallest to largest.

7.0 Cost Estimates

The estimated costs for the pipe looping improvements are summarized in Table 11, as outlined in Section 6.1. The estimated costs are typical costs based on the type of work and on the engineer's opinion of probable construction cost. Actual costs will vary based on contractor availability and market conditions at the time of construction, outside of the control of PEC. To see a cost breakdown of each individual line, refer to Appendix A.

The recommended tower improvements are shown below. This includes the tower itself along with associated piping and site improvements.

An estimate for the 3.2 MGD Wichita connection is shown below. Additional estimates for water supply are not included as an additional study will be required to evaluate supply options.

The recommended system-wide improvements include the replacement of all CI piping in the system, as outlined in Section 6.3. A minimum pipe diameter of 8" is recommended for all replacement pipes to support system pressures and available fire flows. The approximate per linear foot cost of line replacement for the pipe diameters in the system are as follows. These estimated costs are a guideline for replacement of pipe only, as actual total costs will depend on the location of the project, number of services to be reconnected, when a project is constructed, and property and easement issues.

- 8" Pipe $180/LF
- Service Connection (Short) $1,200/EA
- Service Connection (Long) $2,000/EA

Cost for service reconnections have been noted separately since this is typically a significant project cost for replacement projects.

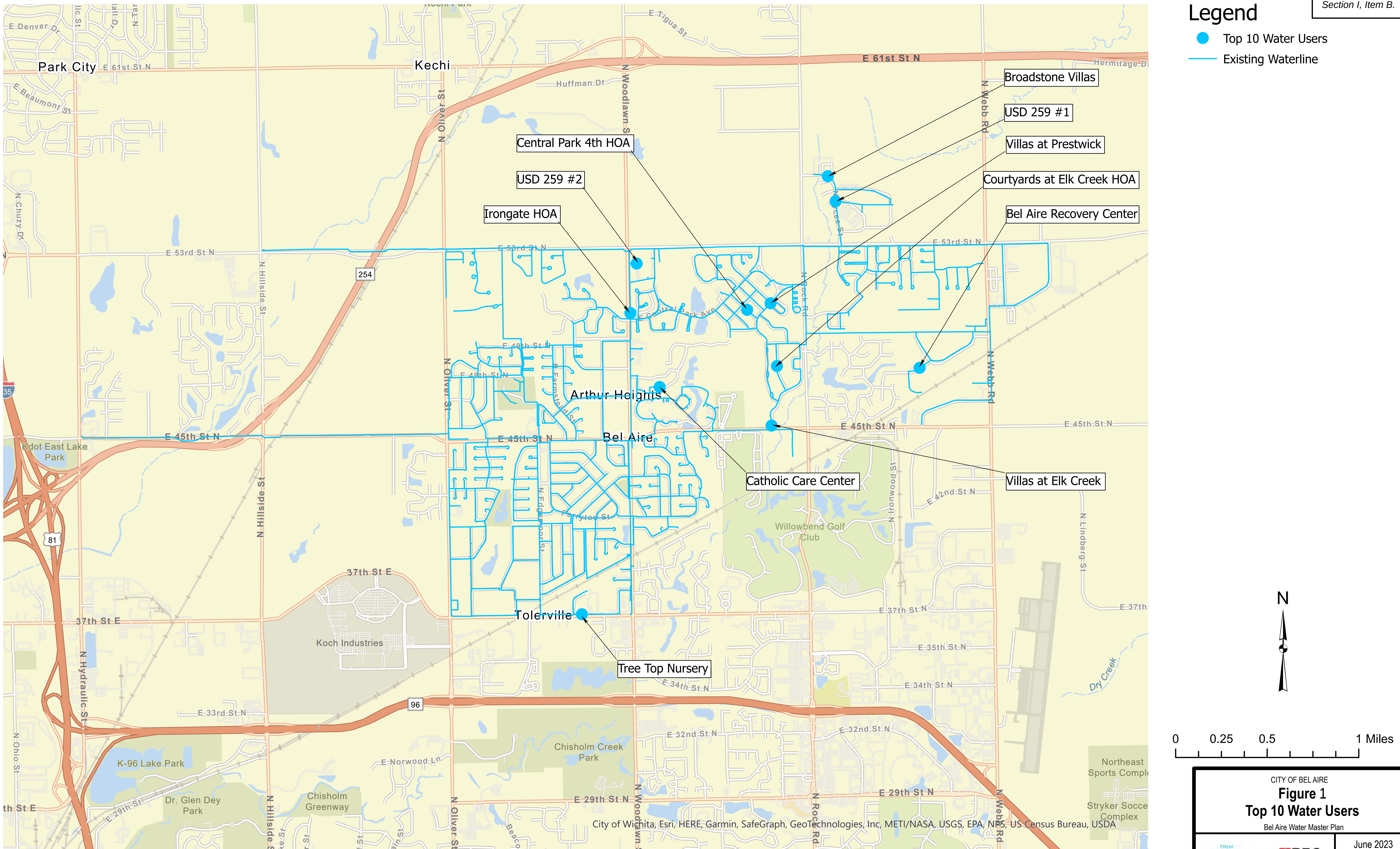
Table 11: Recommended Pipe Looping and EPZ Improvements – Estimated Project Costs

Improvement Type	Item	Project Cost
PIPE LOOPING		$
		$
STOARGE	2.0 MG Elevated Tower	$
WATER SUPPLY	3.2 MGD Wichita Connection	$
Total		**$**

Appendix A

(Will be included in Final Report)

Figures



Legend
Top 10 Water Users
Existing Waterline
Broadstone Villas
USD 259 #1
Villas at Prestwick
Courtyards at Elk Creek HOA
Bel Aire Recovery Center
Central Park 4th HOA
USD 259 #2
Irongate HOA
Catholic Care Center
Villas at Elk Creek
Tree Top Nursery
Park City
Kechi
Arthur Heights
Bel Aire
Tolerville
E 61st St N
E 53rd St N
E 45th St N
37th St E
E 37th St N
E 29th St N
N Woodlawn St
N Oliver St
N Hillside St
N Rock Rd
N Webb Rd
Koch Industries
Willowbend Golf Club
Chisholm Creek Park
K-96 Lake Park
Dr. Glen Dey Park
Chisholm Greenway
Kdot East Lake Park
City of Wichita, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA
N
0 0.25 0.5 1 Miles

CITY OF BEL AIRE

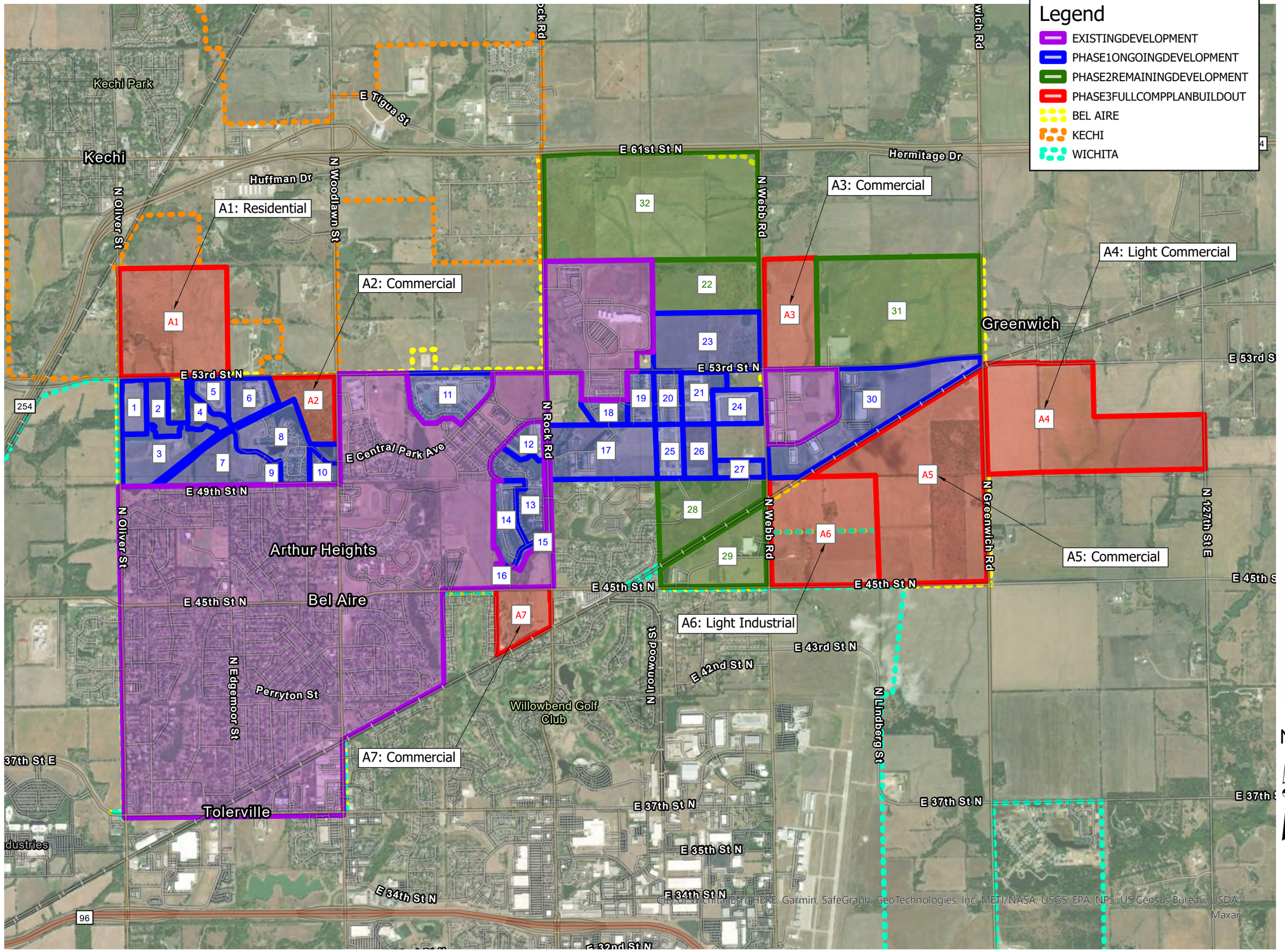
Figure 1

Top 10 Water Users

Bel Aire Water Master Plan

June 2023

Sht. 1



NUMBER	DEVELOPMEN
1	Homstead Senior Landing
2	Chapel Landing, Phase 2
3	Prairie Preserve
4	Chapel Landing 6th
5	Chapel Landing 3rd
6	Bristol Hollows
7	Chapel Landing 5th
8	Chapel Landing
9	Chapel Landing 4th
10	Chapel Landing 2nd
11	Central Park 3rd
12	Villas at Prestwick
13	Elk Creek
14	Courtyards at Elk Creek
15	Elk Creek 2nd
16	Elk Creek 3rd
17	Deer Run
18	Rock Spring
19	Rock Spring
20	Rock Spring 2nd
21	Rock Spring 3rd
22	Sham Way Estate
23	Cedar Pass (Rock Spring 5th)
24	Rock Spring 4th
25	Skyview at Block 49
26	Skyview at Block 49 2nd
27	Skyview at Block 49 3rd
28	Tierra Verde
29	Bel Aire Industrial Park
30	Sunflower Commerce Park
31	Sunflower Commerce Park 2nd
32	Integra Technologies

CITY OF BEL AIRE

Figure 2

Development Map

Bel Aire Water Master Plan

June 2023

Sht. 2

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Legend

- Storage Tank
- Pump Station
- Existing Waterline

CCUA Connection

53rd Street Water Tower

Park City Connection

45th Street Water Tower

Wichita Connection
Booster Pump Station

Wichita Connection

Park City
Kechi
Arthur Heights
Bel Aire
Tolerville
Koch Industries
Willowbend Golf Club
Chisholm Creek Park
K-96 Lake Park
Dr. Glen Dey Park
Chisholm Greenway
Kdot East Lake Park
Northeast Sports Complex
Stryker Soccer Complex

E 61st St N
E 53rd St N
E 49th St N
E 48th St N
E 45th St N
E 43rd St N
E 42nd St N
E 37th St N
E 37th St E
E 35th St N
E 34th St N
E 33rd St N
E 32nd St N
E 29th St N
E 29th St
E Denver Dr
E Beaumont St
E Tigua St
Huffman Dr
E Central Park Ave
E Norwood Ln
N Oliver St
N Woodlawn St
N Webb Rd
N Rock Rd
N Hillside St
N Hydraulic St
N Chuzy Dr
N Ohio St
N Lindberg St
N Ironwood St
N Edgemoor St
Dry Creek

254
96
81
35

N

0 0.25 0.5 1 Miles

CITY OF BEL AIRE

Figure 3

Existing Water Distribution System

Bel Aire Water Master Plan

June 2023

Sht. 3

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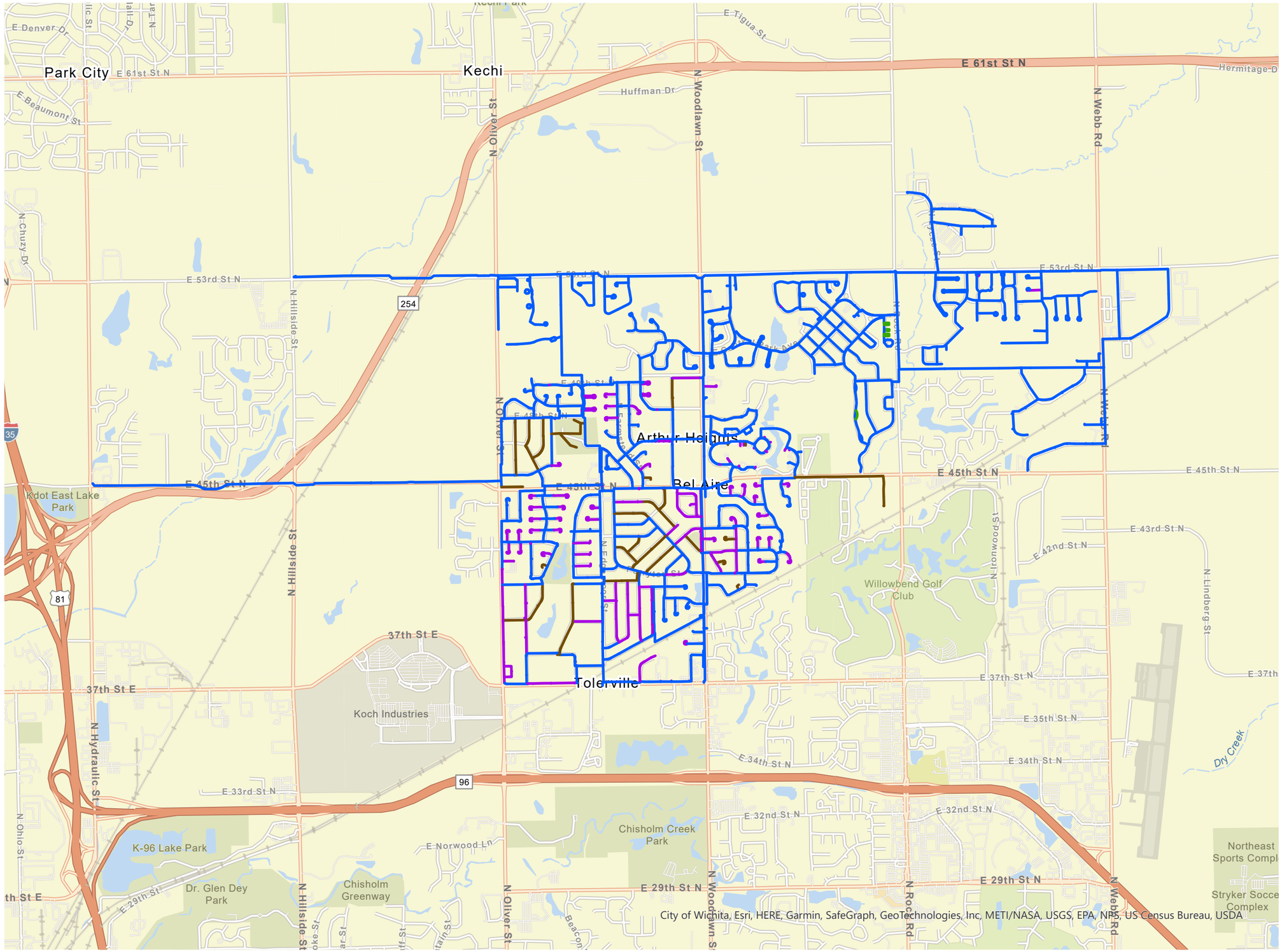

City of Wichita, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Legend

Pipe Material

- Asbestos Cement
- Cast Iron
- Ductile Iron
- Polyvinyl Chloride

N

0 0.25 0.5 1 Miles

CITY OF BEL AIRE

Figure 4

Pipe Material

Bel Aire Water Master Plan

June 2023

Sht. 4

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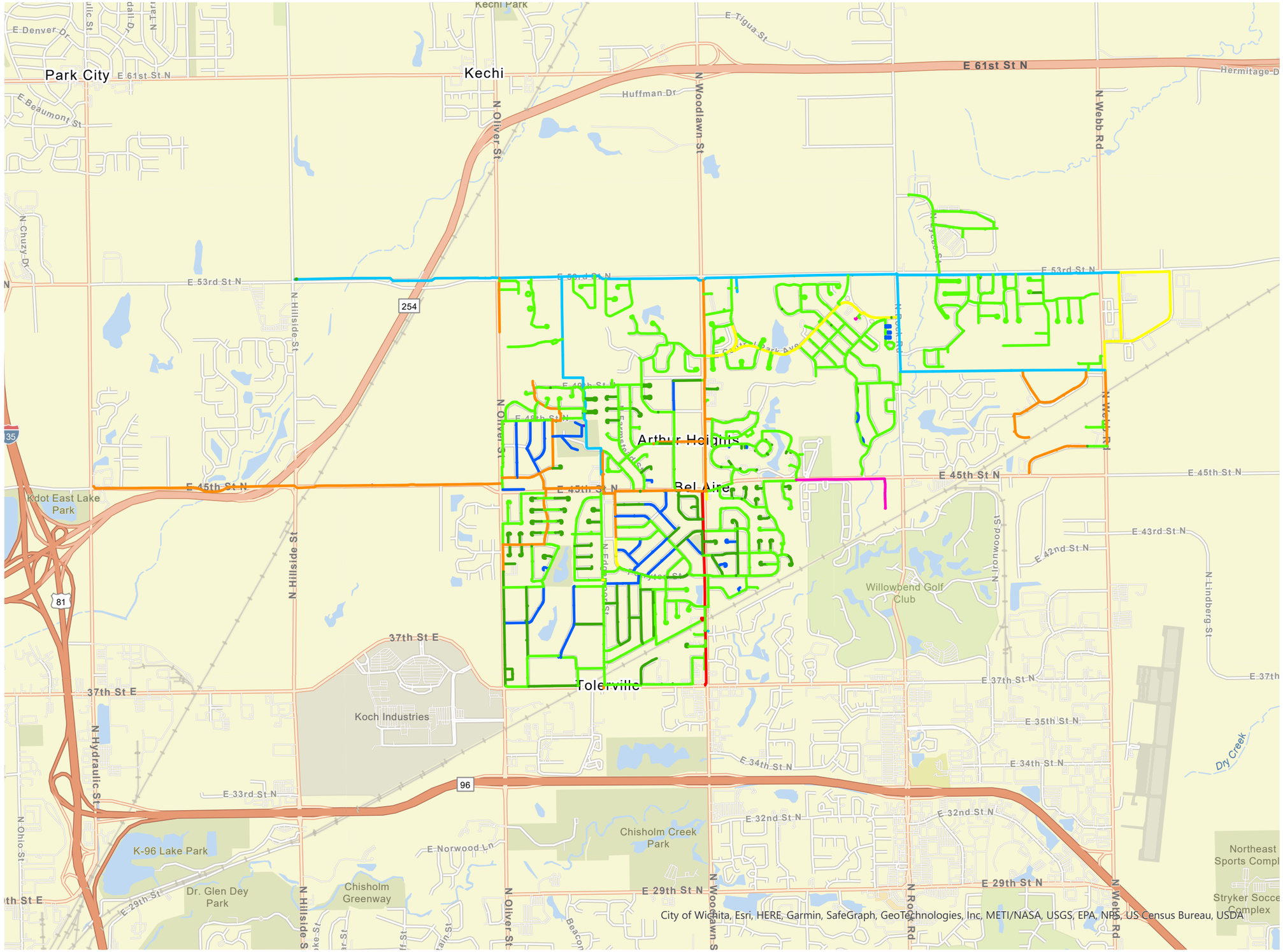

Legend

Pipe Size (In.)

- 2"
- 3"
- 4"
- 6"
- 8"
- 10"
- 12"
- 16"
- 18"

N

0 0.25 0.5 1 Miles

CITY OF BEL AIRE

Figure 5

Pipe Size

Bel Aire Water Master Plan

June 2023

Sht. 5

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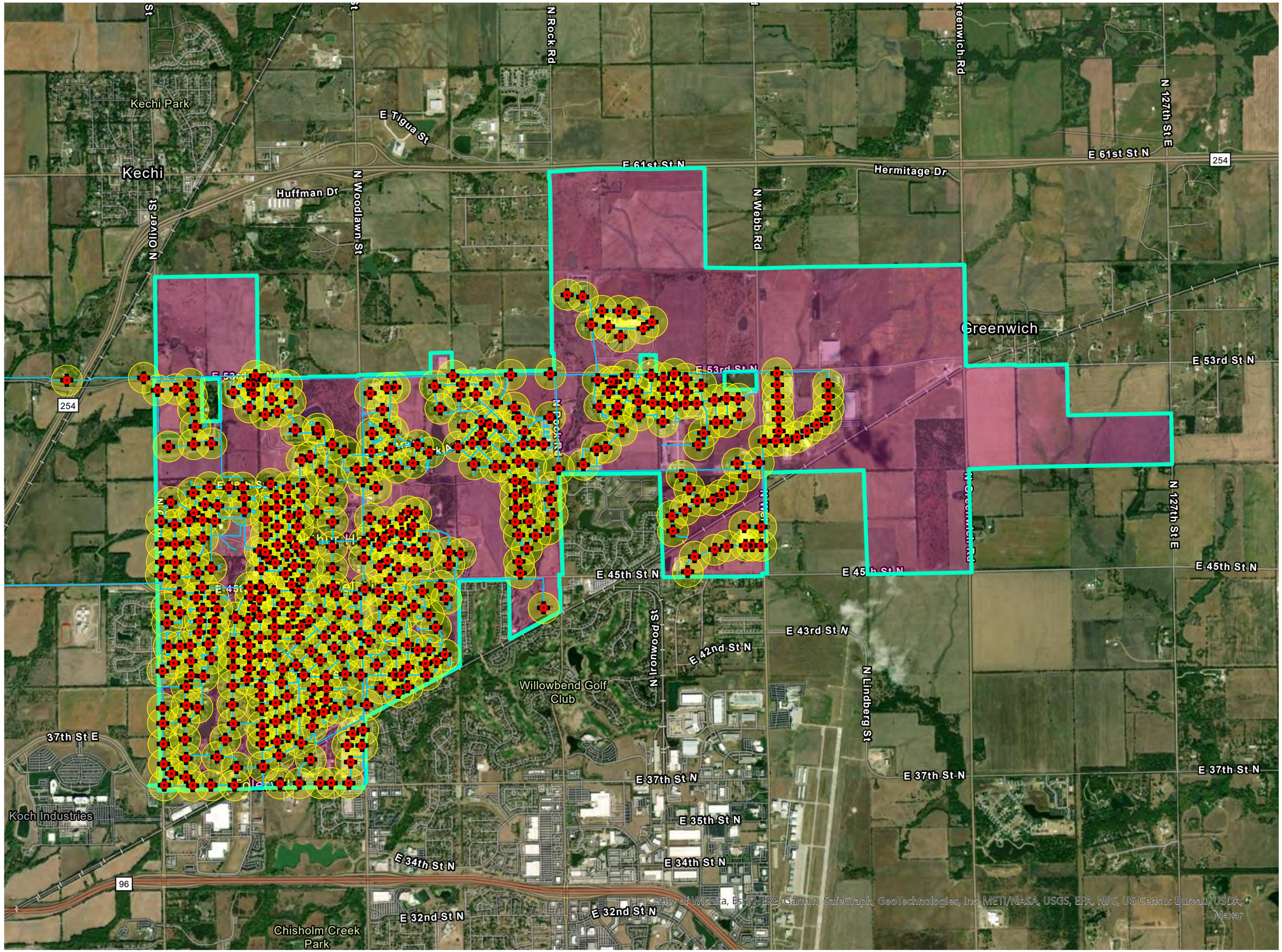

Legend

- Hydrants
- Existing Waterline
- 400' (Radius) Fire Hydrant Coverage
- No Fire Hydant Coverage Area within City Limits
- Bel Aire City Limits

N

0 0.25 0.5 1 Miles

CITY OF BEL AIRE

Figure 6
Fire Hydrant Coverage

Bel Aire Water Master Plan

June 2023

Sht. 6

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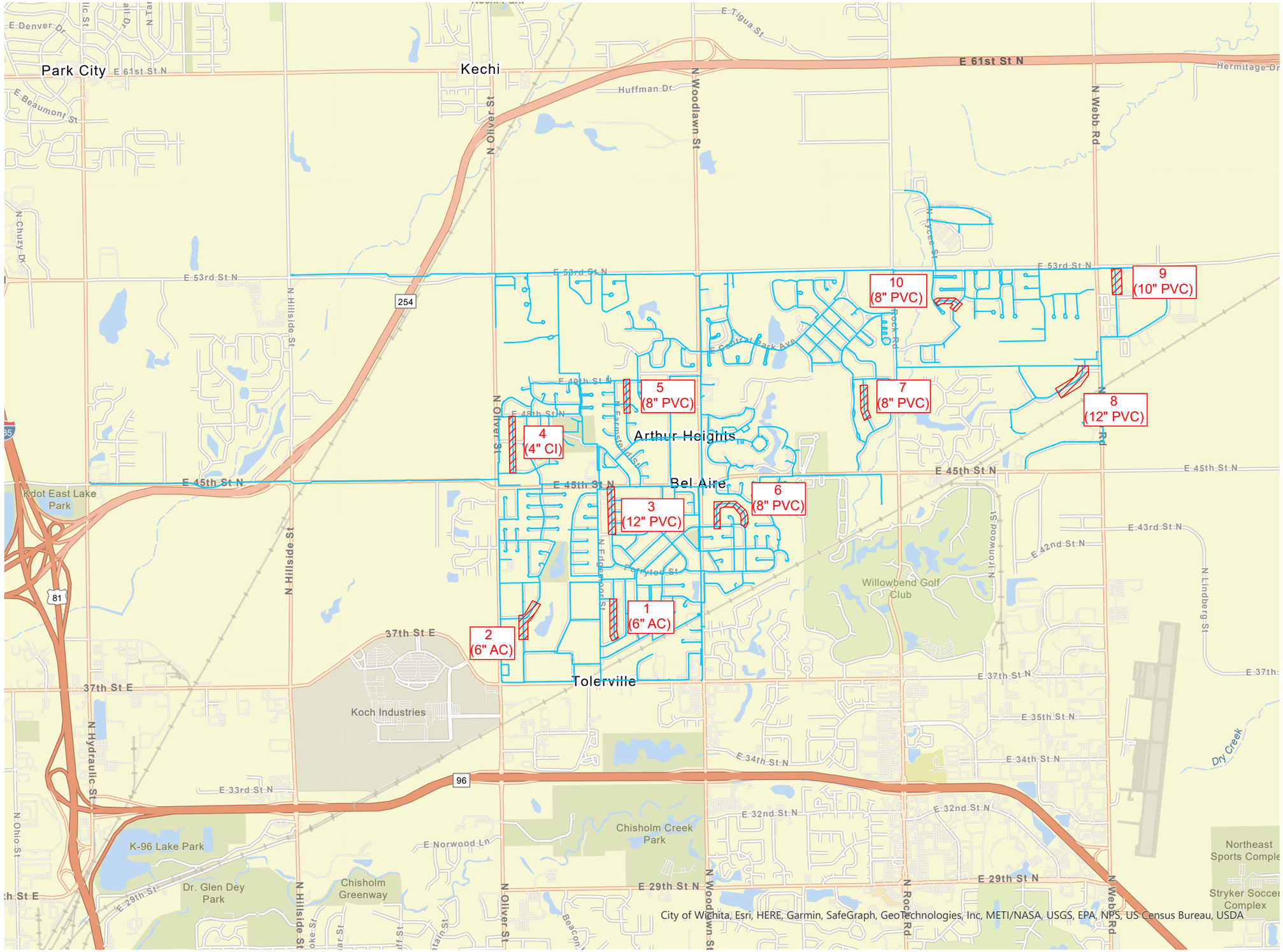

Legend

- Fire Hydrant Flow Test Location w/ ID
- Existing Waterline

N

0 0.25 0.5 1 Miles

CITY OF BEL AIRE

Figure 7

Fire Hydrant Flow Test Locations

Bel Aire Water Master Plan

June 2023

Sht. 7

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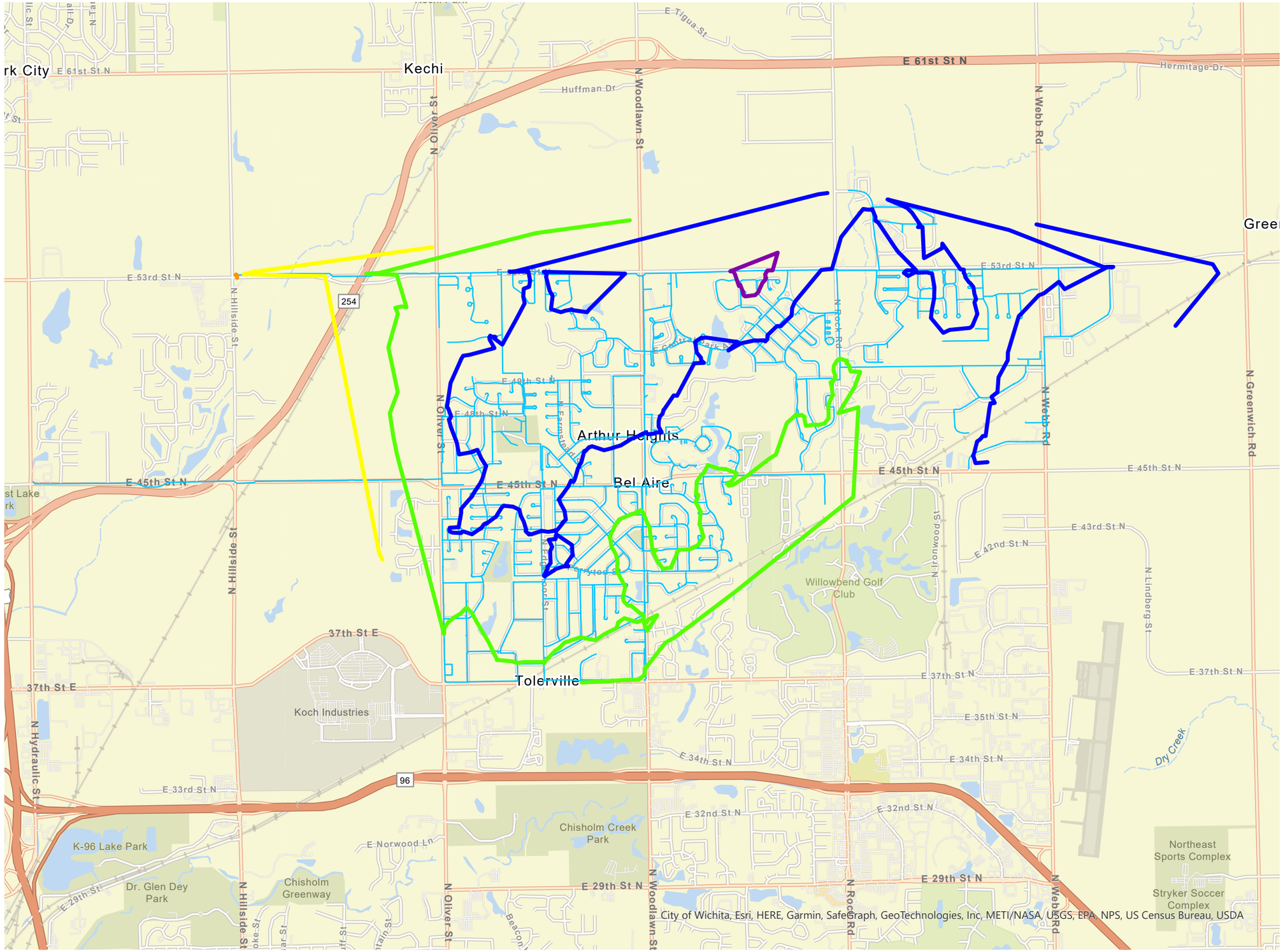

CITY OF BEL AIRE

Figure 8

Scenario 1 Max Day Pressures

Bel Aire Water Master Plan

June 2023

Sht. 8

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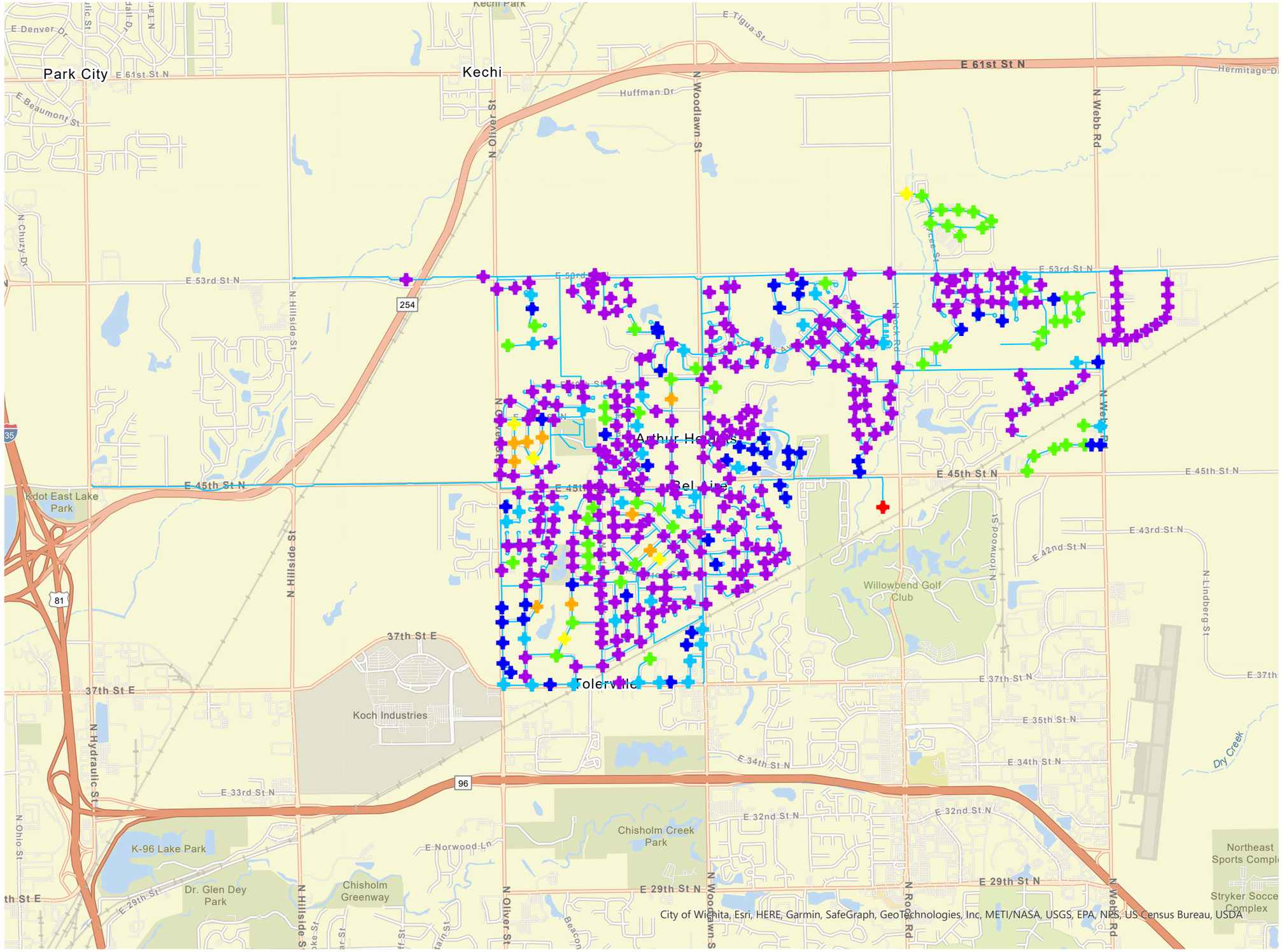

Legend

- Existing Waterline
- <= 500 GPM
- 501 - 1,000 GPM
- 1,001 - 1,200 GPM
- 1,201 - 2,000 GPM
- 2,001 - 2,500 GPM
- 2,501 - 3,000 GPM
- >= 3,001 GPM

N

0 0.25 0.5 1 Miles

CITY OF BEL AIRE

Figure 9

Scenario 1 Available Fire Flow

Bel Aire Water Master Plan

June 2023

Sht. 9

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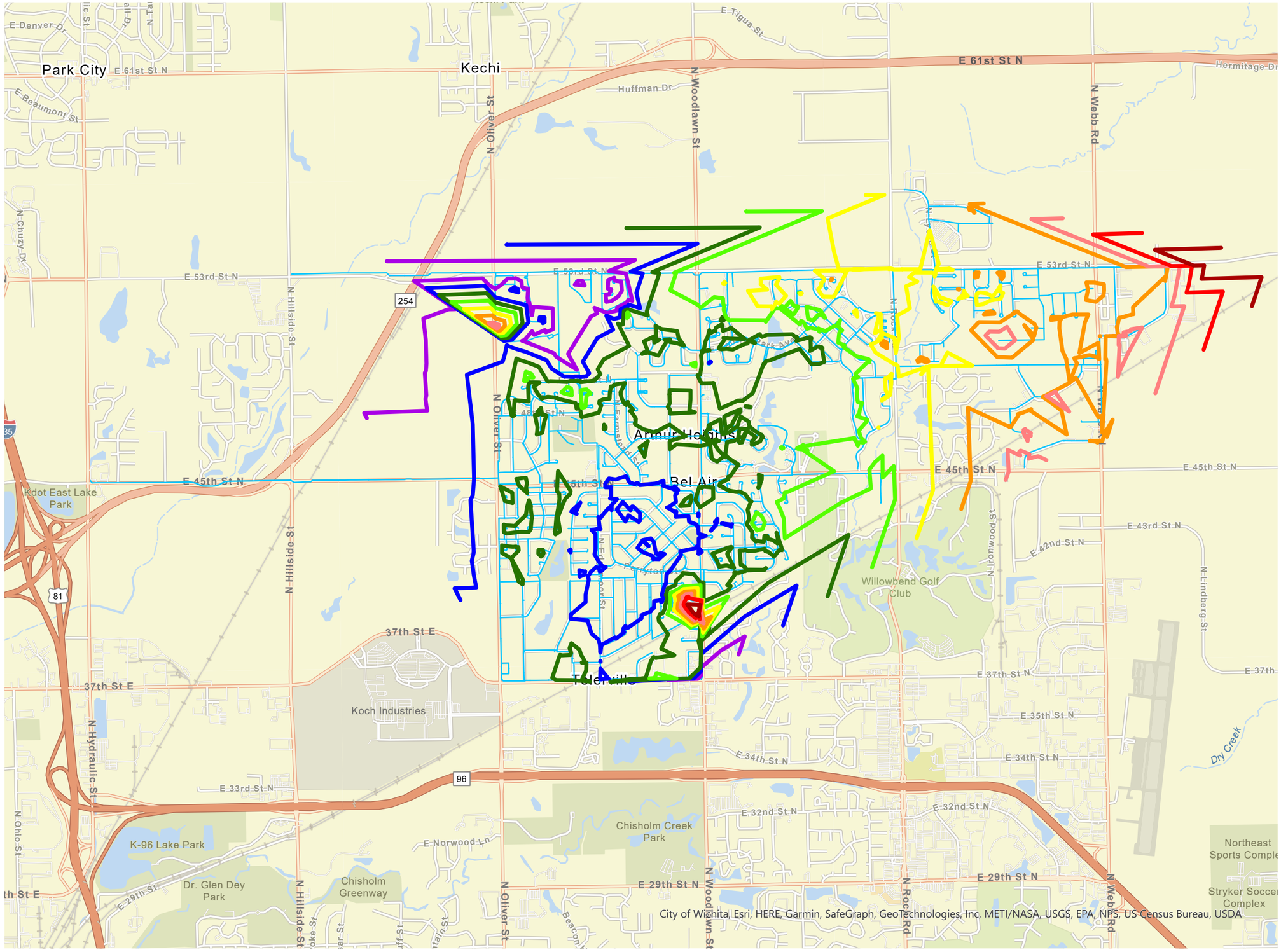

Legend

- Existing Waterline
- 24 Hours
- 48 Hours
- 72 Hours
- 96 Hours
- 120 Hours
- 144 Hours
- 168 Hours
- 192 Hours
- 216 Hours

N

0 0.25 0.5 1 Miles

CITY OF BEL AIRE

Figure 10

Scenario 1 Water Age

Bel Aire Water Master Plan

June 2023

Sht. 1

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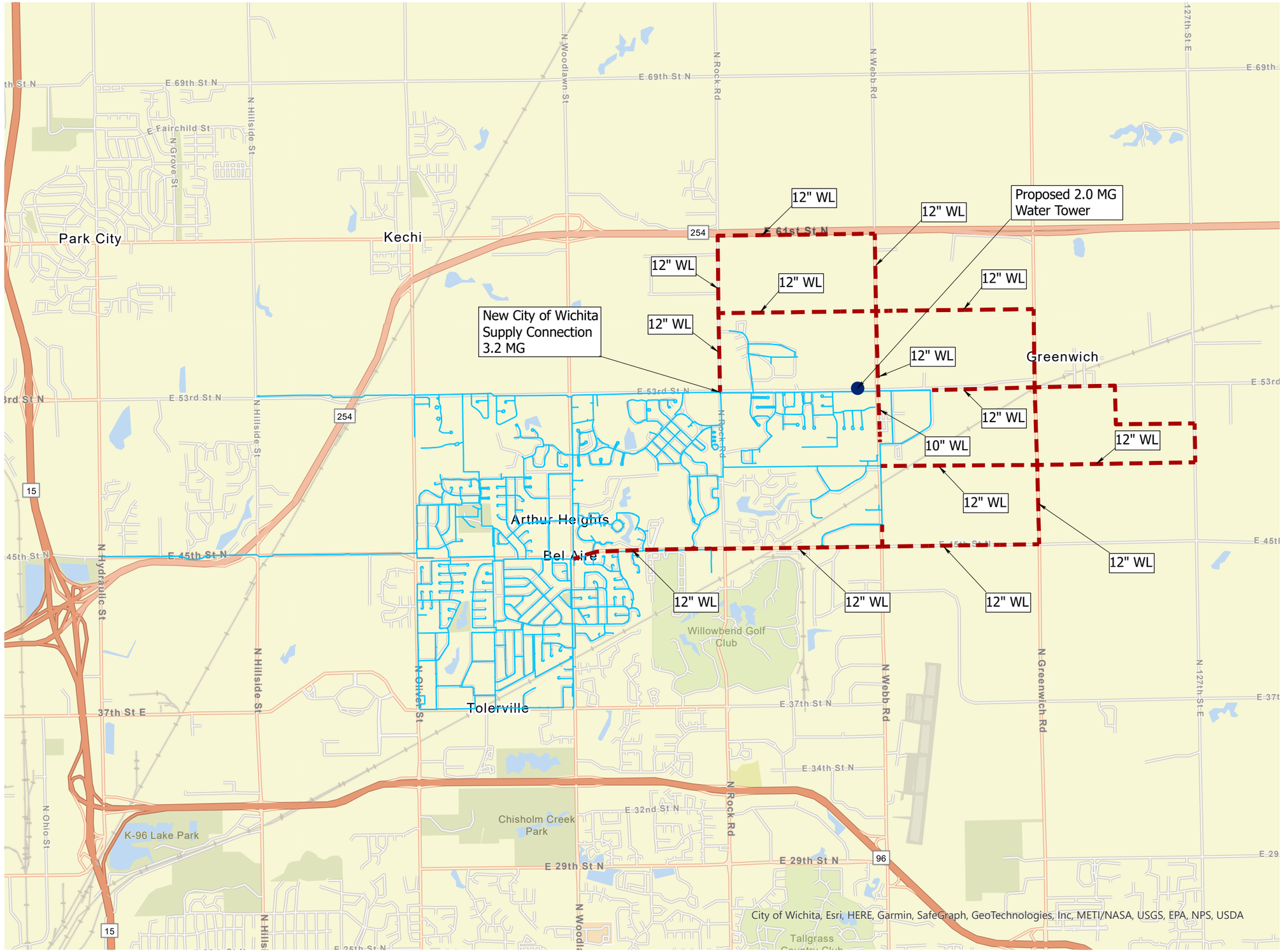

Legend

- Existing Waterline
- Proposed Improvements
- Proposed Water Tower

N

0 0.33 0.65 1.3 Miles

CITY OF BEL AIRE

Figure 11

Proposed Pipe Looping Improvements

Bel Aire Water Master Plan

June 2023

Sht. 1

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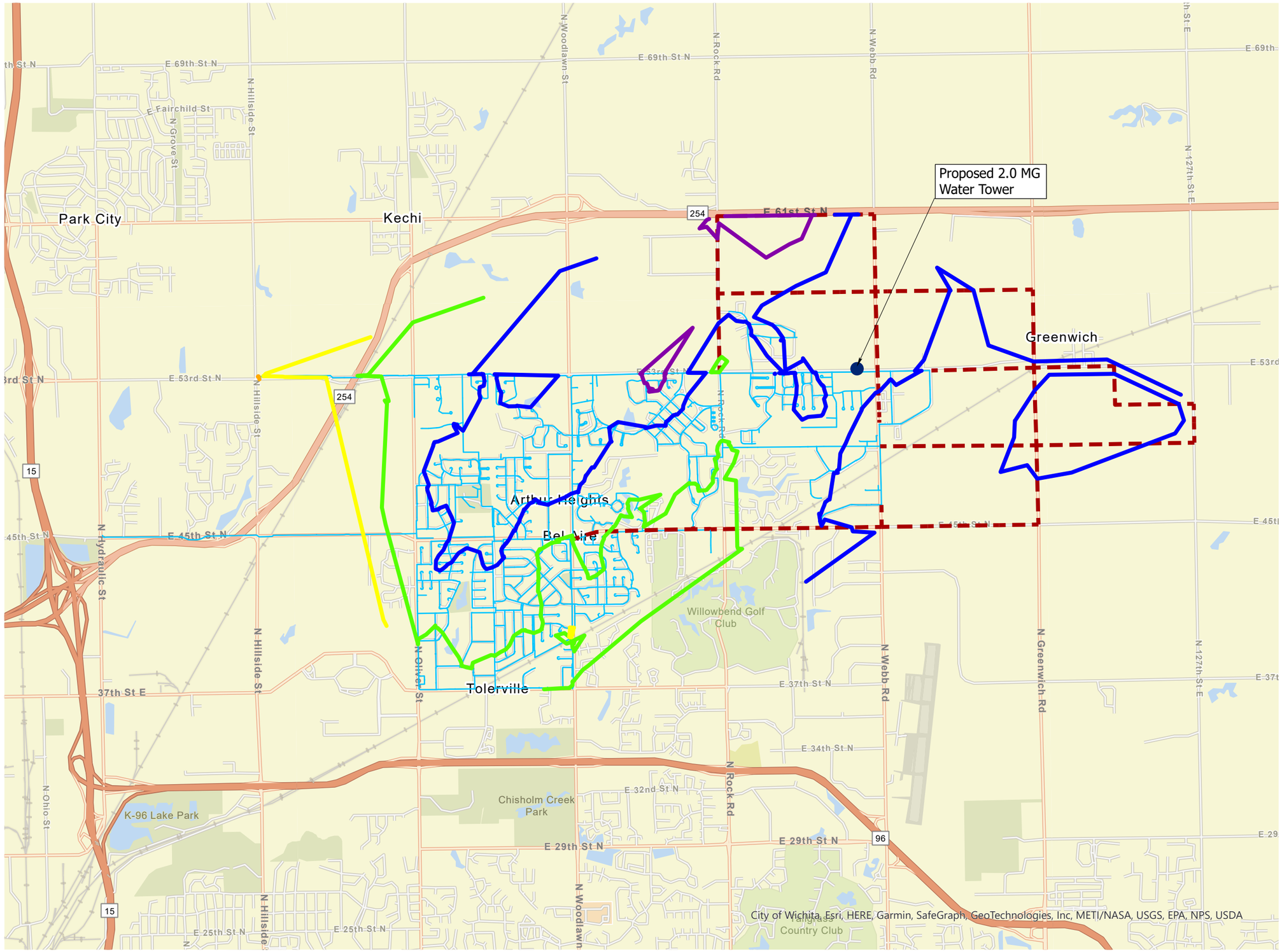

Legend

- Existing Waterline
- Proposed Improvements
- 40
- 50
- 60
- 70
- 80
- Proposed Water Tower

N

0 0.33 0.65 1.3 Miles

CITY OF BEL AIRE

Figure 12 - Scenario 3
Max Day Pressures with Improvements

Bel Aire Water Master Plan

June 2023

Sht. 1

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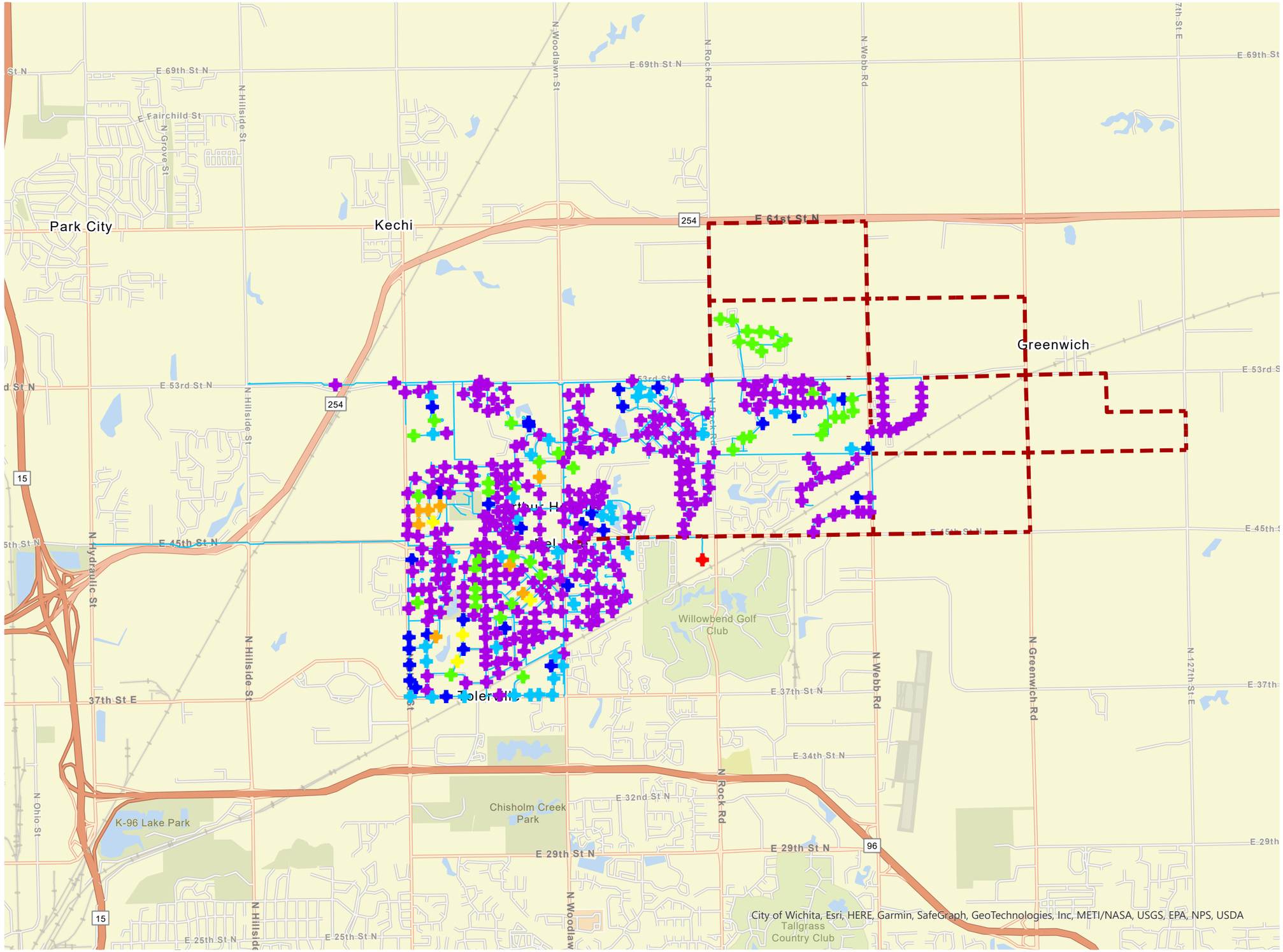

Legend

- Existing Waterline
- Proposed Improvements
- <= 500 GPM
- 501 - 1,000 GPM
- 1,001 - 1,200 GPM
- 1,201 - 2,000 GPM
- 2,001 - 2,500 GPM
- 2,501 - 3,000 GPM
- >= 3,001 GPM

N

0 0.33 0.65 1.3 Miles

CITY OF BEL AIRE

Figure 13 - Scenario 3
Available Fire Flow with Improvements

Bel Aire Water Master Plan

June 2023

Sht. 1

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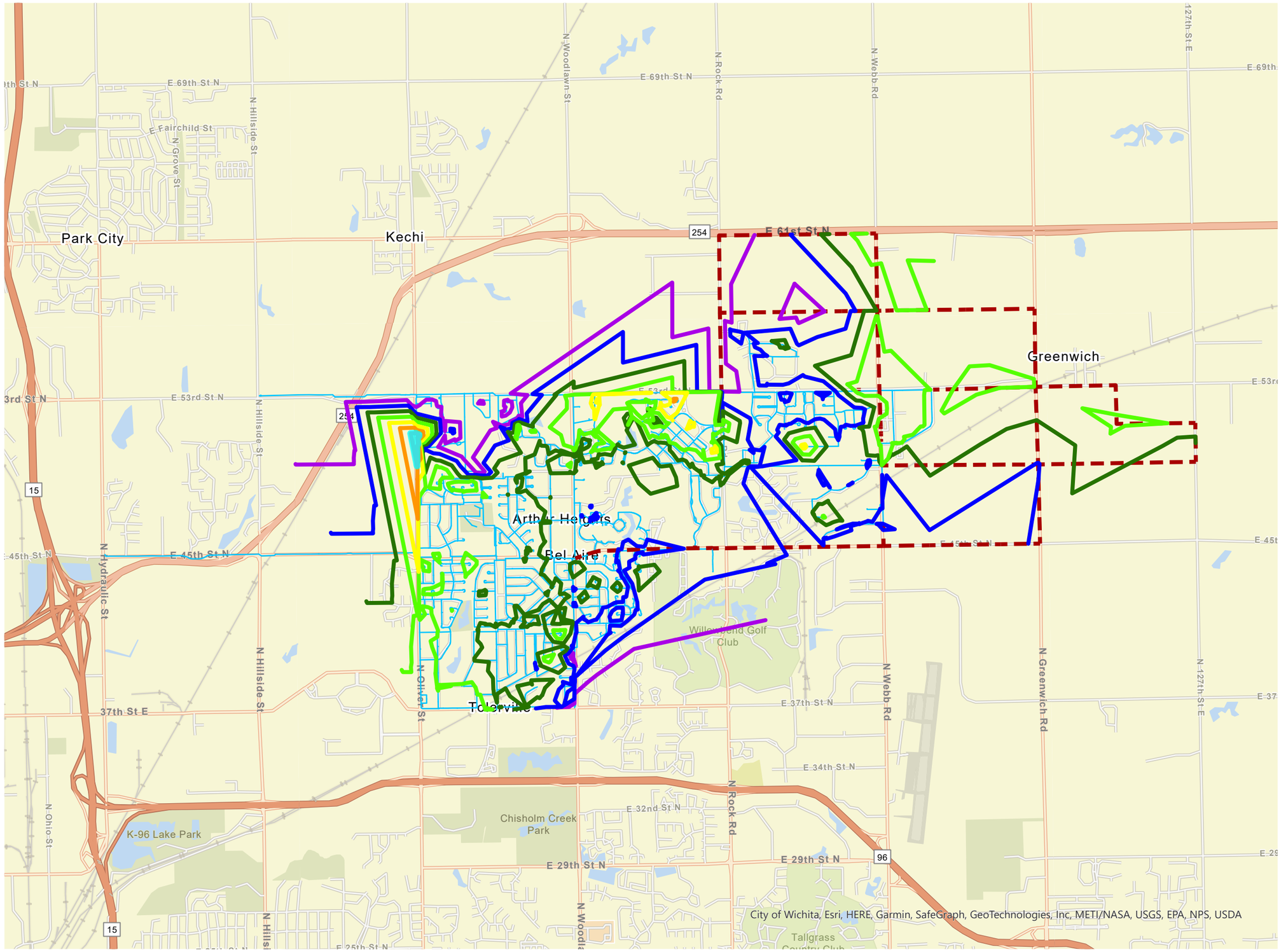

Legend

- Existing Waterline
- Proposed Improvements
- 24 Hours
- 48 Hours
- 72 Hours
- 96 Hours
- 120 Hours
- 144 Hours
- 168 Hours
- 192 Hours
- 216 Hours

N

0 0.33 0.65 1.3 Miles

CITY OF BEL AIRE

Figure 14 - Scenario 3
Water Age with Improvements

Bel Aire Water Master Plan

June 2023

Sht. 1

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Preliminary Report

CITY OF BEL AIRE

SEWER MASTER PLAN

PEC PROJECT NO. 35-220925-000-2564

AUGUST 2023

PREPARED BY
PROFESSIONAL ENGINEERING CONSULTANTS PA
303 S. Topeka Wichita, KS 67202 316-262-2691 **www.pec1.com**

Table of Contents

List of Tables

List of Figures

1.0 Introduction

The City of Bel Aire retained the services of Professional Engineering Consultants to develop a working computer model of the City's sanitary sewer collection system and perform a detailed capacity analysis in order to prepare a plan for addressing current and projected future system deficiencies. This Sanitary Sewer Collection System Master Plan presents the information utilized to prepare the model, evaluation of the model to determine system deficiencies under current and projected future flows, and a summary of recommended system improvements.

1.1 Study Objective

The primary objective of this study is to determine sanitary sewer system improvements needed to address current system deficiencies and anticipated future conditions. This included analyzing potential flow growth and system expansion, collection piping, and pumping capabilities.

The computerized model of the collection system was developed using Autodesk Storm and Sanitary Analysis software. The model was analyzed to determine if there were adequate pipe capacities for current and future flows. This study presents an evaluation of alternatives to address current and anticipated future deficiencies. It also presents the necessary system expansion options required to serve the future growth areas. The study period for analysis of the collection system is twenty years (2043). Total project cost estimates were prepared for each recommended improvement for incorporation into the City's Capital Improvement Plan.

1.2 Scope of Study

This study includes the following elements:

- Description of the existing sanitary sewer collection system.
- Development of projected wastewater flows for a 20-year planning period based on projected development and historical wastewater flow data.
- Development of a computerized sanitary sewer model of the existing collection system with 10-inch piping and larger, and smaller piping as necessary.
- Calibration of the sanitary sewer based on field flow data collection information.
- Evaluation of the sanitary sewer model for current and projected peak flows to determine distribution system deficiencies.
- Development of system improvement alternatives and recommendations to address identified deficiencies and provide service to the growth areas.
- Development of preliminary construction cost estimates for recommended improvements.

2.0 Existing Sanitary Sewer System Overview

Figure 1 shows an overview of the City's sanitary sewer system which includes gravity lines, force mains, and lift stations. The City of Bel Aire's sanitary sewer system is split into a north drainage basin and a south drainage basin. The south drainage basin drains to a pump station located at Harding and 37th Street. The north basin drains to a lift station on 37th Street, east of Oliver Street. Both of these lift stations then pump to the Chisholm Creek Utility Authority (CCUA) wastewater treatment plant for treatment. The force mains from the lift stations combine near the intersection of Oliver Rd. and 53rd St. and are pumped to CCUA in a single 18" force main.

During times of high flow, drainage from the south drainage basin can "overflow" into an 18" gravity pipe and into the City of Wichita's sewer system. Based on flow data received from the City of Wichita, this 18" sanitary sewer line has an approximate available capacity of 1.25 MGD peak flow. The 37th lift station, 53rd lift station, and the 18" gravity pipe to Wichita are the three "discharging" locations for Bel Aire's sanitary sewer system. To get a better understanding of the overall condition of the City's sanitary sewer system, total historical flows from these three discharge locations, and projected sewer flows were determined.

3.0 Wastewater Flows

Current wastewater flows and flows for in-progress development must be determined to accurately analyze current system performance and identify improvements needed for future growth. Peak flows are typically utilized as the base demand for a sanitary sewer system.

An average flowrate is the total flow through the system in a given year evenly distributed throughout the entire year. Wastewater flows also typically follow a diurnal pattern during the day with low usage at night and peak usage in the early morning and early evening hours. The high flows during the early morning and early evening are due to the normal daily pattern of typical residential customer water use activities (showering, cooking, laundry, etc.). The highest flow observed due to this diurnal curve is referred to as the dry weather peak. In addition to this, sanitary sewer systems often experience significant inflow and infiltration (I&I). This is when rain or ground water enters the system. The peak flow rates due to I&I will be the highest flows the system has and is referred to as the wet weather peak. The wet weather peak is what is utilized for the capacity analysis of a wastewater system.

3.1 Historical Sewer Flows

The City provided historical daily flow information from 2017-2021 for both lift stations and the City of Wichita overflow meter. Using this data, total annual flow and average day flow from the City's sewer system was found by adding the daily flows from the lift stations and the overflow meter. The maximum day flows by year from both lift stations and the overflow are also provided in the table.

Table 1: Historical Sewer Flows Figure

Year	Total Annual Flow (MGY)	Average Day Flow (MGD)	Maximum Day Flow from Harding Lift Station (MGD)	Maximum Day Flow from 53rd St. Lift Station (MGD)	Maximum Day Flow from Gravity Discharge to Wichita (MGD)
2017	177.45	0.485	0.750	0.100	N/A
2018	196.18	0.537	0.825	0.112	N/A
2019	203.70	0.558	1.308	0.106	N/A
2020	211.35	0.577	1.150	0.147	0.002
2021	214.48	0.587	1.200	0.177	0.063

The approximate annual growth rate over this period is 4.91%. This growth is expected due to the steady and continual growth of the City's infrastructure. It is less than the growth rate seen with water use, which is likely due to water being utilized for irrigation purposes.

Since the City has seen significant growth over the last five years, the 2021 wastewater flows are likely a more accurate representation of the City's existing system compared to utilizing the average use of the five years.

Using the information above, the average max day factor for wastewater is 2.15.

A useful comparison when evaluating the sanitary sewer system is the percent return rate of water use. This provides an approximate percentage of water use that is returned to the wastewater system. The table below shows the City's wastewater and water use data from 2017 to 2022.

Table 2: Wastewater and Water Use

Year	Total Water Use (MG)	Total Wastewater Discharge (MG)	Percent Return Rate
2017	240.44	177.45	73.8%
2018	284.17	196.18	69.0%
2019	261.49	203.70	77.9%
2020	318.84	211.35	66.3%
2021	314.71	214.48	67.5%

The City's average percentage return rate over this period is 70.9%. This is on the lower end of the typical return rate of 65-85%. The highest percent return rate occurred in 2019 with a return rate of 77.9%. This higher return rate in 2019 has been consistent with other cities. The high number of rain events would cause an increase of I&I into the system.

3.2 Projected Wastewater Flows

Through discussions with the City and review of the City's comprehensive plan, all current and planned development areas were identified. A visual representation of the development areas is shown in Figure 2. Projections for future wastewater flows from these developments were calculated using a scenario-based approach, where scenarios were designated as follows:

- **Scenario 1:** In-Progress Development
- **Scenario 2:** Planned Development
- **Scenario 3:** Full Comprehensive Plan Growth

The projected flows were calculated using Kansas Department of Health and Environment (KDHE) assumed flowrates based on the land use. The projected average demand for each growth area is shown in Table 3.

Table 3: Projected Flows of Growth Areas

	Development	Lots/Area	Units	Projected Average Day Flows (GPD)
1	Homestead Senior Living	120	Lots	34,340
2	Chapel Landing, Phase 2	40	Lots	11,447
3	Prairie Preserve	12	Lots	3,434
4	Chapel Landing 6th	50	Lots	14,308
5	Chapel Landing 3rd	86	Lots	24,610
6	Bristol Hollows	122	Lots	34,912
7	Chapel Landing 5th	113	Lots	32,336
8	Chapel Landing	58	Lots	16,597
9	Chapel Landing 4th	12	Lots	3,434
10	Chapel Landing 2nd	0	Lots	0
11	Central Park 3rd	69	Lots	19,745
12	Villas at Prestwick	36	Lots	10,302
13	Elk Creek	37	Lots	10,588
14	Courtyards at Elk Creek*	0	Lots	0
15	Elk Creek 2nd	9	Lots	2,575
16	Elk Creek 3rd	10	Lots	2,862
17	Deer Run	130	Lots	37,201
18	Rock Spring*	0	Lots	0
19	Rock Spring	23	Lots	6,582
20	Rock Spring 2nd*	0	Lots	0
21	Rock Spring 3rd	112	Lots	32,050
22	Sham Way Estate	213	Lots	60,953
23	Cedar Pass (Rock Spring 5th)	177	Lots	50,651
24	Rock Spring 4th	108	Lots	30,906
25	Skyview at Block 49	108	Lots	30,906
26	Skyview at Block 49 2nd	90	Lots	25,755
27	Skyview at Block 49 3rd	16	Acres	15,521
28	Tierra Verde	60	Acres	100,000
29	Bel Aire Industrial Park	60	Acres	200,000
30	Sunflower Commerce Park	87	Acres	145,000
31	Sunflower Commerce Park 2nd	65	Acres	108,333
32	Integra Technologies	-	-	1.2/2.4M
A1	Residential	160	Acres	155,207
A2	Commercial	40	Acres	66,667
A3	Commercial	80	Acres	133,333
A4	Light Industrial	240	Acres	400,000
A5	Commercial	320	Acres	533,333

A6	Light Industrial	160	Acres	266,667
A7	Commercial	40	Acres	66,667

**Due to the amount of lots already developed by the end of 2022, it was assumed that the demand associated with this development was already captured in the baseline demand data.*

Scenario 1 development areas represent the developments in progress of construction with individual lots expected to be developed within the next 1-2 years. The majority of these developments are residential. The City's existing flows (2022 use) and the projected flows from the Scenario 1 developments (which were calculated based on lot counts) were added together to get a total Scenario 1 flowrate. The Scenario 1 analysis will analyze the system based on this combined demand.

Scenario 2 development areas represent the developments that are planned/platted but individual lots are expected to be developed in approximately 5 years. The flows for the Scenario 2 developments are based on residential lot counts or approximate commercial/ industrial areas. In addition, Scenario 2 also includes the flow of one new 0.6-MGD wastewater user, Integra Technologies (Integra), that the City will be adding to their system. The Scenario 2 total flow and system analysis will include existing flows, Scenario 1 developments, Scenario 2 developments, and Integra (0.6-MGD user).

Scenario 3 development areas were determined based on the remaining development in the "Preferred Balanced Growth Scenario" of the City's 2018 Comprehensive Plan and upgrading Integra to a 1.2-MGD user. These areas are expected to be developed within the next 20 years. The flows for the remaining comprehensive plan growth are based on approximate areas since the majority of the development was identified as being either commercial or industrial. The Scenario 3 total flow and system analysis will include existing flows, Scenario 1 developments, Scenario 2 developments, Scenario 3 developments, and Integra (1.2-MGD user).

A max day factor of 2.15 and a peaking factor of 3 was used to convert the average demands to max day and peak demands. The peaking factor of 3 is the typical peaking factor specified by KDHE for design. These were then utilized to develop the projections give an approximate increase in flows for the next phases of infrastructure improvements for the City.

Table 4: Cumulative Projected Flows

Phase	Cumulative ADD (MGD)	Cumulative MDD (MGD)	Cumulative PHD (MGD)
1	1.18	2.54	3.55
2	2.29	4.19	5.60
3	4.55	8.32	11.11

4.0 Wastewater Flow Monitoring

PEC engaged the services of Haynes Equipment to conduct flow monitoring at six manhole locations, with the aim of gathering flow data for model calibration. Flow information was collected over a span of 34 days from April 6th to May 9th, 2023. The flows were recorded at five-minute intervals to ensure a comprehensive dataset during this period. The data from the flow monitoring, along with GIS mapping of the system, was then utilized to develop a functional model of the City's sanitary sewer system. Figure 3 shows the six-meter locations and their respective metered collection basin areas. The table below shows the average day, peak flows, and peaking factors for each meter throughout the 34-day period. It should be noted that meters 5 and 6 experienced significant I&I on several days, which will be further discussed below. Consequently, the flowrates recorded during these two days of I&I were excluded from the average and peak flowrates presented in the Figure.

Table 5: Flow Meter Monitoring Results

	Meter 1	Meter 2	Meter 3	Meter 4	Meter 5	Meter 6
Average Flowrate (gpm)	44.62	24.83	204.96	54.10788	42.49	5.99
Peak Flowrate (gpm)	122.36	177.61	416.42	75.59	104.5	29.08
Peaking Factor	2.74	4.74	2.03	1.40	2.46	4.85

Meter 6 exhibited two notable instances of I&I during rain events on April 26 and April 28. The peak flowrates recorded on April 26 and 28 were 37.73 gallons per minute (gpm) and 160.4 gpm, respectively. If we exclude these two rain event days from the calculation of the average day flowrate, the average flowrate over the 34-day period at meter 6 amounted to 5.99 gpm. This implies that on April 26, a peaking factor of 6.29 was observed, while on April 28, a peaking factor of 26.73 occurred.

For areas in Bel Aire's system where the flow meter study did not collect data, a separate method was used to determine approximate average and peak flows. The total flow of meter areas 1-6 in Figure 3 were summed and multiplied to find the total approximate monthly flow. This value was approximately 13.69 MGD of total monthly flow. The total monthly flow found in CCUA's billing records for the month of April was 14.75 MGD. Therefore, the total flow unaccounted for in the flow study is approximately 1.06 MGD. The 1.06 MGD was then distributed using house counts and applied to the model at locations where the flow was not captured with the flow monitors.

5.0 Modeling

A comprehensive base sanitary sewer model was developed using Autodesk's Storm and Sanitary software to encompass all sanitary sewer lines exceeding 8" in diameter within the City of Bel Aire's system with the addition of some critical 8" lines. Figure 4 highlights all gravity lines that were modeled using these criteria. Accurate manhole locations were determined through the utilization of GPS equipment, while depths were measured using a laser distance measurer, referencing the top of the manhole rim. These depth measurements were then used to input flowlines into the model for each manhole, particularly in cases where plans or recorded flowline elevations were unavailable. Once all flowlines were inputted, slopes were generated to determine the capacities of each pipe. In instances where negative or missing slopes were encountered, extrapolation techniques were employed, deriving flowlines and slopes from the nearest downstream and upstream manholes.

Figure 5 shows the sanitary sewer subbasins of the City's system, based on interceptor and pump station locations. By considering the counts of residential and commercial buildings, the average day flows (inflows) from the wastewater flow monitoring study were proportionally allocated to each subbasin. Furthermore, the model allowed for adjustments to the 24-hour time patterns, tailoring the hourly flows based on the average inflow at each location. Time patterns were generated at each inflow point, approximating the patterns observed in the hourly flows from the flow monitoring study. The peak flowrate at each inflow location was positioned around the time of day when the peak was typically observed in the results of the flow monitoring study. This approach aimed to create a model that accurately represents Bel Aire's actual daily flow fluctuations and available capacities.

The results for each subbasin are also included in Figure 5. The results include the full/design pipe capacity from the model, full pipe capacity using KDHE’s minimum design slope, the peak flowrate, and the peak flowrate with a 1.7 factor. The 1.7 factor was found using the max monthly flow found from the last two years of City’s sanitary sewer billing data and comparing that to the total monthly flow from April 2023 (14.75 MG). The highest flow found in the last two years was from May 2022 which was 25.31 MG. Comparing this flow to the 14.75 MG April 2023 flow resulted in a factor of 1.7. This factor was then applied to the peak flows found from the model. This was done to show peak flows that the City could potentially see during a month with high volumes of flow.

The table below shows the approximate peak flow model results to each lift station in the City’s sanitary sewer system.

Table 6: Existing Flows to Lift Stations

Location	Peak Flow (gpm)
37th St. Lift Station	516.75
53rd St. Lift Station	139.48
Rock Rd. Lift Station	126.99
Sunflower Lift Station	5.47
Webb Rd. Lift Station	10.39
Oliver Rd. Lift Station	0

6.0 Future Development

Improvements to the sanitary sewer system are required to provide service to the identified development areas. Wastewater infrastructure improvements are sized based off approximate peak flows expected from the proposed development. The tables below show these peak flows for each proposed improvement phase by location. They also include a proposed discharge/connection location for each development area. These discharge locations were chosen given the proximity to the development area and the available capacity in the pipe. For the proposed Integra development, a peak flow rate of 500 gpm was assumed for each phase.

Table 7: Phase 1 Peak Flows and Discharge Locations

Location	Peak Flow	Discharge Location
1	72	8” Gravity to Oliver LS
2	24	8” Gravity to Oliver LS
3	7	8” Gravity to Oliver LS
4	30	10” Gravity to 53rd LS
5	51	10” Gravity to 53rd LS
6	83	10” Gravity to 53rd LS
7	67	10” Gravity to 53rd LS
8	35	10” Gravity to 53rd LS
9	7	10” Gravity to 53rd LS
10	0	10” Gravity to 53rd LS
11	41	8” Gravity to 37th LS
12	21	10” Gravity to Rock Rd LS
13	22	15” Gravity to Rock Rd LS
14	0	15” Gravity to Rock Rd LS
15	5	15” Gravity to Rock Rd LS
16	6	15” Gravity to Rock Rd LS
17	78	18” Gravity to Rock Rd LS
18	0	12” Gravity to 18” Gravity to Rock Rd LS
19	14	12” Gravity to 18” Gravity to Rock Rd LS
20	0	12” Gravity to 18” Gravity to Rock Rd LS
21	67	8” Gravity to Webb Rd LS
23	106	10” Gravity to Webb Rd LS
24	64	8” Gravity to Webb Rd LS
25	64	10” Gravity to Rock Rd LS
26	54	10” Gravity to Rock Rd LS
27	32	10” Gravity to Rock Rd LS
30	303	10” Gravity to Rock Rd LS

Table 8: Phase 1 Total Future Flows to Existing Lift Stations

Location	Peak Flow (GPM)
Total Future Flow to Rock Rd LS	836
Total Future Flow to 53rd LS	1,202
Total Future Flow to Webb Rd LS	237
Total Future Flow to Oliver Rd LS	103

Table 9: Phase 2 Peak Flows and Discharge Locations

Location	Peak Flow	Discharge Location
Integra Phase 1	500	Webb/Treatment Plant
22	127	10” Gravity to Webb Rd LS
28	208	15” Gravity to Rock Rd LS
29	417	15” Gravity to Rock Rd LS
31	226	Webb/Treatment Plant

Table 10: Phase 2 Total Future Flows to Existing Lift Stations

Location	Peak Flow (GPM)
Total Future Flow to Rock Rd LS	625
Total Future Flow to Webb Rd LS	853
Total Future Flow to 53rd Rd LS	1478

Table 11: Phase 3 Peak Flows and Discharge Locations

Location	Peak Flow	Discharge Location
Integra Phase 2	500	Webb/Treatment Plant
A1	100	10” Gravity to Oliver Rd LS
A2	139	18” Gravity to 53rd LS
A3	278	To Webb Rd LS
A4	833	Webb/Treatment Plant
A5	1,111	Webb/Treatment Plant
A6	556	Webb/Treatment Plant
A7	69	Subbasin 4A

Table 12: Phase 3 Total Future Flows to Existing Lift Stations

Location	Peak Flow (GPM)
Total Future Flow to 53rd LS	3,517
Total Future Flow to Webb Rd LS/Treatment Plant	3,278

7.0 Future Improvement Options

Using the approximate peak flows in the tables in section 6.0, locations and sizes for improvements to the City's sanitary sewer infrastructure were developed. Figures 6-8 show 3 options for improvements to the sanitary sewer system to serve future growth. The proposed improvements primarily serve areas to the north and east sides of the City's limits where most of the development is expected to occur.

7.1 Improvement Option 1: All Flow to CCUA

Improvement option 1 proposes improvements to direct all flow to CCUA, as shown in Figure 6. This continues the City's current discharge method of taking all flow to CCUA. The ability of the CCUA WWTF's ability to treat this additional flow will have to be determined. The improvements consist of a 30"/24" gravity interceptor to serve areas A3-A6 and area 31. The 30"/24" interceptor would flow to a new and up-sized Webb Rd. lift station. This new lift station would be located in approximately the same location as the existing Webb Rd. lift station and would serve all existing areas served by the lift station as well as the new Integra development and the proposed 30" gravity interceptor. The peak flow to the new lift station would be approximately 4,370 gpm. The lift station would then pump through a new 16" force main and tie into the existing 53rd lift station. The 53rd St. lift station would need to be either up sized or modified to accommodate this additional flow. Included in this improvement option are a couple of smaller recommended improvements to serve areas A7 and areas 28 and 29. For area A7, a new 8" gravity extension from existing infrastructure to the west is proposed. Areas 28 and 29 have an existing 8" accessible for these areas. Using the KDHE minimum design calculations, the peak flow rate will exceed the capacity of an 8" pipe at minimum slope. It is recommended to monitor this 8" line as these areas develop to determine the need to upsize this line.

7.2 Improvement Option 2: WWTF

Improvement option 2 includes improvements to serve all proposed areas with a new 2.07 MGD treatment plant located in the approximate area shown in Figure 7. The new treatment plant would serve areas 20-20, 31-32, and A3-A6. A new 30"/24" interceptor would serve the new development to the south. A new 21" interceptor would serve the new Integra development as well as serve all the areas currently expected to be directed to the Webb Road lift station. The Webb Road lift station could then be decommissioned or removed as needed by the City. The same improvements as shown in Figure 6 for the areas A7, 28, and 29 are also shown on Figure 7.

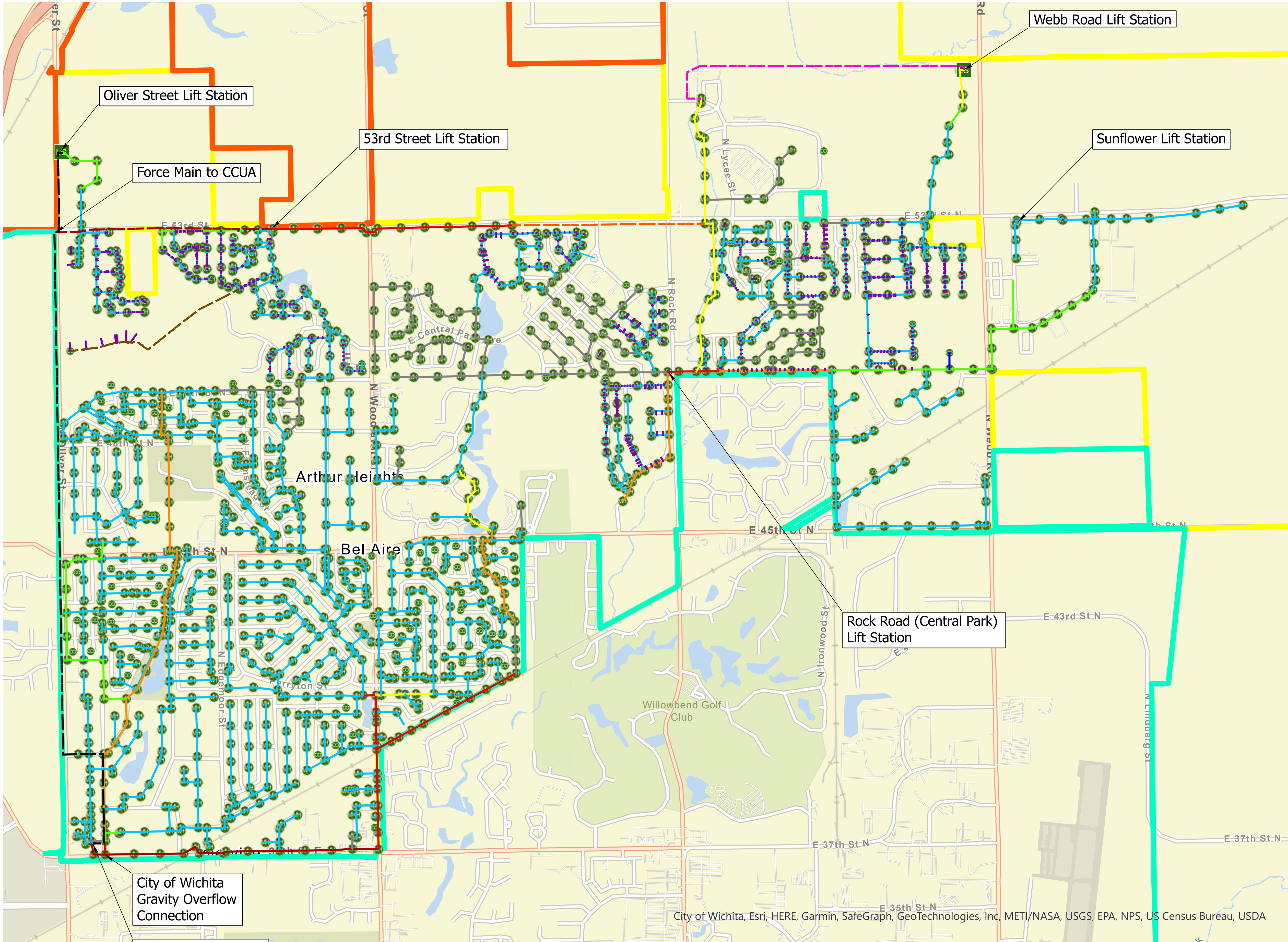
7.3 Improvement Option 3: City of Wichita Discharge Connection & CCUA

The last option proposes split flow to CCUA and the City of Wichita as shown in Figure 8. This is done to reduce the amount of additional flow that CCUA would have to be to treat. A new 1,000 gpm lift station is proposed on the east side of the new Integra location. This lift station would serve the new Integra development and pump through a new 8" force main to the City of Wichita's sanitary sewer system. The tie-in location to the City of Wichita's system is proposed to occur in the Willbend Golf Club and tie into an existing 24" gravity interceptor. The City of Wichita will need to verify the ability of the interceptor to receive this additional flow. The remaining future development areas on the east side of town would be served by a new 30"/24" interceptor that would flow to the Webb Rd. lift station. Similar to Improvement Option 1, this lift station would need to be upsized to be able to handle an approximate peak flow of 3,300 gpm. The new Webb Rd. lift station would then pump through a new 16" force main and discharge into the existing 53rd St. lift station. The 53rd St. lift station would need to be upsized and modified to accommodate this additional flow to CCUA. The CCUA will need to evaluate their ability to receive this additional flow.

8.0 Cost Estimates

Cost estimates are to be provided in the final report.

Figures


Webb Road Lift Station
Oliver Street Lift Station
53rd Street Lift Station
Sunflower Lift Station
Force Main to CCUA
Arthur Heights
Bel Aire
Rock Road (Central Park)
Lift Station
Willowbend Golf
Club
City of Wichita
Gravity Overflow
Connection
37th Street (Harding)
Lift Station
E 53rd St
E 45th St N
E 43rd St N
E 37th St N
E 35th St N
N Rock Rd
N Woodlawn
N Lycee St
N Ironwood St
N Lindberg St
N Edgemoor St
City of Wichita, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

Legend

- 3" Force Main
- 8" Force Main
- 12" Force Main
- 16" Force Main
- 18" Force Main
- Gravity Line (Size Unknown)
- 4" Gravity Line
- 6" Gravity Line
- 8" Gravity Line
- 10" Gravity Line
- 12" Gravity Line
- 15" Gravity Line
- 18" Gravity Line
- 21" Gravity Line
- Sanitary Sewer Cleanouts
- LS Sanitary Sewer Lift Stations
- Sanitary Sewer Manholes
- Bel Aire City Limits
- Kechi City Limits
- Wichita City Limits

N

0 0.13 0.25 0.5 Miles

CITY OF BEL AIRE

Figure #1
Sanitary Sewer Pipe Size

Bel Aire Sanitary Sewer Master Plan

City of Bel Aire PEC

June 2023

Sht. 1

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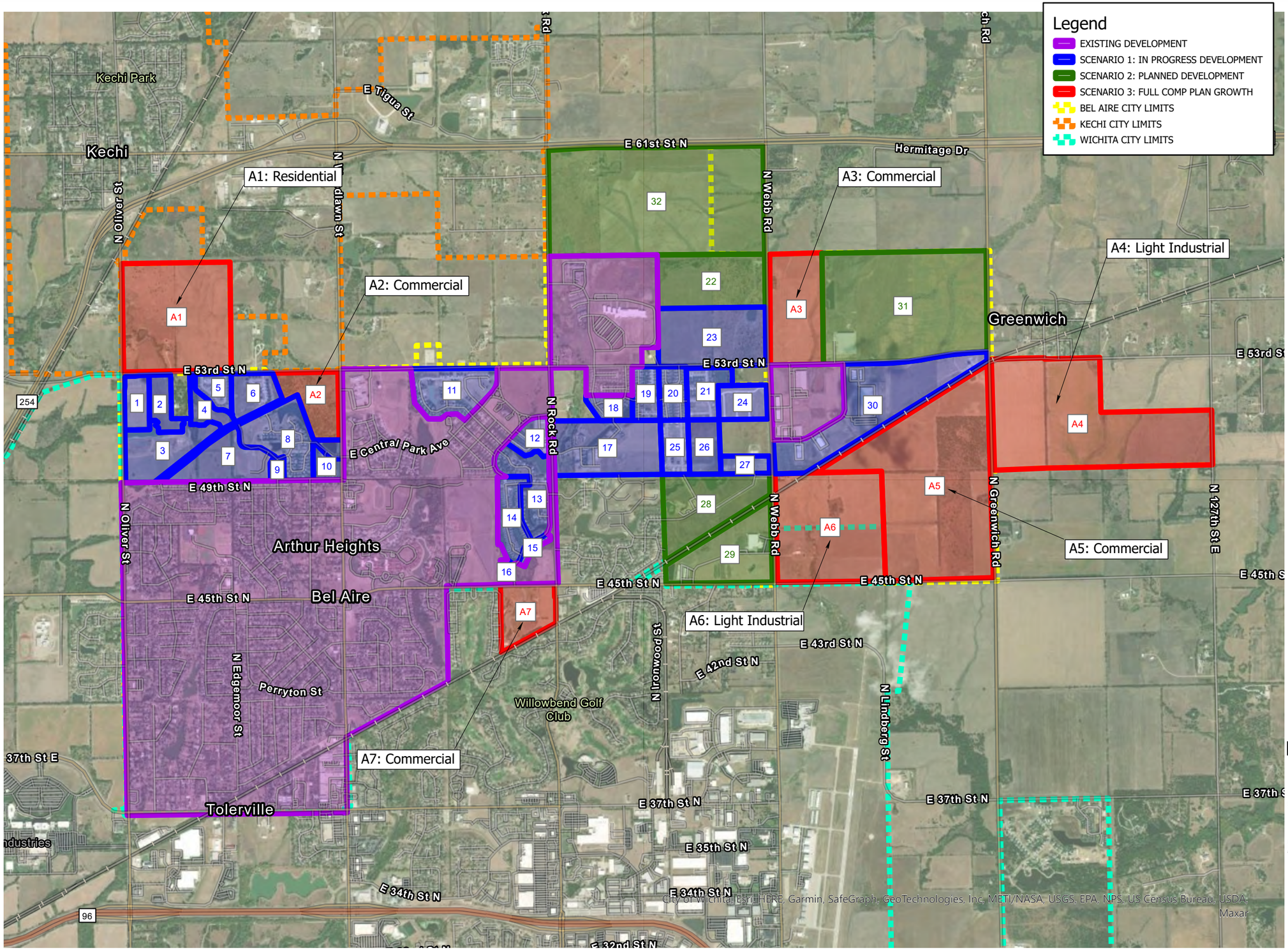

NUMBER	DEVELOPMENT
1	Homstead Senior Landing
2	Chapel Landing, Phase 2
3	Prairie Preserve
4	Chapel Landing 6th
5	Chapel Landing 3rd
6	Bristol Hollows
7	Chapel Landing 5th
8	Chapel Landing
9	Chapel Landing 4th
10	Chapel Landing 2nd
11	Central Park 3rd
12	Villas at Prestwick
13	Elk Creek
14	Courtyards at Elk Creek
15	Elk Creek 2nd
16	Elk Creek 3rd
17	Deer Run
18	Rock Spring
19	Rock Spring
20	Rock Spring 2nd
21	Rock Spring 3rd
22	Sham Way Estate
23	Cedar Pass (Rock Spring 5th)
24	Rock Spring 4th
25	Skyview at Block 49
26	Skyview at Block 49 2nd
27	Skyview at Block 49 3rd
28	Tierra Verde
29	Bel Aire Industrial Park
30	Sunflower Commerce Park
31	Sunflower Commerce Park 2nd
32	Integra Technologies

CITY OF BEL AIRE

Figure #2
Development Map

Bel Aire Sewer Master Plan

May 2023

Sht. 2

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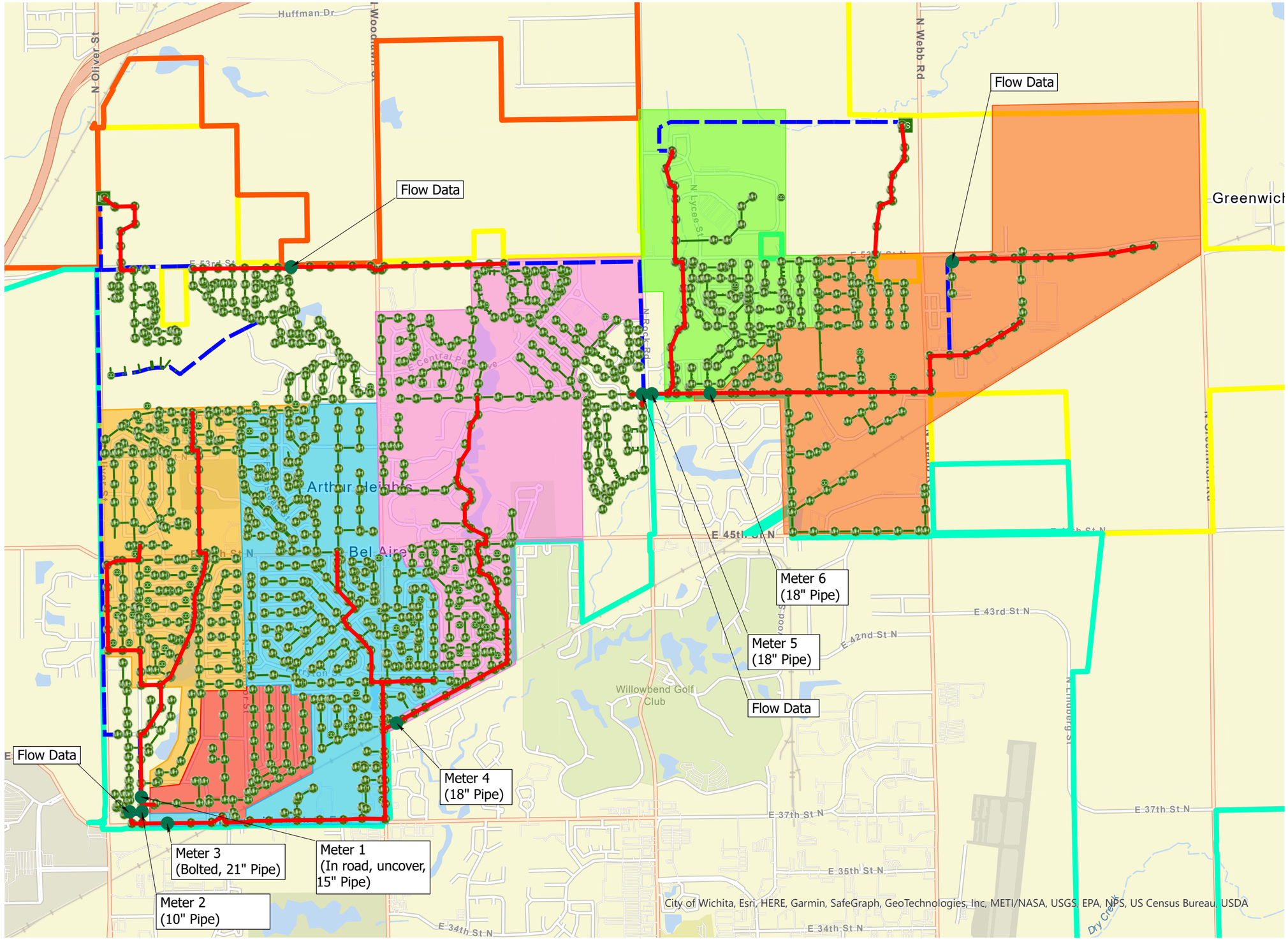

Legend

- Flow Meters
- Modeled Sanitary Sewer Lines
- Sanitary Sewer Manholes
- Sanitary Sewer Lift Stations
- Sanitary Sewer Cleanouts
- Gravity Sewer Lines
- Force Main Sewer Lines
- Meter 1 & 2 Area
- Meter 2 Area
- Meter 3 Area
- Meter 3 & 4 Area
- Meter 5 Area
- Meter 6 Area
- Bel Aire City Limits
- Kechi City Limits
- Wichita City Limits

N

0 0.13 0.25 0.5 Miles

CITY OF BEL AIRE

Figure #3

Meter Location and Areas

Bel Aire Sanitary Sewer Master Plan

June 2023

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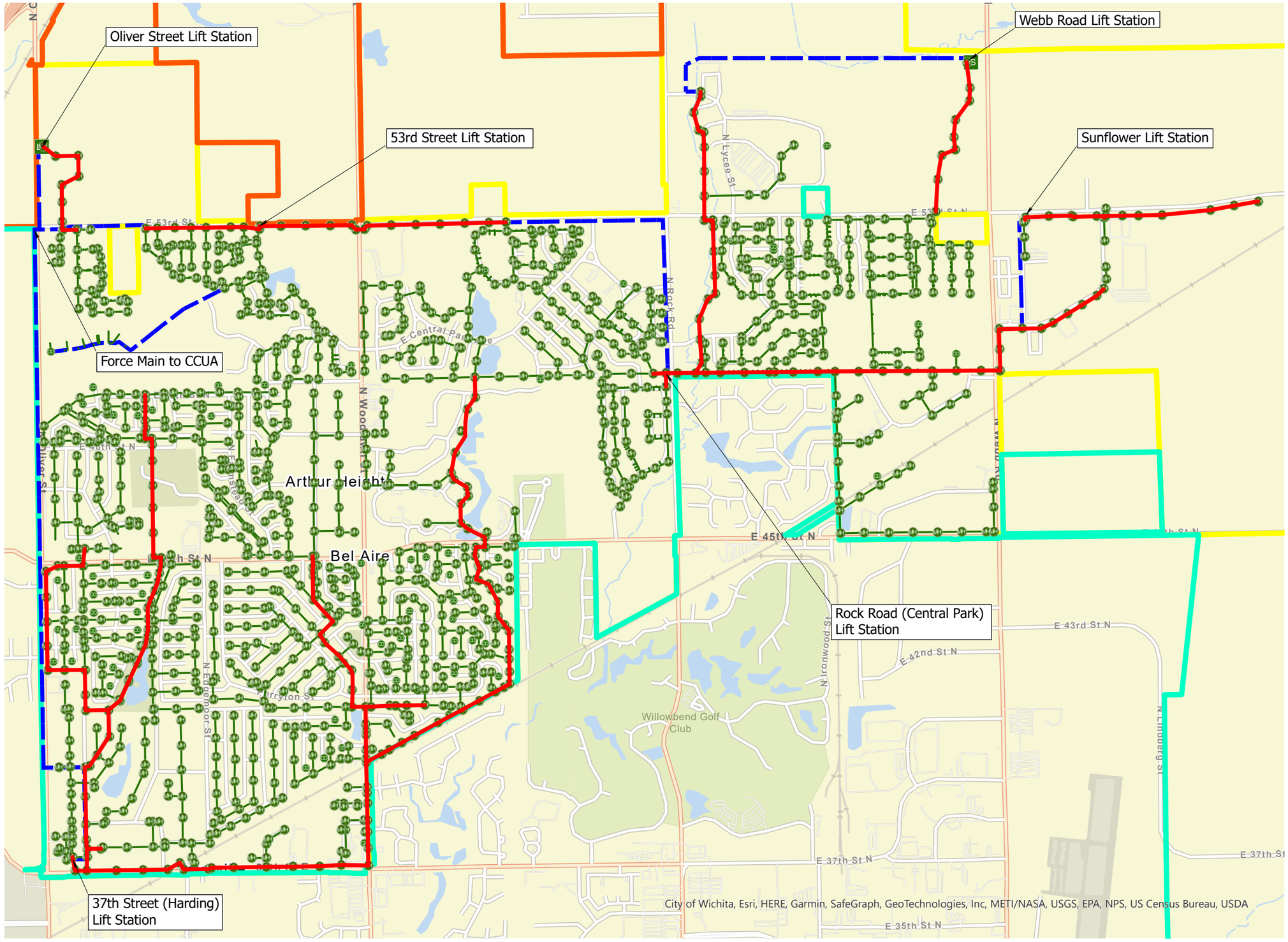

Legend

- Modeled Sanitary Sewer Lines
- Sanitary Sewer Manholes
- Sanitary Sewer Lift Stations
- Sanitary Sewer Cleanouts
- Gravity Sewer Lines
- Force Main Sewer Lines
- Bel Aire City Limits
- Kechi City Limits
- Wichita City Limits

N

0 0.13 0.25 0.5 Miles

CITY OF BEL AIRE

Figure #4

Modeled Sanitary Sewer Lines

Bel Aire Sanitary Sewer Master Plan

June 2023

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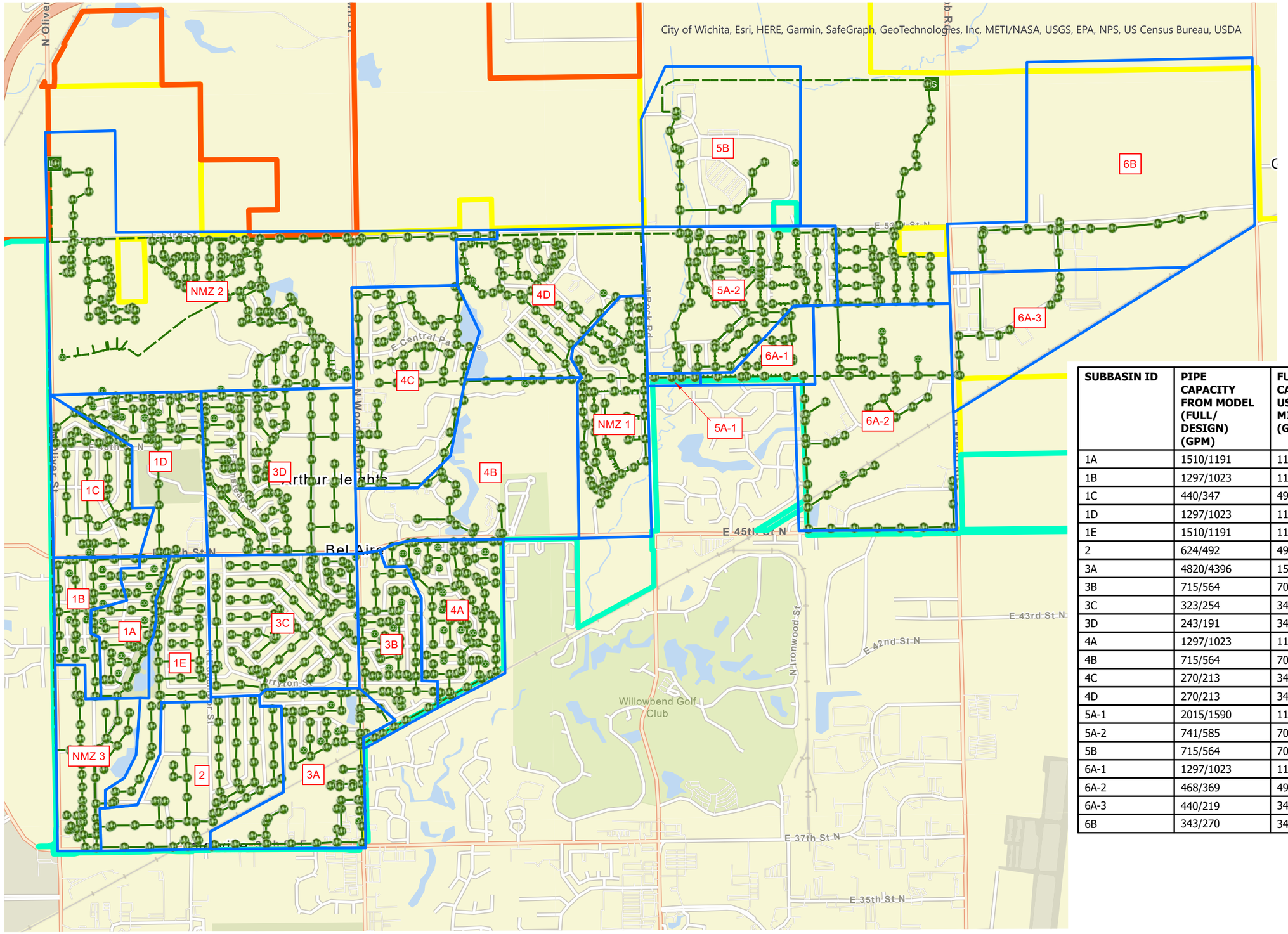

SUBBASIN ID	PIPE CAPACITY FROM MODEL (FULL/ DESIGN) (GPM)	FULL PIPE CAPACITY USING KDHE MIN. SLOPE (GPM)	MODEL PEAK (GPM)	PEAK (WITH 1.7 FACTOR)
1A	1510/1191	1106	141	239
1B	1297/1023	1106	68	116
1C	440/347	491	26	44
1D	1297/1023	1106	25	42
1E	1510/1191	1106	141	239
2	624/492	491	130	221
3A	4820/4396	1595	518	881
3B	715/564	706	68	115
3C	323/254	344	85	145
3D	243/191	344	88	149
4A	1297/1023	1106	75	128
4B	715/564	706	46	78
4C	270/213	344	18	31
4D	270/213	344	18	31
5A-1	2015/1590	1106	94	159
5A-2	741/585	706	96	163
5B	715/564	706	24	41
6A-1	1297/1023	1106	26	44
6A-2	468/369	491	27	46
6A-3	440/219	344	32	47
6B	343/270	344	8	19

CITY OF BEL AIRE

Figure #5
Sanitary Sewer Sub Basins

Bel Aire Sanitary Sewer Master Plan

June 2023

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53rd Street Lift Station

New Webb Street Lift Station Service Area

New 18" Force Main

Upsize Webb Road LS (4923 GPM Peak)

Oliver Street Lift Station

Upsize pumps in 53rd Street Lift Station

Webb Road Lift Station

Sunflower Lift Station

New 30" Gravity Interceptor

Connect New 16" Force Main to 53rd Street Lift Station

Force Main to CCUA

New 24" Gravity Interceptor

Upsize Gravity Line from 8" to 15"

Rock Road (Central Park) Lift Station

New 8" Gravity Line

37th Street (Harding) Lift Station

Kechi

Greenwich

Bel Aire

Willowbend Golf Club

Kechi Park

Arthur Heights

E 61st St N

E 45th St N

E 43rd St N

E 37th St N

E 35th St N

E 34th St N

N Oliver St

N Woodlawn St

N Webb Rd

N Rock Rd

N Ironwood St

N Lindberg St

N 127th St E

Huffman Dr

Hermitage Dr

E Tigua St

Dry Creek

96

A1 A2 A3 A4 A5 A6 A7

20 21 22 23 24 28 29 31 32

Legend

- Proposed Lift Station Option 1
- Proposed Gravity Main
- Proposed Force Main
- New Webb LS Service Area
- 3" Force Main
- 8" Force Main
- 12" Force Main
- 16" Force Main
- 18" Force Main
- Gravity Line (Size Unknown)
- 4" Gravity Line
- 6" Gravity Line
- 8" Gravity Line
- 10" Gravity Line
- 12" Gravity Line
- 15" Gravity Line
- 18" Gravity Line
- 21" Gravity Line
- Sanitary Sewer Cleanouts
- Sanitary Sewer Lift Stations
- Sanitary Sewer Manholes
- Future Development Areas

N

0 0.25 0.5 1 Miles

CITY OF BEL AIRE

Figure #6

Improvement Option 1

Bel Aire Sanitary Sewer Master Plan

June 2023

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Connect new 21" gravity Interceptor to Webb Road Lift Station and discontinue use of lift station pumps

New 2.36 MGD (Average Day) Treatment Plant

New 21" Gravity Interceptor

New 30" Gravity Interceptor

Oliver Street Lift Station

53rd Street Lift Station

Sunflower Lift Station

Force Main to CCUA

Rock Road (Central Park) Lift Station

Upsize Gravity Line from 8" to 15"

New 8" Gravity Line

New 24" Gravity Interceptor

37th Street (Harding) Lift Station

Kechi

Bel Aire

Greenwich

Arthur Heights

Willowbend Golf Club

Kechi Park

32 22 23 A3 31 20 21 24 A4 A5 A6

Legend

- Proposed Force Main
- Proposed Gravity Main
- Proposed WW Treatment Plant
- 3" Force Main
- 8" Force Main
- 12" Force Main
- 16" Force Main
- 18" Force Main
- Gravity Line (Size Unknown)
- 4" Gravity Line
- 6" Gravity Line
- 8" Gravity Line
- 10" Gravity Line
- 12" Gravity Line
- 15" Gravity Line
- 18" Gravity Line
- 21" Gravity Line
- Sanitary Sewer Cleanouts
- Sanitary Sewer Lift Stations
- Sanitary Sewer Manholes
- Future Development Areas
- Bel Aire City Limits
- Kechi City Limits
- Wichita City Limits

N

0 0.25 0.5 1 Miles

CITY OF BEL AIRE

Figure #7

Improvement Option 2

Bel Aire Sanitary Sewer Master Plan

June 2023

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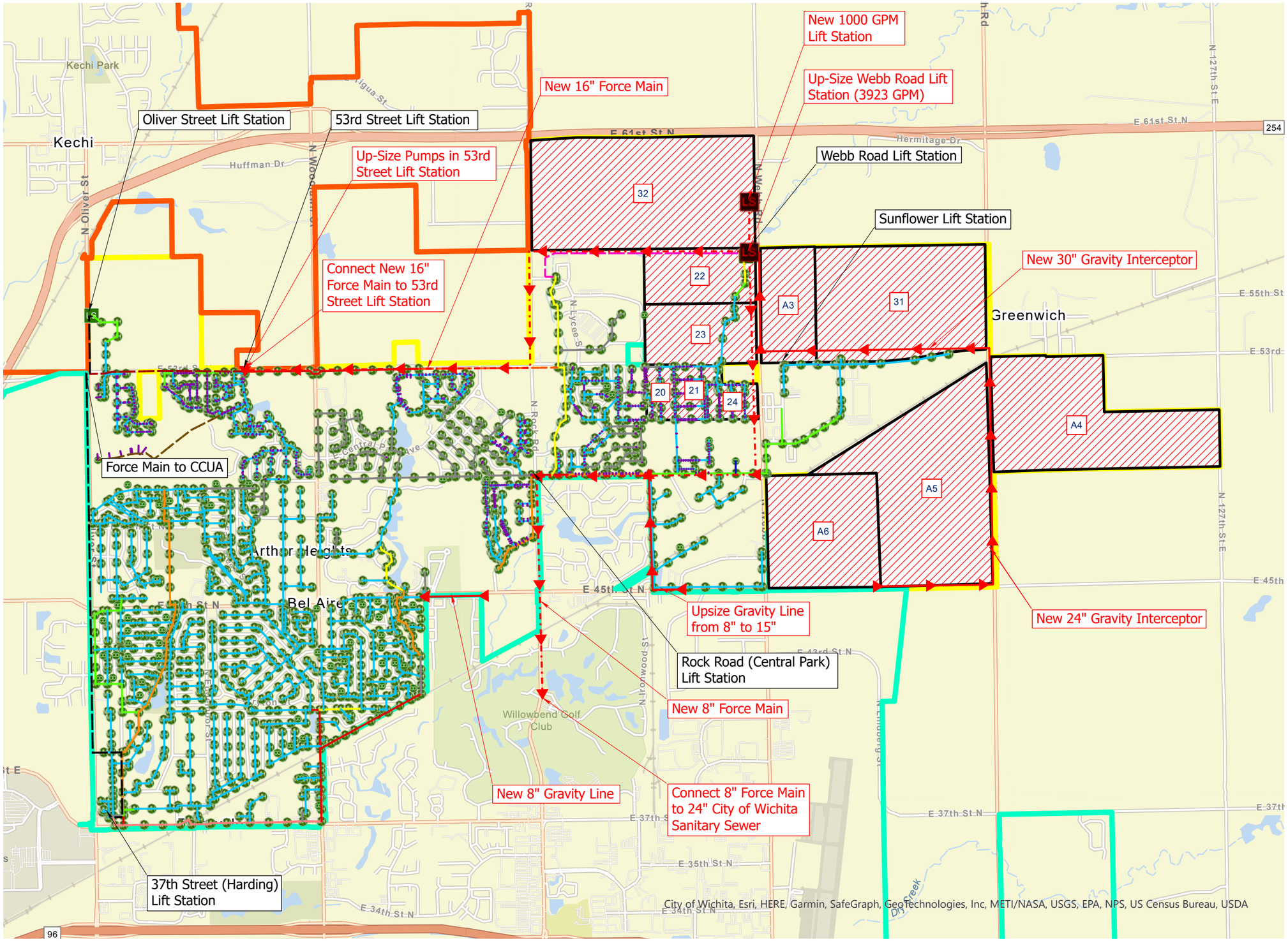

Legend

- Proposed Lift Station Option 3
- Proposed Force Main
- Proposed Gravity Main
- 3" Force Main
- 8" Force Main
- 12" Force Main
- 16" Force Main
- 18" Force Main
- Gravity Line (Size Unknown)
- 4" Gravity Line
- 6" Gravity Line
- 8" Gravity Line
- 10" Gravity Line
- 12" Gravity Line
- 15" Gravity Line
- 18" Gravity Line
- 21" Gravity Line
- Sanitary Sewer Cleanouts
- Sanitary Sewer Lift Stations
- Sanitary Sewer Manholes
- Future Development Areas
- Bel Aire City Limits
- Kechi City Limits
- Wichita City Limits

N

0 0.25 0.5 1 Miles

CITY OF BEL AIRE

Figure #8

Improvement Option 3

Bel Aire Sanitary Sewer Master Plan

June 2023

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	GENERAL FUND REVENUES	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF	
line 1	AD VALOREM TAXES	3,202,287	3,336,694	3,700,561	3,700,561	4,370,477	669,916	SG Est.(AV÷1000x43.00) (-$57,426 from 43.565 in june workshop)
line 2	DELINQUENT TAXES	40,280	17,466	11,179	20,619	20,000	-619	low delinquency rate (historical trend)
line 3	CITY SERVICE FEE (CATHOLIC CARE)	50,140	0	25,806	25,806	26,588	782	92 units x $289
line 4	MOTOR VEHICLE TAXES	476,634	474,480	450,000	450,000	450,000	0	SG Est. was $408K ($450K is historical trend)
line 5	RV TAX	4,480	3,750	4,284	4,284	3,606	-679	SG est.
line 6	16/20 M TRUCKS	773	597	483	483	612	129	SG est.
line 7	WATERCRAFT TAX	1,762	1,773	1,734	1,734	1,500	-234	SG est.
line 8	COMMERCIAL VEHICLE TAX	10,738	11,123	10,569	10,569	10,016	-553	SG est.
line 9	SALES TAX - SEDGWICK CO.	1,613,418	1,805,999	1,509,994	1,886,088	1,904,949	18,861	est. +1%
line 10	**TAXES TOTAL**	**5,400,512**	**5,651,881**	**5,714,611**	**6,100,144**	**6,787,748**	**687,604**	
line 12	WATER FRANCHISE FEE	100,000	100,000	100,000	100,000	100,000	0	historical precedent
line 13	ELECTRIC FRANCHISE FEE	328,806	381,847	341,958	420,301	462,331	42,030	est. +10% (weather/price variability)
line 14	SEWER FRANCHISE FEE	100,000	100,000	100,000	100,000	100,000	0	historical precedent
line 15	GAS SERVICE FRANCHISE FEE	116,638	161,228	122,470	201,243	221,368	20,125	est. +5% (weather/price variability)
line 16	TELEPHONE FRANCHISE FEE	1,046	2,709	0	1,000	1,000	0	
line 17	CABLE FRANCHISE FEE	72,061	62,961	70,000	50,361	40,000	-10,361	est. -20% year over year (tv viewing trends)
line 18	**FRANCHISE TOTAL**	**718,551**	**808,745**	**734,428**	**872,905**	**924,699**	**51,794**	
line 20	COURT FINES	77,182	74,159	100,243	100,243	110,000	9,757	(full staff/ population growth)
line 21	COURT COSTS	28,900	33,510	37,569	37,569	35,000	-2,569	(full staff/ population growth)
line 22	POLICE TRAINING FEE	2,998	3,424	3,897	3,897	3,500	-397	~10% of court costs
line 23	COURT SYS ENHANCEMENT FEE	1,813	2,079	2,356	2,356	2,100	-256	~6% of court costs
line 24	COURT SVCS ASSESSED FEE	1,799	2,043	2,338	2,338	2,100	-238	~6% of court costs
line 25	JAIL FEE REIMBURSEMENTS	1,212	1,476	1,000	1,000	1,000	0	est. based on historical trend
line 26	FINGERPRINTING FEE	0	0	0	0	0	0	no longer provide service
line 27	POLICE REPORT FEES	2,140	4,247	2,000	2,000	2,000	0	
line 28	FALSE ALARM FEES	25	0	100	100	100	0	
line 29	**FINES & FEES TOTAL**	**116,068**	**120,936**	**149,504**	**149,504**	**155,800**	**6,296**	
line 31	BUILDING PERMITS	192,156	616,472	205,000	205,000	200,000	-5,000	2022 was abnormal. 2024 est. based on 2023 ytd
line 32	ZONING,PLATTING,VARIANCE	12,115	6,730	5,000	5,000	5,000	0	need based variability
line 33	CONTRACTORS LICENSES	23,025	28,175	23,000	23,000	23,000	0	look to fee schedule for increases
line 34	ADMINISTRATIVE FEES	18,800	161,115	150,000	150,000	375,000	225,000	est. 5% admin fee on $7.5M/ $25K in IRB fees
line 35	IRB ORIGINATION FEES	0	180,000	0	0	0	0	need based variability
line 36	BUSINESS LICENSES	3,585	3,115	3,000	3,000	3,000	0	
line 37	COMMUNITY ROOM RENTAL	2,490	2,730	2,500	0	0	0	no longer provide service
line 38	ANIMAL LICENSES	530	0	0	0	0	0	no longer provide service
line 39	GARAGE SALES	216	186	100	100	150	50	
line 40	FIREWORKS PERMITS	14,000	14,000	14,000	18,184	18,184	0	fee by square footage
line 41	**PERMITS & LICENSES TOTAL**	**266,917**	**1,012,523**	**402,600**	**404,284**	**624,334**	**220,050**	
line 43	RECREATION PROGRAM FEES	31,558	73,832	53,750	55,000	55,000	0	
line 44	RECREATION DAY FEES/PASS	7,190	7,070	7,000	7,000	7,000	0	
line 45	RECREATION DAY CAMP FEES				10,000	10,000	0	
line 45	RECREATION FAC RENTAL INC	2,186	2,002	1,000	2,000	3,000	1,000	
line 46	RECREATION CONCESSIONS	1,075	1,383	1,500	1,500	2,000	500	
line 48	**RECREATION TOTAL**	**51,090**	**86,787**	**63,250**	**75,500**	**77,000**	**1,500**	
line 50	CP POOL - DAY FEES	8,260	12,214	10,000	15,000	15,000	0	
line 51	CP POOL - PROGRAMS/LESSONS	7,680	6,370	7,000	8,000	8,000	0	
line 52	CP POOL - MEMBERSHIPS	10,623	9,786	10,000	10,000	10,000	0	
line 53	CP POOL - CONCESSIONS	857	1,106	500	500	500	0	
line 54	CP POOL - FACILITY RENTALS	4,250	3,655	3,000	4,000	4,000	0	
line 56	**POOL TOTAL**	**31,670**	**33,131**	**30,500**	**37,500**	**37,500**	0	
line 59	GRANTS - DOJ BULLETPROOF VEST	0	0	10,000	2,145	2,000	-145	fed program for replacement vests
line 60	GRANTS - KDHE WASTE TIRE	0	0	0	1,600	0	-1,600	park benches for disc golf course
line 61	GRANTS - SG CO DEPT AGING	18,000	18,000	18,000	18,000	18,000	0	county program for seniors
line 62	GRANTS - STEP PD OVERTIME	4,906	3,307	1,500	3,000	3,000	0	state program for PD overtime
line 63	GRANTS - USD259/SRO PD	35,754	42,898	42,694	45,936	48,232	2,296	USD259 reimbursement for PD officer
line 63	GRANTS - OPIOID SETTLEMENT	0	0	0	19,628	0	-19,628	
line 64	**GRANTS TOTAL**	**204,773**	**64,205**	**72,194**	**90,309**	**71,232**	-19,077	
line 67	INTEREST ON INVESTMENTS	1,143	25,622	18,000	66,000	60,000	-6,000	
line 68	LEASE PYMT/OLD CITY HALL BLD	35,941	35,941	36,000	36,000	36,000	0	ends 2028
line 69	LEASE PYMTS/SPRINT TOWER	12,687	8,874	10,503	6,371	0	-6,371	ends 2023
line 70	CREDIT CARD FEES	1,717	10,433	5,000	11,000	11,000	0	2.5% charge on transactions over $1K
line 71	MISC. INCOME	17,828	2,729	0	20,000	10,000	-10,000	
line 72	MISC. REIMBURSEMENTS	5,200	6,518	10,000	0	10,000	10,000	
line 73	**MISC. TOTAL**	**76,069**	**90,628**	**80,003**	**139,871**	**127,000**	**-12,871**	
line 75	**GENERAL FUND REVENUES**	**6,865,650**	**7,868,836**	**7,247,090**	**7,870,017**	**8,805,313**	**935,296**	

	ADMINISTRATION	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF	
line 1	SALARIES	489,748	535,499	587,135	595,724	620,708	24,984	Manager, Assist Manager, Attorney, Engineer
line 2	OVERTIME CONTINGENCY	6,044	11,349	2,500	500	500	0	Treasurer, Clerk (6 FT)
line 3	FICA	36,353	37,308	45,107	45,592	47,522	1,930	7.65%
line 4	KPERS	54,587	55,901	55,603	56,200	63,736	7,536	10.26% (fy23 was 9.43%)
line 5	457 EXPENSE	22,077	27,009	29,999	23,293	23,250	-43	
line 6	HEALTH & DENTAL	81,054	93,117	108,413	115,334	126,293	10,959	est +12%
line 7	WORKMANS COMP EXPENSE	915	516	6,788	663	6,500	5,837	
line 8	UNEMPLOYMENT EXPENSE	2,231	991	1,761	1,761	1,860	99	
line 9	**PERSONNEL TOTAL**	**693,008**	**761,692**	**837,306**	**839,067**	**890,369**	**51,302**	
line 11	ACCOUNTING & AUDITING	35,220	32,976	35,000	35,000	30,000	-5,000	audit & arbitrage analysis (move to KMAG)
line 12	COMPUTER SUPPORT	0	0	0	0	4,380	4,380	adobe and Microsoft 365 (market is moving per user)
line 13	CONTRACTUAL SERVICES	11,390	2,257	5,000	5,000	3,500	-1,500	
line 14	LIABILITY INSURANCE	5,456	5,485	6,600	8,000	8,800	800	est. +10% liability insurance; cyber increase
line 15	LEGAL SERVICES	150	0	0	0	0	0	
line 16	COMMUNICATION SERVICES	6,525	5,641	6,500	6,500	6,500	0	internet/VoIP phones/ cell phones
line 17	UTILITIES	3,365	4,378	6,695	5,500	5,500	0	est. (weather/price variability)
line 18	**CONTRACTUAL TOTAL**	**62,106**	**50,736**	**59,795**	**60,000**	**58,680**	**-1,320**	
line 19	PROFESSIONAL DUES/MEMBER	2,873	3,500	4,000	4,000	4,000	0	KACM/ ICMA/ GFOA/ NSPE/ ASCE/ ATTY
line 20	OFFICE SUPPLIES	4,248	2,811	4,500	4,500	5,000	500	
line 21	OFFICE EQUIP/FURNISHINGS	2,342	4,492	7,500	10,000	10,000	0	fy23 reorg, computer replace (x2),
line 22	POSTAGE	1,767	1,191	1,500	1,500	1,500	0	
line 23	PUBLICATIONS/PRINTING	1,423	1,328	1,500	1,500	1,500	0	paper checks, legal notices
line 24	ADVERTISING & MARKETING	0	0	20,000	20,000	20,000	0	eco devo project
line 25	MERCHANDISE TSF OR DIST	1,670	464	1,000	1,000	1,000	0	awards, staff recognition
line 26	UNIFORMS/CLOTHING	0	0	0	0	1,200	1,200	$200/staff X6
line 26	TRAINING & CONFERENCES	7,997	12,557	13,500	13,500	13,500	0	
line 27	**COMMODITIES TOTAL**	**22,319**	**26,343**	**53,500**	**56,000**	**57,700**	**1,700**	
line 28	DEVELOPMENT RESOURCES	17,190	0	10,000	10,000	10,000	0	facility study in fy23
line 29	**CAPITAL OUTLAY TOTAL**	**17,190**	**0**	**10,000**	**10,000**	**10,000**	**0**	
line 31	**ADMINISTRATION DEPT TOTAL**	**794,624**	**838,771**	**960,601**	**965,067**	**1,016,749**	**51,682**	

	PLANNING & ZONING	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF	
line 1	SALARIES	113,940	173,924	231,747	231,747	281,899	50,152	Supervising Director/ Build Inspector, Build Inspector,
line 2	OVERTIME CONTINGENCY	4,661	8,157	3,000	9,000	4,000	-5,000	P&Z Clerk, Admin. Asst., Code Enforcement (5 FT)
line 3	FICA	8,760	13,466	17,958	18,425	21,871	3,446	7.65%
line 4	KPERS	5,054	11,951	22,137	22,712	29,333	6,621	10.26% (fy23 was 9.43%)
line 5	HEALTH & DENTAL	20,802	31,568	49,538	49,538	66,003	16,465	est +12%
line 6	WORKMANS COMP EXPENSE	10,938	4,002	7,122	7,122	7,500	378	
line 7	UNEMPLOYMENT EXPENSE	637	640	695	695	846	151	
line 8	**PERSONNEL TOTAL**	**164,792**	**243,707**	**332,197**	**339,239**	**411,452**	**72,213**	
line 9	COMPUTER SUPPORT	0	0	0	0	4,000	4,000	adobe, esri, Microsoft 365 (market is moving per user)
line 10	CE COMPLIANCE EXPENSES	0	101	5,000	5,000	5,000	0	
line 11	CONTRACTED BUILDING INSP			25,000	25,000	5,000	-20,000	contracted building inspections (will need increased *if integra)
line 12	CONTRACTUAL SERVICES	13,621	19,740	18,000	18,000	5,000	-13,000	iWorq w/backflow ($14K)
line 13	LIABILITY INSURANCE	5,751	7,856	8,642	11,658	14,500	2,842	est. +10% liability insurance, fy23 reorg, (+) vehicle
line 14	COMMUNICATION SERVICES	2,319	3,289	3,500	7,500	8,500	1,000	internet/VoIP phones/ cell phones/ field tablets
line 15	UTILITIES	1,213	1,571	2,060	2,060	2,200	140	est. +3% (weather/price variability)
line 16	**CONTRACTUAL TOTAL**	**22,904**	**32,557**	**62,202**	**69,218**	**44,200**	**-25,018**	
line 17	PROFESSIONAL DUES/MEMBER	693	610	1,500	1,500	1,800	300	IAPMO, NEEC
line 18	OFFICE SUPPLIES	766	2,013	2,000	2,000	2,000	0	CE 2023
line 19	OFFICE EQUIP/FURNISHINGS	3,179	13,089	7,500	7,500	5,000	-2,500	fy23 reorg, computer replace (x2),
line 20	POSTAGE	1,961	2,682	3,000	3,000	3,000	0	certified mail (legal)
line 21	PUBLICATIONS/PRINTINGS	1,706	3,756	2,500	4,000	4,000	0	
line 22	SAFETY EQUIP & SUPPLIES	0	0	600	600	600	0	
line 23	UNIFORMS/CLOTHING	494	339	400	1,000	1,000	0	
line 24	TRAINING & CONFERENCES	464	512	4,000	3,000	3,000	0	
line 25	VEHICLE/EQUIP MAINT/REP	227	492	1,500	1,500	1,500	0	
line 26	PETROLEUM PRODUCTS	912	1,750	2,000	2,200	4,000	1,800	fy23 reorg, (+) vehicle
line 27	**COMMODITIES TOTAL**	**10,400**	**25,243**	**25,000**	**26,300**	**25,900**	**-400**	
line 29	VEH/EQUIP LEASE/PURCHASE	0	5,710	0	0	0	0	
line 30	**CAPITAL OUTLAY TOTAL**	**0**	**5,710**	**0**	**0**	**0**	**0**	
line 32	**PLANNING & ZONING TOTAL**	**198,096**	**307,217**	**419,399**	**434,757**	**481,552**	**46,795**	

	MUNICIPAL COURT	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF	
line 1	SALARIES	43,775	50,255	64,602	64,602	68,027	3,425	Court Administrator/ Police Clerk (1FT)
line 2	OVERTIME CONTINGENCY	604	1,101	1,000	1,000	1,000	0	Assist. Court Clerk (1PT)
line 3	FICA	3,072	3,732	5,019	5,019	5,281	262	7.65%
line 4	KPERS	4,503	4,345	4,455	4,455	5,248	793	10.26% (fy23 was 9.43%)
line 5	HEALTH/DENTAL/LIFE EXPENSE	15,766	15,906	17,497	17,497	20,387	2,890	est +12%
line 6	WORKMANS COMP	166	49	76	76	80	4	
line 7	UNEMPLOYMENT EXPENSE	244	188	194	194	200	6	
line 8	**PERSONNEL TOTAL**	**68,132**	**75,575**	**92,843**	**92,843**	**100,223**	**7,380**	
line 9	COMPUTER SUPPORT	0	0	0	0	700	700	adobe, microsoft 365 (market is moving per user)
line 10	CONTRACTUAL SERVICES	1,978	2,206	2,500	2,500	2,500	0	court interpreter
line 11	COURT APPT ATTY/INVESTIG	4,048	5,004	4,500	7,000	10,000	3,000	new contract (rate per case)
line 12	LIABILITY INSURANCE	1,017	1,037	1,141	1,787	1,966	179	est. +10% liability insurance; cyber increase
line 13	LEGAL SERVICES	22,070	27,632	29,800	29,800	31,000	1,200	Judge ($15K)
line 14	COMMUNICATION SERVICES	1,206	1,010	700	700	700	0	Prosecutor ($10K)
line 15	UTILITIES	1,213	1,571	1,600	1,600	1,600	0	Court Probation Officer ($5K)
line 16	REFUNDS	11	0	250	250	250	0	
line 17	INMATE HOUSING FEES	2,485	9,928	20,000	20,000	15,000	-5,000	fy23 YTD $2K, fy22 $10k,
line 18	**CONTRACTUAL TOTAL**	**34,029**	**48,390**	**60,491**	**63,637**	**63,716**	**79**	
line 20	PROFESSIONAL DUES/MEMBER	143	93	200	200	200	0	
line 21	OFFICE SUPPLIES	824	877	1,000	1,000	1,000	0	
line 22	OFFICE EQUIP/FURNISHINGS	898	1,579	3,000	3,000	3,000	0	computer replace
line 23	POSTAGE	527	456	1,000	1,000	1,000	0	
line 24	PUBLICATIONS/PRINTING	399	206	500	500	500	0	
line 25	TRAINING & CONFERENCES	0	643	1,500	1,500	1,500	0	
line 26	**COMMODITIES TOTAL**	**2,790**	**3,854**	**7,200**	**7,200**	**7,200**	**0**	
line 28	**MUNICIPAL COURT DEPT TOTAL**	**104,951**	**127,819**	**160,534**	**163,680**	**171,139**	**7,459**	

	PARKS & GROUNDS	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF	
line 1	SALARIES	44,845	88,102	87,188	99,167	101,928	2,761	City Arborist
line 2	OVERTIME CONTINGENCY	773	2,831	3,000	2,000	2,000	0	Equipment Operator II (2 FT)
line 3	FICA	3,490	6,926	6,899	7,739	7,950	211	7.65%
line 4	KPERS	4,270	8,569	8,505	9,540	10,663	1,123	10.26% (fy23 was 9.43%)
line 5	HEALTH/DENTAL/LIFE EXPENSE	0	267	0	0	20,094	20,094	est +12% (fy23 pw reorg)
line 6	WORKMANS COMP	2,287	2,045	2,247	2,206	2,500	294	
line 7	UNEMPLOYMENT EXPENSE	260	301	262	262	306	44	
line 8	**PERSONNEL TOTAL**	**55,926**	**109,041**	**108,101**	**120,914**	**145,441**	**24,527**	
	COMPUTER SERVICES	0	0	0	0	600	600	microsoft 365 (market is moving per user)
line 10	MOWING SERVICES	16,143	19,252	17,280	17,280	3,000	-14,280	23 parks mowed by staff; increased repairs, fuel, other for '24
line 11	CONTRACTUAL SERVICES	2,900	22,267	3,500	3,500	5,000	1,500	first aid, shop towels, pest control, bldg. repairs, cleaning
line 12	LIABILITY INSURANCE	7,015	7,073	8,489	8,981	9,879	898	est. +10% liability insurance; cyber increase
line 13	COMMUNICATION SERVICES	1,601	1,618	2,000	1,500	1,500	0	reduced cell phones
line 14	UTILITIES	7,972	8,250	9,500	9,500	9,500	0	
line 15	**CONTRACTUAL TOTAL**	**35,631**	**58,461**	**40,769**	**40,761**	**29,479**	**-11,282**	
line 17	AGRICULT/HORTICULT SUPPLY	823	903	2,000	5,000	5,000	0	grass seed, mulch
line 18	TREES	14,066	10,690	10,000	10,000	10,000	0	
line 19	CHEMICALS	5,307	4,595	5,000	5,000	5,000	0	pre emergent
line 20	IRRIGATION SYSTEMS	1,083	2,704	2,000	2,000	2,000	0	start up/ repair/ winterize
line 21	PROFESSIONAL DUES/MEMBER	105	0	150	150	150	0	
line 22	COMMUNITY RELATIONS/EVENT	0	0	100	100	100	0	
line 23	OFFICE SUPPLIES	279	354	500	500	500	0	
line 24	OFFICE EQUIP/FURNISHINGS	449	631	1,000	1,000	1,000	0	
line 25	POSTAGE	0	0	0	0	0	0	
line 26	PUBLICATIONS	0	39	50	50	100	50	
line 27	CLEANING SUPPLIES	0	268	300	300	300	0	
line 28	SAFETY EQUIP & SUPPLIES	633	350	1,000	1,000	1,000	0	
line 29	UNIFORMS/CLOTHING	475	587	500	2,300	3,650	1,350	uniform rental, boot allowance
line 30	TRAINING & CONFERENCES	22	185	500	500	500	0	
line 31	MINOR EQUIP: TOOLS,ELECT	860	725	2,000	2,000	2,000	0	
line 32	VEH/EQUIP REPAIRS & MAINT	6,028	4,599	6,000	6,000	9,000	3,000	
line 33	PETROLEUM PRODUCTS	3,898	4,876	6,000	6,000	8,000	2,000	
line 34	CONSTRUCTION MATERIAL/SUP	3,802	4,448	1,000	1,000	5,000	4,000	
line 35	SIGNS, MATERIAL/SUPPLIES	0	1,751	1,500	1,500	1,500	0	
line 36	RECREATIONAL EQUIP/SUPPLY	215	780	1,000	1,000	1,000	0	
line 37	**COMMODITIES TOTAL**	**38,045**	**38,485**	**40,600**	**45,400**	**55,800**	**10,400**	
line 39	VEH/EQUIP LEASE/PURCHASES	0	0	0	0	0	0	
line 40	PARK EQUIPMENT	2,335	5,905	5,000	5,000	120,000	115,000	Eagle Lake Park equip and surface
line 41	PUBLIC PARKS IMPROVEMENTS	0	8,153	10,000	10,000	30,000	20,000	benches, park sand, other improvements
line 42	**CAPITAL OUTLAY TOTAL**	**2,335**	**14,058**	**15,000**	**15,000**	**150,000**	**135,000**	
line 44	**PARKS & GROUNDS DEPT TOTAL**	**131,937**	**220,045**	**204,470**	**222,075**	**380,720**	**158,645**	

	POLICE DEPARTMENT	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF	
line 1	SALARIES	672,125	769,859	875,460	875,460	902,533	27,073	Chief, Lieutenant, Sergeant, Detective
line 2	OVERTIME CONTINGENCY	13,701	28,035	25,000	25,000	34,000	9,000	Police Officer (14 FT / 2PT) current levels
line 3	FICA	50,416	58,057	68,885	68,885	71,645	2,760	
line 4	KPERS	60,539	72,552	82,556	82,556	211,719	129,163	23.10% for KP&F
line 5	HEALTH/DENTAL/LIFE EXPENSE	150,232	200,279	245,443	245,443	282,037	36,594	est +12%
line 6	WORKMANS COMP	16,054	17,451	22,777	22,777	24,000	1,223	
line 7	UNEMPLOYMENT EXPENSE	2,460	2,547	2,626	2,626	3,000	374	
line 8	**PERSONNEL TOTAL**	**965,528**	**1,148,780**	**1,322,747**	**1,322,747**	**1,528,934**	206,187	*june workshop total $1,500,506
line 11	COMPUTER SUPPORT SERVICES	2,300	2,288	1,500	1,500	5,100	3,600	adobe, microsoft 365 (market is moving per user)
line 12	VIDEO MANAGEMENT AND STORAGE	0	0	0	0	31,000	31,000	body cam and dash cam storage ($31k)
line 13	CONTRACTUAL SERVICES	40,959	39,354	44,000	44,000	32,000	-12,000	digital ticket ($14k), BEAST software ($3k)
line 14	LIABILITY INSURANCE	39,662	36,045	39,252	41,330	60,000	18,670	cintas, fist aid, copier, other ($15K)
line 15	MEDICAL SERVICES	945	0	1,000	1,000	1,000	0	est. +10% liability insurance; cyber, (+) staff, (+) fleet
line 16	COMMUNICATION SERVICES	11,372	12,359	11,500	11,500	12,000	500	
line 17	UTILITIES	8,085	10,475	13,000	13,000	13,000	0	
line 18	**CONTRACTUAL TOTAL**	**103,323**	**100,520**	**110,252**	**112,330**	**154,100**	41,770	
line 20	PROFESSIONAL DUES/MEMBER	390	2,938	2,600	3,000	3,200	200	IACP, MOCIC, FBI-NAA, FOP $70/person
line 21	COMMUNITY RELATIONS/EVENT	786	1,297	2,500	2,000	2,000	0	National Night Out
line 22	OFFICE SUPPLIES	1,139	1,453	2,500	2,000	2,000	0	BA PD Patches/ Candy (for kids)
line 23	OFFICE EQUIP/FURNISHINGS	1,960	1,170	7,500	7,500	7,500	0	laptop add/ desktop replace
line 24	POSTAGE	190	141	500	200	200	0	
line 25	PRINTING & PUBLICATIONS	1,945	1,468	2,000	1,500	1,500	0	
line 26	SAFETY EQUIP & SUPPLIES	8,722	5,278	6,000	6,000	6,000	0	body armor x4
line 27	MERCHANDISE TSF OR DIST	1,378	103	500	500	500	0	
line 28	UNIFORMS/CLOTHING	17,711	10,528	8,000	12,000	12,000	0	$700/officer plus turnover
line 29	OPIOD SETTLEMENT EXPENSES				19,628		-19,628	grant receipts $19,628
line 30	TRAINING & CONFERENCES	17,069	17,520	19,000	19,000	19,000	0	Lexipol Software ($8K)
line 31	VEH/EQUIP REPAIRS & MAINT	10,452	13,103	15,000	15,000	15,000	0	Verbal De-escalation, Early Intervention,
line 32	PETROLEUM PRODUCTS	19,452	31,552	40,000	40,000	45,000	5,000	Sexual Assault Investigation, Critical Incident mgmt.
line 33	POLICE SUPPLIES	14,879	2,182	18,000	14,000	24,000	10,000	additional tasers, body cams, ammunition ($5k)
line 34	**COMMODITIES TOTAL**	**96,072**	**88,733**	**124,100**	**142,328**	**137,900**	-4,428	
line 34	VEH/EQUIP LEASE/PURCHASE	0	16,249	0	**0**	30,000	30,000	radio encryption ($20k)
line 35	**CAPITAL OUTLAY TOTAL**	**0**	**16,249**	**0**	**0**	**30,000**	**30,000**	
line 36	**POLICE DEPT TOTAL**	**1,164,922**	**1,354,283**	**1,557,099**	**1,577,405**	**1,850,934**	**260,179**	

	RECREATION DEPARTMENT	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF	
line 1	SALARIES	169,400	202,516	206,857	206,857	235,736	28,879	Director, Assistant Director, Program
line 2	OVERTIME CONTINGENCY	0	0	1,000	1,000	1,000	0	Coordinator (2 FT), Rec. Asst. (4 PT), Camp Asst. ($20k)
line 3	FICA	14,106	16,624	17,278	17,278	19,487	2,209	(4 FT / 4PT)
line 4	KPERS	14,221	16,092	18,469	18,469	22,032	3,563	7.65%
line 5	HEALTH/DENTAL/LIFE EXPENSE	21,046	21,670	36,679	36,679	41,080	4,401	10.26% (fy23 was 9.43%)
line 6	WORKMANS COMP	5,906	1,476	1,633	1,633	1,700	67	est +12%
line 7	UNEMPLOYMENT EXPENSE	758	673	675	675	707	32	
line 8	**PERSONNEL TOTAL**	**225,436**	**259,051**	**282,591**	**282,591**	**321,743**	**39,152**	
line 9	COMPUTER SUPPORT	0	0	0	0	1,500	1,500	adobe, esri, microsoft 365 (market is moving per user)
line 10	CONTRACTUAL SERVICES	7,402	11,905	8,000	8,000	8,000	0	copier, pest, background checks, facility, irrigation repairs
line 11	LIABILITY INSURANCE	10,959	12,782	14,060	15,071	16,578	1,507	est. +10% liability insurance
line 12	RECREATION INSTRUCTORS	8,357	12,140	13,000	13,000	13,000	0	day camp instructors paid out of salaries
line 13	JANITORIAL SERVICES	8,190	8,190	7,700	7,700	7,700	0	est. +10%
line 14	COMMUNICATIONS SERVICES	3,834	4,116	3,700	3,700	3,700	0	
line 15	UTILITIES	7,588	10,743	13,000	13,000	13,000	0	
line 16	**CONTRACTUAL TOTAL**	**46,329**	**59,876**	**59,460**	**60,471**	**63,478**	**3,007**	
line 18	AGRICULT/HORTICULT SUPPLY	1,447	3,491	3,000	3,000	4,000	1,000	infield dirt, grass seed
line 19	CHEMICALS	3,299	4,193	4,000	4,000	4,400	400	pre emergent
line 20	PROFESSIONAL DUES/MEMBER	700	780	700	700	700	0	
line 21	COMMUNITY RELATIONS/EVENT	7,603	3,482	12,000	5,000	5,000	0	dog pool party, bel of the ball, volunteer appreciation
line 22	DAY CAMP	0	2,032	5,000	5,000	5,000	0	
line 23	OFFICE SUPPLIES	385	1,116	1,000	1,000	1,000	0	
line 24	OFFICE EQUIP/FURNISHINGS	1,693	2,576	7,500	7,500	7,500	0	computer replace (x2)
line 25	REC CONCESSIONS	486	1,122	500	500	500	0	
line 26	POSTAGE	30	29	100	100	100	0	
line 27	PUBLICATIONS	452	450	400	400	400	0	
line 28	CLEANING SUPPLIES	988	1,376	1,100	1,100	1,100	0	
line 29	MERCHANDISE TSF OR DIST	3,298	6,019	6,000	6,000	6,500	500	youth sports uniforms
line 30	UNIFORMS/CLOTHING	317	1,297	500	500	500	0	
line 31	TRAINING & CONFERENCES	967	2,476	2,500	2,500	2,500	0	
line 32	MINOR EQUIP: TOOLS,ELECT	240	231	1,500	1,500	1,500	0	
line 33	VEH/EQUIP REPAIRS & MAINT	1,389	2,783	2,000	2,000	2,000	0	
line 34	PETROLEUM PRODUCTS	950	2,072	1,200	1,200	1,200	0	
line 35	CONSTRUCTION MATERIAL/SUP	403	1,027	1,500	1,500	1,500	0	
line 36	SIGNS & MATERIALS	340	722	100	100	100	0	
line 37	RECREATIONAL EQUIP/SUPPLY	4,766	4,480	3,000	3,000	3,000	0	game balls, field paint, pickleball nets
line 38	**COMMODITIES TOTAL**	**29,755**	**41,755**	**53,600**	**46,600**	**48,500**	**1,900**	
line 40	BUILDINGS/FIXED EQUIPMENT	0	0	0	3,025	0	-3,025	2023 Heater repair
line 41	RECREATION EQUIPMENT	0	0	0	0	0	0	
line 42	PUBLIC GROUNDS IMPROVEMENT	0	5,000	0	0	0	0	
line 42	**CAPITAL OUTLAY TOTAL**	**0**	**5,000**	**0**	**3,025**	**0**	-3,025	
line 44	**RECREATION DEPT TOTAL**	**301,520**	**365,682**	**395,651**	**392,687**	**433,721**	**41,034**	

	SENIOR CENTER	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF	
line 1	SALARIES	18,000	18,000	18,000	18,000	18,000	0	senior director
line 2	OVERTIME CONTINGENCY	0	0	0	0	0	0	
line 3	FICA	0	0	0	0	0	0	
line 4	KPERS	0	0	0	0	0	0	
line 5	HEALTH/DENTAL/LIFE EXPENSE	0	0	0	0	0	0	
line 6	WORKMANS COMP	0	0	0	0	0	0	
line 7	UNEMPLOYMENT EXPENSE	0	0	0	0	0	0	
line 8	**PERSONNEL TOTAL**	**18,000**	**18,000**	**18,000**	**18,000**	**18,000**	0	
line 11	LIABILITY INSURANCE	1,017	1,037	1,119	1,119	1,231	112	est. +10% liability insurance
line 12	INSTRUCTORS	0	70	500	500	500	0	
line 13	COMMUNICATIONS SVCS	747	980	1,000	1,000	1,000	0	
line 14	UTILITIES	2,021	2,619	2,800	2,800	3,080	280	est. +10%
line 15	**CONTRACTUAL TOTAL**	**3,785**	**4,706**	**5,419**	**5,419**	**5,811**	**392**	
line 17	DUES & MEMBERSHIPS	0	0	200	200	200	0	
line 18	SENIOR PROGRAMS/EVENTS	488	2,601	4,000	0	0	0	
line 19	SENIOR GRANTS/DONATIONS	4,000	0	0	0	0	0	
line 20	OFFICE SUPPLIES	0	127	250	250	250	0	
line 21	OFFICE EQUIP/FURNISHINGS	0	635	250	250	250	0	
line 22	POSTAGE	218	281	300	300	300	0	
line 23	PUBLICATIONS	236	0	50	50	50	0	
line 24	TRAINING & CONFERENCES	0	0	500	500	500	0	
line 25	**COMMODITIES TOTAL**	**4,942**	**3,644**	**5,550**	**1,550**	**1,550**	**0**	
line 27	**SENIOR CENTER TOTAL**	**26,727**	**26,349**	**28,969**	**24,969**	**25,361**	**392**	

	MAYOR & COUNCIL	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF	
line 1	SALARIES	21,125	20,500	21,000	21,000	25,193	4,193	Planning Commission Pay $599 per year.
line 2	FICA	1,158	1,502	1,606	1,606	2,020	414	
line 3	WORKMANS COMP	42	24	25	25	25	0	
line 4	UNEMPLOYMENT EXPENSE	107	0	0	0	0	0	
line 5	**PERSONNEL TOTAL**	**22,431**	**22,026**	**22,631**	**22,631**	**27,238**	**4,607**	
line 7	CONTRACTUAL SERVICES	17,632	16,837	19,000	19,000	19,000	0	Video Tape Meetings ($9K)
line 8	LIABILITY INSURANCE	6,102	4,079	4,079	7,149	7,864	715	Agenda Database ($6K)
line 9	COMMUNICATION SERVICES	2,227	2,181	1,200	1,200	1,200	0	Code Database ($4K)
line 10	UTILITIES	1,213	1,571	2,000	2,000	2,000	0	
line 11	**CONTRACTUAL TOTAL**	**27,174**	**24,668**	**26,279**	**29,349**	**30,064**	**715**	
line 13	PROFESSIONAL DUES/MEMBERSHIPS	10,333	30,770	30,000	30,000	25,000	-5,000	WAMPO ($800)
line 14	COMM RELATIONS/EVENTS	369	752	500	500	500	0	LKM ($4,300)
line 15	OFFICE SUPPLIES	618	1,006	1,000	1,000	1,000	0	REAP ($2,400)
line 16	OFFICE EQUIP/FURNISHINGS	11,223	2,009	1,000	1,000	1,000	0	Sedg Co Assoc of Cities ($150)
line 17	POSTAGE	35	196	100	100	100	0	Wichita Regional Chamber ($900)
line 18	PRINTING & PUBLICATIONS	556	1,354	1,200	1,200	1,200	0	K-254 Corridor ($500)
line 19	MERCH FOR TSF OR DIST	1,420	863	1,000	1,000	1,000	0	Bel Aire Chamber (~~$20,000~~ $15,000)
line 20	TRAINING & CONFERENCES	2,264	5,325	4,000	4,000	5,000	1,000	LKM Conference
line 21	**COMMODITIES TOTAL**	**26,817**	**42,275**	**38,800**	**38,800**	**34,800**	**-4,000**	
line 23	**MAYOR & COUNCIL DEPT TOTAL**	**76,422**	**88,969**	**87,710**	**90,780**	**92,102**	**1,322**	

	NON-DEPARTMENTAL	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF	
line 1	SALARIES	0	260	0	0	0		
line 2	HEALTH/DENTAL/LIFE EXPENSES	9,167	833	0	0	0		
line 3	**PERSONNEL TOTAL**	**9,167**	**1,093**	**0**	**0**	**0**	**0**	
								cc fees moved to utilities ($10K in revenue to support)
line 7	CREDIT CARD PROCESSING FEE	23,319	48,783	38,000	50,000	15,000	-35,000	service contract ($64K)
line 8	ACCOUNTING & AUDITING	0	0	0	0	0	0	fee based projects ($15K)
line 10	COMPUTER SUPPORT SVCS	46,883	117,203	75,000	100,000	100,000	0	(+) security shield ($20K)
line 11	CONTRACTUAL SVCS	50,680	50,550	59,000	59,000	59,000	0	mowing of public lands ($10K)
line 12	LIABILITY INSURANCE	4,179	3,464	0	0	0	0	accounting software ($20K)
line 13	JANITORIAL SVCS	23,258	23,140	26,000	26,000	26,000	0	document storage software ($4K)
line 14	COMMUNICATIONS SVCS	1,906	1,497	1,200	1,200	1,200	0	copier, HVAC maintenance/repair,
line 15	UTILITIES	288	962	500	500	1,000	500	storage unit
line 16	**CONTRACTUAL TOTAL**	**150,513**	**245,599**	**199,700**	**236,700**	**202,200**	**-34,500**	
line 18	PROF DUES/MEMBERSHIP	279	279	300	300	300	0	
line 19	COMM RELATIONS/EVENTS	1,884	788	500	500	500	0	
line 20	OFFICE SUPPLIES	3,284	3,026	2,000	2,000	2,000	0	
line 21	OFFICE EQUIP/FURNISHINGS	13,646	7,403	10,000	10,000	10,000	0	
line 22	POSTAGE	-48	1,028	300	300	300	0	
line 23	CLEANING SUPPLIES	1,289	2,824	2,000	2,000	2,000	0	
line 24	SAFETY EQUIP & SUPPLIES (COVID)	186	189	0	0	0	0	
line 25	MERCHANDISE TSF OR DIST	5,133	5,453	3,000	3,000	3,000	0	
line 26	VEHICLE MAINTENANCE/REPAIR	3,602	5,648	1,500	1,500	1,500	0	
line 27	PETROLEUM PRODUCTS	651	1,527	1,200	1,200	1,200	0	
line 28	CONSTRUCTION MATERIAL/SUP	703	2,866	2,000	2,000	2,000	0	door handles, light bulbs
line 29	**COMMODITIES TOTAL**	**30,609**	**31,030**	**22,800**	**22,800**	**22,800**	**0**	
line 31	SIDEWALK IMPROVMENTS	0	27,121	15,000	15,000	0	-15,000	sidewalk policy (moved to CIP)
line 32	BUILDINGS/FIXED EQUIPMENT	0	3,370	20,000	20,000	20,000	0	ex: bathroom heaters, door replacements
line 33	PUBLIC GROUNDS IMPROVE	78,697	2,284	20,000	20,000	20,000	0	ex: awning replacement, parking lot repair
line 34	**CAPITAL OUTLAY TOTAL**	**78,697**	**32,775**	**55,000**	**55,000**	**40,000**	**-15,000**	
line 36	TRANSFER OUT							
line 38	TO STREETS (Preservation Program)	0	0	0	0	995,000		move from CIP to STREETS (july workshop)
line 38	TO CIP (Other Non-Street Projects)	1,300,000	1,400,000	1,157,871	1,957,871	400,000		
line 39	TO CIP (Sidewalk Improvements)					15,000		
line 40	TO Equipment Reserve	50,000	100,000	100,000	100,000	100,000		large equipment replacement
line 41	**TRANSFERS OUT TOTAL**	**1,350,000**	**1,500,000**	**1,257,871**	**2,057,871**	**1,510,000**		
line 44	**NON-DEPARTMENTAL TOTAL**	**1,618,985**	**1,810,498**	**1,535,371**	**2,372,371**	**1,775,000**		

	CENTRAL PARK POOL	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF
line 1	POOL SALARIES	23,872	22,837	25,000	25,000	25,000	0
line 2	FICA	1,826	1,747	1,913	1,913	1,913	0
line 3	WORKMANS COMP	998	616	644	644	644	0
line 4	UNEMPLOYMENT EXPENSE	36	14	75	75	75	0
line 5	**PERSONNEL TOTAL**	**26,732**	**25,214**	**27,632**	**27,632**	**27,632**	**0**
line 7	CONTRACTUAL SERVICES	1,854	3,861	5,000	5,000	5,000	0
line 8	LIABILITY INSURANCE	1,332	1,387	1,400	1,400	1,400	0
line 9	MEDICAL SERVICES	480	378	500	500	500	0
line 10	COMMUNICATION SERVICES	310	894	500	500	500	0
line 11	UTILITIES	2,699	3,384	3,500	3,500	3,500	0
line 12	**CONTRACTUAL TOTAL**	**6,675**	**9,904**	**10,900**	**10,900**	**10,900**	**0**
line 14	AG/HORTICULTURE SUPPLY	401	0	500	500	500	0
line 15	CHEMICALS	3,735	6,399	8,000	8,000	8,000	0
line 16	OFFICE SUPPLIES	60	1,151	1,000	1,000	1,000	0
line 17	POOL CONCESSIONS	282	590	700	700	700	0
line 18	CLEANING SUPPLIES	242	269	400	400	400	0
line 20	UNIFORMS/CLOTHING	1,033	464	500	500	500	0
line 21	TRAINING/CONFERENCES	27	0	0	0	0	0
line 23	MINOR EQUIP/TOOLS	169	116	1,500	1,500	1,500	0
line 24	EQUIPMENT REPAIRS/MAINT	326	26	1,000	1,000	1,000	0
line 25	RECREATIONAL EQUIP/SUPPLY	3,641	0	400	400	400	0
line 26	**COMMODITIES TOTAL**	**9,916**	**9,014**	**14,000**	**14,000**	**14,000**	**0**
line 28	POOL IMPROVEMENTS	14,900	0	0	0	0	0
line 29	**CAPITAL OUTLAY TOTAL**	**14,900**	**0**	**0**	**0**	**0**	**0**
line 36	TRANSFER OUT						
line 38	2014B Pool Debt (Ends 2031)	24,775	53,989	52,539	52,539	53,293	754
line 42	**TRANSFERS OUT TOTAL**	**24,775**	**53,989**	**52,539**	**52,539**	**53,293**	**754**
line 31	**CENTRAL PARK POOL DEPT TOTAL**	**82,999**	**98,122**	**105,071**	**105,071**	**105,825**	**754**

	COMMUNICATIONS & HR	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF	
line 1	SALARIES	127,333	130,981	147,744	174,472	226,171	51,699	Director, City Clerk, (+) Marketing Specialist*
line 2	OVERTIME	0	0	1,000	0	1,000	1,000	Admin. Asst. (PT) (3 FT/ 1 PT)
line 3	FICA	9,365	9,562	11,379	13,347	17,379	4,032	
line 4	KPERS	11,915	11,968	12,332	14,838	19,589	4,751	
line 5	HEALTH/DENTAL/LIFE EXPENSE	30,824	31,474	34,621	44,659	50,018	5,359	
line 6	WORKMANS COMP	374	154	173	173	200	27	
line 7	UNEMPLOYMENT EXPENSE	494	312	443	443	679	236	
line 8	**PERSONNEL TOTAL**	**180,306**	**184,451**	**207,692**	**247,932**	**315,036**	**67,104**	
line 9	COMPUTER SUPPORTS/SOFTWARE	0	0	500	500	1,200	700	adobe and microsoft 365 (market is moving per user)
line 10	CONTRACTUAL SVCS	100	10,744	11,500	11,500	12,000	500	benefit insurance broker ($10K); laserfiche support
line 11	LIABILITY INSURANCE	2,387	2,164	2,281	2,979	4,600	1,621	est. +10% liability insurance
line 12	COMMUNICATION SERVICES	991	1,187	1,000	1,000	1,250	250	
line 13	UTILITIES	678	860	1,500	1,500	1,500	0	
line 14	REIMBURSEMENTS	0	0	0		0	0	
line 15	**CONTRACTUAL TOTAL**	**4,156**	**14,955**	**16,781**	**17,479**	**20,550**	**3,071**	
line 17	PROF DUES/MEMBERSHIPS	500	824	2,000	2,000	2,000	0	IPMA, 3CMA, IIMC, GSMO
line 18	EMPLOYEE RELATIONS/EVENTS	0	1,894	1,500	4,000	4,000	0	employee events
line 19	OFFICE SUPPLIES	416	482	1,000	1,500	1,200	-300	23 higher due to filing projects
line 20	OFFICE EQUIP/FURNISHINGS	1,303	2,347	1,500	6,500	6,500	0	office furniture, computer replace (x2)
line 21	POSTAGE	10	389	200	200	200	0	
line 22	PRINTING & PUBLICATIONS	6,213	6,072	7,000	7,000	7,000	0	BA Breeze/ other
line 23	ADVERTISING & MARKETING	6,998	12,794	12,000	12,000	15,000	3,000	BA website ($10k) , all job postings, social media tools ($600)
line 24	MERCH FOR TRANS/DISTRIB	748	2,292	2,000	500	500	0	
line 25	UNIFORMS/CLOTHING					700	700	
line 26	TRAINING & CONFERENCES	2,803	1,272	2,500	2,500	4,000	1,500	3CMA (city-county communications & marketing association)
line 27	SIGNS MATERIALS & SUPPLIES	0	5	500	0	0	0	HR, laserfiche training.
line 28	**COMMODITIES TOTAL**	**18,990**	**28,371**	**30,200**	**36,200**	**41,100**	**4,900**	
line 29	VEH/EQUIP LEASE/PURCHASE	0	0	0	0	0	0	
line 30	**CAPITAL OUTLAY TOTAL**	**0**	**0**	**0**	**0**	**0**	**0**	
line 32	**COMMUNICATIONS & HR TOTAL**	**203,452**	**227,777**	**254,673**	**301,611**	**376,686**	**75,075**	

	LAND	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF	
line 1	CONTRACTUAL SERVICES	25,560	51,496	15,000	15,000	15,000	0	Engineering, due diligence
line 2	LIABILITY INSURANCE	127	127	0	0	0	0	
line 5	UTILITIES	551	0	0	0	0	0	
line 6	REIMBURSEMENTS	27,004	4,628	0	0	0	0	Home Incentive Program
line 7	**CONTRACTUAL TOTAL**	**53,242**	**56,252**	**15,000**	**15,000**	**15,000**	**0**	
line 9	PUBLICATIONS/PRINTING	2,092	243	0	0	0	0	
line 10	ADVERTISING & MARKETING	2,400	3,868	0	0	0	0	
line 11	REAL ESTATE TAXES	1,816	933	0	0	0	0	
line 12	SPECIAL ASSESSMENTS	165,519	77,389	78,000	78,000	78,000	0	city hall, remaining PBC land, other specials
line 13	**COMMODITIES TOTAL**	**171,827**	**82,433**	**78,000**	**78,000**	**78,000**	**0**	
line 15	PUBLIC GROUNDS IMPROVEMENT	0	0	0	0	0	0	
line 16	**CAPITAL OUTLAY TOTAL**	**0**	**0**	**0**	**0**	**0**	**0**	
line 18	TRANSFER OUT							
line 19	2021A Land Debt (Ends 2034)	1,122,364	999,877	1,155,160	1,155,160	1,156,660	1,500	
line 37	2014A City Hall (Ends 2031)	227,025	265,650	268,800	268,800	265,700		
line 22	Edgemoor, Gunnison, 45th (2017A)	100,816	100,851	100,949	100,949	101,013	64	
line 23	37th Street (2019A)	47,792	56,564	59,287	59,287	53,516	-5,771	
line 24	Eco Devo Projects (2019B)	163,867	161,165	163,465	163,465	160,595	-2,870	
line 25	Woodlawn Engineering (2020B)	0	40,500	36,251	36,251	40,469	4,218	
line 26	Refi 2012A and 2013D (2021A)	0	0	78,262	78,262	69,047	-9,215	
line 27	Woodlawn Construction (2021C)	0	156,926	155,956	155,956	158,256	2,300	
line 27	Woodlawn Construction (2023A)	0	0	0	0	150,000	150,000	
line 27	KDOT Rail	0	0	46,525	46,525	46,525	0	
line 27	Land Bank	0	135,000	135,000	135,000	0	-135,000	land across from city hall
line 31	**TRANSFERS OUT TOTAL**	**1,735,220**	**1,993,922**	**2,199,655**	**2,199,655**	**2,201,781**	**5,226**	
line 33	**LAND DEPARTMENT TOTAL**	**1,960,289**	**2,132,607**	**2,292,655**	**2,292,655**	**2,294,781**	**5,226**	
line 35	**GENERAL FUND EXPENDITURES**	**6,664,923**	**7,598,138**	**8,002,203**	**8,943,128**	**9,004,569**	**648,562**	

GENRAL FUND SUMMARY	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF
Property Tax:	3,202,287	3,336,694	3,700,561	3,700,561	4,370,477	669,916
Sales Tax	1,613,418	1,805,999	1,509,994	1,886,088	1,904,949	18,861
Motor Vehicle Tax:	476,634	474,480	450,000	450,000	450,000	0
Other Taxes:	108,173	34,709	54,056	63,495	62,322	(1,173)
Franchise Fees:	718,551	808,745	734,428	872,905	924,699	51,794
Fines and Fees:	116,068	120,936	149,504	149,504	155,800	6,296
Permits, Fees & Licenses:	248,117	671,408	252,600	254,284	249,334	(4,950)
IRB Origination & 5% Admin Fees:	18,800	341,115	150,000	150,000	375,000	225,000
Recreation and Pool:	82,760	119,918	93,750	113,000	114,500	1,500
Grants:	204,773	64,205	72,194	90,309	71,232	(19,077)
Other Revenues:	76,072	90,628	80,003	139,871	127,000	(12,871)
Total Revenue	**6,865,653**	**7,868,836**	**7,247,090**	**7,870,017**	**8,805,313**	**935,296**
Salaries & Benefits:	2,429,456	2,848,631	3,251,740	3,313,596	3,786,067	472,471
Contractual Services:	549,866	706,624	667,048	721,264	698,178	(23,086)
Commodities/Supplies:	462,483	421,180	493,350	515,178	525,250	10,072
Capital Outlay:	113,122	73,793	80,000	83,025	230,000	146,975
Transfers Out:						
Land Debt:	1,122,364	999,877	1,155,160	1,155,160	1,156,660	1,500
Debt Service:	637,631	913,034	962,034	962,034	1,098,414	136,380
Land Bank:	0	135,000	135,000	135,000	0	(135,000)
CIP:	0	1,400,000	1,157,871	1,957,871	415,000	(1,542,871)
Streets:		0	0	0	995,000	
Equipment Reserve:	50,000	100,000	100,000	100,000	100,000	0
Total Expenditures	**5,364,923**	**7,598,138**	**8,002,203**	**8,943,128**	**9,004,569**	**(933,559)**
Fund balance, beginning of year	3,327,086	3,527,815	3,798,513	3,798,513	2,725,402	
Net Change in Fund Balance	200,729	270,698	(755,113)	(1,073,111)	(199,256)	
Fund Balance - ending	3,527,815	3,798,513	3,043,400	2,725,402	2,526,147	
% of Revenues	51%	48%	42%	35%	29%	

	WATER FUND	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF	
line 1	CONNECTION FEES	20,594	22,647	20,000	27,000	21,600	(5,400)	~500 Move In/Move Outs per year (+28% YTD), (-20% for fy24)
line 2	HYDRANT METER RENTAL	0	364	0	2,500	2,500	0	
line 2	FIRE STANDBY	15,566	15,329	15,000	15,000	10,000	(5,000)	
line 3	LATE FEES/SERVICE CHARGES	11,986	16,225	10,000	18,500	18,500	0	
line 4	SPRINKLER TESTING/PERMITS	1,705	11,465	10,000	20,000	15,000	(5,000)	
line 5	WATER SALES COLLECTED	2,740,775	3,070,455	2,781,000	3,223,978	3,385,177	161,199	(+5% total) (+3% per policy, +3% per growth)
line 6	WATER TAP FEE(500)	317,325	445,025	300,000	300,000	240,000	(60,000)	~100 new taps per year (-20% for fy24)
line 9	TRASH ADMINISTRATIVE FEE	35,000	35,000	35,000	35,000	40,000	5,000	
line 10	INTEREST ON INVESTMENTS	63	22,123	5,000	60,000	50,000	(10,000)	
line 11	MISCELLANEOUS INCOME	14,404	23,488	10,000	10,000	10,000	0	
line 12	**REVENUES:**	**3,157,418**	**3,662,121**	**3,186,000**	**3,711,978**	**3,792,777**	**80,799**	
line 14	SALARIES	236,262	241,024	254,059	272,607	298,180	25,573	6FT (on-call pay)
line 15	OVERTIME CONTINGENCY	4,552	6,011	5,500	6,550	5,000	(1,550)	
line 16	FICA	17,823	20,984	19,856	21,592	22,945	1,353	7.65%
line 17	KPERS	23,717	24,022	24,476	27,909	27,132	(777)	10.26% (fy23 was 9.43%)
line 18	HEALTH/DENTAL/LIFE EXPENSE	36,488	41,766	62,429	52,429	65,158	12,729	est +12%
line 19	WORKMANS COMP	7,611	7,600	5,353	5,254	5,964	710	
line 20	UNEMPLOYMENT EXPENSE	957	735	762	762	800	38	
line 21	**PERSONNEL**	**327,410**	**342,142**	**372,435**	**387,103**	**425,179**	**38,076**	
					0.02			
line 22	CREDIT CARD PROCESSING FEE		0	0	0	20,000	20,000	
line 23	COMPUTER SUPPORT	0	0	0	0	4,000	4,000	adobe, Microsoft 365 (market is moving per user)
line 24	FRANCHISE FEE TO GENERAL	100,000	100,000	100,000	100,000	100,000	0	
line 25	CONTRACTUAL SERVICES	110,435	59,223	160,000	160,000	168,000	8,000	RWD
line 26	LIABILITY INSURANCE	24,946	27,991	27,500	30,225	33,550	3,325	Water Master Plan ($50K)
line 27	ENGINEERING SERVICES	0	15,214	1,000		25,000	25,000	KDHE Water Testing
line 28	LEGAL SERVICES	0	46,796	100,000	30,000	30,000	0	~~Folder/Insert Contract~~ InfoSend Contract
line 29	COMMUNICATIONS SERVICES	3,748	4,684	3,000	5,000	5,000	0	Meter Reading Software
line 30	UTILITIES	12,841	12,850	11,500	13,891	15,280	1,389	Janitorial/ Copier/ Folder/ Cintas
line 31	WATER PURCHASED	559,037	636,228	616,390	655,200	720,510	65,310	Base Charge $5K, 141M @ $5.11 (est. 6.5%)
line 32	WATER TREATMENT OP/MAINT	381,094	447,895	496,719	618,416	719,644	101,228	CCUA budget (50/50 split) with SCADA Project
line 33	WATER SERVICE CCUA-Debt serv	523,904	605,515	580,493	580,493	580,493	0	CCUA budget
line 34	**CONTRACTUAL (PRODUCTION)**	**1,716,005**	**1,956,396**	**2,096,602**	**2,193,225**	**2,421,477**	**228,252**	
line 35	AGRICULT/HORTICULT SUPPLY	404	122	500	500	500	0	
line 36	PROFESSIONAL DUES/MEMBER	1,796	1,549	1,100	1,100	1,100	0	
line 37	OFFICE SUPPLIES	842	1,492	2,000	2,000	2,000	0	
line 38	OFFICE EQUIP/FURNISHINGS	542	4,505	7,500	7,500	7,500	0	computer replacements
line 39	POSTAGE	6,926	7,849	8,500	8,500	700	(7,800)	InfoSend Contract
line 40	PUBLICATIONS	1,168	1,841	1,500	1,500	1,500	0	
line 41	CLEANING SUPPLIES	541	343	500	500	500	0	
line 42	SAFETY EQUIP & SUPPLIES	750	1,080	1,000	1,000	1,000	0	
line 43	UNIFORMS/CLOTHING	1,475	726	1,000	5,000	10,000	5,000	uniforms and boots
line 44	TRAINING & CONFERENCES	517	2,082	5,000	5,000	6,000	1,000	
line 45	MINOR EQUIP: TOOLS,ELECT	432	2,480	3,000	3,000	3,000	0	
line 46	VEH/EQUIP REPAIRS & MAINT	15,362	9,037	8,500	8,500	8,500	0	
line 47	PETROLEUM PRODUCTS	5,576	5,778	7,000	7,000	7,000	0	
line 48	CONSTRUCTION MATERIAL/SUP	3,492	2,959	3,000	3,000	3,000	0	fence repair, paint, shop upkeep supplies
line 49	WATER SYSTEM SUPPLIES	0	167,173	0	0	0	0	
line 50	WATER TOWER MAINT	69,546	71,046	73,500	73,500	75,000	1,500	
line 51	WATER SYSTEM MAINT/REPAIR	129,718	279,397	350,000	400,000	500,000	100,000	water main repairs, meter installs (tap fees)
line 52	**COMMODITIES (DISTRIBUTION)**	**239,087**	**559,459**	**473,600**	**527,600**	**627,300**	**99,700**	
line 53	VEH/EQUIP LEASE/PURCHASE	0	3,300	0	0	0	0	
line 54	BUILDINGS/FIXED EQUIPMENT	0	747	0	0	0	0	
line 55	WATER SYSTEM IMPROVE	10,828	491,814	300,000	600,000	0	(600,000)	move to water CIP
line 56	**CAPITAL OUTLAY**	**10,828**	**495,861**	**300,000**	**600,000**	**0**	**(600,000)**	
line 57	DEBT SERVICE PRINCIPAL (KDHE)	38,904	39,748	40,612	40,612	41,494	882	
line 58	DEBT SERVICE INTEREST	10,735	10,027	9,304	9,304	8,565	(739)	
line 59	DEBT SERVICE FISCAL FEES	2,076	1,939	1,799	1,799	1,656	(143)	
line 60	**DEBT SERVICE**	**51,715**	**51,715**	**51,715**	**51,715**	**51,715**	**(0)**	Ends 2034
	TRANSFER OUT							
line 61	CIP (Water)	0	0	0	0	525,000	525,000	move to water CIP
line 62	Equipment Reserve	100,000	100,000	150,000	150,000	150,000	0	
line 63	Bond & Interest	158,437	159,632	99,836	99,836	156,141	56,305	woodlawn water project
line 64	**TRANSFERS OUT**	**258,437**	**259,632**	**249,836**	**249,836**	**831,141**	**581,305**	
line 65	**TOTAL EXPENSE:**	**2,603,482**	**3,665,205**	**3,544,187**	**4,009,478**	**4,356,811**	**347,332**	
line 66	Fund balance, beginning of year	1,857,523	2,411,459	2,408,374	2,408,374	2,110,874		
line 67	Net Change in Fund Balance	553,936	(3,084)	(358,187)	(297,500)	(564,034)		
line 68	Fund Balance - ending	2,411,459	2,408,374	2,050,187	2,110,874	1,546,840		
line 69	% of Revenues	76%	66%	64%	57%	41%		

	SEWER FUND	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF	
line 1	LATE FEES/SERVICE CHARGES	11,713	16,352	10,000	18,500	18,500	0	
line 2	SEWER CHARGES COLLECTED	2,438,210	2,580,848	2,477,289	2,709,891	2,791,188	81,297	(+3%) Per Policy
line 3	SEWER TAP FEE(500)	314,725	444,075	300,000	300,000	240,000	(60,000)	~100 new taps per year (223 YTD)
line 4	INTEREST ON INVESTMENTS	82	32,299	10,000	75,000	75,000	0	
line 5	MISCELLANEOUS INCOME	5,664	0	0	0	0	0	
line 6	**REVENUES:**	**2,770,394**	**3,073,575**	**2,797,289**	**3,103,391**	**3,124,688**	**21,297**	
line 8	SALARIES	263,560	263,849	264,248	284,248	314,405	30,157	5 FT, 2PT, on-call pay
line 9	OVERTIME CONTINGENCY	4,431	5,524	4,000	4,000	5,000	1,000	
line 10	FICA	20,626	17,311	20,521	20,521	24,434	3,913	7.65%
line 11	KPERS	24,513	23,798	25,296	25,296	31,745	6,449	10.26% (fy23 was 9.43%)
line 12	HEALTH/DENTAL/LIFE EXPENSE	53,187	51,527	54,210	54,210	64,991	10,781	est +12%
line 13	WORKMANS COMP	6,324	7,600	7,458	7,321	8,175	854	
line 14	UNEMPLOYMENT EXPENSE	1,084	750	793	793	914	121	
line 15	**PERSONNEL**	**373,725**	**370,359**	**376,526**	**396,389**	**449,664**	**53,275**	
line 9	CREDIT CARD PROCESSING FEE	0	0	0	0	20,000	20,000	
line 10	COMPUTER SUPPORT	0	0	0	0	4,000	4,000	adobe, Microsoft 365 (market is moving per user)
line 11	FRANCHISE FEE TO GENERAL	100,000	100,000	100,000	100,000	100,000	0	
line 12	CONTRACTUAL SERVICES	17,986	26,108	70,000	70,000	78,000	8,000	Sewer Master Plan ($50K)
line 13	LIABILITY INSURANCE	10,151	12,231	10,500	18,159	20,156	1,997	OneCall
line 14	ENGINEERING SERVICES	0	0	2,000	2,000	25,000	23,000	Meter Reading Software
line 15	LEGAL SERVICES	0	138,564	100,000	50,000	50,000	0	~~Folder/Insert Contract~~ InfoSend Contract
line 16	COMMUNICATIONS SERVICES	3,748	4,233	3,500	4,500	4,500	0	Janitorial Service/ Cintas
line 17	UTILITIES	5,666	7,068	4,200	7,000	8,000	1,000	
line 18	SEWER TREATMENT OP/MAINT	544,864	425,203	562,072	562,072	643,567	81,495	CCUA
line 19	SEWER DEBT SVC - CCUA	693,940	706,819	739,604	739,604	740,558	954	CCUA
line 20	SEWER TREATMENT -WICHITA	6,033	10,955	0	0	0	0	
line 21	**CONTRACTUAL**	**1,382,388**	**1,431,180**	**1,591,876**	**1,553,335**	**1,693,781**	**140,446**	
line 23	PROFESSIONAL DUES/MEMBER	1,137	1,429	1,200	1,200	2,000	800	
line 24	OFFICE SUPPLIES	851	737	800	800		(800)	
line 25	OFFICE EQUIP/FURNISHINGS	775	5,684	7,500	7,500	7,500	0	computer replacements
line 26	POSTAGE	5,711	6,287	8,000	8,000	700	(7,300)	InfoSend Contract
line 27	PUBLICATIONS	1,168	1,801	1,500	1,500	1,500	0	
line 28	CLEANING SUPPLIES	35	57	500	500	500	0	
line 29	SAFETY EQUIP & SUPPLIES	1,024	1,246	1,000	1,000	1,000	0	
line 30	UNIFORMS/CLOTHING	925	587	500	4,000	5,000	1,000	
line 31	TRAINING & CONFERENCES	372	854	3,000	3,000	3,000	0	
line 32	MINOR EQUIP: TOOLS,ELECT	1,126	834	1,500	1,500	1,500	0	
line 33	VEH/EQUIP REPAIRS & MAINT	13,823	8,188	8,000	8,000	8,500	500	
line 34	PETROLEUM PRODUCTS	2,427	7,483	8,500	8,500	8,500	0	
line 35	CONSTRUCTION MATERIAL/SUP	3,324	1,772	1,500	1,500	2,000	500	fence repair, paint, shop upkeep supplies
line 36	WASTEWATER SYS SUPPLIES	0	177,101	0	0	0	0	
line 37	LIFT STATION OPERATIONS	54,647	83,279	150,000	150,000	100,000	(50,000)	repairs
line 38	WASTEWATER SYS M/R	16,945	91,298	300,000	300,000	300,000	0	sewer main repairs, meter installs (tap fees)
line 39	**COMMODITIES**	**104,290**	**388,636**	**493,500**	**497,000**	**441,700**	**(55,300)**	
line 41	VEH/EQUIP LEASE/PURCHASE	0	3,300	0	0	0	0	
line 42	BUILDING/FIXED EQUIPMENT	0	747	0	0	0	0	
line 43	SEWER SYSTEM IMPROVEMENTS	0	261,798	300,000	650,000	0	(650,000)	move to sewer CIP
line 44	**CAPITAL OUTLAY**	**0**	**265,845**	**300,000**	**650,000**	**0**	**(650,000)**	
line 46	DEBT SERVICE PRINCIPAL (KDHE)	23,965	24,475	24,997	24,997	25,530	533	
line 47	DEBT SERVICE INTEREST (KDHE)	6,814	6,363	5,903	5,903	5,433	(470)	
line 48	DEBT SERVICE FISCAL FEES (KDHE)	911	851	789	789	726	(63)	
line 49	**DEBT SERVICE**	**31,690**	**31,689**	**31,689**	**31,689**	**31,689**	**(0)**	Ends 2034
line 51	TRANSFER OUT							
line 52	CIP (Sewer)	0	0	0	0	1,770,000	1,770,000	move to sewer CIP
line 53	Equipment Reserve	100,000	100,000	150,000	150,000	150,000	0	
line 54	Bond & Interest	197,717	199,305	150,867	150,867	173,989	23,122	
line 55	**TRANSFERS OUT**	**297,717**	**299,305**	**300,867**	**300,867**	**2,093,989**	**1,793,122**	
line 57	**TOTAL EXPENSE:**	**2,189,810**	**2,787,015**	**3,094,459**	**3,429,281**	**4,710,824**	**1,281,543**	
line 58	Fund balance, beginning of year	2,305,473	2,886,057	3,172,617	3,172,617	2,846,727		
line 59	Net Change in Fund Balance	580,584	286,560	(297,170)	(325,890)	(1,586,136)		
line 60	Fund Balance - ending	2,886,057	3,172,617	2,875,447	2,846,727	1,260,591		
line 61	% of Revenues	104%	103%	103%	92%	40%		

	SPECIAL HIGHWAY (STREETS)	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF	
line 1	STATE FUEL/HIGHWAY TAX	243,294	228,748	230,770	226,260	224,580	(1,680)	state estimate
line 2	COUNTY FUEL/HIGHWAY TAX	105,636	101,498	100,050	99,670	98,920	(750)	state estimate
line 3	TRANSFER IN FROM SOLID WASTE	100,000	100,000	100,000	100,000	200,000	100,000	
line 4	TRANSFER IN FROM GENERAL FUND	0	0	0	0	995,000	995,000	move from CIP to STREETS (july workshop)
line 5	OTHER REVENUES	0	0	0	0	0	0	
line 6	**TOTAL REVENUES:**	**448,930**	**430,246**	**430,820**	**425,930**	**1,518,500**	1,092,570	
line 7	SALARIES	50,027	49,045	50,631	60,234	63,614	3,380	1 FT
line 8	OVERTIME CONTINGENCY	1,455	1,649	3,000	2,000	2,000	0	
line 9	FICA	3,656	3,613	4,103	4,500	4,981	481	7.65%
line 10	KPERS	4,777	4,776	5,057	5,909	6,681	772	10.26% (fy23 was 9.43%)
line 11	HEALTH/DENTAL/LIFE EXPENSE	21,407	23,045	25,349	25,349	27,899	2,550	est +12%
line 12	WORKMANS COMP	2,080	1,956	2,163	2,123	2,300	177	
line 13	UNEMPLOYMENT EXPENSE	272	201	152	152	170	18	
line 14	**PERSONNEL TOTAL**	**83,674**	**84,285**	**90,455**	**100,267**	**107,645**	**7,378**	
line 16	CONTRACTUAL SERVICES	6,748	9,947	7,500	9,000	8,500	(500)	Bridge Inspections $1,000
line 17	LIABILITY INSURANCE	12,344	12,378	13,616	13,616	15,114	1,498	Payne Township $5,000
line 18	ENGINEERING SERVICES	0	0	0	2,000	2,000	0	Janitorial/ Copier/ Folder/ Cintas
line 19	STREET LIGHTING	95,209	97,109	98,000	98,000	98,000	0	
line 20	COMMUNICATIONS SERVICES	1,931	1,784	2,100	1,758	1,800	42	
line 21	UTILITIES	4,353	4,001	5,500	4,200	4,500	300	
line 22	**CONTRACTUAL TOTAL**	**120,585**	**125,219**	**126,716**	**128,574**	**129,914**	**1,340**	
line 24	AGRICULT/HORTICULT SUPPLY	58	0	200	2,154	500	(1,654)	
line 25	OFFICE EQUIP/FURNISHINGS	192	712	500	500	500	0	
line 26	POSTAGE	0	0	50	0	0	0	
line 27	SAFETY EQUIP & SUPPLIES	1,085	1,803	1,000	1,000	1,500	500	
line 28	UNIFORMS/CLOTHING	745	747	500	1,500	2,000	500	
line 29	TRAINING & CONFERENCES	555	683	500	500	700	200	
line 30	MINOR EQUIP: TOOLS,ELECT	1,689	1,353	3,000	3,000	3,000	0	
line 31	VEH/EQUIP REPAIRS & MAINT	24,372	18,170	25,000	15,000	15,000	0	new equipment
line 32	PETROLEUM PRODUCTS	12,347	15,253	15,000	15,000	15,000	0	
line 33	CONSTRUCTION MATERIAL/SUP	3,914	2,320	1,500	1,500	1,500	0	
line 34	SIGNS, MATERIAL/SUPPLIES	8,515	11,985	12,000	12,000	15,000	3,000	replace older street signs
line 35	SNOW & ICE REMOVAL	32,594	44,367	35,000	35,000	35,000	0	weather variable, increase cost of materials
line 36	STREET REPAIR MATERIALS (GRAVEL)	38,562	14,684	10,000	12,000	10,000	(2,000)	gravel, road grader edges
line 37	STREET REPAIR MATERIALS (PAVED)	77,087	46,693	50,000	50,000	50,000	0	mastic machine materials, asphalt, sealing,
line 38	**COMMODITIES TOTAL**	**201,714**	**158,770**	**154,250**	**149,154**	**149,700**	546	
line 39	VEH/EQUIP LEASE/PURCHASE	0	0	0	0	0	0	
line 40	PRODUCTION/CONSTR EQUIP	2,027	747	0	0	0	0	
line 41	PUBLIC GROUNDS IMPROVEMNT	8,867	4,400	5,000	5,000	5,000	0	
line 42	STREETS PRESERVATION PROGRAM	0	0	0	0	995,000	995,000	
line 43	STREET IMPROVEMENTS	1,328	20,062	100,000	100,000	100,000	0	contracted projects/repairs
line 44	**CAPITAL OUTLAY TOTAL**	**12,221**	**25,209**	**105,000**	**105,000**	**1,100,000**	995,000	
line 45	**EXPENSE TOTAL:**	**418,195**	**393,483**	**476,421**	**482,995**	**1,487,259**	**1,004,264**	
line 46	Fund balance, beginning of year	208,117	238,852	275,615	275,615	218,550		
line 47	Net Change in Fund Balance	30,735	36,763	(45,601)	(57,065)	31,241		
line 48	Fund Balance - ending	238,852	275,615	230,014	218,550	249,791		
line 49	% of Revenues	53%	64%	53%	51%	16%		

	STORMWATER FUND	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF	
line 1	LATE FEES/ SERVICE CHARGES	415	573	100	500	500	0	
line 2	RESIDENTIAL FEES	75,673	78,323	75,000	80,000	85,000	5,000	
line 3	COMMERCIAL FEES	11,765	11,548	11,500	11,500	11,500	0	
line 4	INTEREST ON INVESTMENTS	3	0	0	0	0	0	
line 5	**TOTAL REVENUES:**	**87,856**	**90,444**	**86,600**	**92,000**	**97,000**	**5,000**	
line 7	CONTRACTUAL SERVICES	41,484	3,977	5,000	5,000	5,000	0	
line 8	DRAINAGE SYSTEM IMPROVEMENTS	9,153	1,776	446,157	446,157	101,491	(344,666)	ditches and culverts
line 9	**TOTAL EXPENSE:**	**50,637**	**5,753**	**451,157**	**451,157**	**106,491**	**(344,666)**	
line 11	Fund balance, beginning of year	271,738	308,957	393,648	393,648	34,491		
line 12	Net Change in Fund Balance	37,219	84,691	(364,557)	(359,157)	(9,491)		
line 13	Fund Balance - ending	308,957	393,648	29,091	34,491	25,000		

	SOLID WASTE FUND	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET	EST/ FY24 DIFF	
line 26	TRASH FEES COLLECTED	433,684	454,129	440,101	480,000	504,000	24,000	
line 27	RECYCLE FEE COLLECTED	145,551	150,782	146,976	150,000	156,000	6,000	
line 29	**TOTAL REVENUES:**	**579,235**	**604,910**	**587,077**	**630,000**	**660,000**	30,000	
line 31	ADMIN FEE TO WATER	35,000	35,000	35,000	35,000	35,000	0	
line 32	SOLID WASTE SERVICES	313,920	330,234	369,445	369,445	420,000	50,555	
line 33	RECYCLING SERVICES	116,518	121,349	139,732	139,732	180,000	40,268	
line 34	TRANSFER OUT	100,000	100,000	100,000	100,000	200,000	100,000	
line 35	**TOTAL EXPENSE:**	**565,438**	**586,584**	**644,177**	**644,177**	**835,000**	**190,823**	
line 37	Fund balance, beginning of year	232,021	245,818	264,144	264,144	249,967		
line 38	Net Change in Fund Balance	13,797	18,326	(57,100)	(14,177)	(175,000)		
line 39	Fund Balance - ending	245,818	264,144	207,044	249,967	74,967		

	LAND BANK FUND	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET		
line 40	LAND SALES	2,573,738	3,586,738	0	401,147	0		
line 41	INTEREST ON INVESTMENTS	34	23,934	50,000	138,418	125,000		
line 42	TRANSFER IN (FROM GENERAL)	0	135,000	135,000	0	0		
line 43	OTHER REVENUES	32,839	16,721	0	0	0		
line 44	**TOTAL REVENUES:**	**2,606,611**	**3,762,393**	**185,000**	**539,565**	**125,000**		
line 45	CONTRACTUAL SERVICES	238,388	349	0	0	0		
line 46	SPECIAL ASSESSMENTS	437,769	196,869	200,000	5,000	5,000		
line 47	ADD DEBT PRINCIPAL PAYMENT	1,660,000	0	0	0	0		
line 48	**TOTAL EXPENSE:**	**2,336,157**	**197,219**	**200,000**	**5,000**	**5,000**		
line 49	Fund balance, beginning of year	1,349,133	1,619,587	5,184,761	5,169,761	5,704,326		
line 50	Net Change in Fund Balance	270,454	3,565,174	(15,000)	534,565	120,000		
line 51	Fund Balance - ending	1,619,587	5,184,761	5,169,761	5,704,326	5,824,326		

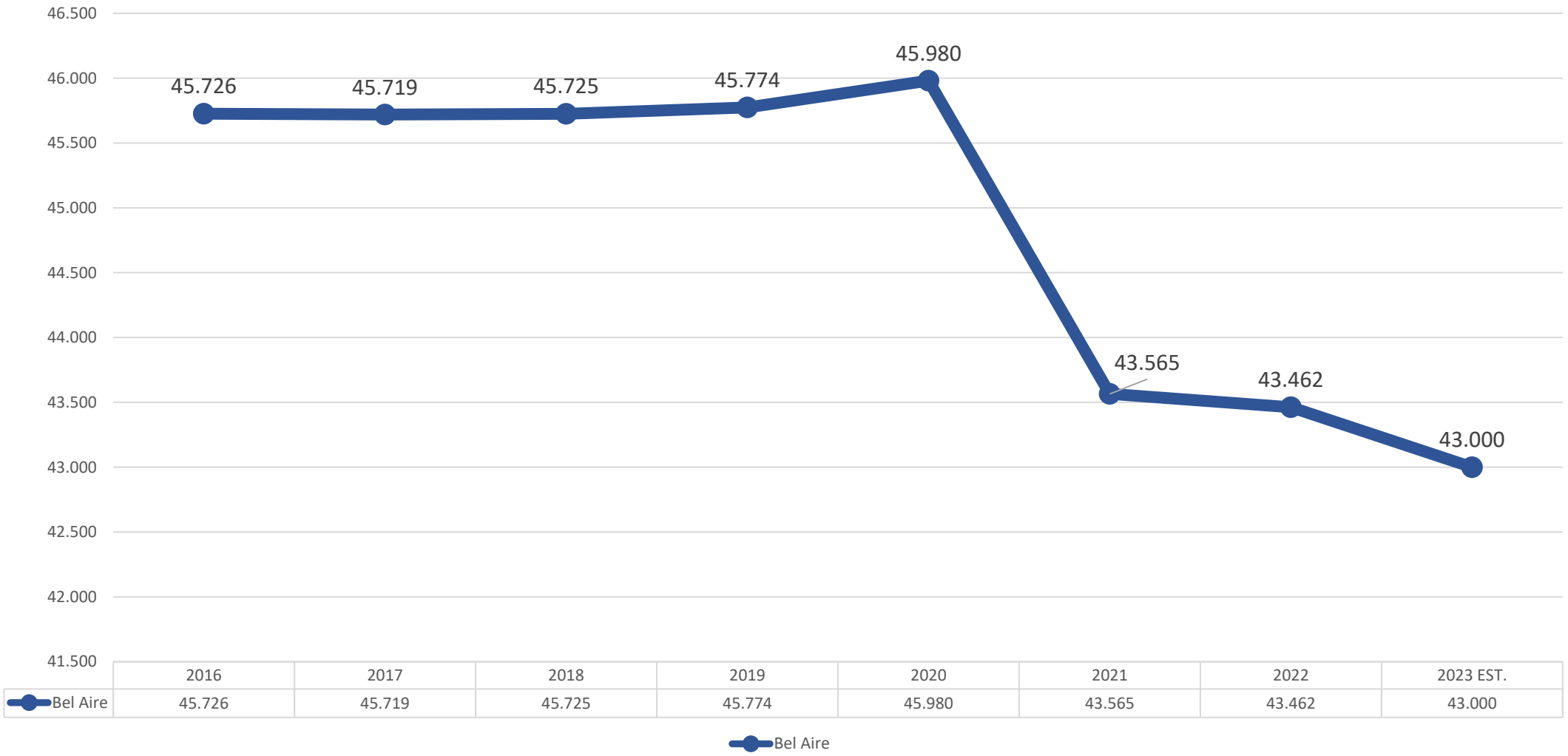
	BOND & INTEREST	FY21 ACTUAL	FY22 ACTUAL	FY23 BUDGET	FY23 EST	FY24 BUDGET
line 1	SPECIAL ASSESSMENTS	2,312,079	2,152,492	2,307,075	2,307,075	2,293,475
line 2	DELINQUENT SPECIALS	98,589	32,477	0	119,478	50,000
line 5	INTEREST ON INVESTMENTS	67	23,974	300	30,204	20,000
line 8	TRANSFER FROM GENERAL	385,831	593,395	640,695	640,695	732,896
line 10	TRANSFER FROM WATER	158,437	159,632	99,836	99,836	156,141
line 11	TRANSFER FROM SEWER	197,717	199,305	150,867	150,867	173,989
line 12	TSF FROM BOND/TN PROCEEDS	7,239	164,481	238,440	238,440	189,200
line 15	**TOTAL REVENUES:**	**3,159,959**	**3,325,756**	**3,437,213**	**3,586,596**	**3,615,701**
line 17	DEBT SERVICE PRINCIPAL	2,470,000	2,505,000	2,317,100	2,317,100	2,415,000
line 18	DEBT SERVICE INTEREST	764,500	924,049	1,101,004	1,101,004	1,321,830
line 22	**EXPENSE TOTAL:**	**3,234,500**	**3,429,049**	**3,418,104**	**3,418,104**	**3,736,830**
line 24	Fund balance, beginning of year	572,942	498,401	395,108	395,107	563,599
line 25	Net Change in Fund Balance	(74,541)	(103,293)	19,109	168,492	(121,129)
line 26	Fund Balance - ending	498,401	395,108	414,217	563,599	442,470

City of Bel Aire

FY2024 Budget Workshop (August 2023)

Ted Henry
Director of Finance

Bel Aire's Total City Levy

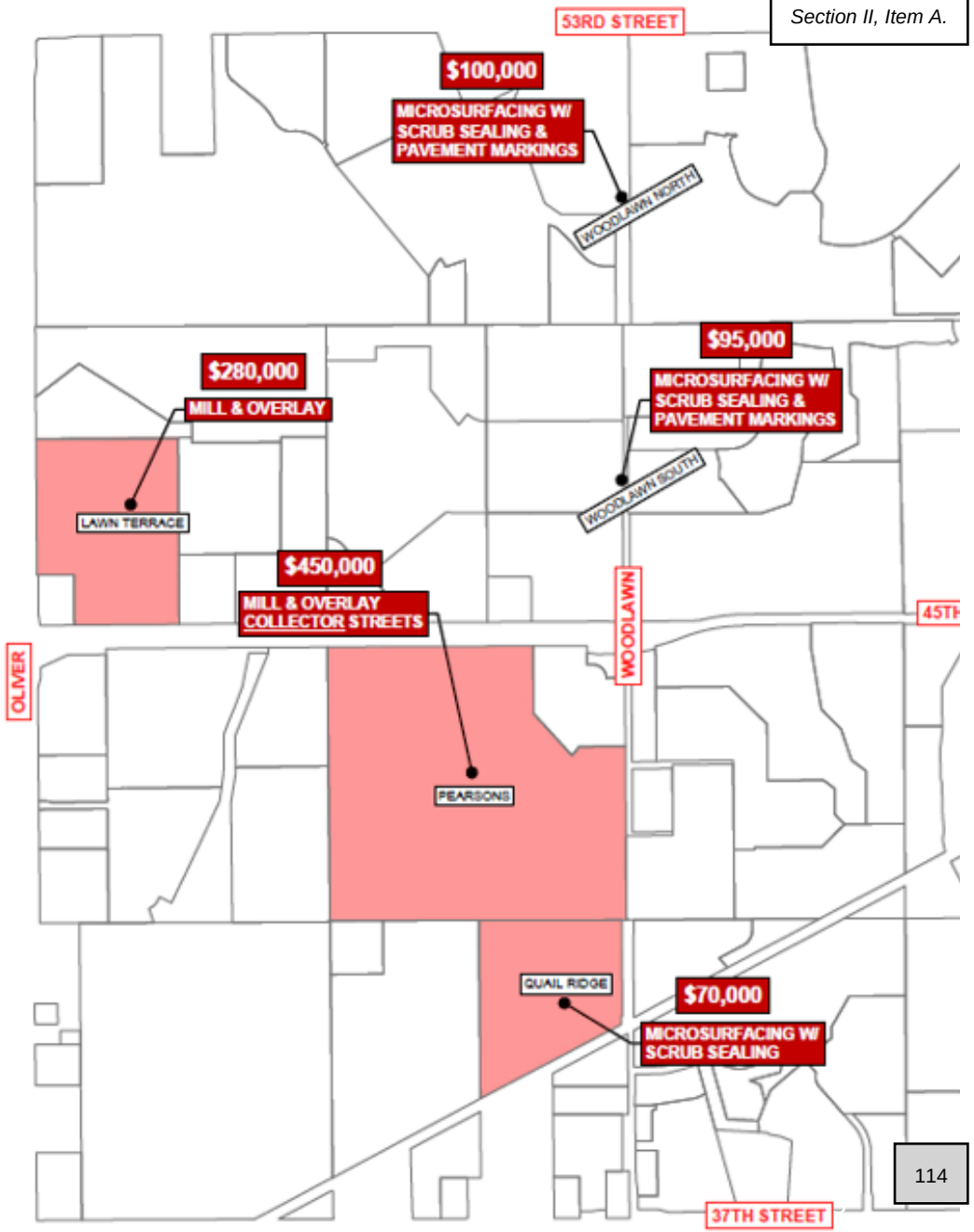


2023								
City	County	Total City	State & County	College	School	Reg. Lib.	Fire Dist.	Total
El Dorado	Butler	58.664	33.59	13.855	64.047			170.16
Augusta	Butler	59.593	33.59	13.855	60.975			168.01
Andover	Butler	43.727	33.59	13.855	67.337			158.51
Valley Center	Sedgwick	54.856	30.87		65.394			151.12
Bel Aire	Sedgwick	43.462	30.87		51.484	1.229	17.91	144.96
Park City	Sedgwick	44.459	30.87		51.484		17.91	144.72
Derby	Sedgwick	46.978	30.87		66.272			144.12
Kechi	Sedgwick	36.687	30.87		51.484	1.229	17.91	138.18
Wichita	Sedgwick	32.762	30.87		51.484			115.12

2024*								
City	County	Total City	State & County	College	School	Reg. Lib.	Fire Dist.	Total
El Dorado	Butler	58.664	33.59	13.855	64.047			170.16
Augusta	Butler	59.593	33.59	13.855	60.975			168.01
Andover	Butler	43.727	33.59	13.855	67.337			158.51
Valley Center	Sedgwick	54.856	30.87		65.394			151.12
Park City	Sedgwick	44.459	30.87		52.182		17.91	145.42
Bel Aire	Sedgwick	43.000	30.87		52.182	1.229	17.91	145.19
Derby	Sedgwick	46.978	30.87		66.272			144.12
Kechi	Sedgwick	36.687	30.87		52.182	1.229	17.91	138.88
Wichita	Sedgwick	32.762	30.87		52.182			115.81
*estimated								

General Fund Budget Goals

- Maintains Fiscal Stability
  - ✓ Provides an appropriate level of reserves
- Lower Property Tax Rate
  - ✓ FY2024 Budget adopts a rate of 43.00 mills (decrease of -.0462 mills)
- Funds Street Improvement Preservation Program
  - ✓ FY2024 Budget fully funds year three of a six-year program to repair roadways.



- **Continue to Provide Quality Services (Focused on Employee Retention)**

  - ✓ FY2024 Budget includes a 2.5% merit step increase with performance bonus program for employees

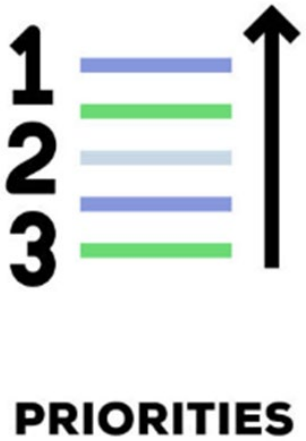
  - ✓ FY2024 Budget includes 1 new fulltime employee to assist with overloaded departments *(Planning & Zoning, Finance and Administration)*

  - ✓ FY2024 Adds KP&F for Police Officers in efforts to retain and attract talent

  - ✓ FY2024 Budget includes 1 new fulltime employee to assist with communications, marketing, HR.

- **Maintain what we have. Prioritize what we need.**

✓ FY2024 Budget adds $135,000 to rehab existing parks.
✓ FY2024 Budget transfers $500,000 to help fund our Capital Improvement Program and Equipment Reserve. These funds are planned and approved by project. Projects include upgrading facilities, vehicles, and equipment. Building new parks, sidewalks, bike paths, improving recreational activities, technology upgrades, and help to support major street improvements

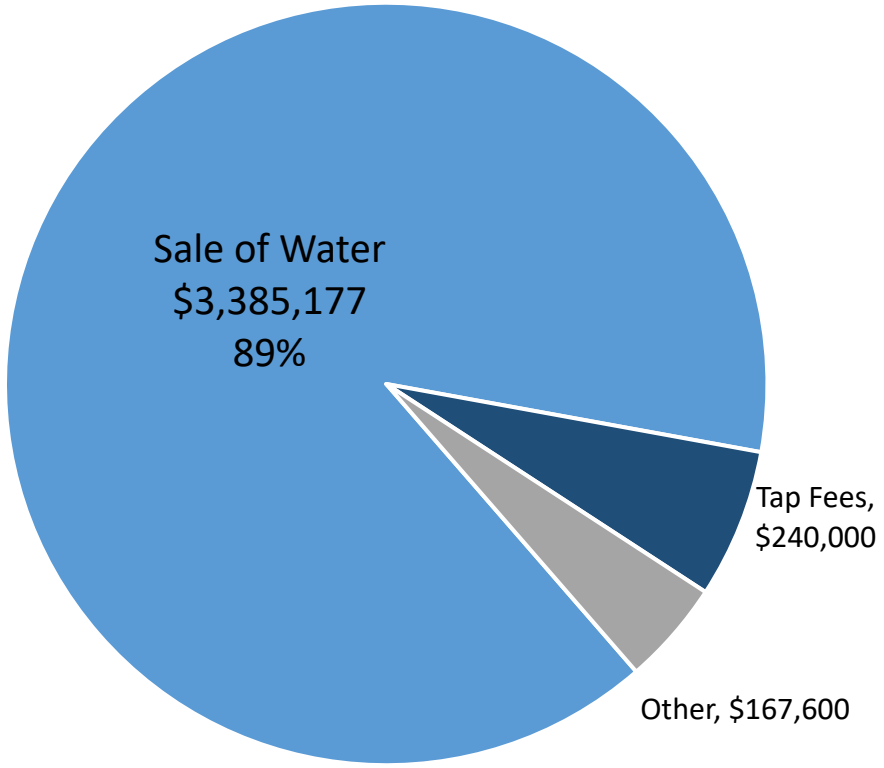


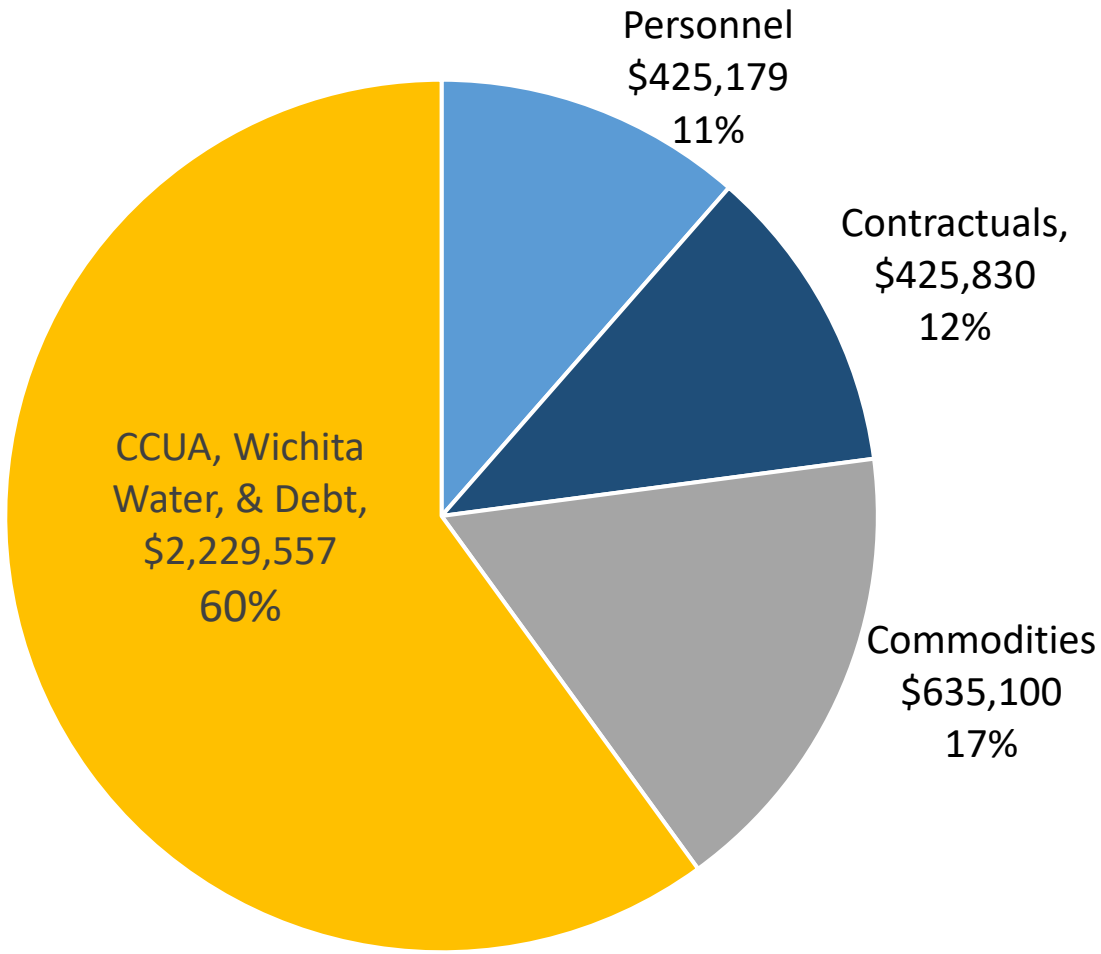




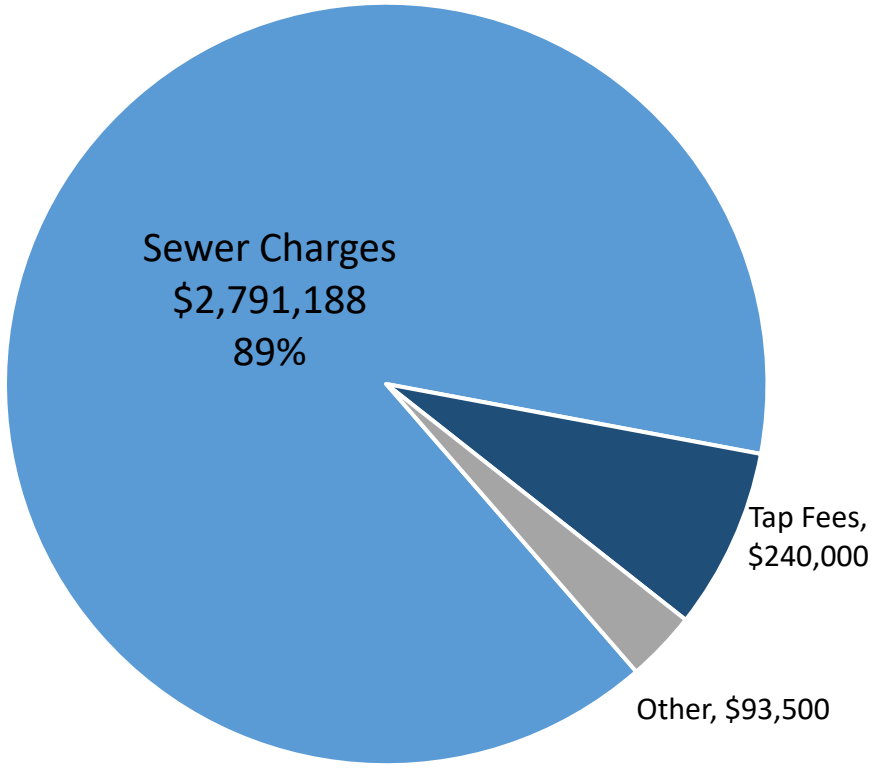


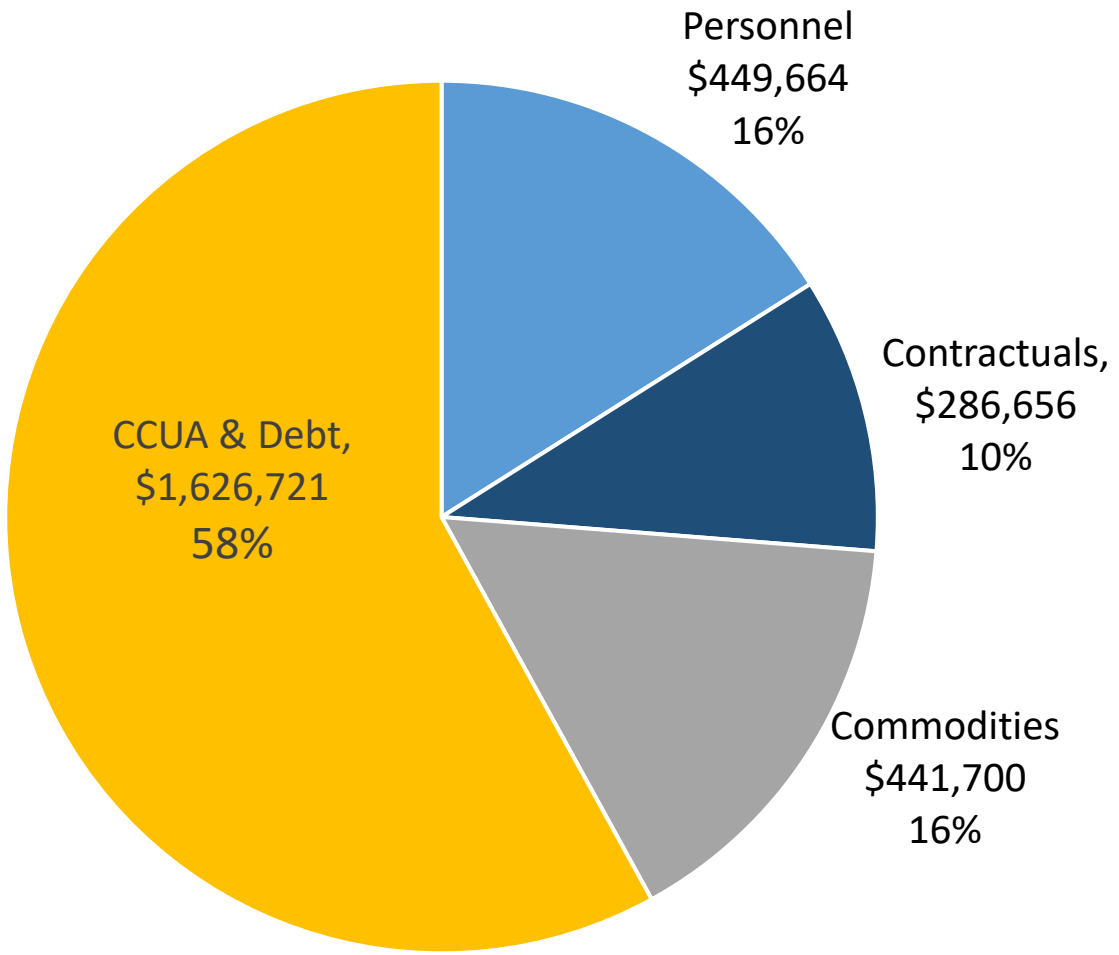

- ✓ insurance
- ✓ IT support (with necessary upgrades)
- ✓ utilities
- ✓ for audit, video storage, legal services, communication, cleaning
- ✓ for bldg. repairs, pest control, outsourced studies, outsourced engineering
- ✓ for rec instructors, mowing, code compliance, other
- ✓ fuel, vehicle repairs, maintenance
- ✓ chemicals, agricultural supplies, trees, irrigation systems,
- ✓ office equipment, furnishings, supplies, postage, publications
- ✓ uniforms, safety equipment, training, memberships, police supplies
- ✓ special assessments (city hall, other), websites/advertising, grants
- ✓ events, recreational equipment, construction materials, other
- ✓ sidewalk program
- ✓ building upkeep (doors and awning replacements, parking lot repairs)





*2 Water Towers and 59 miles of water mains.





*6 Lift Stations and 49 miles of sewer mains.

~~March 2023 – May 2023~~	~~Finance Director and Department Heads discuss budget needs for 2024~~
~~May 9, 2023~~	~~City Council Workshop #1~~
~~June 13, 2023~~	~~City Council Workshop #2~~
~~July 11, 2023~~	~~City Council Workshop #3~~
~~July 12, 2023~~	~~Indication of revenue neutral rate sent to the County Clerk~~
August 8, 2023	City Council Workshop #4
August 10, 2023	Taxpayer Notification Form mailed from County Clerk
August 15, 2023	City Council Meeting; sets the revenue neutral rate hearing, budget hearing, and authorizes publication
September 5, 2023	City Council Meeting; holds revenue neutral rate hearing, passes resolution to exceed, holds public hearings and adopts the 2024 budget.
October 1, 2023	Staff submits certified budget to County Clerk.

(Published in *The Ark Valley News* on August 24, 2023 and August 31, 2023)

CHARTER ORDINANCE NO. _____

A CHARTER ORDINANCE EXEMPTING THE CITY OF BEL AIRE, KANSAS, FROM THE PROVISIONS OF K.S.A. 12-1651, PROVIDING SUBSTITUTE PROVISIONS REGARDING THE DESIGNATION OF THE OFFICAL CITY NEWSPAPER, AND AMENDING AND RESTATING SECTION 2.4.1., CHAPTER 2, ARTICLE 4 OF THE CODE OF THE CITY OF BEL AIRE, KANSAS.

WHEREAS, the City of Bel Aire, Kansas (the "City") is a city of the second class duly organized and existing under the laws of the State of Kansas; and

WHEREAS, pursuant to Article 12, Section 5, of the Constitution of the State of Kansas, cities are empowered to determine their local affairs and government except for legislative enactments applicable uniformly to all cities; and

WHEREAS, K.S.A. 12-1651 applies to the City, and its provisions are not uniformly applicable to all cities in that K.S.A. 12-1651 applies only to cities of the second and third class; and

WHEREAS, the Governing Body of the City hereby determines that it is in the best interest of the City to exempt the City from K.S.A. 12-1651 and to provide substitute provisions for such statute; and

WHEREAS, the City finds it necessary and advisable to amend and restate Section 2.4.1. of Chapter 2, Article 4 of the Code of the City of Bel Aire, Kansas (the "City") relating to the designation of the official city newspaper.

NOW, THEREFORE, BE IT ORDAINED BY THE GOVERNING BODY OF THE CITY OF BEL AIRE, KANSAS:

Section 1. Inapplicability. The City, by virtue of the powers vested in it by Article 12, Section 5, of the Constitution of the State of Kansas, hereby elects to exempt itself from and hereby make inapplicable to it the provisions of K.S.A. 12-1651. Such referenced provision is applicable to the City but is part of enactments not uniformly applicable to all cities and the City finds and determines it necessary and advisable to provide substitute provisions as set forth herein.

Section 2. Substitute Provisions. By virtue of the powers vested in it by Article 12, Section 5 of the Constitution of the State of Kansas, the City hereby enacts the following substitute and additional provisions of K.S.A. 12-1651 by amending and restating Section 2.4.1., Chapter 2, Article 4 of the Code. Section 1-218, Chapter I, Article 2 of the Code is amended and restated to read as follows:

2.4.1. Official Newspaper or Website.

The Governing Body of the City shall designate by resolution from time to time an official city newspaper that meets one of the qualifications set forth below. Once designated the publication method shall be the official city newspaper until such time as the governing body designates a different official city newspaper by resolution.

(a) The newspaper selected as the official city newspaper may be a printed newspaper which has the following qualifications: (i) It must be published at least weekly 50 times each year and have been so published for at least one year prior to the publication of any official city publication; (ii) It must be entered at the post office of publication as second-class mail matter; (iii) More than 50% of the circulation must be sold to the subscribers either on a daily, weekly, monthly or yearly basis; and (iv) It shall have general paid circulation on a daily, weekly, monthly or yearly basis in the county and shall not be a trade, religious or fraternal publication; or

(b) In the alternative, the official city newspaper may be a designated website which has the following qualifications: (i) It must be a public facing website available to website users at all times, except during website maintenance as reasonably determined necessary by the City Administrator; (ii) The website must be the easily accessible from the City's website home page (https://www.BelAireks.gov); (iii) It must be available to website users free of charge; and (iv) All current notices and unrepealed ordinances uploaded to the website for publication shall be uploaded in their entirety during any period they are in effect.

Section 3. Publication. This Charter Ordinance shall be published once each week for two consecutive weeks in the official City newspaper.

Section 4. Effective Date. This is a Charter Ordinance and shall take effect 61 days after final publication, unless a sufficient petition for a referendum is filed and a referendum held on this Ordinance as provided in Article 12, Section 5, Subdivision (c)(3) of the Constitution of the State of Kansas, in which case this Ordinance shall become effective if approved by the majority of the electors voting thereon.

[Remainder of Page Intentionally Left Blank]

PASSED, APPROVED AND ADOPTED by two-thirds majority of the Governing Body of the City of Bel Aire, Kansas and approved by the Mayor this 15th day of August, 2023.

CITY OF BEL AIRE, KANSAS

[seal]

By_____
Jim Benage, Mayor

ATTEST:

By_____
Melissa Krehbiel, City Clerk

Passed: 08/15/2023
Published: 08/24/2023
08/31/2023
Effective: 10/31/2023

EXCERPT OF MINUTES

The Governing Body of the City met at City Hall at the usual place in the City on August 15, 2023 at 7:00 p.m., with Mayor Jim Benage presiding, and the following members of the Governing Body present:

and the following members absent:

Thereupon, and among other business, there was presented to the Governing Body, a Charter Ordinance entitled:

A CHARTER ORDINANCE EXEMPTING THE CITY OF BEL AIRE, KANSAS, FROM THE PROVISIONS OF K.S.A. 12-1651, PROVIDING SUBSTITUTE PROVISIONS REGARDING THE DESIGNATION OF THE OFFICAL CITY NEWSPAPER, AND AMENDING AND RESTATING SECTION 2.4.1., CHAPTER 2, ARTICLE 4 OF THE CODE OF THE CITY OF BEL AIRE, KANSAS.

Thereupon, the Charter Ordinance was considered and discussed; and on motion of _____, seconded by _____, the Charter Ordinance was adopted by a two-thirds majority vote of all members elect of the Governing Body.

Thereupon, the Charter Ordinance having been adopted by a two-thirds majority vote of the members of Governing Body, it was given No. _____ and directed to be signed by the Mayor and attested by the City Clerk; and the City Clerk was directed to cause the publication of the Ordinance twice as set forth therein and required by law.

****

CITY CLERK'S
CERTIFICATION OF EXCERPT OF MINUTES

I hereby certify that the foregoing is a true and correct Excerpt of the Minutes of the proceedings at the August 15, 2023 meeting of the Governing Body of the City of Bel Aire, Kansas.

[seal]

_____
Melissa Krehbiel, City Clerk

RESOLUTION NO. __

A RESOLUTION OF THE CITY OF BEL AIRE, KANSAS DESIGNATING THE CITY'S WEBSITE AS THE OFFICIAL CITY NEWSPAPER PURSUANT TO CHARTER ORDINANCE NO. _____ AND SECTION 2.4.1., CHAPTER 2, ARTICLE 4 OF THE CODE OF THE CITY OF BEL AIRE, KANSAS.

WHEREAS, the City of Bel Aire, Kansas (the "City") approved Charter Ordinance No. ____ on August 15, 2023, effective October 31, 2023, electing to exempt itself from the provisions of K.S.A. 12-1651, providing substitute provisions regarding the designation of the official city newspaper, and amending and restating Section 2.4.1., Chapter 2, Article 4 of the Code of the City of Bel Aire, Kansas (the "Code");

WHEREAS, Section 2.4.1., Chapter 2, Article 4 of the Code provides that the City shall designate by resolution an official city newspaper that meets the qualifications set forth in Section 2.4.1.(a) or 2.4.1.(b) of the Code;

WHEREAS, the Governing Body of the City finds it necessary and desirable to adopt this Resolution designating the official city newspaper as the City's website.

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BODY OF THE CITY OF BEL AIRE, KANSAS:

Section 1. Designation of Official City Newspaper. Pursuant to Section 2.4.1., Chapter 2, Article 4 of the Code, the City hereby designates the official city newspaper to be https://www.BelAireks.gov, commonly referred to as the City of Bel Aire, Kansas website.

Section 2. Effective Date. This Resolution shall take effect from and after its adoption and approval by the Governing Body of the City.

RESOLVED, ADOPTED AND APPROVED by the Governing Body of the City of Bel Aire, Kansas this _____ day of November, 2023.

CITY OF BEL AIRE, KANSAS

[seal]

By_____
Jim Benage, Mayor

ATTEST:

By_____
Melissa Krehbiel, City Clerk

STATE OF KANSAS
OFFICE OF THE ATTORNEY GENERAL

KRIS W. KOBACH
ATTORNEY GENERAL

MEMORIAL HALL
120 SW 10TH AVE., 2ND FLOOR
TOPEKA, KS 66612-1597
(785) 296-2215 • FAX (785) 296-6296
WWW.AG.KS.GOV

July 26, 2023

ATTORNEY GENERAL OPINION NO. 2023-5

Honorable Stephen Owens
State Representative, 75th District
P.O. Box 606
Hesston, Kansas 67062

Re: Official Newspapers in Cities of Second and Third Classes; Qualifications; Kan. Const. Art. 12, § 5, Cities' Powers of Home Rule

Synopsis: K.S.A. 12-1651(a) requires second and third class cities to designate an official city newspaper for the publishing of official city business, provided the newspaper meets the qualifications set forth in K.S.A. 12-1651(b). However, under the home rule provisions of the Kansas Constitution, Kan. Const. Art. 12, § 5, which allows cities to exempt themselves from nonuniform acts of the legislature, a city may exempt itself by charter ordinance from the requirements set forth in K.S.A. 12-1651 because the statute is not uniformly applicable as it applies only to second- and third-class cities.

Dear Representative Owens:

As a member of the Kansas House of Representatives, you ask whether second class cities may exempt themselves pursuant to the Kansas Constitution's home rule powers from K.S.A. 12-1651 which requires such cities to designate an official newspaper for the publication of official city business. You also ask whether such a city may designate its webpage as its "official city newspaper."

For reasons explained below, we conclude that a second class city may exempt itself by charter ordinance from the requirements of K.S.A. 12-1651, and once having done so, may then choose to publish official city business on its own webpage.

The home rule provisions of the Kansas Constitution empower cities to "determine their local affairs."[1] "Taking effect in 1961, the home rule amendment empowered local governments to determine their local affairs and government by ordinance."[2] This constitutional provision is to be liberally construed in order to give cities the largest measure of self-government.[3] While a city's home rule authority is not limitless, any city may by charter ordinance elect to have an enactment of the legislature not apply to such city if the enactment is not uniformly applicable to all cities.[4]

Applying the uniformity element, it is clear on the face of K.S.A. 12-1651 that it is not a uniformly applicable statute. K.S.A. 12-1651 contains two major provisions. Subsection (a) states as follows:

> "The governing body of each city of the second and third class shall designate by resolution a newspaper to be the official city newspaper. Once designated the newspaper shall be the official city newspaper until such time as the governing body designates a different newspaper."

Subsection (b) lists the qualifications a newspaper must have in order to qualify as an official city newspaper.

Subsection (a) refers only to cities of the second and third class, meaning the requirement in the statute is limited to only those types of cities, not to all cities. Thus, the statute is not uniform. For example, cities of the first class must abide by K.S.A. 64-101 when designating an official city newspaper. Accordingly, a city of the second class may exempt itself from the requirements of K.S.A. 12-1651 provided its governing body properly enacts a charter ordinance doing so.

As to the question of whether a city of the second class may instead designate its webpage as its "official city newspaper," we see nothing in state law that prohibits a second class city, once it has exempted itself from K.S.A. 12-1651 by charter ordinance, from publishing official city business on its own website. However, we would note that publication by website would not be sufficient where some other form of publication is specifically mandated.[5]

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[1] Kan. Const. Art. 12, § 5(b).
[2] *Dwagfys Mfg., Inc. v. City of Topeka*, 309 Kan. 1336, 1339, 443 P.3d 1052 (2019).
[3] Kan. Const. Art. 12, § 5(d).
[4] Kan. Const. Art 12, § 5(c); *City of Junction City v. Griffin*, 227 Kan. 332, 337, 607 P.2d 459 (1980).
[5] *See* K.S.A. 79-2929 (governing body of city must allow taxpayers opportunity to be heard on budget by giving notice of such budget meeting by publication in a weekly or daily newspaper); K.S.A. 60-307(d) (service by publication requires notice be published in newspaper in county where lawsuit filed).

Sincerely,

/s/Kris Kobach

Kris W. Kobach
Attorney General

/s/Anthony J. Powell

Anthony J. Powell
Solicitor General

MANAGERS REPORT

DATE August 4, 2023
TO: Mayor Benage and City Council
FROM: Ty Lasher, City Manager
RE: August 8 Workshop Agenda

Utilities:

The city has engaged Burns & McDonnell to revise and expand the city's wastewater pretreatment program. Representatives from Burns & McDonnell will be at the meeting to discuss our current program, identify changes and explain operations.

PEC was hired to complete a study of the current water and wastewater system for Bel Aire. PEC staff will be at the meeting to outline the current system, identify needed upgrades and discuss growth demands. The final report will be used by staff for planning of upgrades and improvements. In addition, the data collected identifies water and sewer infrastructure, locations and other important data that will be utilized by Public Works.

2024 Budget:

Council has spent the last three months reviewing staff's proposed 2024 budget, considering capital improvements, and prioritizing operational needs. Included in the packet is the completed draft budget for final review. This is the last workshop before it will published. Once the budget has been published, the mill rate cannot be raised but can be lowered. Ted and I will have a few closing comments regarding the 2024 budget.