FIVE YEAR CAPITAL IMPROVEMENTS PLAN

2020 – 2024

CITIZENS CAPITAL IMPROVEMENTS REVIEW COMMITTEE

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Bob Lorenzetti
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Randy Groves, Finance Director
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Kathleen Riggs, City Planner
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Community Growth Trends
2020 - 2024

Economic Development & Development Services

Overview

This report is prepared annually to examine trends in service demand, residential and commercial growth, and external economic indicators which may affect the City's decisions on capital investment over the next five (5) years. Both must be reasonably balanced to insure the City is able to meet the future needs of its residents. The information provides an update of the economic conditions experienced locally and compares those to National and State trends. It also examines the amount of new construction, remodeling, and expansion with its impact on the overall economic health of the city.

Economic Outlook Generally

Over the past 2-1/2 years, the City of Fairborn has taken significant steps to increase its economic vitality within the Dayton region. As the Miami Valley continues to grow itself out of the last national multi-year recession, the City feels it can capitalize on the competitive advantage Fairborn has within the Dayton Metropolitan Service Area (MSA). The basis for this outlook includes a variety of foundational facts including:

1. Proximity to Wright-Patterson Air Force Base, and future growth in Area A and B.
2. Proximity to Wright State University (WSU) and the growth of education around key centers of excellence.
3. An abundance of buildable land with easy access to transportation infrastructure.
4. Development potential due to a variety of transportation options including an active rail corridor, key interstate highways I-675/I-70, and proximity to air access.
5. A new, more aggressive internal approach to economic development.
6. Improving residential development throughout the city with increasing price points.
7. Aggressive redevelopment and infrastructure efforts within strategic corridors of the community designed to provide a catalyst to new development.

Economic Development Strategies

State of Ohio

The State of Ohio continues to support economic growth through the Ohio Development Services Agency (ODSA) and JobsOhio, a nonprofit business development organization designated as the lead business recruitment/retention organization for the state. Fairborn continues to actively engage the state and regional organizations frequently to stay up to date on the alterations to support services, programs, and resources available for economic development efforts.

Although the programs seem to change frequently and the service providers are in a constant state of flux, one notable constant is the change in philosophy at the State level. Given the fact that grants have historically been used within the field quite frequently, today the State focuses heavily on low interest loans and job creation income tax rebates through the Job Creation Tax Credit program.

The State is more focused on leveraging its national competitiveness by reducing its tax burden, increasing its support of the workforce system, and acting quicker with regard to business assistance using the JobsOhio network. Thus far this strategy seems to be working as Ohio continues to experience a faster than average rebound to its economy. Nearly all industries have grown significantly, including manufacturing, and statewide unemployment is well below the national average and even pre-recession levels.

Regional and County Cooperation

Fairborn is very active with its regional economic development partners including, but not limited to, the Dayton Development Coalition (DDC) and Jobs Ohio West. Additionally, the City participates in the regional *Business First Program* that focuses on business retention and the partnerships needed to help businesses grow in our communities. Lastly, the City works with the Greene County Department of Development frequently on business recruitment projects as well as a number of business retention activities.

Local Efforts

Business development activity continued to be a major priority in 2018. Business recruitment and retention efforts still remain as part of the overall economic development strategy for the City. Since 2017, business development efforts have focused on attracting startup businesses and entrepreneurs to the Fairborn community. In order to encourage more small business development and investment, the department has created incentive programs and services for the small business community including the *First Steps Construction Assistance Prog*ram, updating its *Business Resource Guide*, creating a strong partnership with the Small Business Development Center (SBDC) at Wright State University and providing space, services and programs for startup businesses and entrepreneurs to connect and grow their businesses. We are also working to market the Fairborn Community and its assets in the digital marketing arena. We have updated both the City's website and the Fairborn Development Corporation's (FDC) website to include more useful information for our business community and residents. We are also utilizing social media more with regular posts to our social media sites. Videos have been created to help market our new programs and services. Other partnership events continue in and around Fairborn to spur economic activity including the Greene County Business Expo and Job Fair that the Fairborn Development Corporation sponsors, the WPAFB Developers Forum, and Dayton Startup Week in which the City of Fairborn has become a title sponsor.

Significant Partners

The City works closely with Wright-Patterson Air Force Base (WPAFB). Although national sequestration actions have taken a toll on the military and the region as a whole, WPAFB has much to be optimistic about moving forward long-term. WPAFB is the region's largest employer and the State's largest, single site employer with over 29,000 direct employees.

Lastly, the City is working closely with Wright State University (WSU). WSU has grown significantly over the years as well and now has over 18,000 students. More programs have been created that correlate with many of the regional economic development efforts in human performance, sensor technology, and commercialization activities thus illustrating the university's importance to the regional development landscape as a whole.

Unemployment Trends

Employment is one of many economic indicators. Fairborn's unemployment consistently follows the general trends seen at the Federal, State, County, and Greater Dayton MSA. Significant

recovery seems to be taking place as rates are now below pre-recession levels. The 2018 unemployment rate for the city hovered near 4%.

Long-Term Economic Development Initiatives
As the Fairborn economic development effort matures so does the strategy moving forward. In 2018, the Economic Development Department and the Community Development Department merged into the Development Services Department so that a coordinated effort can be made on five core areas.
The *Development Services Department* will focus on five core areas.

- First, the department will focus on enhancing business development activity. To accomplish this staff will actively lead efforts within the business attraction, business retention and expansion, and small business development functions. Staff plans to create or alter business assistance tools and strengthen our partnership with local and state partners.

- Second, marketing and public relations activities will get increased attention as staff works to create a local and national marketing presence focusing more on enhancing our digital marketing and social media presence. Special event promotion will also get attention. In addition, the City will look to partner with local property owners in order to cross market property and fill vacant space.

- Third, increasing real estate development through site availability and awareness will be a key to commercial development. The newly created property database and property search tool that is available on the new FDC website will help market available commercial property and land in the community. This is the same property search tool used by the State of Ohio and our information and resources are linked for both sites. Continued utility improvements including the creation of a new Fiber Network Master Plan will add to the cities competitive advantage. Lastly, Fairborn Spark Kitchen Incubator, a business incubator and additional CoShare workspace for startup businesses and entrepreneurs opened in August of 2018.

- Finally, the newly formed Development Services team will work on creating or altering a number of internal programs and policies in order to drive new investment and create a business friendly environment. The City is currently updating multiple planning documents. A revision to the 30-year old Comprehensive Land Use Plan has been completed and the City adopted a new Zoning Code that went into effect on December 7, 2017. With the purchase of new tracking software, EnerGov by Tyler Technology, an online permitting program is expected to help facilitate the application process and address the speed of permitting for faster development. This online permitting should be available to the public by January 1, 2020. Lastly, new incentive programs are in place now that can be utilized by either City Council and/or the Fairborn Development Corporation.

Segment Analysis
Construction Activity – Investment
Construction is another measure of economic vitality. Fairborn has mirrored much of the Dayton region which unfortunately was dealt some significant hurdles over the past number of years, including the 2008-2011 Recession followed by the Federal Sequestration. From 2001 to 2009,

total construction increased from $29.3 million to $36.4 million excluding activity at Wright State University (which totals $90M in the past two years.). In 2014, the City realized $19.3 million in construction. The redevelopment of the Valle Greene Retail Center anchored by the new Kroger Marketplace, and the expansion/reinvestment of a number of commercial, industrial and office buildings was completed in 2017. In addition, construction on the new Menards will begin in 2019, which should bring additional commercial construction to the Dayton-Yellow Springs Road area.

Residential Development

Residential development is becoming more diverse in the City of Fairborn with single-family home sites available, as well as condominium opportunities for every age group. 2018 was a strong year for Fairborn's housing market and the outlook for 2019 and beyond continues to be healthy. CESO, developer of Waterford Landing, has forwarded a new plan to staff for expansion of the Waterford Landing single-family home subdivision beginning in late 2019/early 2020. Continued development of the final section of the Bluffs on Trebein (185 single-family homes valued at over $40 million) and the newly approved Bluffs North, an additional 162 single-family homes will continue on Trebein Road north of Dayton-Yellow Springs Road. Redwood completed their Fairfield Oakes project of 102 luxury rentals at the corner of Commerce Center and Trebein in 2018 and quickly purchased additional acreage and received approval for an additional 69 luxury units. Construction will begin in the third quarter of 2019.

Commercial Development

Commercial investment plummeted during the recession. Small renovations and ancillary buildings have been approved since 2009. However, Fairborn's efforts by economic development staff to identify and redefine its competitive advantage in the Miami Valley is expected to put us on the right path for positive future growth. This is evident with the Kroger Marketplace, Dental Office and Menards developments in Valle Green, as well as the Pepsi Distribution Center and various small commercial projects, to include Dunkin and Tudor's Biscuit World.

Continuing into 2018 and beyond, the City continues its efforts to push for more commercial growth by improving/expanding infrastructure to strategic corridors and aggressively taking on the redevelopment of blighted/abandoned commercial property. We have created a definite buzz around our historic downtown, creating more events and space for entertainment and use in our community's core. Events such as Bluegrass & Brew and WTUE's St. PatROCK's Day continue to attract visitors to our downtown, who we hope with return again and again to visit our shops and restaurant. The City is also exploring new financial tools to facilitate the City's participation in redevelopment and potential incentive programs to encourage desired investment, such as the clean energy program known as PACE.

Housing Redevelopment and Property Maintenance Code Enforcement

The Development Services Department has streamlining their processes and strengthening their resolve for improved permitting services and stronger property maintenance enforcement.

Neighborhood Property Stabilization

While new housing construction is very important to the City, our existing housing stock is an asset to the community. Through property maintenance enforcement efforts, the City works to maintain the quality of existing homes and enhance neighborhoods. Also, the City will be

concluding a new Housing Strategy in the third quarter of 2019 that focuses on the existing housing stock, as well as housing opportunities in the Downtown.

Through funding from the U.S. Department of Housing and Urban Development (HUD), the Community Development Block Grant Program (CDBG) provides resources for the City to address the housing needs of our income eligible residents including housing repairs, home repair tool lending, and resources regarding landlord/tenant issues.

The Ohio Development Services Agency offers a competitive grant that the City has been successful in receiving since 2000. These funds also assist income eligible homeowners with addressing the structural integrity of the home from electric upgrades, HVAC repair or replacement to water line replacements. These funds have been instrumental in assisting our residents with the maintenance of the homes and giving them peace of mind knowing these items have been addressed.

Nuisance Abatement Program

In cooperation with the Fairborn Police, City Council adopted a nuisance abatement program that addresses illegal activities in our residential neighborhoods. Once identified through arrest, the City has the ability to evict tenants and board up properties that continue to foster illegal activity. By actively addressing this type of activity in our community, the City can provide a safer quality of life which also stabilizes property values.

In addition to the above mentioned nuisance abatement program, the City also began to re-utilize Chapter 1339 – Public Nuisance Determination of the City of Fairborn Zoning Code. This is a section of the code that has been underutilized since its establishment in 1976. This section states that any commercial structure that has not been occupied as an operating business in six (6) or more months can be deemed a nuisance commercial property. The code requires that the City of Fairborn Fire Department and Greene County Health Department inspect the property and agree with the City's Zoning Administrator that the commercial property in question is a blighting influence on the city, and that for the health, safety and welfare of the community the building should be demolished. All laws pertaining to proper notification and appeal time for owners of these properties are in effect to ensure their due process. To date, over a half dozen properties have begun this process.

Property Maintenance Code Enforcement

Since 2013, a renewed emphasis on economic development within the City has been the driving force behind changes in the Code Enforcement Division. Currently, the City has three (3) full-time code enforcement specialists and one (1) seasonal tall grass property maintenance inspector.

The City is committed to insuring the building department and code enforcement specialists are utilizing the current National Property Maintenance Code. Every other year, City Council adopts the latest version of the code so that the City can continue to upgrade the quality of the residential neighborhoods and commercial areas.

Code Enforcement continues to focus on a proactive, customer service driven approach to combating blight and neglect in the City. Within their assigned inspection zones, Code Enforcement addresses not only property maintenance issues, but zoning and right-of-way matters. Code Enforcement continues to respond to citizen complaints, but efforts are focused on addressing problems before they become so prominent that residents call in complaints. In 2018, the Code Enforcement Division handled 5,386 cases.

Future enforcement will target areas adjacent to the economic zones identified in the economic development strategy.

Vacant Property Registration
For the past six (6) years, the City has utilized a Vacant Property Registration program. This program requires that any property which has been vacated or abandoned due to foreclosure be registered with the City to ensure the identification of a responsible entity. There is a $100 registration fee which provides resources for staff to inspect the property to ensure it is properly secured and that all safety issues are addressed. Currently, there are 47 active properties on the list. Since its inception, over 400 properties have been registered with the City. The program helps identify properties for the abandoned and blighted program.

Abandoned and Blighted Property Removal Program
For the third fiscal year in a row, City Council appropriated $250,000 for the demolition of abandoned/blighted properties throughout the city. These funds will be used primarily for residential demolition, but also for commercial demolition when appropriate. The removal of abandoned/blighted properties stabilizes neighborhood property values, and deters vandalism and criminal activities. The average cost for demolition for a single family residential home including asbestos abatement is approximately $12,000. To date, the City has demolished over 120 properties since 2011.

Utilizing Fairborn Codified Ordinance Chapter 1315-Nuisance Abatement; Demolition of Structures, the City can put a property owner on notice that if corrective actions are not taken to make their blighted properties structurally sound, secure and maintained, the City will demolish the structure and bill them for the demolition costs. Any remaining costs for demolition that go unpaid will be assessed to the property taxes for that address.

In cases where the City purchased the property prior to demolition, these newly vacant lots can be reused for new homes, sold to adjoining properties or be given to non-profits such as Habitat for Humanity for new construction.

Conclusion
The City has recently taken on a renewed interest in development. This new focus will bring with it a number of new activities aimed at increasing the overall development activity within Fairborn and help revitalize and reshape the community for many years to come.

Commercial interest in Fairborn has been strong and staff will continue to work with developers to locate and/or consider Fairborn for their next location whether it be in our central business district downtown or along Broad Street, or new development opportunities in Valle Greene North, Commerce Center or our Five-Points area.

Residential development is diverse in the City of Fairborn with single-family home sites available as well as condominium opportunities for every age group. Development and redevelopment opportunities are plentiful and the City is committed to seizing these opportunities to ensure Fairborn remains a vibrant community into the future.

The City of Fairborn remains confident that growth in commercial and industrial development will continue. Therefore, the planned improvements listed in this five-year capital plan will be necessary to support the economic growth of our community.

City of Fairborn
Active Housing Developments

Development	*Zoning*	*Price Range*	*Total Lots*
Sanctuary	SR	$250,000 plus	43
The Bluffs at Trebein	PD	$200,000 - $400,000	185
Waterford Landing	PD	$200,000 - $400,000	372

ZONING DISTRICTS

SR Characterized by single family dwellings or duplexes situated on medium-sized lots with a gross density of 3 to 6 dwelling units per acre. Streets should include sidewalks and street trees, and be designed to promote a walkable environment with short blocks.

UER Represents the historic residential heart of Fairborn including a compact, walkable development type at a gross density between 5 and 10 dwelling units per acre with an emphasis on traditional architectural styles and materials.

MDR Housing options at a range of price points and styles, including condominiums, townhomes, row houses, and mid-rise multi-tenant buildings at an average gross density between 10 and 20 dwelling units per acre.

MHP Intended to allow development of manufactured home parks on land identified as appropriate for moderate population residential use.

PD Planned Development encourages ingenuity, imagination and flexibility in planning and designing land areas.

February 2019

Five Year Capital Improvements Plan
Motor Vehicle License Tax Fund (2104)

Revenue Source:

Street Income Tax Levy Funds
Draw from County $5.00 Permissive License Tax Revenue
Municipal $5.00 Permissive License Tax Revenue
Additional $2.50 Permissive License Tax Revenue
Various Federal/State and Local Grants
Interest
Developers' Fees

Projected Growth:

Anticipated 2% Growth Projected in Street Income Tax Levy

Fiscal Year	Beginning Balance	Projected Revenue	Projected Expenditures	Ending Balance
2020	80,932	7,380,320	7,399,220	62,032
2021	62,032	6,606,598	6,564,561	104,069
2022	104,069	3,429,563	2,628,815	904,817
2023	904,817	4,453,174	5,352,040	5,951
2024	5,951	3,327,757	3,205,331	128,377

Recurring Expenditures:

Street Levy Program for Local Residential Streets and Thoroughfares
ADA/Retrofit Handicap Ramps

Target Balance: $200,000

5-YEAR CAPITAL IMPROVEMENT PLAN FUNDING SOURCES

- **Motor Vehicle License Tax Fund** (Fund 2104) – Monies are collected through the following sources:

  (1) The 10-year, one quarter of one percent income tax levy is utilized for repair and resurfacing of local residential streets and thoroughfares.
  (2) A $5 permissive license tax (R.C. 4504.02) is collected on motor vehicles registered to Fairborn residents and distributed to the County, where it is held in escrow. This money is then drawn down by the City on a project basis (R.C. 4504.05(B)(1)).
  (3) An additional $5 permissive license tax (R.C. 4504.172) is collected on motor vehicles registered to Fairborn residents and distributed directly to the City. Monies collected are used on street improvements.
  (4) The City receives an additional 50% ($2.50) of the $5 permissive motor vehicle license tax (R.C. 4504.05(B)(2)(a)) which is distributed directly to the City to be used on street improvements.
  (5) Grants.
  (6) Interest earnings.
  (7) Developers' fees

- **Building & Land Depreciation Reserve Fund** (Fund 2404) - 3% of net income tax receipts collected annually by the City and debt proceeds.

- **General Capital Improvement Fund** (Fund 4301) - 2% of net income tax receipts collected annually by the City and interest.

- **Parks and Recreation Capital Improvement Fund** (Fund 4302) - Monies are collected through the following sources:

  (1) The first $150,000 of the City's annual hotel tax collections and 100% of any collection in excess of $450,000.
  (2) Lease payments from the AT&T cell tower site adjacent to bikeway.
  (3) Interest earnings.
  (4) Vending machine commissions.
  (5) Payments in lieu of park land donations by developers.

- **Water Construction Fund** (Fund 4303) – Transfers from the Water Fund (the water operating fund), water tap and connection fees, debt proceeds, and interest earnings on fund balance.

- **Sewer Construction Fund** (Fund 4305) – Transfers from the Sewer Fund (the sewer operating fund), sewer tap and connection fees, debt proceeds, and interest earnings on fund balance.

5-YEAR CAPITAL IMPROVEMENT PLAN FUNDING SOURCES (continued)

- **Water Depreciation Reserve Fund** (Fund 6401) – Transfers from the Water Fund as needed.

- **Sewer Depreciation Reserve Fund** (Fund 6402) - Transfers from the Sewer Fund as needed.

- **Sanitation Depreciation Reserve Fund** (Fund 6403) - Monies received from transfers from Sanitation Fund to purchase a street sweeper every 10 years.

- **Tax Increment Financing Fund** (Fund 8455) – Tax increment financing is a financing mechanism to provide funding for infrastructure improvements within a designated area, where payments-in-lieu-of property taxes are utilized to pay for the public improvements. The source of revenue in this fund is payments-in-lieu-of-taxes.

- **Public Safety Police/Fire Fund** (Fund 4323) - Monies received from the 10-year, one quarter of one percent income tax levy approved by voters in 2014, to be collected in 2015-2024, is utilized for police, fire, and EMS operations, RITA refund of administrative fees, and transfers from the General Fund.

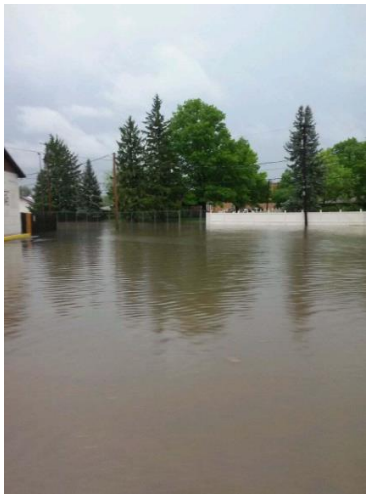
SECTION 3

Stormwater Management

Statement of Strategic Function

To capture and manage stormwater in a manner that minimizes flooding, reduces the impact to the environment, safeguards our citizens and infrastructure and complies with the Ohio Environmental Protection Agency (EPA) policies and regulations.

3.1 Introduction



The City of Fairborn's storm sewer collection system is composed of over 120 miles of main storm sewer piping, more than 3,000 catch basins and a network of ditches and creeks. Even with this substantial system, there are still many areas where storm sewers are minimal or even non-existent due to having been built many years ago prior to more stringent stormwater requirements and less development than seen today.

3.2 Long Range Planning

In the 1980's a Storm Drainage Master Plan was developed and updated on an annual basis. Many of the smaller projects identified in this plan were undertaken to address regionalized flooding issues. However, due the budgetary constraints of an already taxed General Fund the majority of the larger projects were never undertaken and efforts were scaled back to those that could be performed in-house. Recent Stormwater Management Capital Plans have reflected this methodology with typically only three projects identified in each year of the plan (catch basin repair, storm sewer repair and storm sewer system nuisance control) and all other projects from the original master plans and areas of known concern carried as "Other Year" projects.

Over the past twenty years, many communities have adopted a Stormwater Utility Fund as a way to finance stormwater projects. Stormwater issues have been growing every year due to increased population and development, producing more impervious surface. Impervious surfaces create higher runoff rates since the water does not have a chance to permeate into the ground. Increased construction and increased motor vehicles have created more contaminated water runoff draining to our rivers and streams. This is evident from the increased rules and permits implemented by the Ohio EPA to regulate stormwater discharge and water quality.

In 2015 a new stormwater master plan was completed. Using hydraulic modeling, field evaluation, review of past studies and complaints resulted in an appropriate list of

projects in today's dollars and a recommended sequence for installation to assure that one project doesn't just cause a problem downstream. One project from the Stormwater Master Plan was funded for 2016 and – a study of the Beaver Creek flood plain. The findings of the study resulted in a significant reduction in the number of residents in the study area required to carry federally mandated flood insurance. Action on the remaining recommendations of the master plan will depend on Council's determination of the best means of funding identified projects.

Goal: Develop a means for funding stormwater efforts without taxing the general budget.

Long Range Target Objective: Secure adequate funding for required projects by way of developing a stormwater utility program, similar to other utility funds, whereby all properties contributing to the stormwater runoff could be charged a determined rate. See sections below for further detail.

3.3 Stormwater Management

Stormwater management provides for design of surface drainage, flood controls and improved water quality discharging to our streams and lakes. Surface drainage and flood controls are necessary to provide safe transportation along our streets and protection of life and property. Storms occur at various frequencies, durations and intensities. For these reasons, designing for the worst case scenario would be very impractical and very expensive. Instead, engineers use statistical means, good design principles and best management practices to manage stormwater runoff.

Surface drainage systems consist of catch basins, storm manholes, and detention/retention basins, all connected by storm sewer pipes. Basically, catch basins and piping capture surface water runoff from impervious areas and convey it to larger surface basins for detention (dry basin) or retention (wet basin). The basins are typically designed as holding areas where the water is released at a slower, designed rate. This helps prevent flooding of downstream properties.

Flood control systems include construction of reservoirs, levees, detention basins and channel improvements to retain large volumes of water in an effort to significantly reduce the potential for personal injury and property damage.

The City's creeks and ditches are necessary to convey drainage to points of discharge, called outfalls. However, many creeks and ditches in the City are on private property and have no easement for access. Maintenance, design improvements and enforcing regulations become very difficult, as there is no clear ownership of these waterways. Obtaining easements can help ensure the City's ability to better manage stormwater drainage.

As areas develop within the City, potential stormwater problems increase as development brings with it more impervious surfaces, i.e., streets, parking lots, driveways, roofs, etc. which do not allow for the natural absorption of water into the soil. With greater impervious surfaces, there is a significant increase in runoff during and after a rainstorm which must then be collected and conveyed to a detention pond, creek or other holding area. The increased intensity and peak flows greatly impact our sewers and creeks, overloading the system at times. This overload results in flooding of property. In addition, this increased development brings the potential for more soil erosion from construction and oil based fluids spilled onto pavements from vehicles. This source of contamination flushes through our drainageways and storm sewers into streams and rivers, significantly reducing water quality. The contaminated water has a detrimental effect on our ecology.

The City of Fairborn has seven natural drainage areas where stormwater collects:

A. Fairfield – Includes Mitman Park, Peebles Estates, Lang Plat and North Broad Street (south of Central Avenue to Vanderbilt Drive).

B. Hebble Creek – Extreme NE portion of the City, including Rona Hills, Hidden Hills and adjacent areas along Yellow Springs-Fairfield Road.

C. Redbank Ditch - Osborn View, Pleasant View and Del Ray Plats.

D. Beaver Creek – SE portion of the City.

E. Ironwood – Area adjacent to Ironwood Drive. This area drains into a trunk sewer that empties into Redbank Ditch, west of Kauffman Avenue.

F. Kauffman Avenue – Area adjacent to Kauffman Avenue, Wright View and the area immediately east of Wright View.

G. Wright State University – Extreme SW portion of City. Stormwater runoff from this area transits WSU lands.

Goal: Maintain existing storm infrastructure and install new as needed to address areas of concern.

Long Range Target Objective: Address all projects identified in the new Stormwater Master Plan.

Long Range Target Objective: Procure easements for all major storm sewers and waterways.

Long Range Target Objective: Develop and implement a plan to address areas with inadequate storm sewer systems.

3.4 Ohio Environmental Protection Agency (OEPA) Requirements

Since 2002, the City has been required to meet the Phase II regulations of the Ohio Environmental Protection Agency's National Pollutant Discharge Elimination Program (NPDES). Phase II systems are systems having a population of less than 100,000. Requirements of the NPDES-Ph II permit, issued by OEPA, include:

A. Stormwater Public Education
B. Public Involvement
C. Illicit Discharge Detection and Elimination Program (IDDE)
D. Construction Site Stormwater Runoff Controls
E. Post Construction Stormwater Management
F. Pollution Prevention

The City currently has undertaken efforts to address each of the requirements, however many have been stalled awaiting funding sources that had been anticipated when the Stormwater Utility was being considered.

Fairborn will continue to work with other Dayton area municipalities to develop implementation procedures which address the management of stormwater for an entire watershed. This approach will lessen the impact of implementation for individual municipalities. Fairborn is actually located in two different watersheds; the Great Miami Watershed that receives drainage from Hebble Creek via the Mad River and the Little Miami Watershed that receives drainage from Beaver Creek.

Goal: Comply with the requirements of OEPA NPDES Phase II permit.

Routine Target Objective: Conduct annual educational and public involvement activities.

Routine Target Objective: Oversee and enforce construction and post-construction Best Management Practices through the Engineering Division.

Routine Target Objective: Implement and provide training to City employees on Best Management Practices to prevent stormwater pollution.

Long Range Target Objective: Undertake a program to provide an initial and annual inspection of each City Public Works facility to determine compliance with OEPA good housekeeping requirements.

Long Range Target Objective: Conduct a dry weather screening of all stormwater outfalls. This may require additional personnel and/or use of an outside consultant.

3.5 Storm Sewer Utility

As part of the NPDES-Phase II program, the City developed a Stormwater Management Plan. A major component of the plan is development of a stormwater utility. The utility would primarily provide a funding source for the various needed storm related projects and activities, including increased maintenance, storm sewer and relief sewer construction, easement acquisition, culvert construction, ditch maintenance and other NPDES permit requirements.

In 2006, the consulting firm CDM was contracted to perform a feasibility study which resulted in the creation of the *Stormwater Needs Analysis Summary Policy Paper*. The report outlined existing stormwater issues, methods for funding the utility and a utility rate analysis. It was followed by the undertaking in 2008 of a rate structure development by Stantec Engineering which was revisited in 2012 in conjunction with the formation of the Stormwater Advisory Committee.

The SWAC met routinely throughout 2013 to evaluate current known issues, regulations, best management practices, possible fee structures, and implementation processes with a goal of making a recommendation to Council regarding implementation of a utility. While the consensus recommendation of the SWAC was to move forward with the utility, a management decision was made to not pursue the program in light of other important fiscal priorities the city faced at that time. The need for a stormwater utility was further emphasized in the 2015 Stantec planning document which noted it was “crucial to the successful funding of the Stormwater Master Plan.”

In late 2018, Fairborn City Council charged City staff with reexamining the creation of a stormwater utility. At a work session, several funding methodologies for such a utility were presented to Council. The general consensus of Council was to create a flat fee for all residential parcels and then use a sliding fee scale based on impervious square footage for all non-residential parcels. This proposal is currently being vetted throughout the community and no decision has been made at this time. Additional public awareness campaigns will take place in 2019 and action is expected to occur before the end of the year.

Goal: Implement a stormwater utility to provide for appropriate funding of storm system maintenance, infrastructure construction and regulatory compliance.

Long Range Target Objective: Develop and implement a utility program that would bill and collect monthly Stormwater fees from all property owners to allow for implementation of the Stormwater Master Plan.

SECTION 2A

Street Construction, Maintenance and Rehabilitation

Statement of Strategic Function

To provide the citizens with transportation facilities that are safe, well maintained and efficient while utilizing funding resources in a cost effective manner.

2A.1 Introduction

The City of Fairborn's transportation network consists of over 135 centerline miles of concrete and asphalt streets, and represents a replacement value of over $88,000,000.

Proper design, construction, and maintenance of our transportation facilities are critical to the safety and efficient travel of our motorists, cyclists, and pedestrians.

2A.2 Long Range Planning

The City's Thoroughfare Plan, Comprehensive Land Use Plan, and Pavement Management Plan provide the basis for the construction of new streets and major improvements to existing streets.

Additionally, the Engineering Division conducts traffic studies that assist in determining current and future roadway use, recommended traffic control improvements, and future development.

Goal: Develop a five year plan that provides the high quality infrastructure needed to support current and future roadway use.

> **Long Range Target Objective:** Determine transportation needs and establish appropriate projects based on projected growth to accommodate those needs.
>
> **Long Range Target Objective:** Secure adequate funding for required projects.

2A.3 Existing Streets

The initial investment for roadway construction is only one element of the life cycle cost. Maintenance, repairs, and eventually full replacement are other important elements of the pavement life cycle cost which must be considered. The life of a roadway is contingent on many factors, including but not limited to, quality of initial construction, subbase soils, water drainage, traffic loading (volume and weight), weather impacts, and level of maintenance.

Engineers attempt to control many of these factors through proper design, construction, and maintenance. However, no construction material can hold up forever against these factors. Proper planning and funding for

maintenance is necessary to prolong the life of the road which helps fight against the wear and tear.

It is less expensive over the roadway's life cycle to fund periodic maintenance work rather than reconstruct a roadway when it fails completely. Also, periodic maintenance provides a smoother and safer riding surface for motorists. The City utilizes multiple types of maintenance treatments to extend pavement life including asphalt rejuvenators, crack sealing, microsurfacing, and partial depth and full depth pavement repairs.

When a roadway has failed to a point where maintenance treatments are no longer cost effective, it is important to commit to a full replacement. This is the most expensive treatment, but anything less would be wasting money.

In 1992, a Pavement Management Plan (PMP) was developed for the City that ranks streets based upon their condition, using a Pavement Condition Index (PCI). In 2007, a newer technology was employed using laser equipment to better rate the condition of streets and to produce more accurate PCI's. The PCI ratings are taken every three years by a consultant hired by the Engineering Division. It serves as an important and objective tool needed to prioritize streets for treatment.

The City of Fairborn aggressively pursues outside funding for resurfacing and repair of streets from several sources. The Engineering Division has been recently successful in funding eligible projects using State, County, and Federal funds. However, these outside funding sources require a minimum local fund amount be committed to the project.

In November 2014, voters renewed a Street Levy for ten years which is estimated to generate approximately $2,300,000 per year. Approximately two-thirds of these funds are used for local streets and the remaining third is used for thoroughfare improvements. Also, Fairborn receives approximately $200,000/year from the Municipal $5 License Fee and $135,000/year from the County License Fee for road work.

Goal: Provide a safe, efficient, and comfortable transportation system that is sustainable and fiscally responsible.

Routine Target Objective: Conduct routine assessment of existing streets to determine needed repairs.

Routine Target Objective: Perform in-house maintenance work including crack sealing, pavement repairs, and pothole repairs.

Routine Target Objective: Provide a five-year projected road work list to accommodate utility repair and replacements prior to street paving.

Routine Target Objective: Administer the annual Street Program as efficiently as possible to maximize the lifespan of Fairborn's pavements.

Long Range Target Objective: Seek additional funding options for roadway work.

SECTION 2B

Fairborn ADA Handicap Ramp Program

Statement of Strategic Function

To construct new and bring existing handicap curb ramps into compliance with the Federal Americans with Disabilities Act (ADA) Standards and Guidelines within the City Right-Of-Way.

2B.1 Introduction

The Federal Americans with Disabilities Act (ADA) began requiring the installation of handicap accessible curb ramps in 1991.

The City began constructing curb ramps in the 1990's in conjunction with the Annual Curb and Sidewalk Program, and along the main thoroughfares. There were no federal construction specifications for curb ramps available at the time.

In 2001, the Federal government began requiring the use of tactile warning devices at each ramp to signal those individuals with low or no vision that they were entering a roadway.

The City developed specifications and began constructing ADA compliant ramps in 2004. The City also began requiring ADA compliant curb ramps be installed in new developments in 2004. The Engineering Department updates the standards as necessary to conform to Federal guidelines.

2B.2 Long Range Planning

The ADA Curb Ramp Program addresses needs on the same streets scheduled for capital roadway improvements each year. Ramps are not required on streets receiving maintenance treatments including crack sealing, joint repair, microsurfacing, or chip sealing. If a request for a ramp at a specific location is received, Engineering will evaluate it for installation in the next program year.

2B.3 Goal

The goal of the ADA ramp program is to install ADA compliant ramps throughout the City right-of-way wherever needed to remove mobility barriers, and facilitate all modes of transportation.

The City's goal is to update the existing ADA Transition Plan that was established in 1992 and expand this plan to include all City facilities, parking lots, parks, and rights-of-way. This plan will include input from citizens, and other groups and associations around the City. This plan will also help prioritize improvements throughout the City to help improve mobility.

SECTION 2C

Fairborn Curb-Sidewalk-Approach (CSA) Program

Statement of Strategic Function

To provide a safe environment for the community utilizing the public curbs, sidewalks, and drive approaches and to comply with the Federal Americans with Disability Act (ADA) Standards and Guidelines for this infrastructure.

2C.1 Introduction

The Americans with Disabilities Act began federal regulations in 1991 to insure equal access to all persons, including those with disabilities. It requires that all sidewalks be maintained to meet those standards when capital street treatments occur. Similarly, deteriorated curbs and drive approaches are also replaced to ensure proper drainage and safe accessible entrances to properties.

The CSA Program costs are fully assessed to the property owners in accordance with Fairborn Codified Ordinance Section 903.01. They are given the opportunity to hire their own contractor for construction, or be added to the City-managed construction contract. Competitive bids are received by the City to ensure competitive pricing. All construction work associated with the CSA Program is inspected by Fairborn Engineering personnel.

2C.2 Long Range Planning

The Annual CSA Program precedes the Asphalt Street Repair Program. This is done in order to repair or replace concrete on those streets scheduled for resurfacing prior to the paving work taking place. This approach provides a more complete infrastructure improvement that encompasses pedestrian safety and access, improved street drainage, improved pavement, and adequate entrance ways to properties.

Long range planning calls for continuing the annual CSA Program to achieve the goal of improving safety for pedestrians and property owners. Sidewalk improvements are needed to fix broken, heaved, and severely cracked sections of sidewalks.

2C.3 Goals

Fairborn's Engineering Division will strive to improve the longevity and safety of newly installed curbs, sidewalks, and approaches by utilizing the best design standards, high quality construction materials, sound construction practices, and thorough inspection services. This approach will ensure the new infrastructure is long lasting, which will reduce the long term costs to property owners.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SECTION 2D

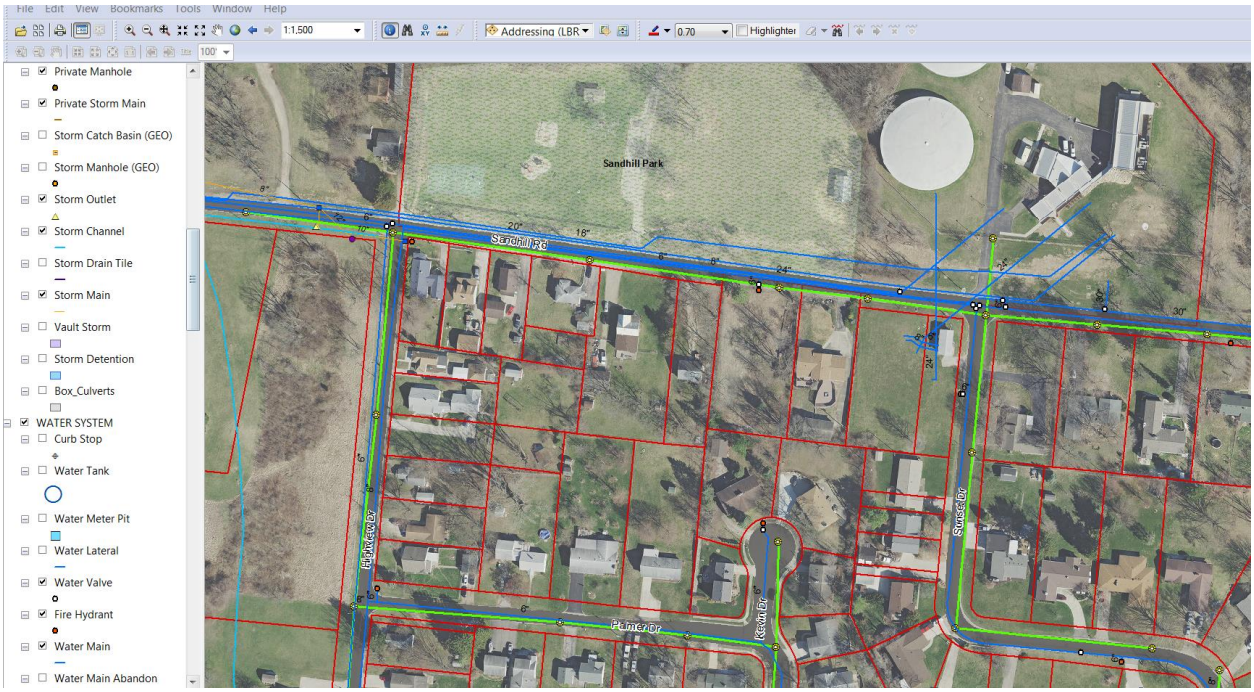
Fairborn Geographic Information Systems (GIS)

Statement of Strategic Function

To more efficiently and understandably organize, manage, and distribute City of Fairborn information.

2D.1 INTRODUCTION

A Geographic Information System (GIS) is used to spatially store and access various types of information. Data stored in a GIS system is referred to as geospatial data because it is tied to a point, line, or area on a map. Location-based data is important to managing a municipal government efficiently. GIS helps city staff to manage property information, infrastructure systems, land use, zoning, materials, and maintenance activities. GIS makes accessing, evaluating, mapping, and reporting on data easy and efficient.



ArcGIS software is in use on thirty computer stations in various City departments. This map-based software allows easy, intuitive access to the geospatial data needed for mapping and analysis. A free version of this software called *ArcReader* makes this data accessible from any city computer or tablet.

2D.2 LONG RANGE PLANNING

Infrastructure data is in the process of being collected and recorded into separate GIS layers for more efficient management and planning. Entry of storm sewer, sanitary sewer, waterline, and roadway data is continuing. From 2015 to 2019, two interns have been hired each year to work on this data entry. Interns will continue to be hired for the foreseeable future until the initial data capture is complete. The types of data categories that will be entered into and managed through GIS are expected to grow. After all of the existing data is entered, it is very important to continue to update GIS as maintenance and capital projects dictate.

GIS usage is expected to increase with the coming implementation of a city-wide GIS-based work management, permitting, and finance system. The Engineering Division will help get the new system up and keep it running.

2D.3 GOALS

- Continue to enter all relevant existing data into GIS, including water, storm sewer, sanitary sewer, traffic signals, bridges, roadway and traffic signs.
- Expand the GIS database by adding infrastructure updates and new layers such as property easements, tax records, and historical data.
- Continue to use GPS field collection equipment for accurate locating.

SECTION 4

Buildings and Lands

Statement of Strategic Function

To proactively operate and maintain City-owned buildings and grounds.

4.1 Introduction

Plant Maintenance: The Plant Maintenance staff is responsible for appropriate physical upkeep and improvements of all City-owned property including the Government Center, Library, four Fire Stations, and all other buildings funded through the general fund. Their duties include landscaping, irrigation, mowing, and trimming of all grounds, including street easements and city well fields; maintenance and preparation of all sports fields, courts, playgrounds, exercise areas, shelters, and other service facilities. The staff assists and provides maintenance support for all annual special events. The staff consists of five full-time employees - Parks Crew Leader, Maintainer (two), Building Mechanical Specialist, and Foreman. Seasonally, approximately 15-18 laborers throughout the spring, summer and fall months supplement the division.

Cemetery Operations: The City of Fairborn owns and maintains Fairfield Cemetery as well as Cost, Highview, and Hall Cemeteries. Daily operations are handled by one full-time Cemetery Sexton and one summer seasonal worker. Fairfield Cemetery is the only cemetery in the system where active burials are being done and cemetery lots remain available for purchase. The Cemetery Sexton is responsible for the sale of lots, opening and closing of graves, complete maintenance of gravesites, pouring forms for monuments, and formal record keeping for all sites in all four cemeteries. The City of Fairborn is responsible for the burial of the indigent and in recent years this has become a routine request. The City handles approximately 20 indigent burials per year. Indigent applications have risen steadily over the past 3 years within our community. The Cemetery Sexton continues to input grave information and historical records in to the Legacy Mark software program with the intent to offer online search capabilities by the end of 2018.

4.2 Long Range Planning

Annually, the City Manager, the Assistant City Manager, Parks and Recreation Director, Buildings and Lands Foreman, and the Building Mechanical Specialist get together and review the five-year capital improvement project list. At that time, other needed projects are added to the already extensive list of pending projects. Each project is evaluated and reprioritized based on need and available funding levels. Other general fund departments that have specific building and land concerns are consulted and asked for project needs. There are always far more projects requested than available funding.

Because funding is extremely limited in this budget, projects have been generally limited to extremely poor facility conditions. It is the desire of the project managers to become

more proactive when planning future projects. Unfortunately, much of the funding is currently being used to pay off past projects that were bonded leaving only a small amount for current projects.

Goal: Prioritize projects based on criteria including condition of existing facility, safety and security issues, productivity issues, technology improvements including "green" initiatives and preventive maintenance measures to extend the life of current facilities.

4.3 Financial Overview of Buildings and Lands Capital Improvement Fund

The Buildings and Lands Fund was established to provide a funding resource for necessary buildings and lands improvements for those operations funded from the general fund. This fund does not pay for the building and land improvements for enterprise accounts. The Buildings and Lands Fund is funded by 3% of the net income tax proceeds collected annually by the City. Therefore, it is projected that the fund will produce revenues of $275,000 in 2020 with an estimated small increase each year. Additional revenues included in the Buildings and Lands Fund come from the sale of bonds and capital lease programs for the payment of buildings and lands capital projects. A $50,000 fund balance is the target ending balance set for this fund.

A number of recurring payments for past projects are consuming much of the buildings and lands fund. These recurring payments include:

- General Building Repairs - ~$45,000 annually
- Preventive Maintenance Agreement - $25,000 annually
- Public Works Facility Debt Service - ~$300,000

Depending on the beginning fund balance, some years have far less to be spent, and the ending balance may drop below the desired $50,000. Within this 5-year span, the fund balance at this time does not decrease below the $50,000 line.

All of the buildings that serve the many Divisions throughout the Public Services Department(s) are in various states of disrepair. Most all of them have exceeded their useful life and nearly all when built were not meant to serve the purpose in which they are currently being used. In 2014, a feasibility study was completed for the purpose of preparing conceptual design drawings, preliminary plans and renderings, site selection, and budgetary construction estimates for the development of a consolidated City of Fairborn Public Services facility. Once constructed, the new facility will consolidate current and future needs of the Street Division, Fleet Maintenance, and Water and Sewer Utilities Divisions.

The new Public Services facility design was completed in 2019, along with recurring debt payments for the facility design beginning in 2019 and debt for construction beginning in 2020. Funding for both the design and construction of this facility would be a combined effort by all three divisions of Public Administrative Services: Water & Sewer, Street, and Equipment Maintenance and also include funding from other divisions who utilize equipment maintenance services, as well as additional support from the capital building

fund. Construction would likely begin in 2020, producing a significant adjustment to the Building and Lands Fund. Although there are numerous projected savings by retiring outdated and non-suitable facilities, this fund will bear the task of supplying the general fund operational expenditures for this specific capital project.

SECTION 5

Parks and Recreation

Statement of Strategic Function

To improve the quality of life for the citizens of Fairborn through the availability of recreational and cultural opportunities as well as to proactively operate and maintain City-owned buildings, grounds, and cemeteries.

5.1 Introduction

The Parks and Recreation Director oversees the complete operation of the Parks and Recreation and the Plant Maintenance Division. Each Division must interact together and impact the way each function. Both divisions have an impact on the parks and recreation capital projects and the planning for the future.

When determining what makes a community a desirable place to live, parks and recreation areas are at or near the top of the list. The City of Fairborn Parks and Recreation Division provides a perfect mix of active and passive park areas, diverse recreational programs for all age groups and many cultural and special events throughout the year. With 22 parks, including a 6 mile bikeway and over 750 acres of parkland, there is plenty of room to explore natural areas, fish, go for a hike or simply relax and enjoy some of nature's wonders. If it is activity you desire, the City Parks offer a state of the art skate park, softball fields, baseball diamonds, soccer fields, and basketball, tennis and volleyball courts to meet you or your family's needs. The Fairborn Parks are also home to four nature reserves, a wetland "Story-book Trail" located at Valle View Reserve; a Dog Park located at Sandhill Park; a historic log home and homestead, and two performing arts pavilions.

The City of Fairborn Parks boast of clean, safe and newer playground equipment in most of the active parks. The City also offers nineteen picnic shelters throughout the park system that can be reserved for family picnic, birthday parties, reunions, company gatherings or church events.

Each summer, the City hosts it's "Free on Friday" concert series at the Atherton Amphitheater at Community Park. In 2019, the 6th Annual Community Movie Night occurred at Central Park. The City's partnership with the YMCA was put to use in that it provided an indoor space due to rain. Central Park also provides the event to be more reachable via walking and biking as compared to Community Park. The Community Movie Night is the kick-off to summer, including the Fairborn Summer Concert Series, which will begin the following Friday each week. The 1st Annual "Bluegrass & Brew" Festival at the Main Street Commons was held in 2017 and will continue in 2020 with new sound and a covered stage. There are actually two additional Main Street Concert events: June is a fundraiser for the Parks' Foundation called Woofstock; and, July is a Battle of the Bands creating the final three bands to perform at the WSU Festival of Flight.

The Parks and Recreation staff works hard to offer fun, entertaining and rewarding recreational programs for all ages. A variety of camps and general programs are offered throughout the summer with topics such as: Danger in the Wild; Fit Kids; Hogwarts Day; Star Wars Day; Outdoor Adventures; Excess Recess; Show Stoppers; Paint Party; Water Wipeout; Christmas in July; Girls Camp; Superhero & Supervillains; Food Fight; and, STEAM Summer. Adult tennis leagues, youth tennis lessons, girl's fast pitch leagues, and adult softball leagues are also very popular programs.

A new and specific Farmers' Market takes place every Wednesday with the purpose to bring local food growers to the community, providing accessibility to healthy food options. Local farmers from all over the Miami Valley bring plants, homemade baked goods, honey and locally sourced fruits and vegetables as soon as they are ready. Increased marketing efforts and street signage hope to entice more visitors than ever before. Food trucks will continue to join the market each week. Local wineries will be offering tastings and selling bottles of wine. In 2019, an evening market was attempted and has been modified to the second Wednesday of the month from 3 – 7pm.

The Parks and Recreation Division plans, coordinates, implements and assists with over ten special community events a year including an annual Easter Egg Hunt, Memorial Day events, Summer Concerts Series at Main Street Commons and Community Park Atherton Amphitheater, Fishing Derby, Fairborn Family Block Party on July 3rd, the 4th of July Parade and Fireworks, Annual Bluegrass and Brew Festival, Sweet Corn Festival, Halloween Parade, Veteran's Day events, and a Christmas Holiday Lighted Horse Parade and Tree lighting. Attendance for most of our downtown events reaches 2500 – 3500 attendees. WTUE St. Pat-rock's Day is now an annual event at the Main Street Commons with a minimum of 2500 attendees even with 3 hours of snowfall in 2018.

In 2015 Updated Parks and Recreation Master Plan was adopted by City Council, which determines the appropriate development and use of City parks and nature areas throughout the city for the next five years. An update to the Master Plan is scheduled for 2020. This Master Plan utilized community input through 18 community focus groups and an analysis of current park land use to base its recommendations. All of the projects listed in this document have been discussed and approved by the Parks and Recreation staff as well as the fifteen member Parks and Recreation Advisory Board through the master planning process or subsequent revisions. These park improvements are contracted or done in-house using Plant Maintenance Division staff.

Parks and Recreation staff spend their time not only planning the needed capital items, but also coordinating and presenting concerts and special recreation events in the Summer Park Series, coordinating and assisting with all youth and adult general recreation programs and sports leagues, coordinating park shelter and facility reservations, and planning, coordinating and implementing city-wide special events. Due to the limited size of the city staff, intense coordination and utilization of park system volunteers is used for almost every activity.

5.2 Long Range Planning

The creation of the Parks and Recreation Master Plan has reprioritized many of the park facility needs. The focus of the Master Plan is about identifying land for acquisition in high growth areas, while revitalizing existing park facilities and integrating new recreational trends throughout the system. The Park Master Plan and the upcoming Master Plan Update is an integral tool in planning the five year capital projects and developing a priority system for needed capital projects. The five year capital plan will be extremely aggressive when it comes to maintenance of our existing park facilities, equipment and surfacing while this extra funding stream remains available.

The Parks and Recreation Master Plan was the culmination of 3 months of gathering public input through 18 focus group sessions and numerous interviews. The final report was delayed to gather additional analysis with the completion of the 2014 Fairborn Park Land Use Analysis Study. The now comprehensive Master Plan was presented to City Council and adopted in early 2015.

In 2014 the division received a permanent full-time Recreation Coordinator. This addition has proven to be a huge asset for the development of year-round adult, youth and family recreation programs. In 2014 over 41 new programs were coordinated for the Fairborn community; and, was responsible for increasing new visitors to the area. Over 1000 persons participated in recreation programs including adult softball and tennis leagues. Each year since the addition of recreation staff, participation in programs has grown tremendously.

The results listed in the following tables are from the 2013 Community Needs Assessment. The analysis produced a “top ten” for each category of recreational programming and park development: These have been updated to correspond with the 2020-2024 Park Capital Plan. The focus of the Master Plan Update planned for 2019 will re-evaluate community needs for facilities and programs.

Continuing to meet community needs, the updates are below:

Final Top Five -- Question #1 -- Park Development			
	Points	%	RANK
Outdoor Pool (achieved w/ WPAFB 2014, renewed in 2016)	367	21%	1
Community Recreation Center	220	13%	2
Trail Connectivity (new trail & plan update 2015)* *Valle View-Garland Trail 2016	128	7%	3
Dog Park completed 2017	118	7%	4
Indoor Sports Courts	85	5%	5
BMX Course (in discussion – Cold Springs Reserve)	65	4%	6
Community Multi-Use Stadium	55	3%	7
Amphitheater Cover (considered as an Additional Project)	49	3%	8
2nd Sprayground (downtown Broad Street Park development)	49	3%	9
More Trees / Shade at Parks (60 each year)	47	3%	10

*New Xenia-Central Ave Bikeway Connector was completed in 2015, which added .718 miles of new pathway bringing the total to 5.02 miles of paved pathway within Fairborn.

Final Top Five -- Question #2 -- Recreation Development			
	Points	%	RANK
Country/Jazz/Rock Event 3 Major concert events each summer – Bluegrass and Brew, Woofstock (Southern Rock) & Battle of the Bands, a Saturday event.	251	13%	**1**
Adventure Programs/Hiking (2013-2019+)	149	8%	**2**
Nature Education (2013-2019+)	143	8%	**3**
Community Movie Nights (expanded in 2019 - 2)	122	6%	**4**
Paint Ball	107	6%	**5**
Archery Classes (working with the FHS)	66	3%	**6**
Community Music/Drama Group Caesar's Ford Theater Group – began 2016	66	3%	**7**
Gardening Programs (continued expansion)	49	3%	**8**
Teen Center Type Programs	49	3%	**9**
Su' Playground/Camp Program (expanded 2016)	49	3%	**10**
Adult Education	49	3%	**11**

An additional impactful outcome from the Master Plan process was the importance of maintaining our quality park system, as well as continuing to build on its successes. As new developments occur within the city, including new annexation, park land will be addressed to service these new residents both passive and active needs. The addition of trail connectivity from existing park amenities to new areas will also become a priority as the future unfolds.

Goal: Implement projects in the Adopted and Updated Master Plan.

Routine Target Objective: Evaluate projects in Master Plan and compare to current community needs.

Long Range Target Objective: Implement a recreational strategic plan to meet the needs of the community.

5.3 Financial Overview of Parks and Recreation Capital Improvement Fund

The vast majority of all Parks and Recreation Capital Improvement projects are funded through six main sources. The City collects a Hotel/Motel Tax, which provides approximately $400,000 of revenue to the City annually. The Parks Capital Improvement Fund receives approximately $150,000 (guaranteed initial funding with the possibility of additional funds) from the Hotel/Motel Tax. The Parks Capital Improvement Fund also receives 100% of the proceeds of a cellular tower along Fairborn's Wright Brothers Huffman Prairie Bikeway and 16.67% of the proceeds from an AT&T Tower Lease. A total of $18,251 annually is collected from both locations. New development within the City produces approximately $5,000 per year – although this has the potential to increase drastically due to an amended parkland dedication ordinance in 2017. 2019 saw the first realized park capital gain from this shift.

The interest earned on the Parks Capital Improvement Fund is allocated back into the fund. Annually, the fund generates around $1,000 in interest income. Finally, revenue from vending machines produces about $3,500 annually. The total annual Parks and Recreation Capital Improvement revenue will be approximately $177,751. Some of the revenue streams are fixed while others fluctuate with the economy and interest rates.

For the purpose of the five year capital projections, the total is held at a constant while the fund balance may change annually due to increases in revenue or the remaining excess funds from previous capital projects. Any additional permanent funding changes, such as another new tower lease, would be added at that time.

The City of Fairborn continues to see many improvements in its parks and recreation system. A non-profit 501(c)3 corporation was formalized in 1996 to solicit, generate and collect donations, endowments and bequests for the sole purpose of promoting and enhancing our parks. Although this status was lost in 2010, the return to full non-profit status was realized in March 2015. The Parks Foundation dollars supplement the Parks and Recreation Capital Fund, primarily toward improvements within Community Park. Many of the Foundation's assets come from fundraising. The Parks Foundation actively participates in the CFC (Combined Federal Campaign). Future emphasis will be on endowments, bequests, and annual memberships.

An example of their dedicated efforts was the 2019 $8,000 re-sodding of the large dog side of the Fairborn Wag Pad located at Sandhill Park. Funding from the Parks Foundation, Park Advisory Board and a received bequeath was combined to develop an outdoor Circuit Training Facility holding 10 pieces of exercise apparatus. This new facility totaled nearly $20,000 and would not have been possible without the Foundation's existence.

The creation of the Fairborn Parks Foundation is only one way of supplementing City funding for Parks and Recreation purposes. In addition, every effort is made to utilize outside funding sources from organizations such as the Ohio Department of Natural Resources (ODNR) and Greene County. Recent federal actions indicate that the Land and Water Conservation Fund (LWCF) will remain funded. In the past, these funds were used to develop upper and lower Community Park and several other parks in the system. Many of these available grant dollars are limited in scope and eligibility, but represent an excellent way of stretching limited recreation resources.

2019 saw the replacement of the roof on Community Park Shelter #2, the largest within the park system. The old shingle roof was replaced with a standing seam metal roof that will surely last 50 years.

2019 also saw the addition of a National Fitness Court through a NFC Grant Award. The court is a state of the art facility providing users the ability to work out on any level of fitness desired. It is a great opportunity for this community and should realize a regional draw.

2020 and beyond sees the completion of Fairfield Park tennis courts, permanent restrooms and Sandhill Park, Pump Track at Osborn Park, and lights added to Community Park Basketball Courts.

As always, there are more recreational and cultural needs than available financial resources. In addition to all of the scheduled projects, there is a list attached of unbudgeted projects. Efforts will continue to seek additional funding sources for these vital park and community projects.

SECTION 6A

Water Treatment

Statement of Strategic Function

To provide clean, safe drinking water that meets the requirements of the Ohio Environmental Protection Agency (OEPA) and aesthetic needs of our citizenry.

6A.1 Introduction

The Water Treatment Plant, located at 301 Sandhill Road, treats over 1 billion gallons of groundwater each year to meet the needs of our residential and business customers. This filtration plant is designed for iron and manganese removal and was originally built in 1975 with major upgrades in 1990 and 2011. Following the most recent renovations, the available Ohio Environmental Protection Agency approved capacity was increased from 5.4 million gallons per day to 6.5 million gallons per day.

Water treated by the plant is taken from two well fields collectively known as the Mad River Well Fields.

6A.2 Long Range Planning

Long range planning for the Water Treatment Plant is driven not only by anticipated growth, but also by OEPA rules and mandates, advances in treatment and contamination detection technology, aging facilities and the aesthetic demands of our citizens. We must consider not only the treatment plant itself, but also our source water resources and plant finished water storage.

We have tools that assist us in determining the best methods for meeting these demands which include the recently completed Water Master Plan and the 2008 Water Treatment Plant Hydraulic Study. They outline recommended improvements to meet anticipated growth for the coming years and to further improve the plant's capabilities.

Goal: Develop a five year plan that assures source water in adequate quantity allows for continued improvement of water quality and addresses needs of an aging plant.

Current Target Objective: Implement the findings of the Water Master Plan through capital planning, operational assessment and budgeting.

Long Range Target Objective: Determine needs and establish appropriate projects based on projected growth, OEPA regulations, water quality concerns and infrastructure age/condition.

Long Range Target Objective: Secure funding for required projects.

6A.3 Facilities

The water treatment process includes the collection of raw water from the well fields, conveyance to the Water Treatment Plant, chemical and physical treatment of the water, and storage of the finished product in ground storage tanks. The following paragraphs explain in more detail the primary processes and facilities utilized in this process.

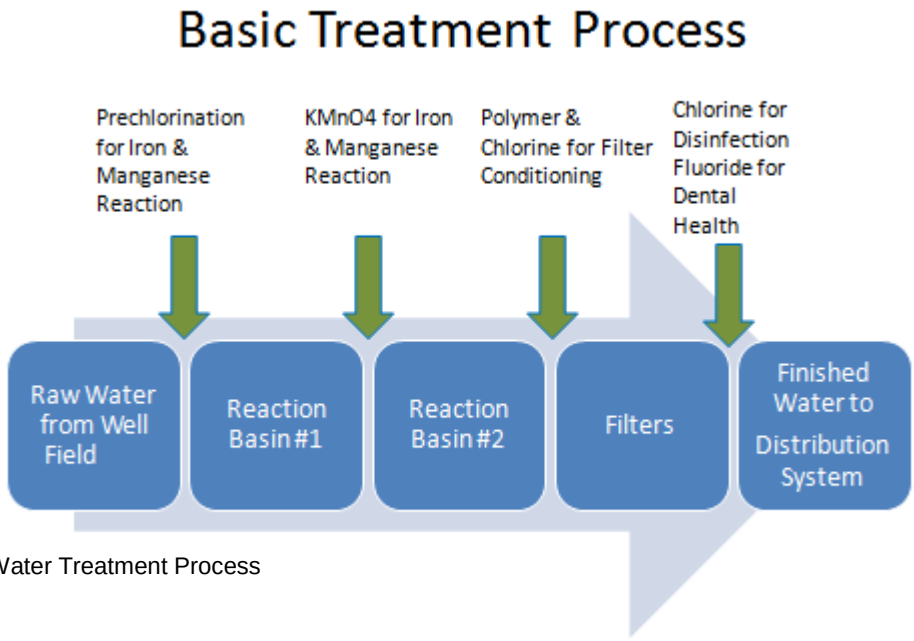


Figure 6A.1 Water Treatment Process

WELLFIELDS

Water treated by the plant is taken from two well fields located off Osborn Road which are collectively known as the Mad River Well Fields. The original well field was constructed in 1975 at the same time as the plant. Two of the wells from that original construction have been abandoned for use due to low yield. The remaining two original wells are starting to see reduced pumpage due to age and use of older construction methods and require more frequent maintenance. Two higher production wells which were added later to the original well field continue to provide high yield. The newer well field was completed in 2009 and currently features two high yield wells.

Both well fields are located in a high yielding aquifer that should support city needs well into the future. Like most groundwater, it does contain naturally occurring elements that can impact water quality. In Fairborn, the primary concerns are iron, manganese and hardness. Discussion of the treatment processes used to counter these aesthetic issues is contained in the following section.

Both well fields are equipped with stationary generators capable of automatically and fully operating the well fields for up to three days in the event of loss of commercial power.

Until 2016, all water from the Mad River Well Fields was conveyed to the Water Treatment Plant via a single raw water supply line built in 1975. That line passes beneath the Mad River and travels 2 miles to the plant. As recommended in the Water Master Plan, a secondary line was constructed that parallels the existing line from the wellfield to the plant to provide both redundancy and additional conveyance capacity.

The division maintains a single backup well field. The North Well Field was developed over a period of time from the 1930's to 1960's and has four low yield wells. There have been past issues at this site of volatile organic chemical detection that was below the OEPA maximum contaminant levels (MCL's) but recent testing has not shown detection. This reduction may be due to a combination of reduced pumpage of the well field combined with groundwater remediation efforts at Wright-Patterson Air Force Base on land abutting the well field property.

Water from the North Well Field receives no treatment other than on-site chlorination. In a typical year, these wells account for less than 1 percent of the city's annual usage. The North Well Field is typically exercised by WTP staff monthly to assure that it is functioning properly. .

Well	Pumping Capacity (gallons per minute)	Year Installed
Mad River 1	800	1975
Mad River 2	1600	1975
Mad River 5	1600	1990
Mad River 6	1500	1994
Mad River 8	2100	2009
Mad River 9	2100	2009
North Well Field 7	500	1954
North Well Field 8	350	1966
North Well Field 9	500	1966
North Well Field 11	500	1931
Total Capacity	11.55 MGD	

Figure 6A.2 Well Information

Goal: Assure ability to provide adequate quantities of water for treatment.

Routine Target Objective: Conduct redevelopment and pump repairs for wells on a routine basis to assure longevity.

Long Range Target Objective: Construct additional wells to address future demand and recapture pumpage loss being seen in older, original wells.

WATER TREATMENT PLANT

Over 3 million gallons of water are treated on an average day by the Water Treatment Plant. On high demand days such as during hot summer weather, major fires, or winter water breaks the plant may produce over 5 million gallons. Water is routinely analyzed to assure that it complies with all OEPA regulations and plant standards. The plant is manned 8-hours a day but monitored and controlled 24-hours a day by a Supervisory Control and Data Acquisition System (SCADA) that has the ability to contact on-call personnel in the event of a potential problem.

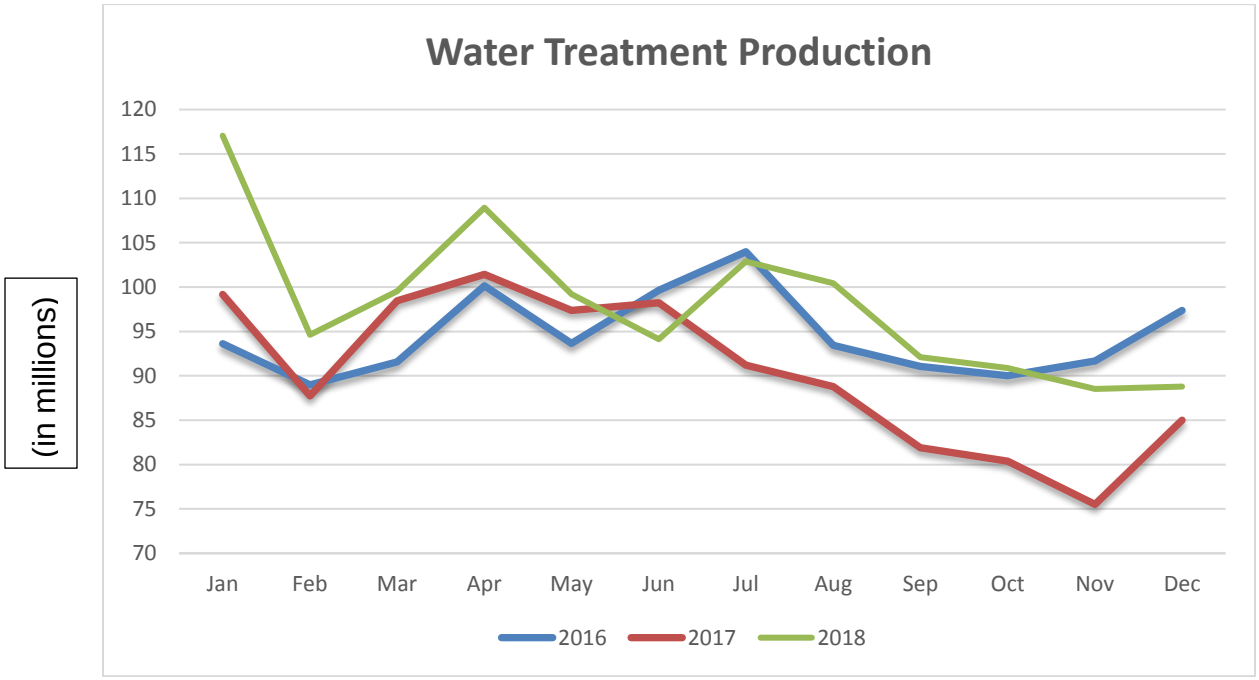


Figure 6A.3 Water Treatment Plant Production

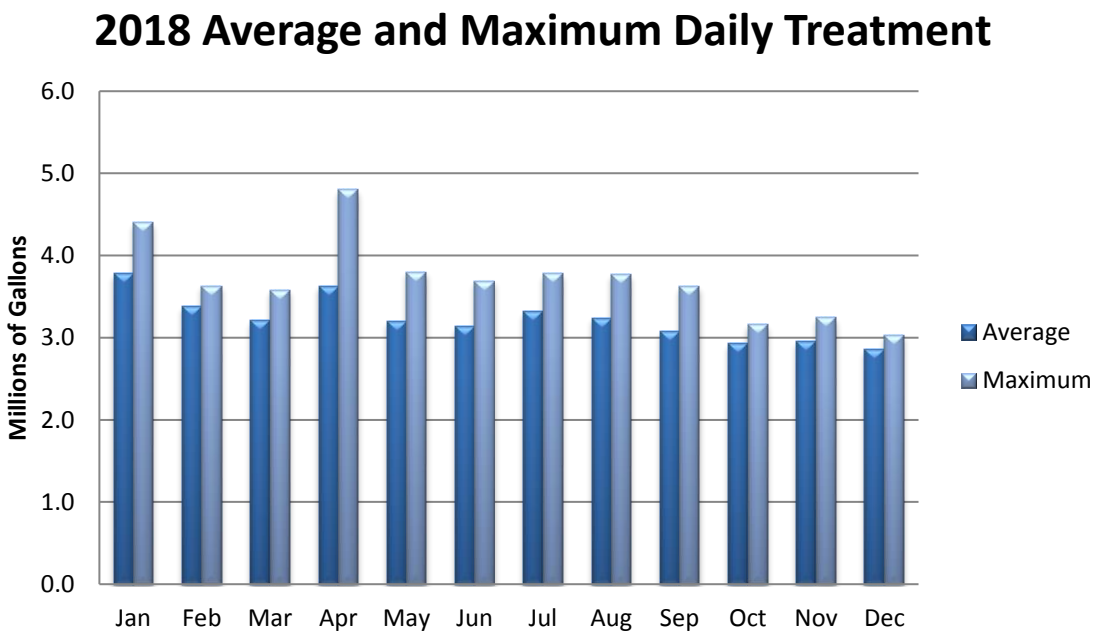


Figure 6A.4 Average and Maximum Daily Usage

The WTP SCADA system was upgraded in 2017. It monitors not only the treatment plant and well fields but also the water towers, booster stations, and lift stations. Remote capabilities are in place which allow SCADA access throughout the plant and by off-site, on-call personnel through use of a tablet. This has improved operator efficiency and allows for monitoring of system conditions without necessitating a physical site visit.

Water enters the plant via the raw water line where it starts the treatment process in a reaction basin. Within the basin the oxidizing chemicals, chlorine and potassium permanganate (KMnO4), are added to react with the naturally occurring iron and manganese present in the groundwater. While not considered a health problem, both iron and manganese can cause aesthetic concerns in the water including suspended particulates and discolored water so it is desirable to remove them in the treatment process. Once the water leaves the reaction basin, it enters one of eight filters where the precipitated iron and manganese are removed. Fluoride for dental health and chlorine for disinfection purposes are added before the water leaves the plant. A schematic showing plant flow through is provided in Figure 6A.1

A chemical and bacteriological laboratory is maintained at the Water Treatment Plant to provide for process control and OEPA compliance. Operators are certified by the state to conduct basic laboratory procedures. Additionally, samples are analyzed for a fee for other entities requiring such services on an emergency basis. Required analysis that is more time consuming or that necessitates the use of hazardous material or expensive equipment is contracted out to private labs.

In support of the treatment process there is a wide array of piping, valves, process meters, chemical feed systems, and the SCADA system. Each has to be maintained in

accordance to manufacturer's recommendations, OEPA requirements and/or industry standards.

The 2011 upgrade project included upsizing of influent and effluent piping, installation of a chlorine building which allows for additional chemical storage, and installation/replacement of pumps to allow for the higher pumpage. These efforts complemented an earlier study that resulted in OEPA approval of higher flow through the filters. In 2015, a stationary generator capable of running all aspects of the plant for up to three days was installed to provide for emergency operation in the event of the loss of commercial power.

In 2016, new roofing was installed on all areas of the plant which addressed major leakage issues that were experienced during rain events. Several large decorative windows original to the plant that served no useful purpose were replaced with insulated metal panels. In 2018, the filter building original windows were replaced to improve the energy efficiency and aesthetics of the building.

While the quality of water leaving the plant is greatly improved and OEPA standards are routinely met, there is still one major issue that could be addressed to further serve our citizens – softening. When the plant was originally built and again when it was expanded in the 1980's, the idea of softening was discussed but not pursued because it was a costly, labor intensive process. However, since that time, there have been improvements in treatment techniques that offer not only softening, but also improved contaminant removal while still allowing for minimal plant manning. In this vein, the division undertook a study to analyze our water makeup, pilot test treatment methods, and assess potential costs and implementation considerations. While the study found that softening could be achieved, it demonstrated that doing so would cost over $16 million dollars to construct and would increase annual operating expenses significantly.

In conjunction with the softening study, a filter performance study was also conducted. It found that the treatment process worked so well that the frequency of filter backwashes could be greatly reduced without impacting the quality of the water leaving the plant. This reduction has been implemented resulting in improved plant efficiency, less backwash water needing to be treated at the city's Water Reclamation Center and an expected reduction in power consumption.

Goal: Provide high quality finished water that meets all OEPA requirements.

Routine Target Objective: Assess and update existing infrastructure as needed to comply with OEPA requirements, meet current demands, and operate plant as efficiently as possible.

Long Range Target Objective: Improve water quality and quantity through plant expansion to include the use of state of the art treatment techniques that will enhance water aesthetics and meet future OEPA regulations.

Goal: Maintain the facility to ensure protection of treatment processes and longevity of asset

Routine Target Objective: Conduct routine facility maintenance.

Long Range Target Objective: Install an ADA Compliant Restroom to replace a single fixture facility with the next building upgrade.

Long Range Target Objective: Renew facility through replacement of original equipment

CLEARWELLS

There are two 1.5 million gallon ground storage tanks known as clearwells located at the Water Treatment Plant. The older unit was installed in 1989 and the newer unit in 2003. These tanks provide for storage of treated water to help meet high demand as well as providing contact time for the chlorine added for disinfection purposes. The clearwells are designed to operate in series although when needed, they can be operated singularly to allow for maintenance. In order to assure longevity, the tanks must be periodically internally cleaned and the exterior painted.

Goal: Provide for storage of finished water prior to being discharged to the distribution system.

Routine Target Objective: Maintain longevity of the clearwells through routine cleaning and painting.

SECTION 6B

Water Distribution

Statement of Strategic Function

To convey and store treated potable water in sufficient quantities and at adequate pressures to meet residential and business demands for both domestic and firefighting purposes.

6B.1 Introduction

Water is distributed to over 13,000 homes and businesses for domestic purposes through a complex array of piping, valves, booster stations, water towers and water meters. Additionally this same system supplies and stores surplus water for firefighting purposes. The system must meet Ohio Environmental Protection Agency (OEPA) requirements for a wide variety of regulated parameters including adequate pressure, disinfection, and backflow prevention. In addition, the system is evaluated by the Insurance Services Office (ISO) to assure its ability to provide adequate water needed to suppress fires. The most recent evaluations by both the OEPA and ISO showed that Fairborn's distribution system consistently meets or exceeds the standards set by these organizations.

6B.2 Long Range Planning

Long range planning for the distribution system is not an exact science as there are outside factors that impact how and when the system should grow. These include but are not limited to: growth projections versus actual growth, OEPA mandates, aging infrastructure, and monetary restraints. Additionally, if facilities are built too early they may experience underuse that can lead to water stagnation, but if they are built too late the ability to meet new demand can be hampered.

However, we do have tools that help to guide us in developing these plans. In 2016, a Water System Master Plan was completed that outlines recommended improvements to meet anticipated growth for the next 20 years. As part of this effort, the distribution model was also updated. The model helps identify areas of concern as well as providing a computer based means of evaluating the impact of future development on the existing system. It is also important to work closely with Community Development, Economic Development and Engineering in determining potential development areas.

Goal: Develop a five year plan that provides potable water in adequate quantity and pressure to meet growth demands.

Current Target Objective: Implement the findings of the Water Master Plan through capital planning, operational assessment and budgeting.

Long Range Target Objective: Determine needs and establish appropriate projects based on projected growth.

Long Range Target Objective: Secure funding for required projects.

6B.3 Facilities

The water distribution system has three pressure zones (low, medium and high). Each zone has its own pumping and storage facilities. These facilities are monitored 24 hours a day via a Supervisory Control and Data Acquisition (SCADA) system. When operation deviates from set standards, the SCADA is connected to an automatic notification system that contacts the appropriate personnel who have the ability to remotely access the SCADA system via iPads. All system components are described more fully in the following paragraphs.

BOOSTER STATIONS

Pumps in these facilities increase pressure in the distribution system or supply water to elevated storage tanks. The city has five pumping stations.

Low Service Booster Station

This station is located at the City's Water Treatment Plant. It pumps treated water from the plant's clearwells into a 24-inch diameter transmission line that carries the water to the low service area. Its automatic control is from the level of water in the Fairfield Park storage tank. This station shares the Water Treatment Plant generator to automatically provide electricity in the event there is an interruption in DP&L's service. A fifth pump was added in 2015 to provide additional pumping capacity and redundancy.

Pump No.	Pumping Capabilities
1	950 gpm
2	950 gpm
3	950 gpm
4	950 gpm
5	950 gpm
	4550 GPM
TOTAL	6.55 MGD

Figure 6B.1 Low Service Booster Station

Plant Medium Service Booster Station

This station is located across the street from the City's Water Treatment Plant on Sandhill Road. It pumps treated water from the plant's clearwells into a 30-inch diameter transmission line which carries the water to the medium service area of the system. Its automatic control is from the level of water in the Rona Hills storage tank. In 2011, as part of the Water Treatment Plant improvement project, a fourth pump was added to increase the station's capacity and provide redundancy. In 2015, a diesel stationary generator was installed that allows for automatic transfer in the event of the loss of commercial power. This replaced the need for deployment of a manually connected portable generator during such situations.

Pump No.	Pumping Capabilities
1	900 gpm
2	750 gpm
3	750 gpm
4	1000 gpm
TOTAL	2400 GPM
	4.89 MGD

Figure 6B.2 Plant Medium Booster Station

South Maple Booster (System Medium Service) Booster Station

This station is located in a former fire station on South Maple Avenue, just north of Doris Drive. It pumps water from the low service area to the medium service area of the system. It helps to maintain adequate water levels in the Five Points storage tanks. Because of this station's configuration, it is not possible to house a stationary generator on site but a portable generator capable of fully operating the station was purchased in 2016. This station is controlled automatically from the water level in the Five Points storage tanks. A roofing and window replacement project was completed in 2017 to address age and leak conditions. In 2018, the Garage Service doors were also replaced.

Pump No.	Pumping Capabilities
1	650 gpm
2	650 gpm
TOTAL	1300 GPM
	1.87 MGD

Figure 6B.3 S. Maple Booster Station

Kauffman Booster

This station is located on Kauffman Avenue adjacent to the Wright State University campus. It pumps water from the medium service area to the high service area. It is automatically controlled by the level of water in the Southwest storage tank. Stand-by power is provided by a stationary natural gas generator.

Pump No.	Pumping Capabilities
1	550 gpm
2	550 gpm
3	650 gpm
TOTAL	1750 GPM
	2.52 MGD

Figure 6B.4 Kauffman Booster Station

Rona Village Booster Station

Because of its elevation and proximity to the Rona Hills ground storage tank, the Rona Village area had historically had pressure that met OEPA standards but not the aesthetic desires of the residents. To address this concern, this station was built in 2013. It boosts pressure approximately 15 psi bringing the area's pressure to a better level for domestic and firefighting purposes.

Goal: Assure ability to pump quantities needed to meet demands of each pressure area and maintain facilities to prolong useful life.

Routine Target Objective: Conduct routine maintenance on each station to assure longevity of equipment.

Routine Target Objective: Assess station equipment and facilities and budget/plan for replacement/renovation as needed.

Long Range Target Objective: Assess pumping capabilities and design/construct station additions and/or new facilities as needed.

Long Range Target Objective: Install a stationary generator at Rona Village Booster Station to allow for automatic operation during commercial power loss.

SYSTEM STORAGE TANKS

Water towers provide the ability to store large quantities of water to meet domestic and firefighting demands. Additionally, because of their height they also provide pressure to the distribution system. The City has five water towers as illustrated in Figure 6B.5. Routine painting and maintenance of the towers, typically on a 15-20 year cycle, is necessary to maintain their life. In 2014, both Fairfield Park and Rona Hills Tanks were painted and in 2016 Southwest Tank was painted including incorporation of the city's new logo. The two Five Points Tanks were painted in 2018 with one featuring the new logo and one the city schools' logo.

Tank Name	Location	Type	Year Built	Capacity
Rona Hills (Medium Service)	Adjacent to Rona Hills Condominiums	Ground	1976	2 MG
Five Points – Large (Medium Service)	Adjacent to Fairborn Primary School	Elevated	1988	0.75 MG
Five Points – Small (Medium Service)	Adjacent to Fairborn Primary School	Elevated	1968	0.25 MG
Fairfield Park Tank (Low Service)	Fairfield Park	Elevated	1993	0.5 MG
Southwest Tank (High Service)	Wright Office Park adjacent to I-675	Elevated	1986	0.5 MG

Figure 6B.5 Water Storage Tanks

Goal: Assure adequate storage is available to meet domestic and firefighting demands.

Routine Target Objective: Assess each water tower every five years to determine condition and need for maintenance to assure continued use.

Long Range Target Objective: Design a second low service water tower in Fairfield Park to allow for additional storage and redundancy.

Long Range Target Objective: Design and construct a second high service water tower to allow for additional storage and redundancy.

Long Range Target Objective: Undertake painting and maintenance for each tower based on results of condition assessment. Generally this will follow a 15 to 20 year cycle for each tank. Although this maintenance needs to occur on a fairly regular schedule, because of its cost it is included in long range planning.

Long Range Target Objective: Assess storage capabilities and design/ construct additional storage when warranted.

FIRE HYDRANTS

Water for firefighting purposes is accessed by way of fire hydrants installed throughout the system. There are currently close to 1500 fire hydrants in place of varying ages (see Figure 6B.6). Hydrants are flushed each year to assure they are operational, determine need for repair and/or replacement and to improve water quality. This endeavor takes over a month with crews working 24 hours a day, 5 days a week.

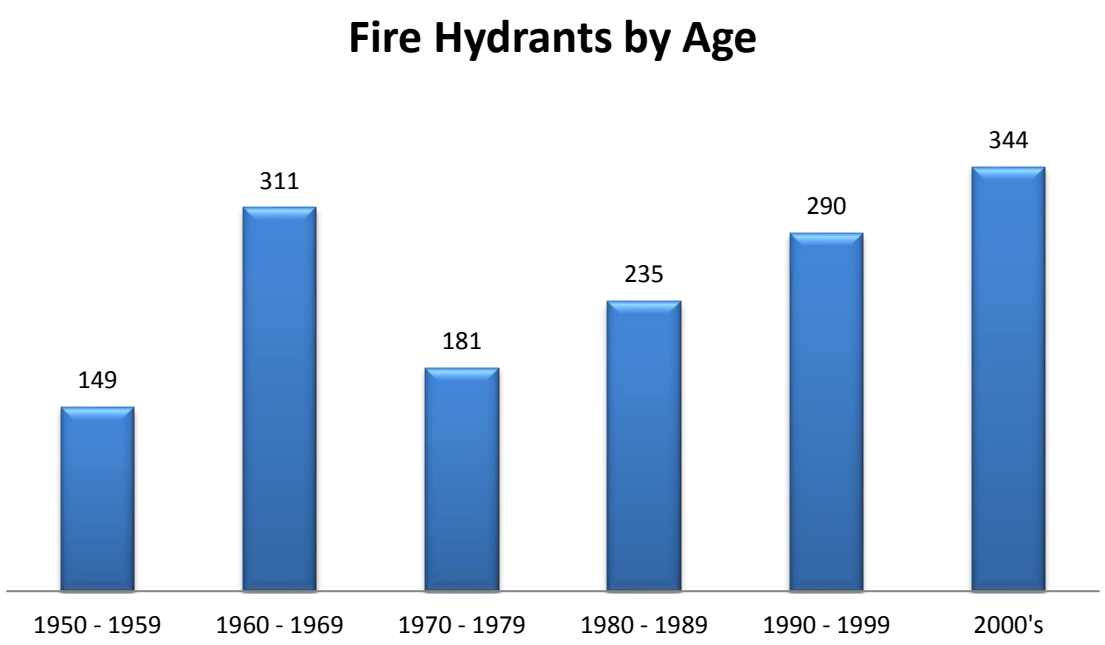


Figure 6B.6 Fire Hydrant Ages

In the past the Fire Department would follow behind the flushing crew to perform flow testing in a targeted area. The data gathered is important for City fire planning and private design of fire suppression systems. It is, however, a very labor intensive undertaking as it requires the use of two hydrants with each being closely monitored at the same time for an extended period of time so at least two employees are needed for each test.

The Fire Department no longer performs this function as they have found that it is not currently required by the Insurance Services Office (ISO) for public protection classification, a system used in determining fire insurance rates for a community. With normal and emergency maintenance demands, an aggressive rehabilitation program on streets targeted under the City's street program, 14 facilities to maintain and other division initiatives, the Water and Sewer Division does not have the personnel to undertake the labor intensive program either. With so many newer areas of town, a long range planning goal would be to have a hydrant flow testing program with an emphasis on new developments. Such a program would either require additional personnel, use of summer interns or contracting out to a firm that does such work. Additionally, the division desires to use GPS to get physical data for each hydrant so that it can be included in the city's GIS system.

Goal: Assure fire hydrants are operational.

Routine Target Objective: Assess each hydrant on an annual basis to determine maintenance needs.

Routine Target Objective: Follow up on all hydrants found to be deficient during hydrant flushing by repair and/or replacement.

Routine Target Objective: Repair all hydrants damaged by vehicular accidents, misuse or other events.

Current Target Objective: Locate all hydrants using GPS and integrate data into the GIS system.

Long Range Target Objective: Flow test hydrants on a routine basis.

Long Range Target Objective: Replace fire hydrants that are more than 50 years old.

WATER VALVES

There are over 4,000 water main valves in the distribution system. These are used to regulate flow, isolate systems for maintenance, and provide water to each fire hydrant. In addition, there are almost 12,000 service valves located in the right of way used to shut water on and off to customers for start/stop of service, customer repairs and non-payment issues. Valve ages range from greater than 60 years old to brand new.

While the division repairs defective valves when found (see figure 6B.7 for a summary of recent repairs), it is likely that there are many more problematic units based on the age of the system. In recent years in conjunction with the street program, each water main valve on a street targeted for repair is operated to determine functionality and if needed, repaired or replaced prior to commencement of the street program work.

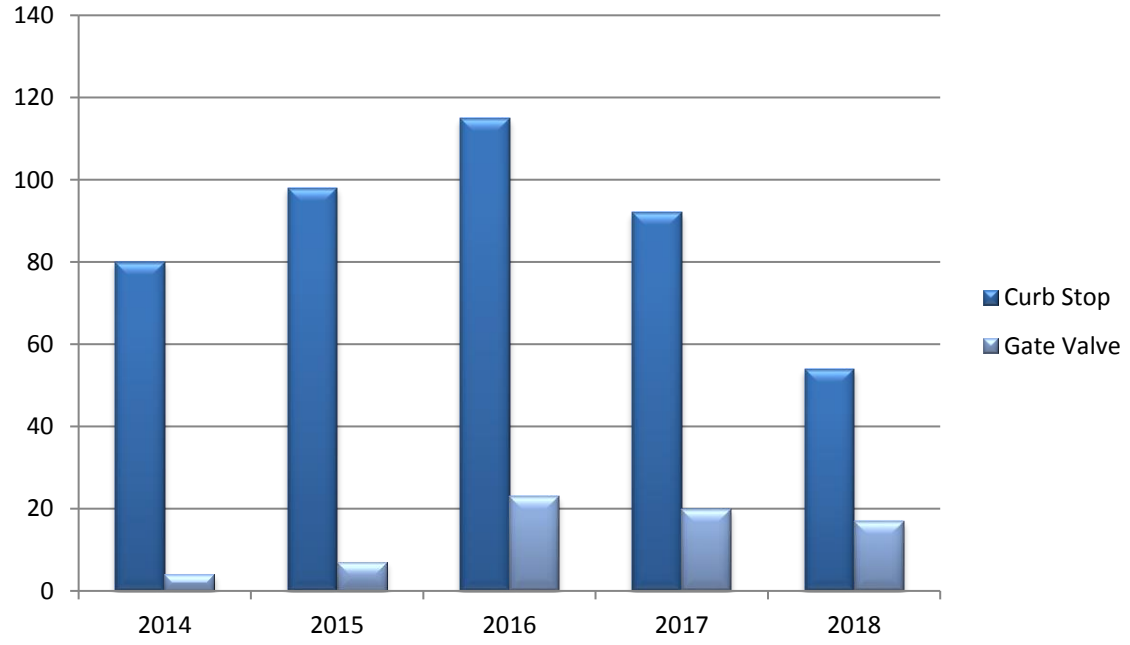


Figure 6B.7 Valve Repairs

The division maintains records on each valve location. Currently these are based on measurements from physical markers (such as buildings, edge of road, etc.) so if changes occur (such as building demolition, road re-profiling, etc.) our measurements are no longer valid. It is the intent to perform in-house GPS locating of valves using service workers as part of the identified reorganization goals. This information will then be integrated into the GIS mapping system for improved field locating.

Goal: Assure water valves are operational.

Routine Target Objective: Replace defective valves when found.

Current Target Objective: Locate valves using GPS technology and integrate into the GIS system.

Current Target Objective: Undertake a comprehensive valve operation program.

Long Range Target Objective: Replace valve turning machine.

Long Range Target Objective: Install additional valves to provide for better isolation in areas with limited valving.

WATER MAINS

There are approximately 160 miles of water main in the distribution system. Because our city, like most, has developed over a long period of time, there is a variety of pipe material (See Figure 6B.8) and pipe sizes (3" to 30") in place. Today, the preferred material is ductile iron pipe at a minimum size of 6". Additionally, when areas are developed, the City will pay to oversize the pipe if it will make future development in the area easier.

Having undersized pipes can pose a problem in providing water during high demand situations such as a structure fire. As part of our long range planning, we work with the Engineering Division to identify those areas of concern and replace them with larger pipe.

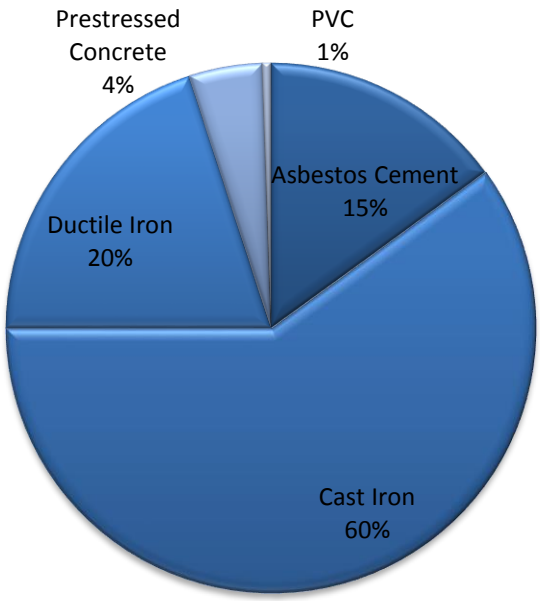


Figure 6B.8 Water Main Pipe Material

Since they are buried, it is difficult to assess the condition of water mains until an actual problem surfaces - normally in the form of a water main break. Every year there are a number of water main breaks associated with deteriorated pipe and ground shifts caused by freezing and thawing or droughts. This number fluctuates annually depending on conditions, but in an average year the division responds to more than 40 emergency events. However, not all breaks surface by themselves and may go undetected. In 2017, a whole system leak detection survey was performed. It identified approximately 300,000 gallons of unsurfaced water system leaks which were then repaired by the division. Another survey is planned for 2020.

Because of age and material types, future planning will need to look at replacement of older cast iron and asbestos cement pipes with hardier ductile iron pipe. As you can see from Figure 6B.3 this could be a very costly and time consuming endeavor and may have to be undertaken based on failure rates (i.e. water main breaks) of particular lines. In recent years, efforts have been undertaken to replace water mains that have experienced frequent failures. This has resulted in projects on Funderburg, Sunset, Oakhill, Blossom, Ohio and Ramona. This year Xenia Drive, Thornton Drive, and Regina Drive will all have water main replacements ahead of street renovations. Future projects are being planned (such as Maple Ave. and Beech Street) to coincide with and/or precede major street renovation projects.

The hydrant flushing mentioned earlier not only allows us to check the operation of each fire hydrant, it also helps improve water quality in the mains by removing naturally occurring build-up from the sides of the pipe. It is also one of the standards checked during ISO surveys.

In an effort to enhance the City's ability to support residential and commercial growth, monies are identified in the capital plan annually for upsizing of water mains associated with developments. In addition, in areas of anticipated or potential growth projects are identified to groom these areas for successful outcomes.

Goal: Assure water mains are adequately sized and in good repair.

Routine Target Objective: Repair water main breaks when found.

Routine Target Objective: Provide funding for water main upsizing.

Current Target Objective: Construction phase of Rona Hills Looping project.

Current Target Objective: Replace water mains on Xenia Drive, Thornton Drive and Regina Drive ahead of street renovations.

Long Range Target Objective: Replace 4" and smaller water mains.

Long Range Target Objective: Continue replacing cast iron and asbestos cement water mains.

Long Range Target Objective: Support future growth through expansion of the distribution system as appropriate.

Long Target Objective: Conduct whole system leak surveys on a regular basis

WATER METERS

Water meters provide a means of measuring how much water is used by customers to allow for appropriate billing for both water and sewer usage. The size of the meter installed is based on the amount of water needed to service the location. There are currently over 13,000. As demonstrated in Figure 6B.9, the majority of meters installed are 5/8" x 3/4" as this is the typical meter used for a single family home installation. While our commercial customers typically have a higher administrative cost based on the size of their meter, the rate per 1000 cubic feet is the same for all customers. Unlike some larger cities with either very large industrial customers with extreme usage or a higher

percentage ratio of commercial to residential customers, Fairborn is unable to offset the residential customer usage rate.

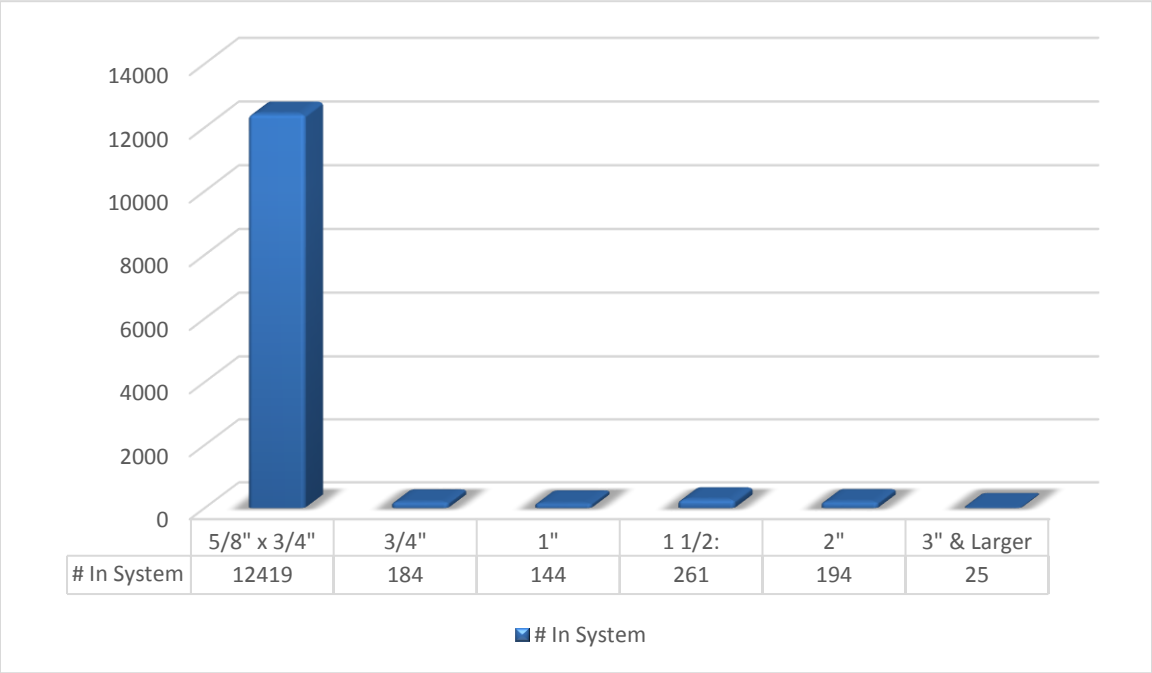


Figure 6B.9 Meter Sizes

Beginning in 1999, the City began reading water meters remotely which allowed for almost 100% of bills being based on an actual meter reading. Until 2018, this was achieved using a mobile meter reading system. In 2018, the system was upgraded to a fixed based system which allowed for the meters to be read automatically on a daily basis without the deployment of personnel. This has allowed the city's billing office to collect final readings for tenant/owner change over, determine unauthorized use on vacant accounts, and make notifications to customers when there appears to be a potential leak. In addition, a web portal was added that allows customers to monitor their usage and set notifications for higher than normal use.

Goal: Accurately measure quantity of water used by each customer and provide a monthly bill based on an actual reading.

Routine Target Objective: Troubleshoot and replace meters and/or reading technology as needed.

Routine Target Objective: Attain readings for all meters to allow for monthly billing.

Long Range Target Objective: Plan for meter replacement in 15-20 years.

SECTION 7A

Water Reclamation Center

Statement of Strategic Function

Reclaiming environmentally unsuitable water received from domestic and commercial activities in accordance with Ohio Environmental Protection Agency (OEPA) regulations by separating water borne material and discharging the cleansed water to the Mad River; appropriate disposal of resulting waste material; and carrying out all functions at minimum cost.

7A.1 Introduction

The Fairborn Water Reclamation Center (WRC) is an advanced secondary treatment activated sludge system with biological nutrient removal (BNR) and ultraviolet (UV) disinfection. The system has a 6 million gallon per day (MGD) average daily flow capacity designed to treat 9,558 lbs/day biological oxygen demand (BOD_5) and 1201 lbs/day ammonia (NH_4) and has a 16 MGD peak hydraulic capacity to treat large rain events. The WRC reclaims more than a billion gallons of wastewater per year. That's enough to make a circular lake a mile across and eight feet deep.

The plant is staffed 9-hours a day Monday through Friday and 4-hours a day on Saturday and Sunday but monitored and controlled 24-hours a day by a Supervisory Control and Data Acquisition System (SCADA) that has the ability to contact on-call personnel in the event of a potential problem. In 2018, the SCADA system was upgraded to address antiquated software, provide improved real time data collection and remote capabilities, and put the system on the same platform as used for the water treatment, collections and wastewater treatment systems. The SCADA system can be accessed by off-site, on-call

personnel through the use of an ipad who can then assess alarms to determine whether corrective action can be taken remotely or necessitates response by an operator.

7A.2 Long Range Planning

Long range planning for the wastewater reclamation treatment system is based on the most current estimate of Fairborn's growth, coordination with Community Development and Engineering, current and anticipated Ohio EPA rules and mandates, recommendations from the 2015 WRC Master Plan, and the age and condition of existing infrastructure. The planning takes into account the long lead times associated with the design and construction of system modifications and expansions to ensure appropriately configured systems with sufficient capacity are on line in time to meet growth demands and/or more stringent State and Federal regulations.

Goal: Develop a five year plan to ensure the WRC can treat wastewater generated by our present and future residential and commercial customers, ensure the level of treatment complies with current regulations as well as preparing for future, more stringent regulatory requirements, and do so at the lowest practical cost.

Current Target Objective: Implement the findings of the Wastewater Master Plan through capital planning, operational assessment and budgeting.

Long Range Target Objective: Determine needs, assess new technology, and establish appropriate projects based on projected growth, regulatory requirements, and life cycle cost considerations. Develop an implementation schedule and secure funding for required projects.

7A.3 Facilities

Water reclamation is a 24 hours/day, 365 days/year process that consists of both mechanical removal of material from wastewater and biological treatment. Wastewater is conveyed via sewer mains and lift stations to the plant where it enters the Screening Building/Grit Channels which remove trash. The wastewater proceeds via gravity to an influent splitter box where it is inoculated with naturally present soil and water bacteria before flowing into oxidation tanks where the bacteria reproduce and use the contaminants as a food source. The flow then goes to clarifier tanks where the bacteria adhere to each other forming organic masses that sink to the tank bottom and are removed. The clean water overflows the top of the tank, flows through an ultraviolet (UV) disinfection process, and ultimately discharges to the Mad River. The various steps are described more fully in the following paragraphs.

EMERGENCY ELECTRICAL GENERATOR

The WRC treatment system includes a stationary diesel generator capable of running the entire WRC (including future expansions) in the event of loss of power from DP&L.

Goal: Maximize longevity.

Routine Target Objective: Conduct preventative maintenance.

WASTEWATER PUMP STATIONS

Pump stations pump the wastewater until it reaches a height to allow gravity to convey it to the next phase of travel or treatment. One pump station (Northwest Pump Station) is located in close proximity to the WRC and another (Influent Pump Station) is located on site. Both are covered in this Section. The remaining four stations are located within the neighborhoods they service and are discussed in Section 7B. All stations are primarily maintained by WRC personnel.

Northwest Pump Station

This station is located on Upper Valley Road in Bath Township about one mile south of the WRC and pumps wastewater from the southern portion of the City. The wastewater is pumped to a force main and into the Screening Building where treatment begins.

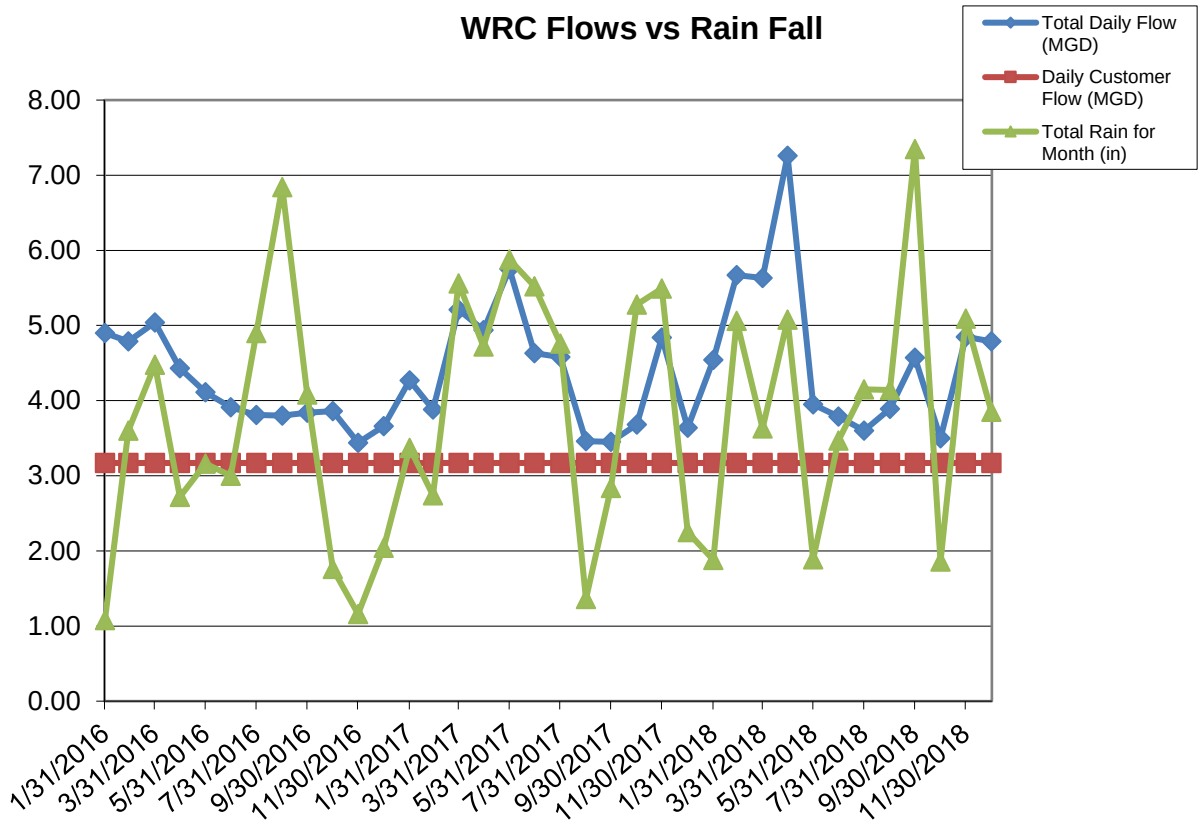
This facility went on line in the early 1970's. Although the structure is sound many components were approaching the end of their operational lives as well as being energy inefficient, and the station periodically exceeded its rated capacity to cope with rain events. In addition, the force main that conveys wastewater from the station to the WRC had experienced significant pipe failures requiring emergency repairs and was nearing capacity. In 2016 construction was completed that included renovation of the station (high capacity, energy efficient pumps, automated controls, etc.), the addition of a new, 24 inch force main, and fiber optic connectivity to the WRC to allow for communication with the WRC SCADA System. These improvements increased the station's peak pumping capacity from 6.5 MGD to 15.8 MGD. In addition, a non-functioning emergency generator was replaced with a new diesel unit capable of fully operating the station. These improvements ensure the station will meet Fairborn's needs for the foreseeable future.

Influent Pump Station

This station is located at the WRC and pumps wastewater from the northern portion of the City. The wastewater is pumped directly into the Screening Building where treatment begins. This pump station became operational in July 2009 and has a projected 50 year operational life. A diesel generator capable of fully operating the station as well as the rest of the WRC is in place.

The stations are designed to pump the normal daily flow discharged by Fairborn's customers as well as peak flows that can occur as a result of inflow from rain events or infiltration from excess groundwater. The following figure derived from actual measurements recorded at the WRC demonstrates how rain events affect the flow entering the WRC for treatment. The actual daily customer flow in 2018 averaged 4.85 MGD. However, the total daily flow (averaged by calendar month)

has been as high as 7.26 MGD and the highest flow ever documented for a 24 hour period (Apr 4, 2018) was 14.02 MGD. Large rain events can cause the daily flow to triple.



Goal: Assure ability to pump and treat both dry and wet weather wastewater flows.

Routine Target Objective: Conduct preventative maintenance on each station to assure longevity of equipment.

Long Range Target Objective: Assess pumping capabilities and design or construct station additions and/or new facilities as needed.

SCREEN BUILDING/GRIT CHANNELS

The mechanical trash removal consists of two fine screen vertical conveyor devices that collect trash (paper, pieces of wood, plastic, bits of cloth, etc.) as the flow passes, lift the material up out of the flow allowing excess water to drain back into the incoming flow, and drop the material onto a horizontal screw conveyor that squeezes out excess water and dumps the dewatered material into a trash receptacle. The flow then enters two aerated grit channels where the air bubbles and flow velocity keep organic, biodegradable material in suspension while sand, pebbles, bits of glass and metal, etc. settle to the bottom of the channels and are removed, drained of water, and dumped into a trash receptacle. Both processes are fully automated. The trash is hauled to a landfill and the wastewater flows, via gravity, to the influent diversion box.

One of the fine screens was replaced in 2016 with an improved technology screen that removes more trash, requires less maintenance, and has a lower life cycle cost. Installation was completed in 2016. The other fine screen, which is 10 years old, was rebuilt in 2018 to address wear and tear maintenance issues and provide an extended life.

The concrete structure of the grit channels were repaired in 2018 to address condition issues and extend their life.

Goal: Remove trash and grit as effectively and efficiently as practical.

Routine Target Objective: Conduct preventative maintenance to assure longevity of equipment.

Long Range Target Objective: Monitor performance and equipment condition to maximize operation and ensure capacity exists to treat peak flows.

INFLUENT SPLITTER BOX

After trash removal, the influent splitter box mixes incoming wastewater with naturally occurring soil and water bacteria, referred to as return activated sludge (RAS) and then discharges the mixture to one, two, or all three primary oxidation tanks, depending on flow volume. To reduce costs the minimum number of units required to treat incoming flow are put on line. The flow is apportioned to the tanks via vertical adjustments of the gates inside the splitter box.

Goal:

Routine Target Objective: Conduct preventative maintenance to assure longevity of equipment.

Long Range Target Objective: Address conditions of concrete splitter box.

Long Range Target Objective: Ensure capacity exists to direct peak flows.

OXIDATION TANKS

The system has the capacity to treat up to 6 MGD. There are three primary oxidation tanks (referred to as Oxidation Tanks 1, 2, and 3) that take flow from the splitter box and discharge to one larger secondary oxidation tank (referred to as Oxidation Tank 4). Tanks 1 – 3 are approximately 50 years old and Tank 4 is approximately 30 years old. A project to complete major renovations to these tanks was undertaken in 2018 and will be completed in 2019. This project addressed concrete wall degradation, replacement of original tank catwalks, and replacement of crumbling stairs.

Air input adjustments to create the environments needed in the various areas of the tanks are controlled by the SCADA system. A limited number of SCADA integrated sensors measure nutrient levels and collect data used by the Operators to ensure current permit limits are not exceeded. Additional sensors to control dissolved oxygen (DO) concentrations in the different channels of the tanks as well as a backup nutrient removal system will be needed to meet anticipated 2021 Ohio EPA nutrient limits. The Wastewater Master Plan identifies recommended improvements that will optimize performance and energy consumption as well as meet future regulatory requirements.

Goal: Meet treatment criteria specified in the Ohio EPA discharge permit.

Routine Target Objective: Conduct preventative maintenance to assure longevity of equipment.

Current Target Objective: Complete structural improvements to assure continued longevity and operator safety.

Long Range Target Objective: Upgrade sensors/automation to ensure regulatory requirements are met.

Long Range Target Objective: Ensure capacity exists to treat peak flows.

CLARIFIER SPLITTER BOX

Flow from Oxidation Tank 4 is directed to one or both of the two clarifier tanks, depending on flow volume. Flow is controlled via vertical gates that can be raised or lowered as required.

Goal: Maximize longevity.

Routine Target Objective: Conduct preventative maintenance to assure longevity of equipment.

Long Range Target Objective: When appropriate, replace existing gates with better designed, lower life cycle cost replacements.

CLARIFIER TANKS

The flow entering the clarifier tanks is not agitated or disturbed thus allowing most water currents to dissipate. In this calm environment the organic biomass grown in the oxidation tanks settles to the bottom and the cleansed water that flows off the tank top is collected in the circular trough around each clarifier and discharged to the UV disinfection system.

The settled organic biomass is then split into two streams: a portion is pumped to the Influent Splitter Box to inoculate incoming wastewater and a portion is pumped to aerobic digesters for removal from the treatment system.

The drive motors and rake arms on both clarifiers have been replaced thus extending operational life to at least 2035. In 2019 metal surfaces will have old paint removed, perforations repaired, and the surfaces will be coated with a protective coating to extend their operational life.

Anticipated future Ohio EPA regulatory changes requiring increased phosphorus and nitrogen removal indicate the potential need for a third clarifier. The Wastewater Master Plan suggests that the unit may be needed in the 5-10 year planning period.

Goal: Ensure capacity exists to cope with peak flows.

Routine Target Objective: Conduct preventative maintenance to assure longevity of equipment.

Current Target Objective: Extend useful life of metal surfaces by having a third party apply a protective coating.

Long Range Target Objective: Add a third clarifier when required to meet more restrictive EPA directed biological nutrient removal requirement and/or to accommodate City growth.

RETURN PUMP BUILDING

The Return Pump Building houses the 3 pump system that pumps the organic biomass (as described above). The building also houses the non-potable water system that provides groundwater for the treatment process and reduces the cost of the process water that would otherwise be purchased from Huber Heights.

Goal: Maximize longevity.

Routine Target Objective: Conduct preventative maintenance to assure longevity of equipment.

Long Range Target Objective: Ensure sufficient pumping capacity.

Ultraviolet (UV) DISINFECTION SYSTEM

The UV disinfection system consists of a number of modules that contain numerous side by side UV lamps (similar in appearance to fluorescent bulbs) oriented vertically and perpendicular to the direction of flow. The UV light is at a specific wavelength chosen for its capability to damage bacterial and viral genetic material rendering them incapable of reproduction and, therefore, harmless.

Given operational life, hydraulic capacity considerations and flood vulnerability, the UV system is recommended for improvements in conjunction with other effluent improvements in the near future.

Goal: Maximize longevity.

Routine Target Objective: Conduct preventative maintenance to assure longevity of equipment.

Long Range Target Objective: Design and install a new system to assure ability to meet demands and reduce vulnerability to river flooding.

AEROBIC DIGESTER COMPLEX

The complex consists of the four digester tanks, the aeration/mixing systems, and the building housing the blowers, pumps, and associated equipment. The organic biomass removed from the bottom of the clarifiers is pumped into these tanks and electrically powered blowers/mixers sequence as required to blow atmospheric air through the mixture to reduce the mass of the organic material present (they consume themselves) or stop to allow solids to settle and clear liquid to return to the treatment system. This is done to reduce the cost of transporting biomass to other facilities for beneficial reuse.

New blowers, associated electrical controls, and building climate control were replaced for Digesters 1 and 2 to address age and efficiency concerns. The two new units are high efficiency to reduce operational costs and improve maintainability.

Goal: Maximize longevity.

Routine Target Objective: Conduct preventative maintenance to assure longevity of equipment.

Long Range Target Objective: Ensure sufficient treatment capacity.

CONCENTRATION BUILDING/BELT PRESS/CONVEYOR SYSTEM

The Concentration Building houses the belt press and associated sub-systems. The belt press removes as much water from the biomass as possible to allow for further processing and to further reduce processing costs. The conveyor system moves the biomass into the Biosolids Processing/Storage Building for further processing, for landfill disposal, or for further processing at another facility (whichever is most cost effective). The current most cost effective approach is landfill disposal.

A new more efficient, higher capacity belt press was installed in 2018. In conjunction with this unit, a new conveyance system was installed, obsolete pumps were replaced with high efficiency equipment, and piping upgrades were added to improve digester operation. The existing older belt press will remain in place to provide redundancy.

Goal: Ensure sufficient processing capacity.

Routine Target Objective: Conduct preventative maintenance to assure longevity of equipment.

Long Range Target Objective: Monitor technological advances and regulatory requirements and upgrade as required.

BIOSOLIDS PROCESSING/STORAGE BUILDING

As part of the belt press upgrade, a portion of this building was enclosed to house the new unit. Additionally, the building's exterior was renovated to address failing curtains. Equipment associated with a process no longer used for solids handling were eliminated on both the interior and exterior of the facility.

Goal: Maximize longevity.

Routine Target Objective: Conduct preventative maintenance.

Long Range Target Objective: Maintain structure optimize operational life.

BIOSOLIDS STORAGE PAD

This is a large asphalt surface for storing up to 6 months' worth of biosolids production as required by Ohio EPA. The surface is configured such that storm runoff is collected and returns to the treatment system. In 2018, a jet truck debris station was added to allow for easier disposal of material collected during sewer line cleaning.

Goal: Maximize longevity.

Routine Target Objective: Conduct preventative maintenance.

ANCILLARY FACILITIES

Several buildings are located within the WRC compound that are not part of the treatment process, but which provide support to the mission of the plant. These include the equipment garage, workshop, UV workshop, and administrative building which includes the plant laboratory. In addition, there is infrastructure in place to service the entire compound such as lighting, fencing, parking lots, etc.

Goal: Maximize longevity.

Routine Target Objective: Conduct preventative maintenance.

SECTION 7B

Sewer Collection

Statement of Strategic Function

To collect wastewater from all residential and commercial buildings, convey it to the Water Reclamation Center for treatment, and minimize the potential for sewer surcharges through system maintenance and the reduction of stormwater inflow and groundwater infiltration.

7B.1 Introduction

The City of Fairborn wastewater collection system transports over a billion gallons of wastewater per year from over 13,000 residential and commercial services to the Water Reclamation Center (WRC) located on Route 4 in Huber Heights.

7B.2 Long Range Planning

Long range planning for the wastewater collection system is based on anticipated growth, Ohio Environmental Protection Agency (OEPA) rules and mandates, and age and condition of existing infrastructure. This planning is often a delicate balance between meeting projected demands while not building infrastructure that will be underused which can impact the operability of the collection system.

An updated Wastewater Master Plan for the sewer collection system was completed in 2015 which provides a guide for planning of system improvements for a 20-year planning horizon. This effort included working with Community Development, Economic Development, and Engineering to determine potential focus areas for planned and future development opportunities.

Goal: Develop a five year plan that assures our ability to collect wastewater generated by our present and future residential and commercial customers, convey it to the WRC, limit the impact of external waters and address improvements needed to aging infrastructure.

Current Target Objective: Implement the recommendations of the updated sewer collection master plan through capital planning; operational assessment and budgeting.

Long Range Target Objective: Determine needs and establish appropriate projects based on projected growth, OEPA regulations, system trouble spots and infrastructure age/condition.

Long Range Target Objective: Secure funding for required projects.

7B.3 Facilities

In general, the collection system operates via gravity. However, for those areas without sufficient slope to allow for gravity flow to the WRC, pump stations have been placed to physically lift the wastewater to a level that will allow for continued passage through the system. These facilities are monitored 24 hours a day via a Supervisory Control and Data Acquisition (SCADA) system. When operation deviates from set standards, the SCADA is connected to an automatic notification system that contacts the appropriate personnel who have the ability to remotely access the SCADA system via ipads. All system components are described more fully in the following paragraphs.

SEWAGE LIFT STATIONS

Lift stations, as the name implies, lift the sewage to a height sufficient to allow gravity to once again convey it through the collection system. The Division of Water and Sewer oversees four lift stations directly associated with the collection system. Stations have to be designed to handle not only normal daily flow, but also peaks that can occur as a result of inflow from rain events or infiltration from excess groundwater.

Southeast Lift Station

This station is located in the southeastern area of the city and collects wastewater from a large portion of the city which is discharged to a 16-inch, 2 mile long force main. In 2018, construction was completed to upgrade this station within its existing footprint. The project almost doubled the station capacity, utilized energy efficient equipment, provided a 500 kW stationary diesel generator capable of operating the station for multiple days, and eliminated a chokepoint that impeded flow leaving the station. The station now has four 125 horsepower pumps with variable frequency drives which are capable of moving 5.7 million gallons per day. On site is a chemical treatment system that applies a calcium nitrate product to the wastewater for odor control and pretreatment purposes. SCADA system improvements included user interface units to allow for improved on-site control capabilities.

Kauffman Lift Station

A new station was completed in 2013 to replace two older problematic stations. It handles wastewater from the south central portion of Fairborn and can be directed to discharge into force mains that enter either the south or north interceptors. The new station features variable frequency drives; SCADA monitoring and control capabilities; larger, more efficient pumping equipment and is built to a flood proof standard. A 125 KW stationary natural gas generator provides standby electricity in the event of loss of power from DP&L.

Peppertree Lift Station - This station was originally built in the early 1990's as a private station to handle a condominium development. When the developer went bankrupt, the City inherited the station as-is. It is located in what is now the Peppertree housing area and serves a small area in the southwestern part of Fairborn. In 2015, the two 20 horsepower pumps were replaced with new units to assure longevity of the station. A 40 kW stationary natural-gas generator is maintained on site to provide backup in the event of loss of power from DP&L.

Chapelgate Lift Station - This station is located in the Chapelgate housing development which it services. It has two 5-horsepower pumps. A stationary 18 KW natural gas generator is available for emergency electricity in the event of power loss.

Goal: Assure ability of all stations to pump both dry and wet weather wastewater within each collection area.

Routine Target Objective: Conduct routine maintenance on each station to assure longevity of equipment.

Long Range Target Objective: Replace pumps when they near end of suggested life to ensure long term station operation.

Long Range Target Objective: Design improvements to the Southeast Lift Station discharge force main to provide additional conveyance capacity.

Long Range Target Objective: Assess pumping capabilities and design/ construct station additions and/or new facilities as needed.

SANITARY SEWER MANHOLES

There are over 2900 sanitary sewer manholes located at an average distance of 250' apart. These structures allow access for cleaning, televiewing and assessment of the sewer system. All new manholes are either precast or cast-in-place concrete units. However, some of the older manholes, especially those installed prior to the 1950's, are brick and mortar construction which tends to allow groundwater infiltration. Manholes may be located in a roadway or an easement. Both types of locations present unique maintenance challenges. Those located in roadways are subject to traffic wear and tear, impacted by road maintenance, and may be damaged during snow removal efforts. Those located in easements may be harder to access, subject to being covered over by landscaping efforts of well-meaning residents, are less in the public eye so may only be viewed during division checks and can become overgrown when located in undeveloped areas.

Goal: Assure ability to access manholes for maintenance purposes.

Routine Target Objective: Conduct checks of manholes located in easements to assess condition and assure accessibility.

Routine Target Objective: Assess manholes in response to citizen complaints, in areas targeted for street repair and as part of a routine inspection program and make needed repairs.

Long Range Target Objective: Undertake a lining program for all brick and mortar and deteriorated manholes to improve structural integrity and reduce inflow and infiltration.

SANITARY SEWER MAINS

There are approximately 140 miles of sanitary sewer main in the collection system. The system is composed of a variety of pipe materials, size and age, including some lines that date back to the 1920's. Today, we prefer to use PVC or reinforced concrete pipe at a minimum size of 8". When areas are developed, we will pay to oversize the main if it will enhance our ability to service future development in the area. In addition, when areas of anticipated or potential growth are identified sewer system design is undertaken to prepare these sites for successful outcomes.

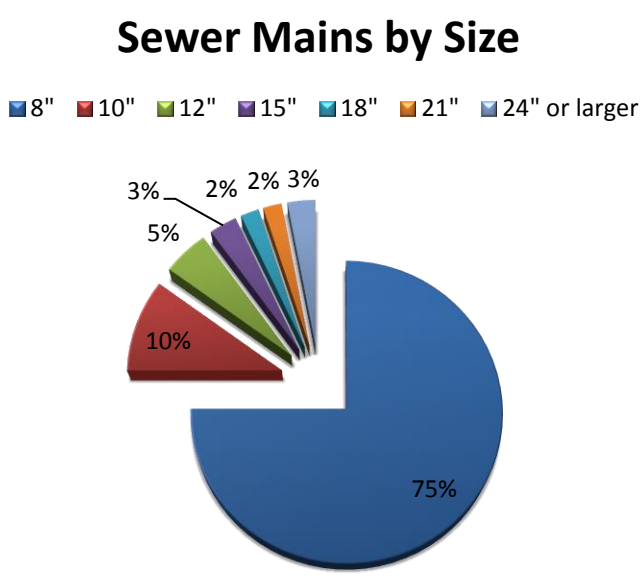


Figure 7B.1 Sewer Main Pipe Material

Although they are buried, we do have the ability to assess our sanitary sewer mains using the division's sewer televiewing system. A new televiewing system was purchased in 2017. The new unit has features that have drastically improved our ability to assess sewer mains and make operation safer for the technicians. Each year we target areas scheduled for street renovation, those that have experienced a backup situation and problem areas found during our routine cleaning program. A long range goal would be to hire a contractor to perform a whole system televiewing and/or sonar evaluation to assist us in planning future replacement needs.

Rehabilitation of sanitary sewer mains can be accomplished by either conventional excavation or no-dig methods. Generally, emergency and limited area repairs are performed in-house using excavation.

For mains that are intact but in a highly deteriorated state, we have had great success using a no-dig method known as cured-in-place lining. The lined pipe performs like new and at the same time reduces infiltration problems caused by pipe cracks and leaking joints. In 2018, almost 7,000 feet of sewer mains were rehabilitated. Additional areas are slated for rehabilitation in 2019. These areas are typically identified through in-house televiewing efforts.

Cleaning of the sanitary sewer helps to assure that it remains functional. We routinely clean one third of the city's main using a sewer jet truck. We currently have two units, one purchased in

2010 and a 24-year old unit maintained as a backup and for storm sewer cleaning functions. The 24-year old unit is due to be replaced in 2019 with a new unit with enhanced cleaning and safety features. The replaced unit will be redeployed to the Street Dept. to assist with in-house road renovations.

In spite of our best efforts, we do experience occasional backups. Generally we can attribute these incidents to either the type of materials that are being put into our collection system such as grease, flushable wipes (which touted as flushable by the manufacturer are a primary clogger of mains and pumps), diapers, etc. or extremely high amounts of surface or groundwater entering the system during heavy rain events. We continue to pursue means to both educate our customers on correct use of the sewers and make improvements to decrease inflow and infiltration to reduce these events.

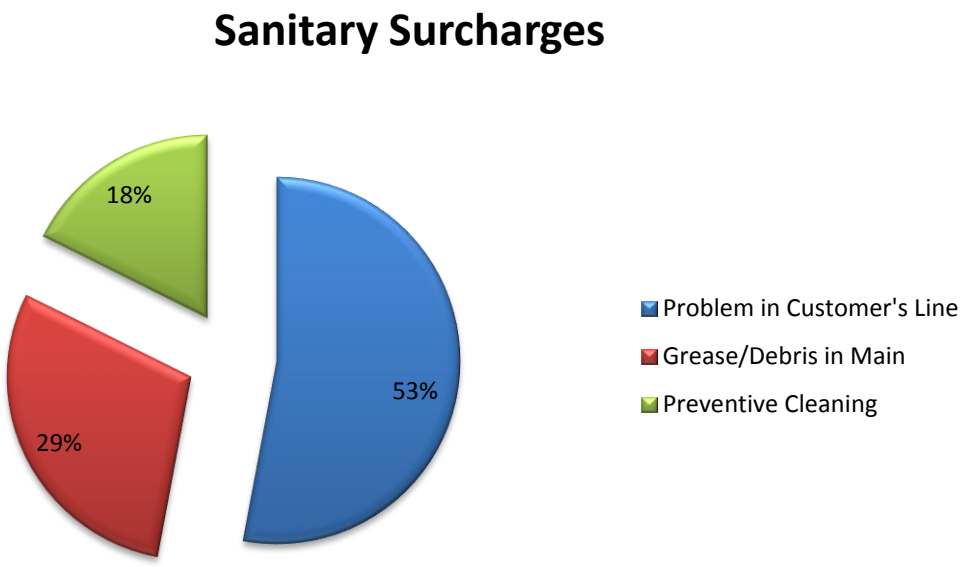


Figure 7B.2 Sewer Surcharge Complaints

Goal: Assure sanitary sewer mains are functional and limit inflow and infiltration.

Routine Target Objective: Repair sewer main failures when found.

Routine Target Objective: Conduct routine cleaning of 1/3 of the City annually.

Routine Target Objective: Perform televiewing in areas that have experienced backup, have been identified as problematic or are on streets targeted for repair.

Current Target Objective: Oversize sanitary sewer mains installed as part of new developments to allow for future growth in the area.

Current Target Objective: Undertake renovation through lining of problematic areas identified during 2018 televiewing efforts.

Long Range Target Objective: Continue to rehabilitate older and/or deteriorated sewer mains using lining process.

Long Range Target Objective: Contract to have a full televiewing and/or sonar assessment conducted of the sewer collection system.

Five Year Capital Improvement Plan 2020-2024

Department/Division: STREET-ENGINEERING

RECURRING Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
STREET IMPROVEMENTS	$0	$800,000	$1,000,000	$800,000	$1,000,000	Street Levy (2104)	$3,600,000
Construction of street repairs and preventative maintenance. Streets selected primarily based on a City-wide condition survey and assigned a Pavement Condition Index (PCI Number). Two-thirds of the street levy monies go to local streets and one-third to thoroughfares.							
Engineered By: In-House							
Constructed By: Contract							
Project Type: Annual Maintenance							
CITY SHARE OF SIDEWALK PROGRAM	$35,000	$40,000	$40,000	$40,000	$40,000	General Capital Improvement (4301)	$195,000
Annual rapair/replacement program for curbs, sidewalk and approaches (CSA). City incurs cost for corners of streets and other areas outside of property owners' responsibility.							
Engineered By: In-House							
Constructed By: Contract							
Project Type: Annual Maintenance							
HANDICAP RAMP PROGRAM	$60,000	$60,000	$60,000	$60,000	$60,000	Municipal $5 License Fee (2104)	$300,000
Retrofit and new construction of curb ramps to meet current ADA regulations where required.							
Engineered By: In-House							
Constructed By: Contract							
Project Type: Annual Maintenance							
INSPECTION SERVICES FOR DEVELOPMENT	$50,000	$50,000	$50,000	$50,000	$50,000	Developer Fee (2104)	$250,000
Construction inspection for new City infrastructure associated with development. Fees are paid by the developers.							
Engineered By: Not Applicable							
Constructed By: Not Applicable							
Project Type: New Construction							

Five Year Capital Improvement Plan 2020-2024

Department/Division: STREET-ENGINEERING

RECURRING Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
OPWC LOAN REPAYMENT - OHIO & WRIGHT	$11,210	$11,210	$11,210	$11,210	$11,210	Municipal $5 License Fee (2104)	$56,050
30 years of $11,210 payments to pay back $336,300 zero interest loan from the Ohio Public Works Commission for the 2016 reconstruction and waterline replacements on ohio street and Wright Avenue.							
Engineered By: Not Applicable							
Constructed By: Not Applicable							
Project Type: New Construction							
OPWC LOAN REPAYMENT - BROAD STREET IMPROVEMENTS		$13,333	$13,333	$13,333	$13,333	Municipal $5 License Fee (2104)	$53,332
30 years of $13,333 payments to pay back $400,000 zero interest loan from the Ohio Public Works Commission for the 2019 Broad Street improvement project.							
Engineered By: Not Applicable							
Constructed By: Not Applicable							
Project Type: New Construction							
OPWC LOAN REPAYMENT - CENTRAL RECONSTRUCTION			$16,667	$16,667	$16,667	Municipal $5 License Fee (2104)	$50,001
30 years of $16,667 payments to pay back $500,000 zero interest loan from the Ohio Public Works Commission for the 2020 Central reconstruction project.							
Engineered By: Not Applicable							
Constructed By: Not Applicable							
Project Type: New Construction							
OPWC LOAN REPAYMENT - YELLOW SPRINGS FAIRFIELD			$33,333	$33,333	$33,333	Municipal $5 License Fee (2104)	$99,999
30 years of $33,333 payments to pay back $1,000,000 zero interest loan from the Ohio Public Works Commission for the 2020 Central reconstruction project.							
Engineered By: Not Applicable							
Constructed By: Not Applicable							
Project Type: New Construction							

Five Year Capital Improvement Plan 2020-2024

Department/Division: STREETS-ENGINEERING

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
YELLOW SPRINGS-FAIRFIELD ROAD	$2,500,000					Street Levy (2104)	$336,255
Mill and resurface existing pavement, add curb and gutter on both sides, multi-use path on one side, and RRFB crossings at Black Lane, Roehner Drive, Astoria and Warm Springs, and add drainage improvements..						STP Grant	$1,163,745
						OPWC Loan	$1,000,000
Engineered By: Consultant							
Constructed By: Contract							
Project Type: New Construction							
MAPLE PHASE 1 ROAD IMPROVEMENTS (DORIS - DAYTON)	$2,700,000					Street Levy (2104)	$602,656
New asphalt pavement, replace all curb and gutter, add bike facilities, replace waterline, some sidewalk replacement, upgrade traffic signals at Redbank, and add pedestrian rapid flashing beacons at non-signalized crosswalks.						STP Grant	$1,297,344
						OPWC Grant	$800,000
Engineered By: Consultant							
Constructed By: Contract							
Project Type: New Construction							
CENTRAL AVE RECONSTRUCTION (LINDBERG TO DAYTON)	$1,500,000					Street Levy (2104)	$767,950
Construction contract for the full depth reconstruction of pavement including full curb replacement, some sidewalk replacement, and new striping.						ODOT Urban Paving	$232,050
						OPWC Loan	$500,000
Engineered By: Consultant							
Constructed By: Contract							
Project Type: New Construction							
TRAFFIC SIGNAL UPGRADES		$400,000				Street Levy (2104)	$300,000
Replacement of all signal infractructure including poles, signals, equipment, and wiring at Broad & Highview, Maple & Whittier, and Kauffman & Wright State Road.						County $5 License Fee (2104)	$100,000
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Replacement of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: STREETS-ENGINEERING

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
COLONEL GLENN PEDESTRIAN IMPROVEMENTS		$1,165,000				Street Levy (2104)	$244,651
Construction for a portion of the corridor enhancements between Old Yellow Springs Road and University Boulevard improvements including new sidwalk on the south side of the road, new pedestrian crossings, RRFB's, retaining walls, pedestrian curb ramps and lighting, drainage.						CMAQ Funds (MVRPC)	$920,349
Engineered By: Consultant							
Constructed By: Contract							
Project Type: New Construction							
COLONEL GLENN ENHANCEMENTS PHASE 1		$1,100,000				General Capital Improvement (4301)	$500,000
Construction contract for a portion of the corridor between North Fairfield Road and Univeristy Boulevard. improvements include a multi-use path on the north side of the road, decorative lighting, landscaping, trees, drainage iimprovements, and brick columns.						TA Grant	$350,000
						County $5 License Fee (2104)	$250,000
Engineered By: Consultant							
Constructed By: Contract							
Project Type: New Construction							
MAPLE AVE PHASE 2 ROAD IMPROVEMENTS		$2,923,908				Street Levy (2104)	$369,564
Construction contract that will provide new asphalt pavement, replace all curb and gutter, add bike facilities, replace waterline, and some sidewalk replacement. Water & Sewer has budgeted funds for waterline design.						STP Grant	$1,754,344
						OPWC Grant	$800,000
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Repair of Asset							
BROAD STREET PHASE 2 (DAYTON - PIERCE)	$420,000	$380,000		$2,500,000		Street Levy (2104)	$420,000
Design services to add and widen sidewalks, install new curb, asphalt resurfacing, restripe to 3 vehicle lanes and bike lanes, and add decorative elements such as street trees, street lighting and planters.						Street Levy (2104)	$380,000
						Street Levy (2104)	$900,000
						TA Grant	$350,000
						OPWC Grant	$1,000,000
Engineered By: Consultant						ODOT Urban Paving	$250,000
Constructed By: Contract							
Project Type: Repair of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: STREETS-ENGINEERING

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
DAYTON YELLOW SPRINGS RD CIR (COMMERCE - TREBEIN)			$950,000			County $5 License Fee (2104)	$200,000
Construction contract for pavement repairs, cold in-place recycling of existing asphalt pavement, and replace striping.						OPWC Grant	$750,000
Engineered By: In-House							
Constructed By: Contract							
Project Type: Replacement of Asset							
C.G. & N. FAIRFIELD IMPROV (PARAMOUNT-E.CORP)			$330,000		$1,250,000	Street Levy (2104)	$330,000
Design services for full depth pavement repairs, resurfacing, new signal poles and signals at North Fairborn Intersection, and adding curb. Includes paving all of North Fairfield Road in Fairborn.						Street Levy (2104)	$450,000
						OPWC Grant	$800,000
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Repair of Asset							
XENIA DR CONC. REPAIRS & RESURF (BLANCH-E CORP)				$650,000		Street Levy (2104)	$325,000
Construction contract to repair concrete joints and slabs from Blanch to 550' east of the northbound I-675 exit ramp, and mill and resurface the asphalt from there to the east corporation limit.						ODOT Urban Paving	$325,000
Engineered By: In-House							
Constructed By: Contract							
Project Type: Repair of Asset							
OHIO STREET NEIGHBORHOOD TRAFFIC CHANGES				$150,000		Street Levy (2104)	$150,000
Install permanent infrastructure including curb, sidewalk, ADA ramps, embankment, grass and landscaping to prevent excessive cut-through traffic on Greene, Ohio and South Streets at Broad Street.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Repair of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: STREETS-ENGINEERING

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
DAYTON YELLOW SPRING ROAD STREETSCAPE				$150,000	$600,000	Street Levy (2104)	$150,000
Possibly widen Dayton-Yellow Springs Road with a turn lane into the school, and install a new multi-use path on the school side and install landscaping along the corridor.						Street Levy (2104)	$600,000
Engineered By: Consultant							
Constructed By: Contract							
Project Type: New Construction							
BROAD ST ENHANCEMENT (PIERCE TO SANDHILL)				$750,000		Street Levy (2104)	$750,000
Design services for milling, pavement repairs, resurfacing, striping, new median islands, new storm sewer and retaining walls.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Repair of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: STORMWATER

RECURRING Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Catch Basin Repair	$40,000	$40,000	$40,000	$40,000	$40,000	General Capital Improvement (4301)	$200,000
Repair and/or rebuild deteriorated catch basins throughout the City to facilitate storm drainage and reduce street base erosion.							
Engineered By: In-House							
Constructed By: Contract							
Project Type: Repair of Asset							
Storm Sewer Repair	$40,000	$40,000	$40,000	$40,000	$40,000	General Capital Improvement (4301)	$200,000
General repairs needed to storm sewers and related appurtenances throughout the city. Repairs made to headwalls, drain tiles and ditch lines, or new sewers with catch basins may be constructed to facilitate storm drainage.							
Engineered By: In-House							
Constructed By: Contract							
Project Type: Repair of Asset							
Storm System Nuisance Control	$10,000	$10,000	$10,000	$10,000	$10,000	General Capital Improvement (4301)	$50,000
Annual spraying of the Dayton-Yellow Springs road corridor by a third party utilizing an approved weed killer for waterways, beaver control and removal of trees and other debris impacting creek flows.							
Engineered By: In-House							
Constructed By: Contract							
Project Type: Annual Maintenance							

Five Year Capital Improvement Plan 2020-2024 — Department/Division: BUILDINGS AND LANDS

RECURRING Project Name and Description		Estimated Total Cost					Funding Sources Amount
		2020	2021	2022	2023	2024	
General Building Repairs		$45,000	$45,000	$50,000	$50,000	$50,000	$240,000
Engineered By:	Not Applicable						
Constructed By:	In-House						
Project Type:	Annual Maintenance						
HVAC Agreements		$25,000	$25,000	$25,000	$25,000	$25,000	$125,000
Engineered By:	In-House						
Constructed By:	Contract						
Project Type:	Annual Maintenance						
Public Works Facility Debit Service		$257,000	$257,000	$257,000	$257,000	$257,000	$1,285,000
Engineered By:	Contract						
Constructed By:	Contract						
Project Type:	New Construction						

Five Year Capital Improvement Plan 2020-2024

Department/Division: BUILDINGS AND LANDS

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Government Center - LED Internal Light Exchange	$25,000					Buildings and Lands (2404)	$25,000
Conversion and replacement of existing lighting with LED fixtures							
Engineered By: In-House							
Constructed By: In-House							
Project Type: Replacement of Asset							
City Garage Roof Reseal	$30,000					Buildings and Lands (2404)	$30,000
Reseal equipment maintenance garage roof in preparation to become records storage.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Replacement of Asset							
Government Center-Public and Employee Restroom Updates	$50,000					Buildings and Lands (2404)	$50,000
All will receive new countertops, sinks, toilets, urinals, and partitions							
Engineered By: Not Applicable							
Constructed By: In-House							
Project Type: Replacement of Asset							
Municipal Court - Recarpet	$100,000					Buildings and Lands (2404)	$100,000
Continuation of the 2019 repaint/recarpet project.							
Engineered By: Not Applicable							
Constructed By: Contract							
Project Type: Replacement of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: BUILDINGS AND LANDS

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Replacement of Main Street Lights	$5,000					Buildings and Lands (2404)	$5,000
Purchase of 10 replacement inner light core for downtown lights. The existing light core is not manufacturered any longer. Purchase new model to have on hand.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Replacement of Asset							
Government Center Exterior Light Pole - Parking lot	$20,000					Buildings and Lands (2404)	$20,000
Replacement of external light poles.							
Engineered By: Consultant							
Constructed By: In-House							
Project Type: Replacement of Asset							
Parks and Recreation Compound - Pole Barn	$10,000	$200,000	$150,000			Buildings and Lands (2404)	$360,000
2020 Engineering; 2021 Construction of Pole Barn; 2022 Construction of new interior offices, lunch room and restrooms. Offices and restrooms will be constructed in-house.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: New Construction							
Parks and Recreation Office - Update Exterior	$25,000					Buildings and Lands (2404)	$25,000
Wood painted and exterior wall sided.							
Engineered By: Not Applicable							
Constructed By: In-House							
Project Type: Annual Maintenance							

Five Year Capital Improvement Plan 2020-2024

Department/Division: BUILDINGS AND LANDS

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Salt Shed Roof	$30,000					Buildings and Lands (2404)	$30,000
Repair or replace roof.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Repair of Asset							
Government Center - Window/Brick/Gutter/Roof Project				$140,000		Buildings and Lands (2404)	$140,000
Seal up the GC from incoming rain							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Repair of Asset							
Garage Renovation to Storage Facility					$75,000	Buildings and Lands (2404)	$75,000
As needed							
Engineered By: Not Applicable							
Constructed By: Contract							
Project Type: Annual Maintenance							

Five Year Capital Improvement Plan 2020-2024

Department/Division: PARKS AND RECREATION

RECURRING Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	**2021**	**2022**	**2023**	**2024**		
Park Equipment at Various Locations	$30,000	$30,000	$30,000	$30,000	$30,000	Parks Capital Improvement (4302)	$150,000
Annual							
Engineered By: In-House							
Constructed By: Contract							
Project Type: Annual Maintenance							
Playground Updates	$15,000	$15,000	$15,000	$15,000	$15,000	Parks Capital Improvement (4302)	$75,000
Various parks							
Engineered By: Not Applicable							
Constructed By: In-House							
Project Type: Replacement of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: PARKS AND RECREATION

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Mercer Smith House - Preservation	$10,000	$10,000			$10,000	Parks Capital Improvement (4302)	$30,000
Log Replacement as necessary, interior repairs, doors windows, roof							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Repair of Asset							
ADA Sidewalk Plan for Parks	$10,000	$10,000	$10,000			Parks Capital Improvement (4302)	$30,000
Developed with the City Engineer, sidewalks will be added annually until all park assets are able to be reached.							
Engineered By: In-House							
Constructed By: Contract							
Project Type: Repair of Asset							
Fairfield Park Tennis Courts	$100,000					Parks Capital Improvement (4302)	$100,000
Resurface and new fencing on three (3) existing courts.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Repair of Asset							
Basketball Courts - Resurface	$35,000			$50,000	$50,000	Parks Capital Improvement (4302)	$135,000
Sandhill, Community, Maplewood, Wedgewood, Rona							
Engineered By: Not Applicable							
Constructed By: Contract							
Project Type: Repair of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: PARKS AND RECREATION

Project Name and Description		Estimated Total Cost					Funding Sources	Funding Sources Amount
		2020	2021	2022	2023	2024		
Permanent Restrooms - Addition			$80,000			$90,000	Parks Capital Improvement (4302)	$80,000
Sandhill Park and Fairfield Park near Diamonds 4 & 5.								
Engineered By:	Consultant							
Constructed By:	Contract							
Project Type:	New Construction							
Osborn Park Pump Track				$145,000			Parks Capital Improvement (4302)	$145,000
Outdoor concrete tracks for bike enthusiasts								
Engineered By:	Consultant							
Constructed By:	Contract							
Project Type:	New Construction							
Basketball Courts - Add Lights					$80,000		Parks Capital Improvement (4302)	$80,000
Community Park (2 courts)								
Engineered By:	In-House							
Constructed By:	Contract							
Project Type:	New Construction							

Five Year Capital Improvement Plan 2020-2024

Department/Division: WATER

RECURRING Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Growth Project Infrastructure Support	$50,000	$50,000	$50,000	$50,000	$50,000	Water Construction Fund (4303)	$250,000
Design of infrastructure extensions in support of economic development target areas.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: New Construction							
Loop Dead-End Water Mains	$30,000	$30,000	$30,000	$30,000	$30,000	Water Construction Fund (4303)	$150,000
The proposed construction will connect various dead-end water mains in the city. Completing the projects will improve water quality and fire flows in the affected areas.							
Engineered By: In-House							
Constructed By: In-House							
Project Type: New Construction							
Mad River Well Field	$65,000	$65,000	$65,000	$65,000	$65,000	Water Depreciation Fund (6401)	$325,000
Well redevelopment and pump/motor replacement							
Redevelop an existing well to assure continued operation at highest yield. Repair or replace pumps and/or motors to assure longevity.							
Engineered By: In-House							
Constructed By: Contract							
Project Type: Annual Maintenance							
Public Works Facility	$95,872	$95,872	$95,872	$95,872	$95,872	Water Construction Fund (4303)	$479,360
Share of construction of a facility to house Public Works functions. Annual debt service payments will be made from the Water / Sewer Debt Service Fund from 2020-2044.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: New Construction							

Five Year Capital Improvement Plan 2020-2024

Department/Division: WATER

RECURRING Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Water Main Oversizing	$60,000	$60,000	$60,000	$60,000	$60,000	Water Construction Fund (4303)	$300,000
Upgrade size of water mains as a part of property development to help assure the ablity to meet needs of adjoining properties as they are developed.							
Engineered By: In-House							
Constructed By: Contract							
Project Type: New Construction							
Water Main Valve/Hydrant Replacement	$50,000	$55,000	$55,000	$55,000	$55,000	Water Construction Fund (4303)	$270,000
Replace malfunctioning valves/hydrants at various locations throughout the city. High priority will be given to those areas targeted by the Street Program. Address at least 10 units of 1950's vintage.							
Engineered By: In-House							
Constructed By: In-House							
Project Type: Replacement of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: WATER

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
"Tree Named" Streets and Circle Drive Water Main - Replacem	$360,000		$600,000	$600,000		Water Construction Fund (4303)	$1,560,000
Replace cast iron water lines to address condition concerns based on frequency of failures. Design in 2020 with construction in ensuing years.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Replacement of Asset							
New Mad River Well Field Well - Construction	$750,000					Water Construction Fund (4303)	$750,000
Construction of a new high capacity ground water well to readily supply the current and potential water demand for the city.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: New Construction							
Maple Avenue - Phase I (Dayton to Doris)	$900,000					Water Construction Fund (4303)	$900,000
Construct water line replacement already designed. Replace cast iron main and galvanized services with ductile iron main and copper services. Work will be done in conjunction with major street renovations.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Replacement of Asset							
Broad Street Water Main - Replacement	$240,000			$800,000		Water Construction Fund (4303)	$1,040,000
Replace cast iron main and galvanized services with ductile iron main and copper services. Work will be done in conjunction with major street renovations. Design in 2020 with construction in 2022.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Replacement of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: WATER

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Men's Locker Room Addition ADA Compliant	$40,000	$150,000				Water Construction Fund (4303)	$190,000
Upgrade from a single bathroom to provide an area for lockers, showers and changing for plant staff. Design in 2020 with construction in 2021.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: New Construction							
Wrightview Water Main Replacement - Design		$300,000				Water Construction Fund (4303)	$300,000
Replace cast iron main and galvanized services with ductile iron main and copper services. Work will be done in conjunction with major street renovations, including Oak, Vine, and Forest Streets.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Replacement of Asset							
Install VFD on NEMRWF Wells #7 and #8		$80,000				Water Construction Fund (4303)	$80,000
Installation of variable frequency drives (VFD's) on two wells to allow for adjustments of flow to meet actual demand. This will provide for more flexible use of these wells, reduce energy use and improve chemical dosing capabilities.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: New Purchase							
Sister Tank in Low Service - Design					$350,000	Water Construction Fund (4303)	$350,000
A second water tower at Fairfield Park will allow for greater system storage for domestic and firefighting use and ensure redundancy during tower maintenance.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: New Construction							

Five Year Capital Improvement Plan 2020-2024

Department/Division: WATER

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Plant Medium Service Station Replacement Design					$300,000	Water Construction Fund (4303)	$300,000
Replace a vintage booster station to address condition concerns and to assure the ability to meet future capacity in the medium service area.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Replacement of Asset							
Comprehensive Fire Flow Survey					$90,000	Water Construction Fund (4303)	$90,000
Conduct a systemwide testing of fire hydrants to determine flow available for domestic and firefighting purposes.							
Engineered By: In-House							
Constructed By: Contract							
Project Type: Repair of Asset							
Maple Avenue - Phase II (Doris - Five Points)		$1,600,000				Water Construction Fund (4303)	$1,600,000
Construct water line replacement designed in 2019. Replace cast iron main and galvanized services with ductile iron main and copper services. Work will be done in conjunction with major street renovations.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Replacement of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: SEWER

RECURRING Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Service/Clean WRC Non-Potable Water Well	$15,000	$15,000	$15,000	$15,000	$15,000	Sewer Depreciation Fund (6402)	$75,000
Addresses one well/year from the 8 well system as well as the associated controls for preventative maintenance, repairs, etc. to extend the system's operational life.							
Engineered By:	In-House						
Constructed By:	Contract						
Project Type:	Annual Maintenance						
Growth Project Infrastructure Support	$50,000	$50,000	$50,000	$50,000	$50,000	Sewer Construction Fund (4305)	$250,000
Design of infrastructure extensions in support of economic development target areas.							
Engineered By:	Consultant						
Constructed By:	Contract						
Project Type:	New Construction						
Manhole and Sewer Rehabilitation	$15,000	$15,000	$15,000	$15,000	$15,000	Sewer Depreciation Fund (6402)	$75,000
Project will target repairs needed on streets scheduled for the Street Program and those found during routine maintenance.							
Engineered By:	In-House						
Constructed By:	In-House						
Project Type:	Repair of Asset						
Public Works Facility	$95,872	$95,872	$95,872	$95,872	$95,872	Sewer Construction Fund (4305)	$479,360
Share of construction of a facility to house Public Works functions. Annual debt service payments will be made from the Water/Sewer Debt Service Fund from 2020 - 2044.							
Engineered By:	Consultant						
Constructed By:	Contract						
Project Type:	New Construction						

Five Year Capital Improvement Plan 2020-2024

Department/Division: SEWER

RECURRING Project Name and Description		Estimated Total Cost					Funding Sources	Funding Sources Amount
		2020	2021	2022	2023	2024		
Sanitary Sewer Rehabilitiation		$185,000	$185,000	$185,000	$185,000	$185,000	Sewer Depreciation Fund (6402)	$925,000
Perform point repairs to areas of the sanitary sewer system to lessen impact of storm events on both the collection and treatment systems and improve underground infrastructure.								
Engineered By:	In-House							
Constructed By:	Contract							
Project Type:	Repair of Asset							
Sewer Main Oversizing		$60,000	$60,000	$60,000	$60,000	$60,000	Sewer Construction Fund (4305)	$300,000
Upgrade size of sewer mains as part of property development to help assure the ability to meet needs of adjoining property as they are developed.								
Engineered By:	In-House							
Constructed By:	Contract							
Project Type:	New Construction							

Five Year Capital Improvement Plan 2020-2024

Department/Division: SEWER

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Oxidation Ditch - Instrumentation Upgrade	$250,000					Sewer Depreciation Fund (6402)	$250,000
Replace end of life parameter monitoring system with an updated version that will provide process control data to ensure current and future discharge permit limits are not exceeded. Recommended in the Wastewater Master Plan.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Replacement of Asset							
Chapelgate Lift Station - Pump Replacement	$60,000					Sewer Construction Fund (4305)	$60,000
Replace two end of life pumps with new, efficient pumps.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Replacement of Asset							
Oxidation Ditch - Drive/Motor Upgrade			$450,000			Sewer Construction Fund (4305)	$450,000
Replace end of life units with new efficient units to ensure discharge permit limits are not exceeded. Recommended in the Wastewater Master Plan.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: Replacement of Asset							
Effluent Facility				$750,000	$5,300,000	Sewer Construction Fund (4305)	$6,050,000
New facility to replace end of life disinfection system, improved reaeration system, and a configuration that prevents the river from backing up into the plant during storms. Recommended in the Wastewater Master Plan. 2023 Design/2024 Construction.							
Engineered By: Consultant							
Constructed By: Contract							
Project Type: New Construction							

Five Year Capital Improvement Plan 2020-2024

Department/Division: SEWER

Project Name and Description		Estimated Total Cost					Funding Sources	Funding Sources Amount
		2020	2021	2022	2023	2024		
Kauffman Lift Station Pump Replacement					$70,000		Sewer Construction Fund (4305)	$70,000
Replace two end of life pumps with new, efficient pumps.								
Engineered By:	Consultant							
Constructed By:	Contract							
Project Type:	Replacement of Asset							

Five Year Capital Improvements Plan
Public Safety Police & Fire (4323)

Revenue Source:

.25% Municipal Income Tax Levy Funds (2015-2024)
Transfer from the General Fund
RITA Refund of Administrative Fees

Projected Growth:

Anticipated 2% Growth in Income Tax Levy

Fiscal Year	Beginning Balance	Projected Revenue	Projected Expenditures	Ending Balance
2020	422,976	2,382,893	2,045,753	760,116
2021	760,116	2,454,145	1,963,513	1,250,748
2022	1,250,748	2,527,530	2,548,326	1,229,952
2023	1,229,952	2,603,112	2,752,031	1,081,033
2024	1,081,033	2,680,956	2,570,473	1,191,516

Recurring Expenditures:

Five police officers, five firefighters, one IT tech. funded annually
MARCs radio system BAN principal paydown
Police complex renovation debt service

Five Year Capital Improvement Plan 2020-2024

Department/Division: POLICE

RECURRING Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Uniforms and Related Equipment	$9,000	$9,000	$6,721	$6,072	$9,000	Public Safety Fund (4323)	$39,793
Engineered By: Not Applicable							
Constructed By: In-House							
Project Type: Replacement of Asset							
Patrol Cruisers	$84,500	$84,500	$88,000	$88,000	$88,000	Public Safety Fund (4323)	$433,000
Engineered By: Not Applicable							
Constructed By: Contract							
Project Type: Replacement of Asset							
Unmarked Vehicle		$25,000		$25,000		Public Safety Fund (4323)	$50,000
Every other year purchase.							
Engineered By: Not Applicable							
Constructed By: Contract							
Project Type: Replacement of Asset							
Building Maintenance	$5,000	$5,000	$5,000	$5,000	$5,000	Public Safety Fund (4323)	$25,000
Engineered By: In-House							
Constructed By: In-House							
Project Type: Annual Maintenance							

Five Year Capital Improvement Plan 2020-2024

Department/Division: POLICE

RECURRING Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
800 Mhz Radios	$5,000				$19,000	Public Safety Fund (4323)	$24,000
Engineered By: Not Applicable							
Constructed By: In-House							
Project Type: Replacement of Asset							
Miscellaneous Equipment	$3,469	$2,855	$2,000		$5,000	Public Safety Fund (4323)	$13,324
Engineered By: Not Applicable							
Constructed By: In-House							
Project Type: Replacement of Asset							
Lenco Bearcat FBN RERT Annual Amount	$18,116	$18,116	$18,116	$18,116	$18,116	Public Safety Fund (4323)	$90,580
Fairborn's annual share of lease financing of 3 agencies							
Engineered By: Not Applicable							
Constructed By: Not Applicable							
Project Type: Replacement of Asset							
Vehicle Mobile Data Computers (5)	$16,000	$16,500	$17,000			Public Safety Fund (4323)	$49,500
Engineered By: Not Applicable							
Constructed By: In-House							
Project Type: Replacement of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: POLICE

RECURRING Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Taser X2 (9 per year)		$8,400	$9,000	$10,029	$14,212	Public Safety Fund (4323)	$41,641
Engineered By: Not Applicable							
Constructed By: Not Applicable							
Project Type: Replacement of Asset							
Soft Body Armor		$1,500	$1,500	$2,500	$7,400	Public Safety Fund (4323)	$12,900
Engineered By: Not Applicable							
Constructed By: Not Applicable							
Project Type: Replacement of Asset							
Covert Public Cameras		$6,000		$6,500		Public Safety Fund (4323)	$12,500
Engineered By: Not Applicable							
Constructed By: Not Applicable							
Project Type: Replacement of Asset							
Building Computers			$5,400		$40,000	Public Safety Fund (4323)	$45,400
Engineered By: Not Applicable							
Constructed By: Not Applicable							
Project Type: Replacement of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: POLICE

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Priority Dispatch Software/Dispatch Radio Consoles				$150,000		Public Safety Fund (4323)	$150,000
Replace the dispatch consoles (3 positions) and upgrade the EMD software. Shared 50% with Fire.							
Engineered By:							
Constructed By:							
Project Type:							
Building Furniture - Replacement					$20,000	Public Safety Fund (4323)	$20,000
Replace training room tables and chairs.							
Engineered By:							
Constructed By:							
Project Type:							
Dispatch Desk Chairs (3) - Replacement	$4,500					Public Safety Fund (4323)	$4,500
Replace the chairs in dispatch.							
Engineered By:							
Constructed By:							
Project Type:							
Dispatcher Desks - Replacement			$87,500			Public Safety Fund (4323)	$87,500
Replace the existing desks at all three dispatcher positions.							
Engineered By:							
Constructed By:							
Project Type:							

Five Year Capital Improvement Plan 2020-2024

Department/Division: POLICE

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Automated Fingerprint Machine (AFIS) - Replacement				$60,000		Public Safety Fund (4323)	$60,000
Replace the AFIS fingerprint machine in the jail.							
Engineered By:							
Constructed By:							
Project Type:							
RERT Transport Refurbishing	$15,000					Public Safety Fund (4323)	$15,000
Updated graphics and equipment in RERT vehicle.							
Engineered By:							
Constructed By:							
Project Type:							
Vehicle Radars (6)	$7,200					Public Safety Fund (4323)	$7,200
Replace radar units in (6) front line cruisers							
Engineered By:							
Constructed By:							
Project Type:							
Handheld Laser					$4,000	Public Safety Fund (4323)	$4,000
Purchase handheld laser for patrol.							
Engineered By:							
Constructed By:							
Project Type:							

Five Year Capital Improvement Plan 2020-2024

Department/Division: POLICE

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Vehicle Modems - Replacement					$15,000	Public Safety Fund (4323)	$15,000
Replace modems in patrol vehicles that are at end of life.							
Engineered By:							
Constructed By:							
Project Type:							
Computer Software/Hardware	$5,000					Police 2107 Law Enforcement Fund	$5,000
Misc IT Issues							
Engineered By:							
Constructed By:							
Project Type:							
Covert Camera Equipment	$4,000					Police 2108 Drug Fines Trust Fund	$4,000
Engineered By:							
Constructed By:							
Project Type:							
Vehicle Radar	$2,200					Police 2113 Alcohol Enforcment Fund	$2,200
Engineered By:							
Constructed By:							
Project Type:							

Five Year Capital Improvement Plan 2020-2024

Department/Division: POLICE

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Soft Body Armor	$8,800					Police 2114 Federal Forfritures Fund	$8,800
Engineered By: Not Applicable							
Constructed By: Not Applicable							
Project Type: Replacement of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: FIRE

RECURRING Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Miscellaneous Fire Equipment	$32,000	$34,000	$36,000	$38,000	$40,000	Public Safety Fund (4323)	$180,000
Engineered By: In-House							
Constructed By: In-House							
Project Type: Replacement of Asset							
Miscellaneous Hoses and Equipment	$21,000	$22,000	$22,000	$23,000	$24,000	Public Safety Fund (4323)	$112,000
Engineered By: In-House							
Constructed By: In-House							
Project Type: Replacement of Asset							
Turnout Gear	$45,000	$45,000	$46,000	$46,000	$47,000	Public Safety Fund (4323)	$229,000
Engineered By: In-House							
Constructed By: In-House							
Project Type: Replacement of Asset							
Fire Prevention Items	$6,000	$6,000	$7,000	$7,000	$8,000	Public Safety Fund (4323)	$34,000
Engineered By: In-House							
Constructed By: In-House							
Project Type: Replacement of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: FIRE

RECURRING Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Station Training Equipment	$9,000	$9,000	$10,000	$11,000	$11,000	Public Safety Fund (4323)	$50,000
Engineered By: In-House							
Constructed By: In-House							
Project Type: Replacement of Asset							
Station/Administration Maintenance	$5,000	$5,000	$5,000	$5,000	$6,000	Public Safety Fund (4323)	$26,000
Engineered By: In-House							
Constructed By: In-House							
Project Type: Annual Maintenance							
EMS Equipment	$57,040	$59,560	$61,080	$63,600	$66,780	Public Safety Fund (4323)	$308,060
Engineered By: In-House							
Constructed By: In-House							
Project Type: Replacement of Asset							
Computer Replacements	$5,000	$5,000	$40,000			Public Safety Fund (4323)	$50,000
Engineered By: In-House							
Constructed By: In-House							
Project Type: Replacement of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: FIRE

RECURRING Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
800 Mhz Radios		$18,750		$18,750		Public Safety Fund (4323)	$37,500
Engineered By: Not Applicable							
Constructed By: In-House							
Project Type: Replacement of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: Fire

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
New Medic Unit	$0		$300,000			Public Safety Fund (4323)	$300,000
New apparatus / Upfitting (originally for 2020 - medic acquisitions delayed for two years per CM)							
Engineered By: Not Applicable							
Constructed By: Contract							
Project Type: Replacement of Asset							
New Medic Unit		$0		$300,000		Public Safety Fund (4323)	$300,000
Medic unit and upfitting costs. Medic Unit - $290,000, Upfitting Costs - $10,000 (originally for 2021- medic acquisitions delayed for two years per CM)							
Engineered By: Not Applicable							
Constructed By: Contract							
Project Type: Replacement of Asset							
New Medic Unit			$0		$333,750	Public Safety Fund (4323)	$333,750
Medic Unit - $295,000, Upfitting Costs - $20,000, 800 Mhz Radios - $18,750 (originally for 2022 - medic acquisitions delayed for two years per CM)							
Engineered By: Not Applicable							
Constructed By: Contract							
Project Type: Replacement of Asset							
New Medic Unit				$0		Public Safety Fund (4323)	$0
Medic Unit - $300,000, Upfitting - $20,000 (originally for 2023 - medic acquisitions delayed for two years per CM)							
Engineered By: Not Applicable							
Constructed By: Contract							
Project Type: Replacement of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: Fire

Project Name and Description	Estimated Total Cost 2020	2021	2022	2023	2024	Funding Sources	Funding Sources Amount
Vehicle and Related Equipment							
Engineered By: Not Applicable Constructed By: Contract Project Type: Replacement of Asset							
Building and Attached Equipment	$20,000					Public Safety Fund (4323)	$20,000
Furniture/ Carpet - $20,000 Engineered By: Not Applicable Constructed By: In-House Project Type: Replacement of Asset							
Ballistic Vests - Replace			$64,000				$64,000
Engineered By: Not Applicable Constructed By: In-House Project Type: Replacement of Asset							
Equipment Repair Parts			$5,000	$5,000		Public Safety Fund (4323)	$10,000
TSP Engineered By: Not Applicable Constructed By: In-House Project Type: Repair of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: Fire

Project Name and Description	Estimated Total Cost 2020	2021	2022	2023	2024	Funding Sources	Funding Sources Amount
Engineered By: Not Applicable Constructed By: Contract Project Type: Replacement of Asset							
Engineered By: Constructed By: Project Type:							
Priority Dispatch Software/ Dispatch (50% Share)				$150,000		Public Safety Fund (4323)	$150,000
Engineered By: In-House Constructed By: Contract Project Type: Repair of Asset							
LifePak w/Access/ Lucas Tool	$150,000					Public Safety Fund (4323)	$150,000
Engineered By: Not Applicable Constructed By: In-House Project Type: Replacement of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: Fire

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Hose Dryer	$5,000					Public Safety Fund (4323)	$5,000
Engineered By: Not Applicable							
Constructed By: In-House							
Project Type: Replacement of Asset							
Technology Upgrades	$10,000		$10,000			Public Safety Fund (4323)	$20,000
Engineered By: Not Applicable							
Constructed By: In-House							
Project Type: Replacement of Asset							
Emergency Notification Equipment			$42,000			Public Safety Fund (4323)	$42,000
Engineered By: Not Applicable							
Constructed By: In-House							
Project Type: Replacement of Asset							
Thermal Imaging Camera				$20,000		Public Safety Fund (4323)	$20,000
Engineered By: Not Applicable							
Constructed By: In-House							
Project Type: Replacement of Asset							

Five Year Capital Improvement Plan 2020-2024

Department/Division: Fire

Project Name and Description	Estimated Total Cost					Funding Sources	Funding Sources Amount
	2020	2021	2022	2023	2024		
Hydraulic Tool				$30,000		Public Safety Fund (4323)	$30,000
Engineered By:	Not Applicable						
Constructed By:	In-House						
Project Type:	Replacement of Asset						

Five Year Capital Improvements Plan
General Capital Improvement Fund (4301)

Revenue Source:

2% of Net Income Tax Collections (excludes Levy Funds)
Interest Earnings
Transfers from General Fund

Projected Growth:

2% Growth in Income Tax Per Year

Fiscal Year	Beginning Balance	Projected Revenue	Projected Expenditures	Ending Balance	Less Reserve	Available Balance
2020	166,269	187,436	125,000	228,705	(15,750)	212,955
2021	228,705	491,145	630,000	89,850	(15,750)	74,100
2022	89,850	194,928	130,000	154,778	(15,750)	139,028
2023	154,778	198,787	130,000	223,565	(15,750)	207,815
2024	223,565	202,723	130,000	296,288	(15,750)	280,538

Recurring Expenditures:

City share of Sidewalk Program
Catch basin repair
Storm sewer repair
Storm sewer nuisance control

Fund Balance Reserve:

$15,750 in Years 2020 thru 2024 for future sidewalk improvements to Trebein Road (Res. 119-03)

Target Balance: $100,000

Five Year Capital Improvements Plan
Motor Vehicle License Tax Fund (2104)

Revenue Source:

Street Income Tax Levy Funds
Draw from County $5.00 Permissive License Tax Revenue
Municipal $5.00 Permissive License Tax Revenue
Additional $2.50 Permissive License Tax Revenue
Various Federal/State and Local Grants
Interest
Developers' Fees

Projected Growth:

Anticipated 2% Growth Projected in Street Income Tax Levy

Fiscal Year	Beginning Balance	Projected Revenue	Projected Expenditures	Ending Balance
2020	80,932	7,380,320	7,399,220	62,032
2021	62,032	6,606,598	6,564,561	104,069
2022	104,069	3,429,563	2,628,815	904,817
2023	904,817	4,453,174	5,352,040	5,951
2024	5,951	3,327,757	3,205,331	128,377

Recurring Expenditures:

Street Levy Program for Local Residential Streets and Thoroughfares
ADA/Retrofit Handicap Ramps

Target Balance: $200,000

Five Year Capital Improvements Plan
Buildings & Land Depreciation Reserve Fund (2404)

Revenue Source:

3% of Net Income Tax Collections (excludes Levy Funds)
Debt Proceeds

Projected Growth:

2% Growth in Income Tax Revenue Per Year

Fiscal Year	Beginning Balance	Projected Revenue	Projected Expenditures	Ending Balance
2020	140,454	761,454	868,800	33,108
2021	33,108	752,017	758,500	26,625
2022	26,625	742,691	698,200	71,116
2023	71,116	727,691	688,200	110,607
2024	110,607	718,479	607,900	221,186

Recurring Expenditures:

General building repairs
HVAC maintenance agreements

Debt Service:

Municipal Court Roof
Public Works facililty for non-water/sewer depts. beginning in 2019

Target Balance: $50,000

Five Year Capital Improvements Plan
Parks & Recreation Capital Improvements (4302)

Revenue Source:

Hotel Motel Tax
Lease Payments from AT&T Tower @ 100%
Interest Earnings
Vending Machine Commissions
Fees in Lieu of Land Dedications

Projected Growth:

0% Growth in Hotel/Motel Tax

Fiscal Year	Beginning Balance	Projected Revenue	Projected Expenditures	Ending Balance
2020	275,164	177,751	185,000	267,915
2021	267,915	177,751	130,000	315,666
2022	315,666	177,751	185,000	308,417
2023	308,417	177,751	160,000	326,168
2024	326,168	177,751	180,000	323,919

Recurring Expenditures:

Park Equipment at Various Locations

Target Balance: $50,000

Five Year Capital Improvements Plan
Water Construction (4303)

Revenue Source:

Transfer from Water Operating Fund
Water Connection and Tap Fees
Interest Earnings

Projected Growth:

No Increase in Projected Revenue Anticipated

Fiscal Year	Beginning Balance	Projected Revenue	Projected Expenditures	Ending Balance
2020	322,304	2,336,227	2,555,760	102,771
2021	102,771	2,400,250	2,400,760	102,261
2022	102,261	871,250	870,760	102,751
2023	102,751	1,671,250	1,670,760	103,241
2024	103,241	971,250	1,010,760	63,731

Recurring Expenditures:

Water Main Oversizing
Water Main Valve/Hydrant Replacement
Loop Dead-End Water Mains
Growth Project Infrastrucutre

Additional Comments:

Debt Service for Bonds is paid from Fund 3205 Water and Sewer Debt Service. BANS and bonds principal and interest is transferred from Water Operating Fund to fund the debt service.

Target Balance: $100,000

Five Year Capital Improvements Plan
Water Depreciation Reserve (6401)

Revenue Source:

Transfer from Water Fund as needed

Projected Growth:

Only slight growth anticipated for these revenue sources

Fiscal Year	Beginning Balance	Projected Revenue	Projected Expenditures	Ending Balance
2020	189,798	163,815	65,000	288,613
2021	288,613	163,487	65,000	387,100
2022	387,100	177,089	65,000	499,189
2023	499,189	186,704	65,000	620,893
2024	620,893	186,704	65,000	742,597

Recurring Expenditures:

Well Redevelopment

Target Balance: $50,000

Five Year Capital Improvements Plan
Sewer Construction (4305)

Revenue Source:

Transfer from Sewer Operating Fund
Sewer Connection and Tap Fees
Interest Earnings

Projected Growth:

No Increase in Projected Revenue Anticipated

Fiscal Year	Beginning Balance	Projected Revenue	Projected Expenditures	Ending Balance
2020	817,758	230,000	173,363	874,395
2021	874,395	692,946	113,427	1,453,914
2022	1,453,914	579,324	563,492	1,469,746
2023	1,469,746	253,432	933,558	789,620
2024	789,620	4,730,000	5,413,558	106,062

Recurring Expenditures:

Sewer Main Oversizing
Growth Project Infrastrucutre

Additional Comments:

Debt Service for Bonds is paid from Fund 3205 Water and Sewer Debt Service. BANs and Bonds principal and Interest are transferred from Sewer Operating Fund to fund the debt service.

Target Balance: $100,000

Five Year Capital Improvements Plan
Sewer Depreciation Reserve (6402)

Revenue Source:

Transfer from Sewer Fund as needed

Projected Growth:

Only slight growth anticipated for these revenue sources

Fiscal Year	Beginning Balance	Projected Revenue	Projected Expenditures	Ending Balance
2020	51,059	618,192	465,000	204,251
2021	204,251	252,700	215,000	241,951
2022	241,951	252,209	215,000	279,160
2023	279,160	741,719	215,000	805,879
2024	805,879	490,000	215,000	1,080,879

Recurring Expenditures:

Manhole & Sewer Rehab
Sanitary Sys Rehab - Reduce I&I
Service/Clean Non-potable Wells

Target Balance: $50,000

Five Year Capital Improvements Plan
Sanitation Depreciation Reserve Fund (6403)

Revenue Source:

Transfer from Sanitation Fund

2019 is Year 3 of 10 for Street Sweeper

Projected Growth:

No growth - constant amount transferred

Fiscal Year	Beginning Balance	Projected Revenue	Projected Expenditures	Ending Balance
2020	75,000	25,000	-	100,000
2021	100,000	25,000	-	125,000
2022	125,000	25,000	-	150,000
2023	150,000	25,000	-	175,000
2024	175,000	25,000	-	200,000

Additional Comments:

Purchase street sweeper in 2026 estimated at $250,000

Five Year Capital Improvements Plan
Tax Increment Financing Fund (8455)

Revenue Source:

TIF District PILOTs

Projected Growth:

52% Increase in PILOTs Annually

Fiscal Year	Beginning Balance	Projected Revenue	Projected Expenditures	Ending Balance
2020	439,771	210,000	119,197	530,574
2021	530,574	220,500	122,452	628,622
2022	628,622	231,525	120,608	739,539
2023	739,539	243,101	118,708	863,932
2024	863,932	255,256	121,627	997,561

Recurring Expenditures:

Debt Service Payments for Commerce Center Ext and DYS Improvements

Target Balance: $5,000