



CHAPTER 7

COMMUNITY FACILITIES

CHAPTER AT A GLANCE

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CHAPTER 7

COMMUNITY FACILITIES

Community facilities include infrastructure and services that provide for the everyday needs of residents and businesses. These include vital institutions and structures such as the library, schools, roads, and sanitation facilities that enhance the quality of life in Dubuque. The following chapter describes the existing conditions of community facilities and addresses their future maintenance and expansion needs, emphasizing communication and coordination strategies to ensure the efficient operation of municipal services.

Clean Water

Clean water is one of the City's key sustainability principles, and one in which the City of Dubuque plays a major role in through operation and maintenance of the wastewater, water, and storm sewer infrastructure within the city limits. Significant improvements, both ongoing and future, are identified in the City's Capital Improvement Plan.



▲ Dubuque City Hall | 50 W 13th Street

Wastewater Collection

The City's Engineering Department oversees the construction, reconstruction, and rehabilitation of the sanitary sewer collection system consisting of over 300 miles of sanitary sewer main providing service to over 20,000 properties. The wastewater is collected in the sanitary sewer system and is conveyed to the City's Water & Resource Recovery Center. In addition to maintaining the existing system, there are three critical areas for future expansion/enhancement:

1 Southwest Arterial Area

The City is currently planning to extend sanitary sewer service to the south to support the anticipated growth and development of approximately 5,200 acres that will have enhanced accessibility as a result of the Southwest Arterial construction. Existing lift stations, force mains, and interceptor sewers will require upgrades as future development occurs. The existing downstream system also has deficiencies that will need to be upgraded.

2 West End District

Growth is also anticipated for the West End District where sanitary sewer upgrades and extensions are in the planning stages. Upgrades will include replacing aging pipes, inflow/infiltration reduction, and installation of larger diameter sewers to accommodate the additional flow that will result from the area's growth.

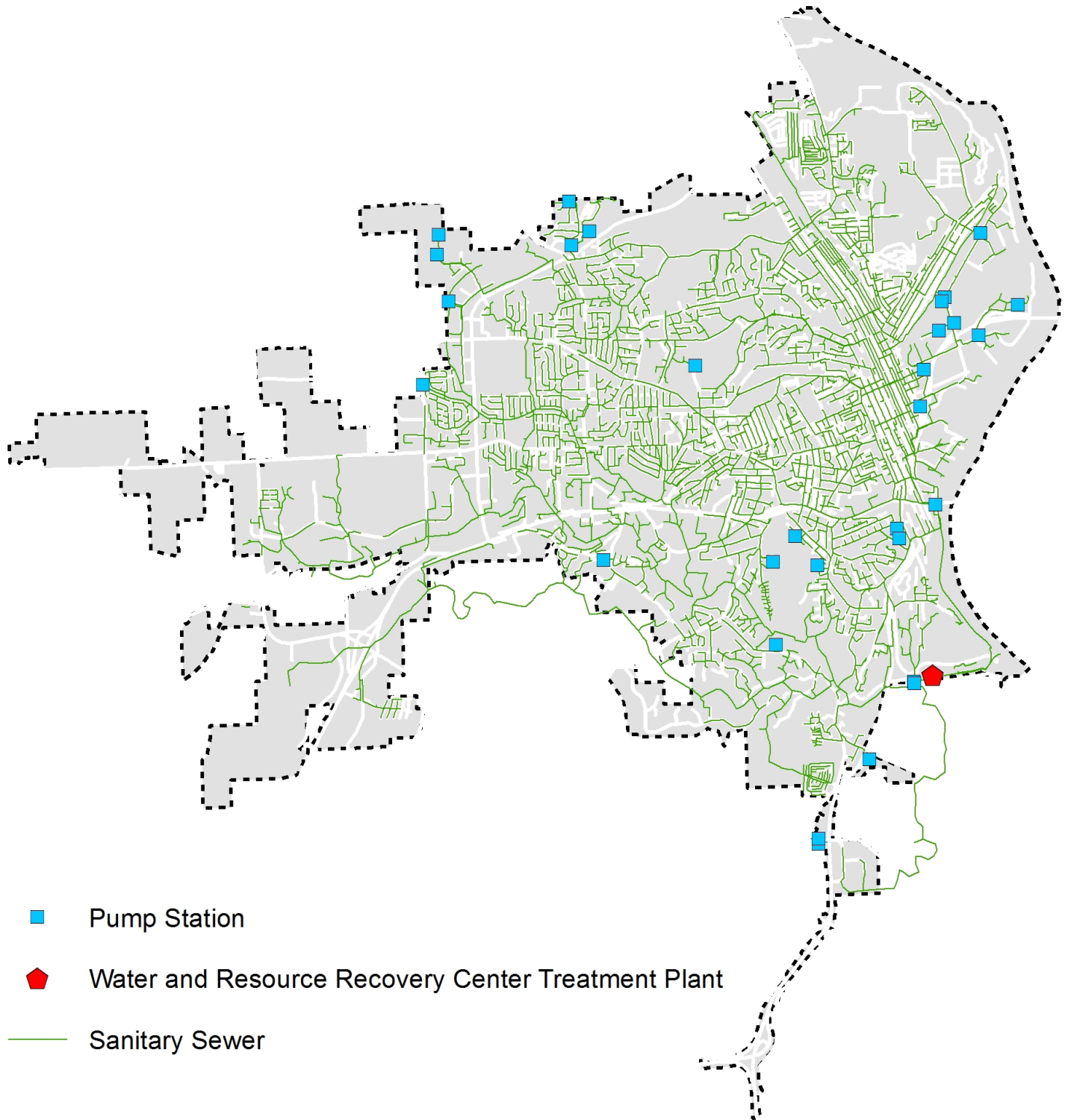
3 South Port Development

The City has developed a master plan to redevelop the South Port located near the Julien Dubuque Bridge. The South Port includes a brownfield reclamation project and is proposed to include a mixed-use development where people can reconnect with the Mississippi River in a pedestrian and transit-oriented environment. To accommodate the anticipated growth, improvements to the Terminal Street lift station will be required, as well as a new 42-inch diameter sanitary sewer and potential rerouting of the existing 42-inch force main that conveys wastewater to the Water & Resource Recovery Center.

■ FIGURE 7.1

□ **Dubuque Water Facilities Map**

Pump Stations, Water & Resource Recovery Center, and Sanitary Sewer Lines



Sanitary Sewer System Improvements

The Kerper Boulevard Sanitary Sewer Project includes a combination of gravity sewer and a lift station and force main. The sewer project will repair the immediate issues and prepare for possible future development on Chaplain Schmitt Island. The Catfish Creek lift station 18-inch force main to the Water & Resource Recovery Center will need to be upgraded to effectively serve the South and West Ends. The pumps are currently capable of conveying more flow than the force main can handle. Also, flood protection is a concern for the Catfish Creek Station. The 2011 flood took the station down for some time. To maintain reliable service, improvements are necessary.

Water & Resource Recover Center

The City's Water & Resource Recovery Center is a secondary wastewater treatment facility. The facility was originally constructed in 1969 and has undergone numerous improvements, most recently in 2014. The recent upgrade to the Water & Resource Recovery Center can provide treatment for an annual average of 10.46 million gallons per day (mgd) with a maximum hourly flow of 40.86 mgd. The improvements were designed to accommodate growth for the next 20 years.

As a result of the City's commitment to sustainability, the 2014 upgrade marked the conversion from a water pollution control plant to a water & resource recovery center.

The state-of-the-art Water & Resource Recovery Center upgrade was based on the City's sustainable principles, featuring biogas recovery and improved biosolids handling that produces material that can be used for residential gardening and landscaping. The center also conserves oxygen and energy, and uses a safer alternative to disinfect the wastewater. The improved biosolids handling process saves \$250,000 annually in heating and electricity generation.

The conversion also incorporated an ENERGY STAR certified administration and laboratory building that recovers heat from the wastewater discharge to supplement heating and cooling the building. Other work included the installation of a solar array to offset electrical costs, miscellaneous equipment upgrades, and odor control covers for tankage. Sustainable landscape features included installation of a pair of rain gardens, native plants and flowers, no-mow grass that requires little, if any, watering.

Dubuque's Water & Resource Recovery Center
can provide treatment for an annual average of



10.46

Million Gallons Per Day



▲ Water & Resource Recovery Center | Source: Digital Dubuque

Water Treatment and Distribution

The City of Dubuque provides residents and business with access to a safe, reliable, and high-quality water for drinking and other applications. The City's water treatment distribution system is managed by the Water Department.

■ Eagle Point Water Treatment Plant

The City's Eagle Point Water Treatment Plant is supplied by five shallow wells along the Mississippi River and four deep wells located near the Eagle Point Water Treatment Plant. It serves an average water demand of 8 million gallons daily. The water plant provides treatment via chlorination, fluoridation, filtration, and lime softening processes to comply with all federal and state primary drinking water standards. The result is award-winning water quality for the City's customers.

■ Distribution System

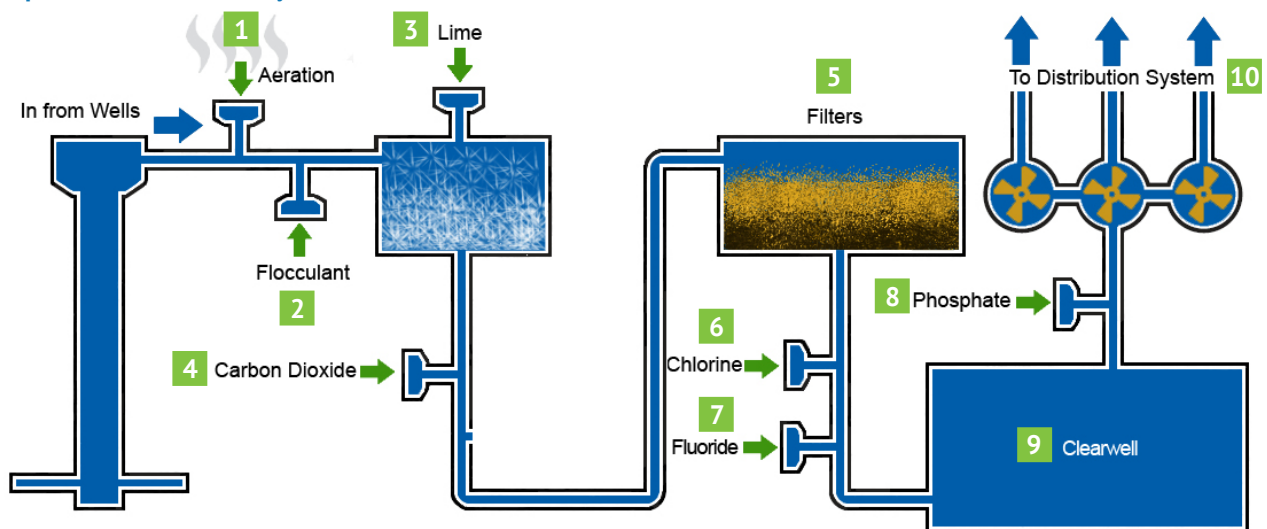
The water distribution system is composed of 7 pressure zones (see figure 7.2 on following page) and more than 300 miles of water main ranging in diameter from 4 inches to 30 inches. The City's Water Distribution Division is responsible for the machinery, equipment, materials, and personnel required to repair main breaks; installing water mains, control valves, and fire hydrants; maintaining the grounds of the division; and assisting other sections of the Water Department.

It is the Water Distribution Division's goal to operate and maintain a water distribution system consistent with established procedures recognized by the American Water Works Association for efficient management practices.

■ System Improvements

Recent improvements to the water distribution system include the construction of a new water main, booster pumping, and 500,000-gallon ground storage reservoir providing service to the Dubuque Regional Airport and surrounding areas. The City has also recently acquired the Vernon Township and Barrington Lakes water systems, including a 300,000-gallon elevated storage reservoir and distribution system located southwest of the City of Dubuque. The City is currently in the process of constructing piping and a booster pumping station that will connect these facilities to their distribution system. The City is continually evaluating the system and will be developing a dynamic model of the water system. The model will evaluate the system, including, but not limited to, the potential need for a new elevated water reservoir on Roosevelt Street to identify benefits of installing pressure-reducing valves. Pressure-reducing valves would allow pressure zones to feed one another, and additional elevated storage to replace the aging ground storage reservoirs and booster pumping facilities currently in use. This model will be an active tool that will enable the City to identify current needs, as well as plan for future growth of the community.

■ Dubuque Water Treatment System



1. Aeration - Raw or untreated water is drawn from wells into the City's treatment plant and is cascaded down through a series of trays promoting the exchange of gases. Aeration is similar to the natural process that occurs when a stream flows through rapids or over falls.

2. Flocculant Aid Addition - An anionic flocculant aid is added just after aeration. The flocculant helps improve the clarity of the water.

3. Softening - Calcium oxide (lime) is mixed with water to form slaked lime. This slaked lime is then added to the water to soften or reduce the minerals that typically make water hard.

4. Recarbonation - The addition of slaked lime increases the pH of the water to about 10. In order to stabilize the softened water, the pH must be lowered by adding carbon dioxide.

5. Filtration - Water is then passed through a sand and gravel filter bed, removing any remaining suspended matter.

6. Chlorination - Chlorine is added to disinfect the water. The chlorine helps destroy disease-causing organisms.

7. Fluoridation - Fluoride is added to help prevent tooth decay.

8. Phosphate Addition - Phosphate is added to chemically stabilize water and lessen the possibility that lead will leach out of pipes.

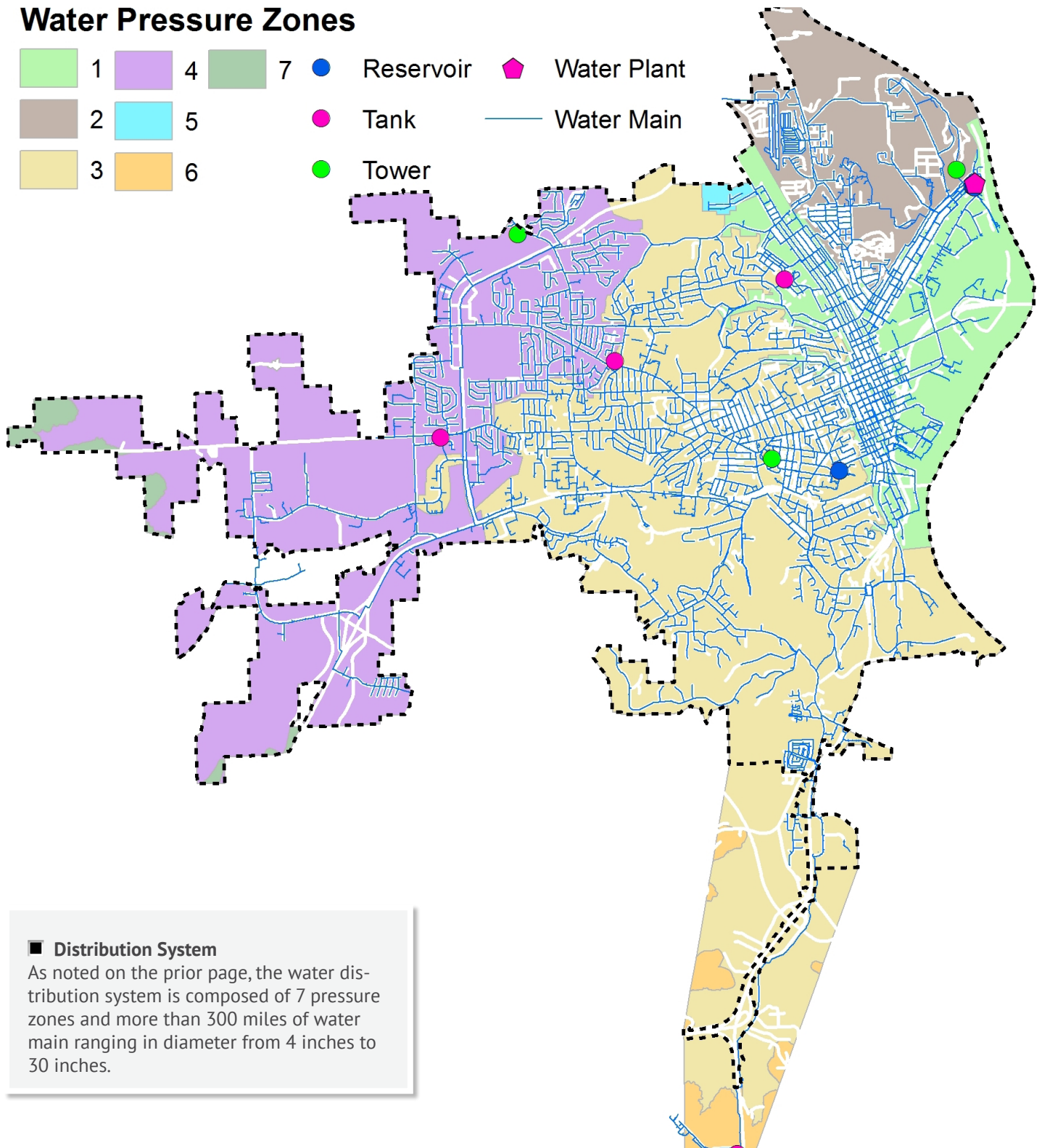
9. Reserves - Water not immediately consumed flows into storage tanks for use when demand exceeds plant pumpage. Water stored in elevated tanks helps stabilize pressure in the distribution system and serves as an emergency reserve for fires.

10. Distribution - Finished water is pumped directly into the water distribution systems that serve homes and businesses throughout the city of Dubuque.

■ FIGURE 7.2

□ Dubuque Water Pressure Zones Map
Zones, Water Plan and Water Main Lines

Water Pressure Zones



■ Distribution System

As noted on the prior page, the water distribution system is composed of 7 pressure zones and more than 300 miles of water main ranging in diameter from 4 inches to 30 inches.

Stormwater Management

Precipitation in the form of rain, snow, or ice produces stormwater. Management of this water is essential to prevent flooding, erosion and stream channel degradation. The City of Dubuque promotes the use of sustainable best management practices for new and existing developments. These Best Management Practices include installation of rain gardens, infiltration basins, bioswales, and other sustainable techniques. These Best Management Practices promote infiltration allowing the stormwater to be consumed by plants; promote evaporation allowing the stormwater to return to the atmosphere; and reduces runoff, flooding, erosion and water pollution.

Flooding is a natural occurrence that can be heavily influenced by the nature and character of development that occurs both with a community and within the surrounding region. Given Dubuque's location on the Mississippi River, that region extends north to include parts of Wisconsin and Minnesota which drain into the Mississippi and flow through Dubuque. Dubuque's flooding and stormwater threatens streams and creeks inundated after significant regional rain events.

42%

How can Dubuque as a community ensure clean water?
Of Quick Poll Respondents (95 Individuals) Voted For:
Stormwater Management: Implement innovative efforts that promote direct infiltration into the ground rather than into the storm sewer system.

Consider these Innovative Approaches:

- ☐ Rainwater Catchment Systems
- ☐ Permeable Pavers
- ☐ Rain Gardens (example below)



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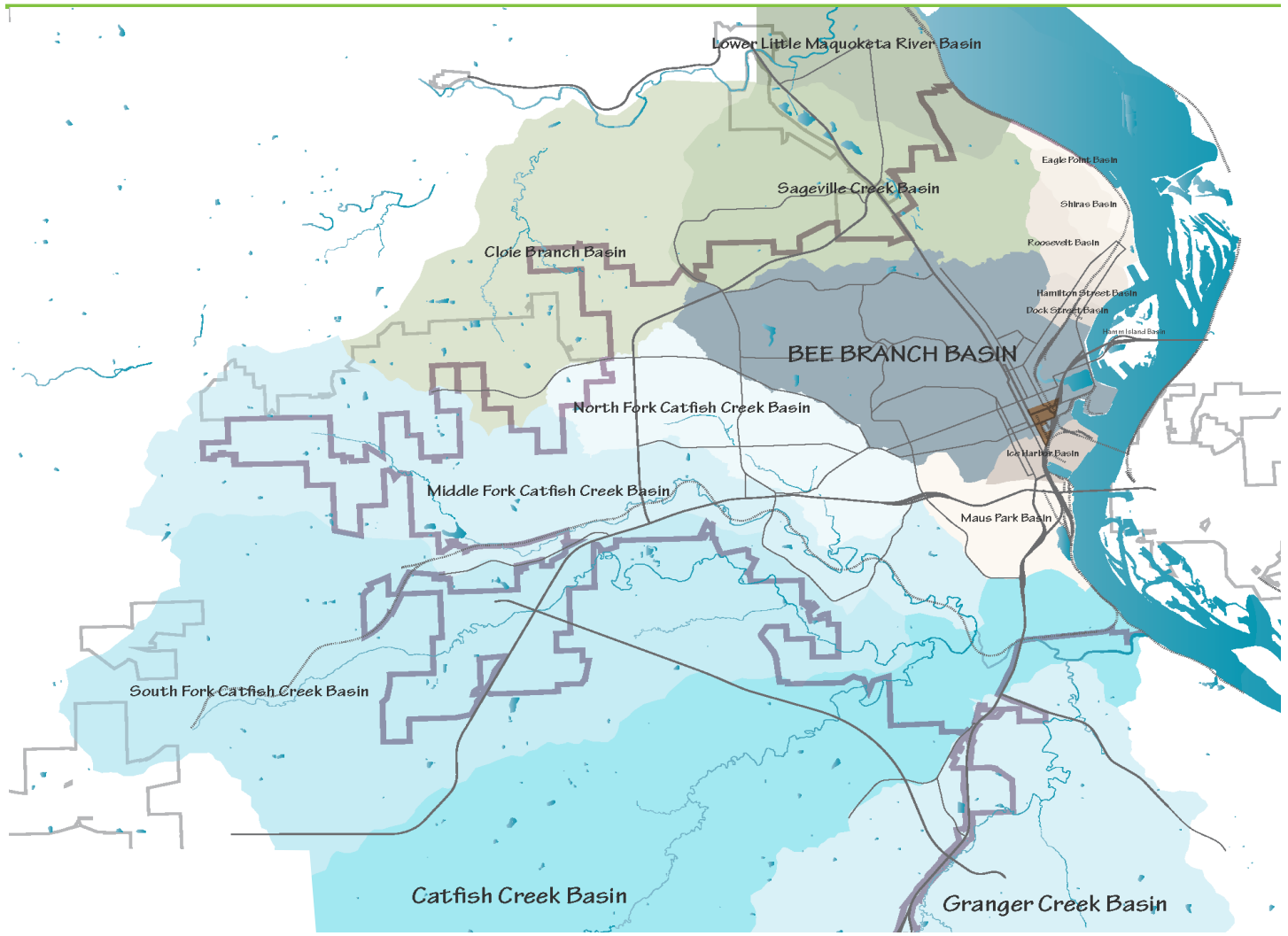
“Minimize land consumption and maximize conservation of natural resources.”

“Focus on ‘green’ drainage issues with old sites to manage storm runoff... protect our rivers!”

- Ideas shared at Imagine Dubuque Environmental Integrity Workshop

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▲ Rain Garden adjacent to the City's Central Avenue Parking Ramp



Watersheds

A watershed is an area of land that drains to one major body of water such as a river, lake, or ocean. Dubuque's watersheds include the Catfish Creek Watershed and the Bee Branch Watershed, both of which flow into the Mississippi River.

The Catfish Creek Watershed is a 57 square-mile watershed including industrial and residential developments, rolling cropland, limestone bluffs, rock outcrops, and dense timber areas. Approximately half of the City lies within the watershed. Much of the Catfish Creek Watershed drains to the Catfish Creek and enters the Mississippi River on Dubuque's south side near the Mines of Spain State Recreation Area.

The Catfish Creek Watershed Management Authority is an organization that addresses concerns with water quality and flooding within the watershed. The Authority crosses jurisdictional boundaries and a board of directors works together to solve problems within the entire Catfish Creek Watershed.

Administration is co-coordinated by the Dubuque Soil and Water Conservation District's Urban Conservationist and a member of the City of Dubuque's Engineering Department appointed by the City Manager. The Authority relies on the Catfish Creek Watershed Management Plan, December 2014, to serve as a guide to protecting and restoring watershed health.

The Bee Branch Watershed is approximately 6.5 square miles located entirely within the city limits, stretching from the Mississippi River west past John F. Kennedy Road, north to the Northwest Arterial, and south to West 5th Street. Over half of Dubuque residents either live or work in the Bee Branch Watershed. All the water draining from the Bee Branch Watershed drains to the Bee Branch Creek which then enters the Mississippi River at the 16th Street Detention Basin. The watershed encompasses historic neighborhoods offering some of the community's most affordable workforce housing.

Dubuque's Stormwater Management System

The City of Dubuque currently manages approximately:

- ☐ 146 miles of storm sewer pipe
- ☐ 6,032 stormwater intakes
- ☐ 473 stormwater outlets
- ☐ 1,919 stormwater manholes
- ☐ 80 Green Alleys
- ☐ 17 Detention Basins

See Figure 7.3 on following page.

Services provided by the City include collection, conveyance, detention/retention, treatment, and release of stormwater. The stormwater system also serves to reduce the hazards to property and life resulting from stormwater runoff and flooding; improvement in the general health and welfare of citizens through a reduction of undesirable stormwater conditions and flooding; and improvement to the water quality through stormwater and surface water systems.

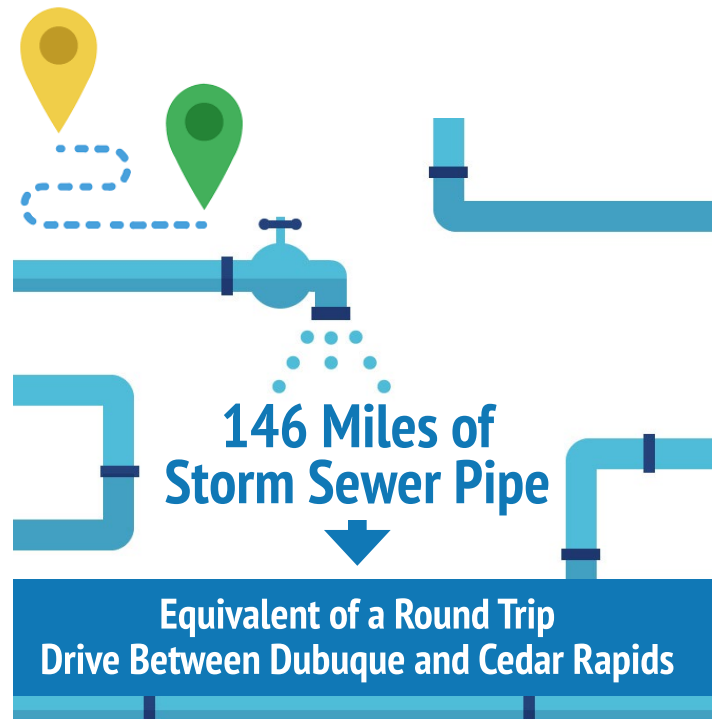
A stormwater utility, serving the entire City, was created to ensure that appropriate resources are available to manage stormwater. This includes the operation, maintenance, repair, replacement, and debt service for construction of the stormwater drainage system and flood protection improvements.

The City maintains a U.S. Army Corps of Engineers designed levee that has been certified under the National Flood Insurance Program to protect the infrastructure and properties in the downtown area. The National Flood Insurance Program program, in conjunction with the U.S. Army Corps of Engineers, requires annual inspections, maintenance, and a commitment to high capacity pumping operations during flood conditions. Future upgrades of the system are anticipated.

System Improvements

The City is currently designing and will soon be constructing the phase of the Bee Branch Creek Restoration project that will connect the Upper and Lower Bee Branch areas. In addition, the City is in the process of designing improvements to the Kerper Boulevard stormwater pumping station, and is in the early stages of the resiliency construction projects on 17th Street and 22nd Street to mitigate flooding in the areas.

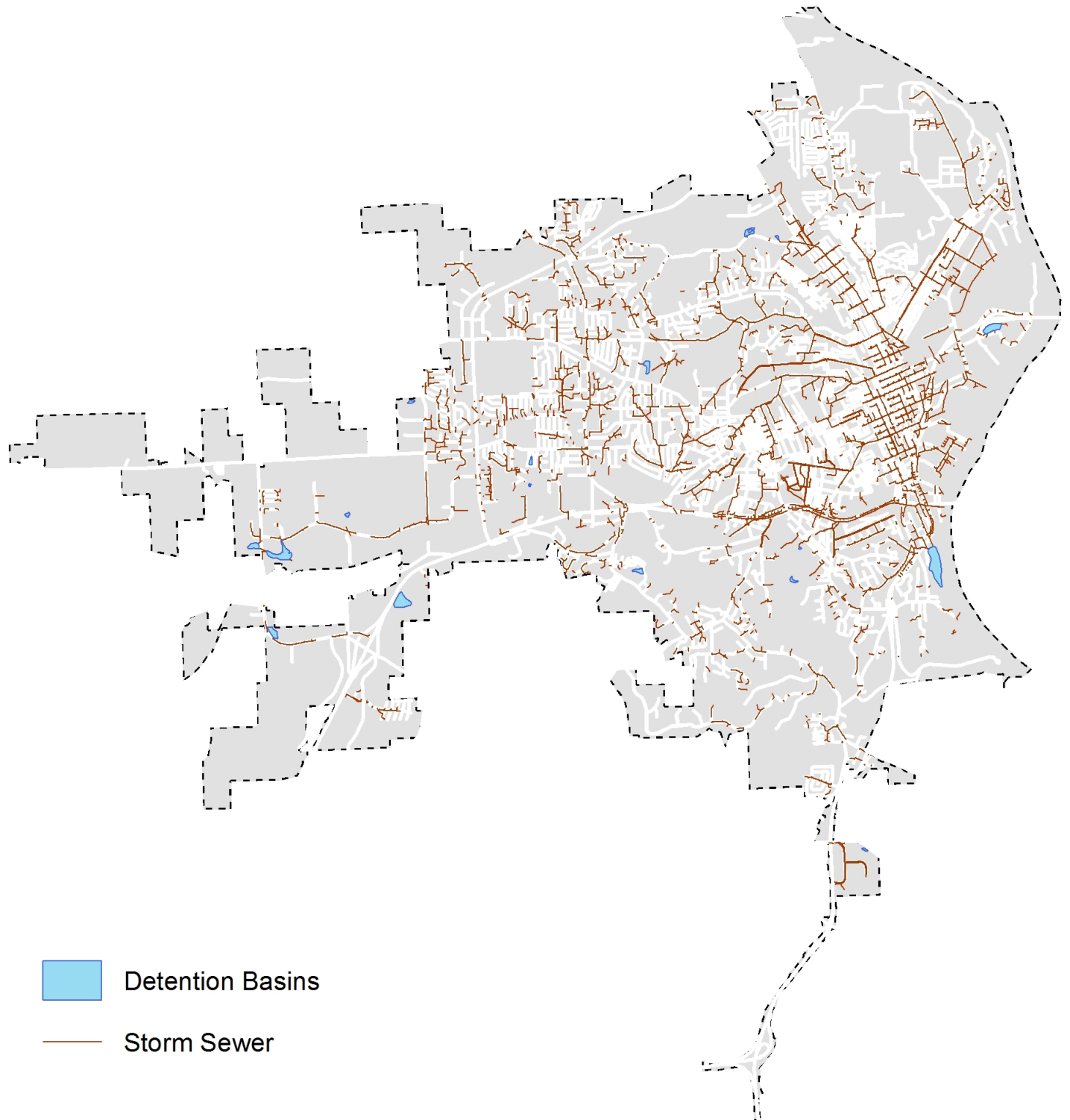
It is recommended that the City also evaluate the need for a definitive stormwater ordinance to guide future growth and development.



▲ Manhole cover in the Historic Millwork District

■ FIGURE 7.3

□ **Dubuque Stormwater Management System Map**
Storm Sewers and Detention Basins



Bee Branch Creek Restoration

The **Bee Branch Creek Restoration** was a large stormwater management project that included replacing nearly one mile of storm sewer with a creek and floodplain that resembles the one that traversed the area approximately 100 years ago. This “day-lighting” of the buried Bee Branch Creek allows stormwater from flash floods to safely move through the area without flooding adjacent properties.

The Lower Bee Branch design includes a large expanse of open water that wraps around the former meat-packing industrial site which is set to be privately redeveloped as a retail center. A multi-use hike/bike trail lines the waterway on the northeast side of the creek. Trail lighting and benches also line the creek corridor. The design includes two overlooks: one along 16th Street west of Sycamore and one at the Audubon overlook east of the U.S. Highway 151-61 overpass.

Construction of the Lower Bee Branch started in the fall of 2010 and was completed in November of 2011. Almost 500 trees were planted along the Lower Bee Branch Creek and around the 16th Street Detention Basin. Another 328 trees were planted along the Upper Bee Branch Creek.

The Upper Bee Branch consists of a 2,300-foot long landscaped creek and green space that accommodates passive recreational use. A multi-use trail is included on the northeast side for the full length of the creek. Sidewalks, walking paths, lighting, and benches also line the creek corridor. A stepped amphitheater between East 22nd Street and Lincoln Avenue provides a venue for teaching and neighborhood gatherings. The design also includes a play area with slides and a community orchard. The Upper Bee Branch construction was completed in 2017.



▲ Top: Upper Bee Branch Bottom: Lower Bee Branch



▲ Green Alley | Source: City of Dubuque



▲ The RETHink Waste DBQ App provides residents excellent tips on recycling and waste reduction. <http://www.cityofdubuque.org/REThinkWaste>

Green Alleys: Working to Reduce Stormwater Runoff

To further reduce the stormwater runoff within the Bee Branch Watershed, the City is converting 240 traditional alleys to green alleys by the year 2038; 80 have been completed as of August 2017. Approximately one-third of these green allies have been completed as of August, 2017. Green alleys utilize permeable pavement that allows water to pass through the pavement surface and filter gradually into the soil below. In addition to reducing the volume of runoff, the green alleys will replenish the groundwater and improve water quality by helping prevent pollutants on the alleys from running off into the storm sewer system and ultimately into streams and rivers. This \$57.4 million investment is expected to reduce stormwater runoff within the Bee Branch Watershed by up to 80 percent. More information on the City's Green Alley program is available here: <http://www.cityofdubuque.org/GreenAlleys>

Gas, Electric + Telecommunications

Utility Providers

Black Hills Energy Corporation is the natural gas utility provider for the City of Dubuque. Alliant Energy and Maquoketa Valley Rural Electric Cooperative are the electrical utility providers for the City of Dubuque. The City of Dubuque franchise agreements with Black Hills Energy Corporation, Alliant Energy, and Maquoketa Valley Rural Electric Cooperative grant these companies non-exclusive authority to maintain and operate natural gas and electric distribution systems within the city limits.

Fiber Optic Network

High-speed fiber service is growing in demand, and the City has been working to facilitate this expansion through the installation of conduit in new development/construction projects and through agreements with private carriers, see Figure 7.4 on following page. For example, in 2015 the City entered into an agreement with Wisconsin Independent Network LLC to use existing city conduit to extend its fiber optic network from the Julien Dubuque Bridge west to Unity Point Health-Finley Hospital.

Continued expansion of this fiber optic access throughout the community will be important to enhance the viability of the community.

Waste + Recycling

Collection Services

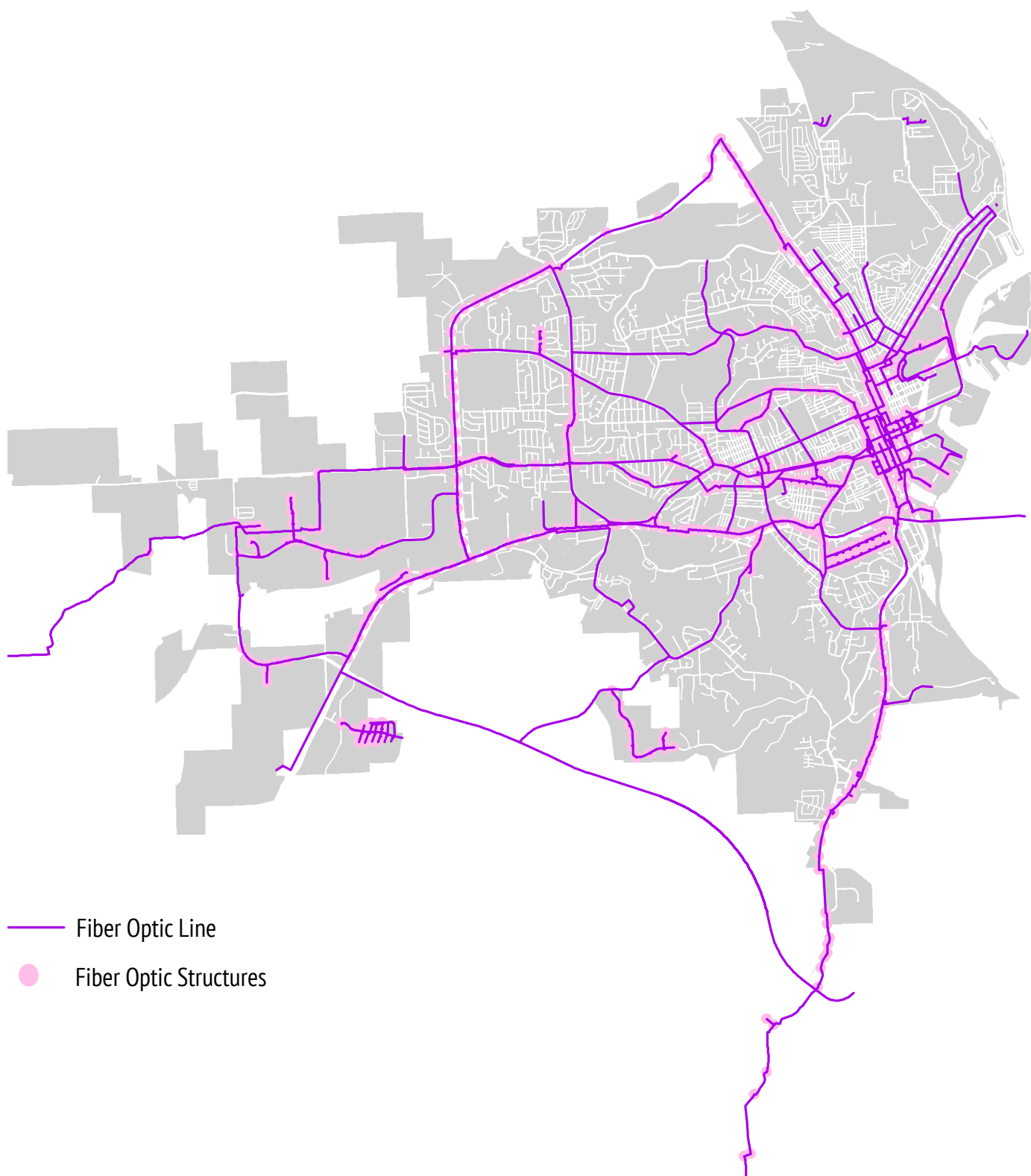
The City of Dubuque offers curbside collection services to all single-family through six-plex multi-family households within the city limits. The Curbside Collection program includes refuse collection, recyclables collection, food scrap collection, large item pick-up, and yard waste collection. The Dubuque Metropolitan Area Solid Waste Agency offers several services to businesses and residents of Dubuque, including appliance recycling, composting, construction & demolition debris disposal, drop-off recycling, electronics recycling, hazardous materials disposal, and special event recycling units.

REThink Waste Dubuque

A newly announced program, RETHink Waste Dubuque, allows residents to download an app that will provide curbside collection day reminders, a waste wizard that contains tips on what can and cannot be recycled, as well as information on composting, reuse, and proper waste disposal. Through this program the City has made it even easier for residents to stay connected and informed about curbside collection, recycling, and related programs.

■ FIGURE 7.4

□ Fiber Optic Line Map



Public Safety

Dubuque Police Department

The Dubuque Police Department is headquartered downtown at the Dubuque Law Enforcement Center, 770 Iowa Street. The Police Department leases its space within this County-owned building. The facility is also home to the Dubuque County Sheriff's Office and the Dubuque County Jail. As of August 2016, the City's police force includes 109 sworn officers and nine civilian employees across five divisions:

- ☐ Administration & Staff Services
- ☐ Patrol
- ☐ Community Oriented Policing
- ☐ Criminal Investigations
- ☐ Records

Police Officers + Personnel

The Police Department has been accredited by the Commission on Accreditation of Law Enforcement Agencies since 1993. The City's police force equals that of similar Midwest cities, according to the Federal Bureau of Investigation, with 1.9 sworn officers for every 1000 residents. The Police Department has approximately 50 personnel assigned to Patrol with an average of 8 to 12 during different times of the day to cover over 31 square miles in the city of Dubuque. The department operates three shifts, 24/7, 365 days a year.

911 Communications Center

The 911 Communications Center is another leased space within the Dubuque Law Enforcement Center. The Center's staff dispatches 13 fire departments and answers all 911 and non-emergency phone calls for Dubuque County. Staff includes one manager, four lead dispatchers, eight full time public safety dispatchers, and six part-time public safety dispatchers. The Center has shared space with the Dubuque County Emergency Responder Training Facility since 2007, and does have needed staffing levels or capacity relative to call volume. An expanded 911 Communications Center should continue to be explored.

Safety Statistics

While perception of safety in Dubuque varies, the statistics show that Dubuque is a safe place based on low violent crime and property crime figures. According to the FBI Report of Offenses Known to Law Enforcement, the city violent crime rate in 2012 was lower than the national violent crime rate average by 43% and that of Iowa's by 17%. Moreover, Dubuque's property crime rate in 2012 was lower than the national average by 26% and Iowa's by 7%.

Educational Campaign

While police are ramping up strategies to make Dubuque even safer, a proactive educational campaign on crime statistics and awareness might help quell concerns over crime, and encourage residents to conquer a fear of crime where little exists. This, in turn, can bring Dubuque closer together, break down social barriers, and help generate economic activity and investment in all corners of Dubuque.

As part of their mission, the Dubuque Police Department aims to serve and protect the residents of Dubuque with integrity, compassion, competence, and open minds.

Body-Worn Camera Program

In January 2017, the Dubuque Police Department adopted a body-worn camera policy, whereby all sworn officers are strongly encouraged to activate audio/video recordings during traffic stops, suspicious person/vehicle contacts, arrests, vehicle searches, physical or verbal confrontations or any use of force, or upon request by the person the officer encounters. The program is funded through several sources including the City of Dubuque, a Department of Justice grant, and donations from concerned citizens.



Fact:
Dubuque Crime Rates
Lower than both State
and National Averages



Violent Crime
43% Lower Than
National Average
17% Lower than
Iowa Average



Property Crime
26% Lower Than
National Average
7% Lower than
Iowa Average

Source: 2012 FBI Report of Offenses Known to Law Enforcement

Fire Department

The Dubuque Fire Department provides fire prevention, fire suppression, hazardous materials, specialized rescue, paramedic ambulance, and emergency first responder services. The department also provides emergency and non-emergency medical transports and transfers to local hospitals as well as on-scene medical assistance. The Fire Department has mutual aid agreements with the volunteer fire departments that serve the other cities and rural areas in Dubuque County. With six fire stations and 90 personnel, the Fire Department maintains 24/7 response, 365 days a year.

The largest station is headquartered downtown at 11 W 9th Street, while smaller satellite facilities ensure fire protection and emergency response to peripheral neighborhoods. All are staffed with Emergency Medical Services paramedics. Roughly 75% of calls are for emergency services, while 25% are fire related.



▲ Station 5 | 689 S. Grandview

Fact: Dubuque's Fire Suppression 'Insurance Services Office' (ISO) Class 2 rating places it in the top 3% nationally and keeps insurance rates low. The Class 2 rating is the highest rating achieved among Iowa fire departments.

SPOTLIGHT ON LIVABILITY

Community-Oriented Policing



Community-oriented policing is a philosophy and organizational strategy that emphasizes proactive solutions to underlying public safety issues. Strategies include partnerships with landlords, neighborhood associations, and the fire marshal.

SPOTLIGHT ON EQUITY

Building Community Trust and Confidence



Along with the Human Rights Director, the Chief of Police serves as an Equity and Inclusion Liaison to the City Manager. As liaisons, these individuals serve as a point of contact providing safe support for underrepresented community members who have questions and concerns about equity and inclusion in local government. The liaisons are available to all underrepresented communities, including racial and ethnic minority communities, the LGBTQ community, and immigrants and refugees. The goal of these liaisons is to foster relationships of mutual trust and confidence in fair and professional governance, and to elevate concerns to the City Manager and/or other city officials.



Fact: The Fire Department provides emergency and non-emergency medical transports and transfers to local hospitals.



Resources

6 Fire Stations
90 Personnel

Operates 24/7
365 Days a Year



Fire Station Calls

75%
Emergency Services

25%
Fire Related

Source: 2012 FBI Report of Offenses Known to Law Enforcement



▲ Fire Department Headquarters, 11 West 9th Street | Source: City of Dubuque

Fire Department (continued)

The City's Fire Department recently received an Insurance Services Office rating of 2, an upgrade from their previous rating of 3, thus placing it in the top three percent in the nation. An Insurance Services Office rating is an indicator of how well a community is protected in the event of a fire on a scale of 1-10, with 1 being the highest possible rating. A lower rating can positively impact property insurance premiums with some insurance companies.

The Fire Department is striving to increase the diversity of its staff. Resources are available within the City to train and develop new fire and rescue personnel. Northeast Iowa Community College offers a fire training program. Moreover, the City conducts much of its training within the Department itself. The Dubuque Fire Department utilizes an excellent training facility in Dubuque County at 14928 Public Safety Way. The Dubuque Fire Department does not operate a tanker truck, and therefore does not respond to emergency calls outside the city limits.

As growth occurs to the south and southwest, the City should explore potential future sites of an additional station with access to the Southwest Arterial.

SPOTLIGHT ON LIVABILITY

Environmental and Sustainability Commitment



In March 2013, the City adopted an Environmental and Sustainability Commitment for the Municipal Services Center to reduce negative environmental impact from the following operations:

- Electricity and natural gas consumption
- Stormwater management
- Small container management
- De-icer materials handling
- Fuel delivery and spill cleanup

Infrastructure

Public Works

The Public Works Department is responsible for over 20 activities including road and sewer maintenance, refuse and recycling collection, street lighting and underground electrical utility location, and Port of Dubuque and Riverfront maintenance. The department is located in the Municipal Service Center at 925 Kerper Court.

Dubuque Metropolitan Area Solid Waste Agency

Public Works coordinates closely with the Engineering Department and has a joint agreement with the Dubuque Metropolitan Area Solid Waste Agency, providing full administrative and operations staff support for its landfill operations, yard waste composting, household hazardous materials management, electronic waste management, and solid waste management education programs.

The Public Works Department is responsible for:

- ☐ 325 miles of road
- ☐ 146 miles of storm sewer
- ☐ 290 miles of sanitary sewer

8 out of 10 Streets in Good Condition

The State of Iowa does an inspection of streets to conduct an asset management pavement inventory. Overall, 77% of Dubuque's roadways are in good condition.

4,400 Service Calls Per Year

The Public Works Department also fields service calls. About 4,400 calls are received annually, the majority of which are related to solid waste removal, snow and ice control, and street maintenance for curbs and potholes. The City aims to respond to sanitary sewer maintenance requests within one hour.



The Public Works Department also recycles asphalt for use in future roadway projects. This hazardous material is diverted from landfilling and sold to a local asphalt recycling business, which creates a Reclaimed Asphalt Pavement mixture with up to 20% reused material.

Public works targets 5-7 miles of asphalt repaving annually.

Education

Dubuque Community School District

The Dubuque Community School District had a total enrollment of approximately 10,600 students during the 2016-17 academic year. As illustrated in the table on page 7-19, enrollment has been relatively stable in recent years, with a small decline in enrollment over the past 10 years. Given funding formulas and educational goals, slow but steady growth of approximately 50 students per year would be ideal in the future. The District anticipates population growth to the south could make this a possibility in conjunction with the Southwest Arterial.

Increase Diversity of Staff

During public outreach, residents expressed concern over a limited diversity in school district staffing. As of 2016, approximately 2% of teachers are non-white while 8% of Dubuque's community identify as non-white. Dubuque Community School District is very aware of this divergence, and is actively working to diversify their staff.

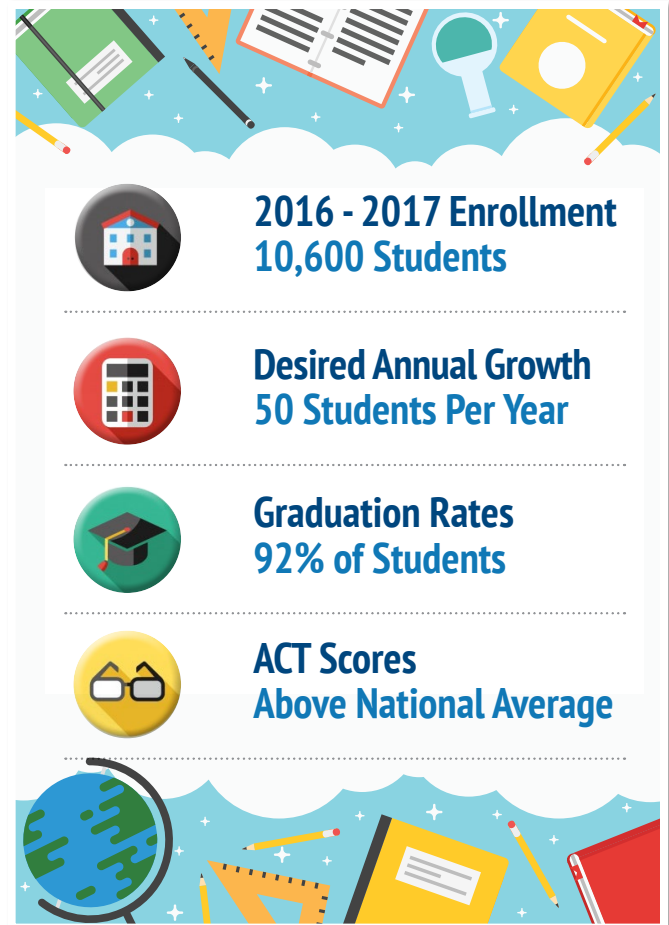
Graduation Rate Above National Average

The graduation rate is 92%, with ACT scores above national averages and similar to statewide averages. Educational attainment can help enhance demand for housing as families seek to enroll children in quality schools.

Key Partnerships Enhance Educational Outcomes

The Dubuque Community School District has worked closely with Northeast Iowa Community College to create a dual enrollment program in computer numerical control, welding, and childcare. Partnering with the Chamber of Commerce has led to a Young Entrepreneurs Program. The Dubuque Community School District also partners with the City to provide high school resource officers.

- ❑ Another excellent example of partnerships is Dubuque Community School District's partnership with the City for joint use of playgrounds and other recreational facilities. Schools play a critical role in the social and cultural vibrancy of neighborhoods and the community. They bring people together around a common goal, and conveniently located throughout the community and within neighborhoods.
- ❑ Prescott Elementary is an excellent example of local partnerships, with community rooms and multiple uses designed into the facility. The school is actively used for non-school events and activities. For example, the City's Leisure Services Department operates programs using the gymnasium and the Circles Initiative uses the facility for their monthly meetings.



▲ The Prescott Elementary School playground served as the "Kids Zone" for Imagine Dubuque's Equity Workshop. Co-hosted by Inclusive Dubuque and Circles Initiative®, Leisure Services brought the fun (literally) with their Rec & Roll Mobile.

Renovations: Hempstead High School

Many recent renovations have improved Dubuque Community School District facilities, including both high schools. Completed in 2016, the \$30 million renovation at Hempstead High School added a 700-seat auditorium, a gym, athletic locker rooms, a wellness locker room, and classroom space for art, music and technology.

Renovations: Dubuque Senior High

After a \$10.5 million renovation of its athletic stadium in 2013, Dubuque Senior High broke ground in 2017 on a \$30 million project that includes a gym, classroom, student commons, administrative offices, and a cafeteria.

- ❑ Funding for these capital improvements is aided by the State of Iowa’s one-percent sales tax for capital facilities and technology.

“

“1% of taxes for schools should be for everything in school, not just the building + remodeling (books, teachers, etc.)”

- Idea shared via the project website

”

Middle Schools + Elementary Schools

The Dubuque Community School District includes three middle schools and 13 elementary schools with a combination of historic and modern facilities. Enrollment stands at 1,150 at Roosevelt Middle School, close to capacity with 650 students at Washington Middle School, and has declined to 500 at Jefferson Middle School. Older elementary schools have less capacity with enrollments near 300 students, while newer elementary schools in the district can hold up to 600 students. Dubuque Community School District operates Elementary schools on a neighborhood concept which enhances walkability and social interaction. Prescott Elementary School is the only charter elementary school in Iowa with a focus on problem-based learning and the arts, and has restricted class sizes to 24 students.

Dubuque Community School District developed a five-year strategic plan in 2012 to guide District operations. That plan is scheduled to be updated in late 2017, early 2018 to guide the next five-year period.

<div>1% Sales Tax For Capital Facilities + Technology</div>	<div>Hempstead High School</div>	<div>Dubuque Senior High</div>
	<div>\$30 Million Renovation</div> <div>700-seat auditorium, a gym, athletic locker rooms, a wellness locker room, and classroom space.</div>	<div>\$30 Million Renovation</div> <div>Gym, classroom, student commons, administrative offices, and a cafeteria.</div>



▲ Hempstead High School

Western Dubuque Community School District

As Dubuque continues to expand to the west, some future residents will be a part of the Western Dubuque Community School District. At 555 square miles, the Western Dubuque Community School District is the largest in the state of Iowa in terms of geographic coverage. The graduation rate of the district stands at 98%, while the ACT score averages 22.9. Among graduates, 56% enroll in post-secondary education. The District currently contains four elementary schools, one middle/intermediate school, and two high schools.

Peosta Elementary School, which is within the 2-mile extra territorial jurisdiction of this plan, is currently above target enrollment capacity. The Western Dubuque Community School District is currently conducting a population study, to be completed in Fall 2017, that will address the future needs of elementary and junior high schools in the area. Enrollment increased by 226 students from 2006-2016, while the Dubuque Community School District declined by 117 students over the same period.

As population growth continues to occur south and west of Dubuque, the need for additional schools should be monitored.

Higher Education

Dubuque is a regional hub for higher education in the tri-state area. Three private, liberal arts institutions:

- ☐ Loras College
- ☐ University of Dubuque
- ☐ Clarke University

As well as multiple seminaries, which call Dubuque home. Northeast Iowa Community College offers adult education classes in downtown Dubuque, and many other programs and technical training throughout Northeast Iowa.

Partnerships with these institutions are integral to the future well-being of the city. More on higher education can be found in the Economic Development Analysis in the Appendix.

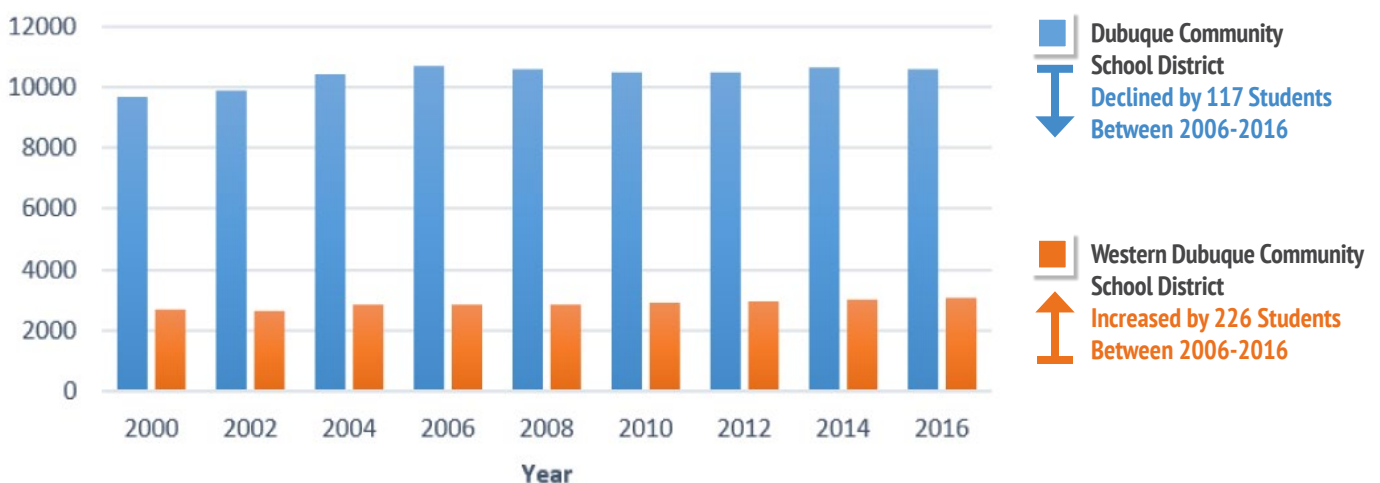


What is the Greatest Opportunity to Increase Social and Cultural Vibrancy?

27% of Quick Poll Respondents (64 Individuals) voted for “Increasing partnerships among schools, faith based groups, non-profits and others” and “Educational opportunities for youth such as art camps or other intensive engagement” to increase social and cultural vibrancy.

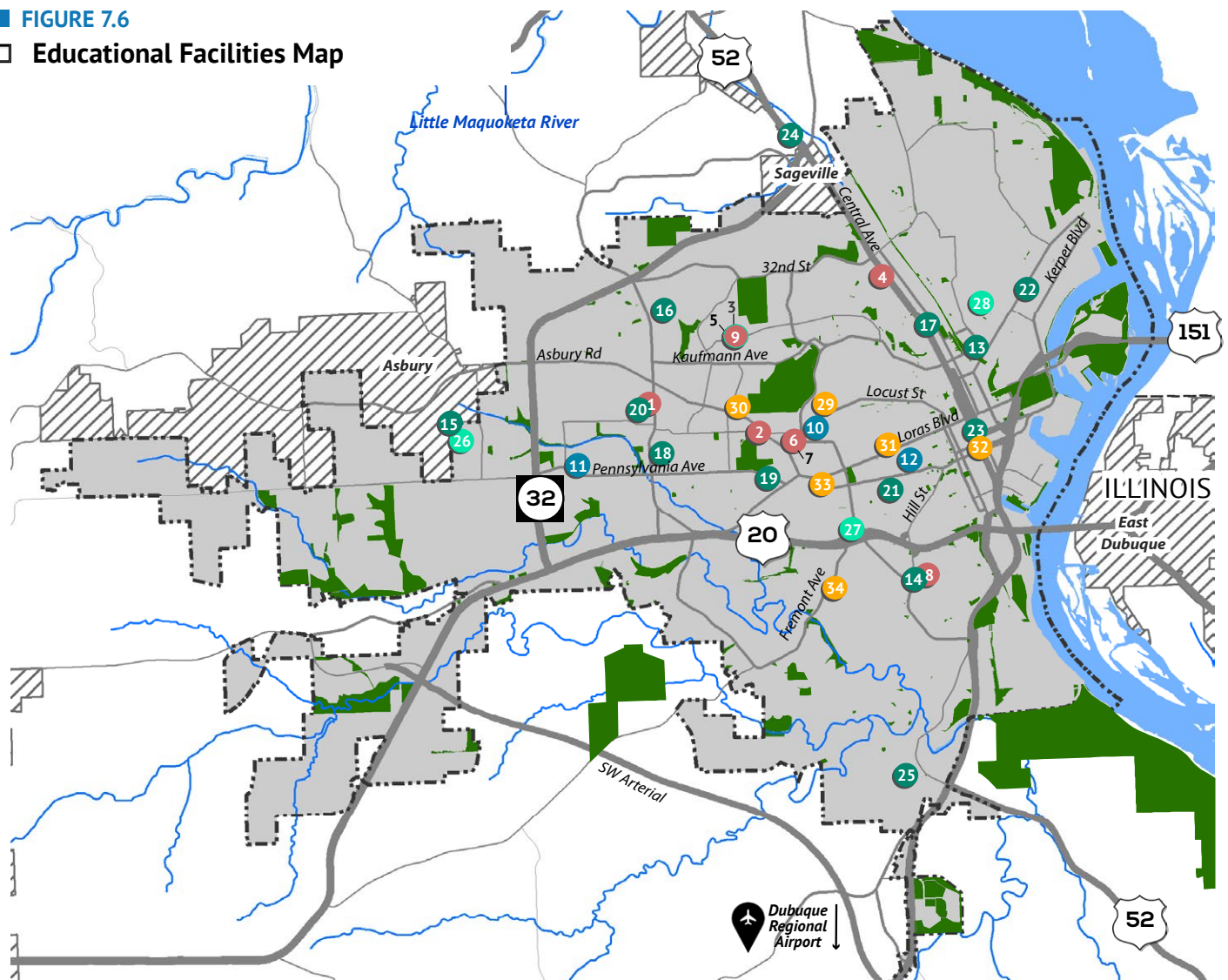
■ FIGURE 7.5

□ Dubuque School Enrollment Trends



■ FIGURE 7.6

□ Educational Facilities Map



Educational Facilities



Private Schools

- 1 Dubuque Lutheran School
- 2 Hillcrest School
- 3 Holy Family Catholic Schools
- 4 Holy Ghost Catholic School
- 5 Mazzuchelli Catholic Middle School
- 6 Our Lady Of Guadalupe
- 7 St Anthony Catholic School
- 8 St Columbkille's Catholic School
- 9 Wahlert High School

High Schools

- 10 Dubuque Senior High School
- 11 Stephen Hempstead High School
- 12 Alternative Learning Center

Elementary Schools

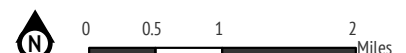
- 13 Audubon Elementary School
- 14 Bryant Elementary School
- 15 Carver Elementary School
- 16 Eisenhower Elementary School
- 17 Fulton Elementary School
- 18 Hoover Elementary School
- 19 Irving Elementary School
- 20 Kennedy Elementary School
- 21 Lincoln Elementary School
- 22 Marshall Elementary School
- 23 Prescott Elementary School
- 24 Sageville Elementary School
- 25 Table Mound Elementary School

Middle Schools

- 26 Eleanor Roosevelt Middle School
- 27 George Washington Middle School
- 28 Thomas Jefferson Middle School

Higher Education

- 29 Clarke University
- 30 Emmaus Bible College
- 31 Loras College
- 32 NICC Dubuque Center
- 33 University Of Dubuque
- 34 Wartburg Theological Seminary



Parks and Recreation Facilities

Dubuque has an extensive park and recreation system (see Figure 7.7 on the following page) which is managed by the Leisure Services Department.

A quality park and recreation system contributes multiple benefits to the community, providing opportunities for improved physical and mental health, social interaction, protection and enhancement of the environment. On page 5-23, many additional recreational investments desired by residents are highlighted. However, maintenance and updating of existing facilities is also critical to providing the quality expecting by both existing and future Dubuque residents. For example:

- ❑ **Restroom facilities** in many of the City's parks are dated and in need of improvements to both enhance appearance and provide operational savings by installation of new energy efficient fixtures.
- ❑ Replacement of older **park lighting fixtures** with more energy efficient ones would reduce operating costs.
- ❑ Playgrounds, park drives, parking areas, shelters and other **park improvements** all need to be integrated into a replacement schedule.
- ❑ The Leisure Services Department has completed a partial **assessment for compliance** with the Americans with Disability Act (ADA). This assessment needs to be completed on all facilities, with a strategy and budget for improvements to provide appropriate accessibility to all recreational improvements.
- ❑ The City has begun to replace the **irrigation system** at Bunker Hill Golf Course, and the remainder of the irrigation replacement project should be completed to insure the on-going viability of the course.

- ❑ **Existing outdoor swimming pools** are outdated based upon the standards of what residents have experienced in other communities. An assessment of the existing outdoor pools in Dubuque has been completed, and updates and upgrades are needed to meet residents' expectations for modern aquatic facilities. Many residents also suggested a desire for smaller spray parks.
- ❑ **Existing indoor program space** at Allison-Henderson, Comiskey and the Slattery Center are heavily used and at various levels of repair. While the Leisure Services Department maximizes the use of this space and partners with the Dubuque Community School District and others to provide facilities, many Imagine Dubuque participants suggested a desire for additional indoor recreational opportunities.
- ❑ **The Grand River Center** will be 20 years old in 2023. Appropriate updates to mechanical and other systems, restroom renovations, and other enhancements should be evaluated and worked into capital facility plans and budgets.

“

“Investing in parks and recreation in general would go a long way towards making me want to stay here and be proud to call myself a Dubuquer.”

“There is a recreational facilities gap: Dubuque doesn't offer some of the things that people moving to the area expect: splash pad(s), no large community center, no rec center.”

- Ideas shared via community outreach

”

Recreational Partnerships

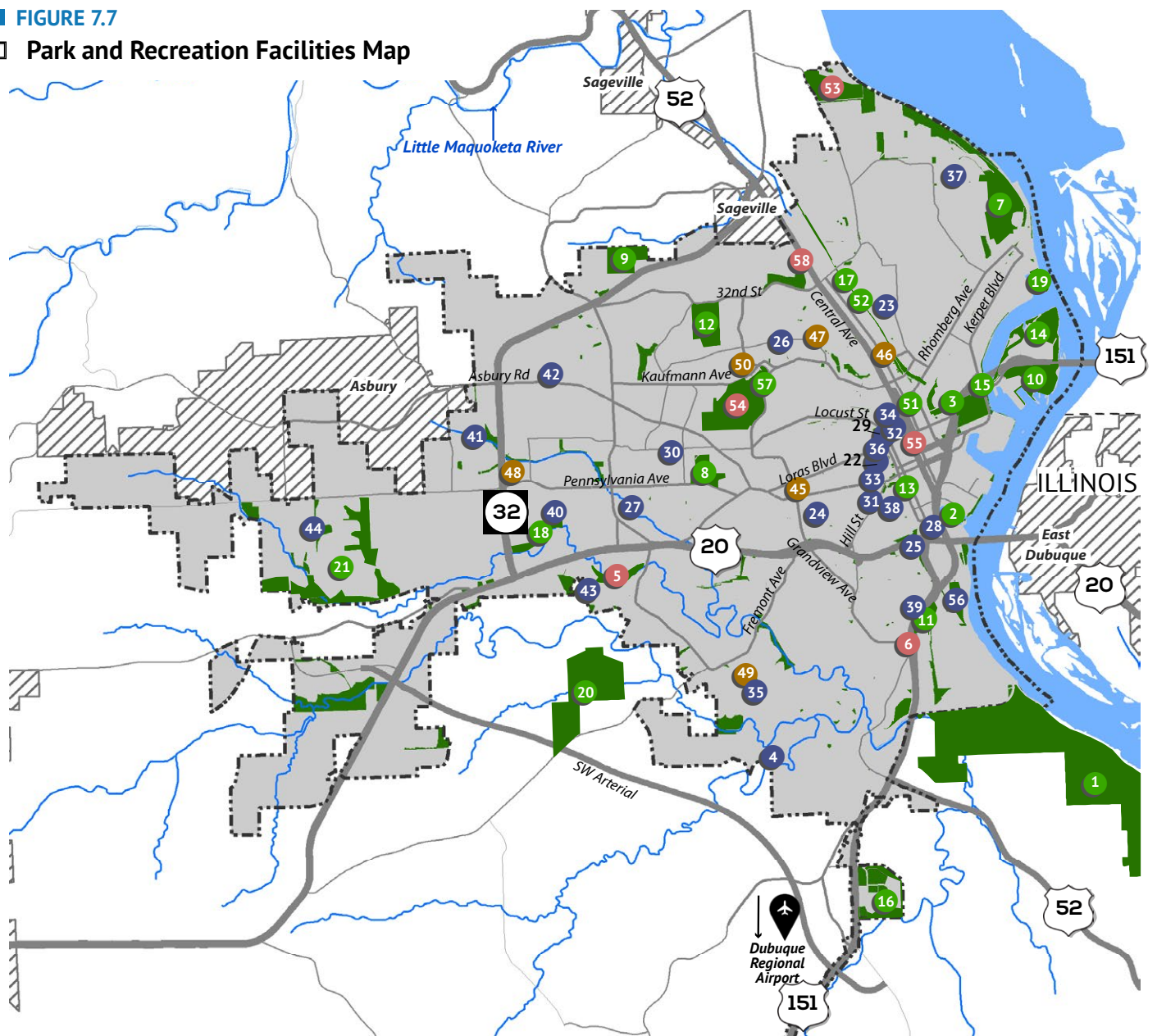
The City, through the Leisure Services Department, partners with many organizations to meet the diverse recreational needs of the community. In addition to the noted partnership with the Dubuque Community School District to use their facilities, the City has worked with entities like the Dubuque Arboretum, Storybook Hill Children's Zoo, and the Tri-State Modelers (radio-controlled airplanes) to provide space for these and many other recreational activities within City-owned land. Partnerships like these are a great way to provide desired recreational opportunities while keeping costs within reach of residents. Additional partnership opportunities with groups interested in mountain biking, rugby, indoor or outdoor soccer, lacrosse, pickleball and others should continue to be explored and implemented where feasible.



▲ Storybook Hill Children's Zoo | Photo Credit Storybook Hill Children's Zoo

■ FIGURE 7.7

□ Park and Recreation Facilities Map



Park and Recreational Facilities



Community Park

- 56 Mines of Spain State Recreation Area
- 19 Bee Branch Creek Greenway
- 3 Eagle Point Park
- 32 Flora Park
- 4 Marshall Park
- 21 McAleece Recreation Complex
- 50 Murphy Park
- 10 Veterans' Memorial Park
- 35 Washington Park
- 14 Miller Riverview Park
- 20 Pyatigorsk Park
- 57 Granger Creek Nature Trail

Heritage Trail

- 44 Medical Associates Greenbelt
- 7 AY McDonald Park
- 54 Roosevelt Park
- 45 John G Bergfeld Recreation Area
- 17 Pet Park

Neighborhood Park

- 33 Allison-Henderson Park
- 13 Comiskey Park
- 12 Gay Park
- 31 Usha Park
- 52 Valentine Park
- 16 Valley High Park

Mini-Park

- 30 Avon Park
- 9 Burden Park
- 38 Cancer Survivor Park
- 42 Cleveland Park
- 11 Elmwood Green Park
- 37 Falk Park
- 41 Flat Iron Park
- 25 Grant Park
- 29 Hillcrest Park
- 31 Hilltop Park
- 24 Jackson Park
- 34 Jefferson Park
- 23 Madison Park

Marna Ridge Children's Forest

- 27 Rocco Buda Jr. Park
- 2 Eagle Valley Park
- 39 Waller-Cooper Park
- 48 Southern Park
- 36 Welu Park
- 28 Teddy Bear Park
- 15 Harvest View Park
- 47 Riley Park
- 43 Westbrook Park
- 18 Orange Park
- 8 Pinard Park
- 49 Maus Park
- 55 Creek Wood Park

Other

- 46 Center Grove Open Space
- 51 Grandview Green Space
- 1 Four Mounds Park
- 22 Bunker Hill Golf Course
- 26 Prescott Elementary School
- 5 Oakwood Park



0 0.5 1 2 Miles

Municipal Facilities

Public Library

The Carnegie-Stout Public Library has a staff of 42 part-time employees and 18 full-time employees. According to its annual report, the Carnegie-Stout Public Library serves 900 customers per day, 96% of which are Dubuque residents.

Library Collection Includes:

- ☐ 180,000+ Volumes
- ☐ 400 Periodicals
- ☐ Audio Materials
- ☐ Video Materials
- ☐ Telegraph Herald Newspaper Archives (1850 - Present)

Access + Parking

The existing library is easily accessible via public transportation. There were a few comments expressed requesting free parking near the library during the engagement process (see sidebar at right). Parking is available on-street and in an adjacent City parking lot, both metered and free after 5 p.m.

Branches

There are no satellite branches of the Dubuque Public Library, and there also was some interest in a satellite facility – particularly one more accessible to residents living on the west side of Dubuque. Sites such as the Kennedy Mall may offer potential for expansion of library services through a library kiosk in the mall.

Maker Space (Pictured Below)

The Carnegie-Stout Public Library is offering more digital and interactive programming. Their Maker Space (pictured below) is a creative workstation that includes iPads, Macbooks, 3D printing, a green screen, and other video equipment. The Carnegie-Stout Public Library plans to offer a “low tech” program on crafts as well.

VOICES OF DUBUQUE

“Bigger children’s library with reading nooks, children’s toys, games/puzzles for checkout.”

“More library branches.”

“Improved internet, electronic reading, and online library resources for seniors.”

“Give library volunteers a “free” place to park. When I am volunteering, it costs me to do this, why?”

“Library parking stickers.”

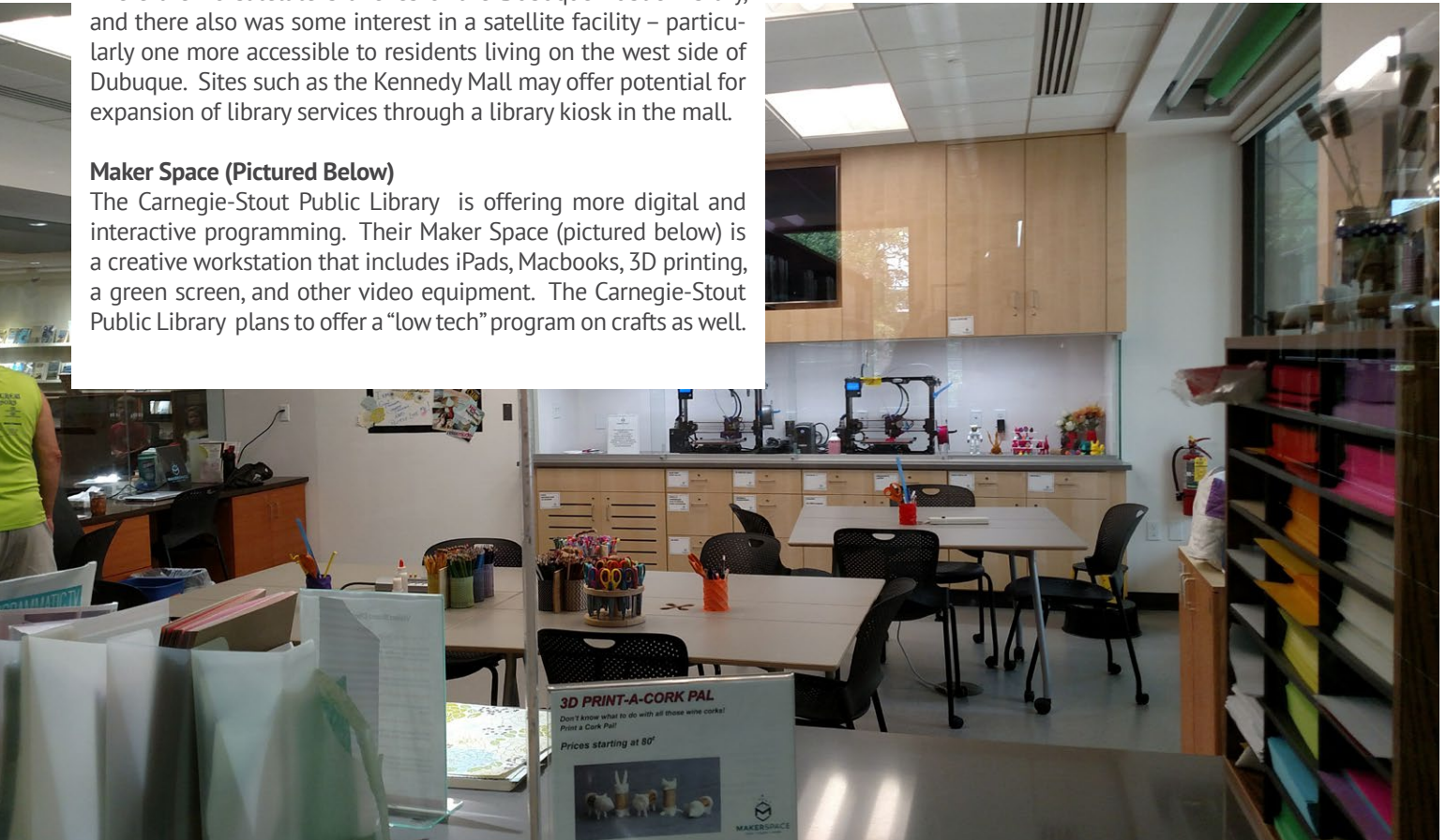
“Free parking for library volunteers.”

“Free parking at the library.”

“Library branch on the west side of town.”

“I love the monthly free movies at CSLibrary.”

- Ideas shared via public outreach.



▲ Carnegie Stout Public Library Maker Space



SPOTLIGHT ON VIABILITY

Carnegie-Stout Public Library Partnerships

Carnegie-Stout Public Library should continue to partner with Dubuque Community Schools, the colleges, seminaries, and Northeast Iowa Community College to serve youth and provide educational resources and opportunity in Dubuque. Offering expanded access to technology could help inspire and build skills of youth and young professional in the community, helping to close the skills gap.



“

“Improve internet, electronic reading, and online library resources for seniors.”

- Idea shared via the project website

”

Multicultural Family Center

The mission of the Multicultural Family Center is to empower families and community members to reach their potential and build unity out of diversity. Located in the Ruby Sutton Building, the Multicultural Family Center is a public/private partnership with the City of Dubuque, as well as a non-profit. Located in City-owned space at 1157 Central Avenue, the Multicultural Family Center plays a prominent role in bringing diverse groups of people together in Dubuque. The Multicultural Family Center offers programming, seminars, activities, and events space focused on community empowerment and civic engagement. For example, the Multicultural Family Center supports teens through summer employment, environmental education, and community service. In 2016 the City purchased the neighboring 10,079 square foot building to allow for the expansion of Multicultural Family Center programming.

"In 2015, the Dubuque Branch of the NAACP petitioned the City Council to name the Multicultural Family Center after Ruby Sutton. Ruby moved with her family to Dubuque in 1960 when it was one of the whitest cities in the U.S. Ruby's entire life was marked by courage, determination and passion for social justice. In addition to raising eight children, she completed her college degree in Chicago by traveling to and from class every day on the train. With the Board's strong support, the Council voted unanimously to name the building housing the Multicultural Family Center in her honor."

“

"The Multi-Cultural Center shouldn't be the only place in town where different races interact."

"Ruby Sutton Multicultural Family Center is a plus."

"Use arts and cultural programs to connect people across divisions of socio-economic status, race, religion, age, etc. Arts is a universal language – use it intentionally to bring people together."

- Ideas shared via community outreach

”

Dubuque Regional Airport

The Dubuque Regional Airport has approximately 1,300 acres of land, although most cannot be developed because of its proximity to runways, taxiways, clear zones, etc. The remaining property has appropriate zoning restrictions to ensure appropriate land use compatibility.

- ❑ Approximately 550,000 sf along the flight-line is available for aviation uses and has just been leased to the University of Dubuque to construct a new aviation campus. Approximately 300,000 sf of this area will return to airport control in 2019.
- ❑ The remaining 250,000 sf will remain under contract to the University until 2052. Across Airport Road land uses are less restrictive and approximately 15 acres are immediately available for commercial and industrial uses.
- ❑ Further south, adjacent to the new airline passenger terminal, 40 acres are also available for commercial and industrial uses. Until 2016, the biggest limiting factor was a lack of water and sewer infrastructure but that is now in place.

Available Facilities: All hangars are rented to individual or corporate users. The old airline terminal facility (11,566 sf) had been under consideration for use by University of Dubuque until earlier this year when they elected to build a new campus. Today this aging facility is programmed for demolition as soon as funds are available.

Facility Requirements: The airport will be updating its master plan over the next several years. The last one was completed in 2005 and the Federal Aviation Administration considers them to be a 20-year document. However, since the City has completed the majority of the key projects outlined in the existing master plan, an updated plan is being considered for funding in 2018.

An updated plan should address extending both runways to 7,500 feet, completing taxiway F, removing the oldest T-Hangars and box hangar facilities with new facilities to replace them.





Chaplain Schmitt Island

The Chaplain Schmitt Island Master Plan was adopted in 2014 and amended in 2017, creating a long-term vision for the city-owned island in the Mississippi River near downtown Dubuque. The plan recommends three different areas: Lake Peosta Recreational Channel, Island Resort, and Island Destination.

▲ Top Left: Dragon Boat Festival | Bottom Left: Grand River Center | Right: Planned Improvements to Chaplain Schmitt Island

City-Owned Properties

The City government of Dubuque consists of 34 departments that predominately operate out of three administrative buildings downtown; City Hall at 50 West 13th Street, the City Hall Annex at 1300 Main Street, and the Historic Federal Building at 350 West 6th Street. While the bulk of departments operate out of City Hall, the City Hall Annex is home to the Health Department, Information Services Department, Health Services Department, Sustainability Coordinator, and Cable TV. Additionally, the Housing and Community Development Department operates out of the Historic Federal Building.

Other City-Owned Properties Include:

- ☐ Five Flags Civic Center and Theater
- ☐ Multicultural Family Center
- ☐ Water & Resource Recovery Center
- ☐ Eagle Point Water Treatment Plant
- ☐ Dubuque Intermodal Transportation Center and Bus Barn
- ☐ Multiple Parking Ramps
- ☐ Flora Pool
- ☐ Sutton Pool
- ☐ Bunker Hill Golf Course
- ☐ Municipal Services Center
- ☐ Carnegie-Stout Public Library
- ☐ Port of Dubuque Marina
- ☐ Grand River Center

Chaplain Schmitt Island and the South Port

Among city-owned land, the greatest redevelopment opportunity sites include Chaplain Schmitt Island and the South Port. Details of the master plans of both sites are provided in the appendix of this document. Development of these areas will likely occur through public-private partnerships.

- ☐ Other key sites for redevelopment include the former Bowling & Beyond site at 1860 Hawthorne Street, 429 Rhomberg Avenue, a vacant corner structure, and the S&K building, currently home to an industrial supplier, on 11th Street. Both sites have future redevelopment plans. Planning to begin for the former Blum Junk Yard at 16th Street and Elm Street.

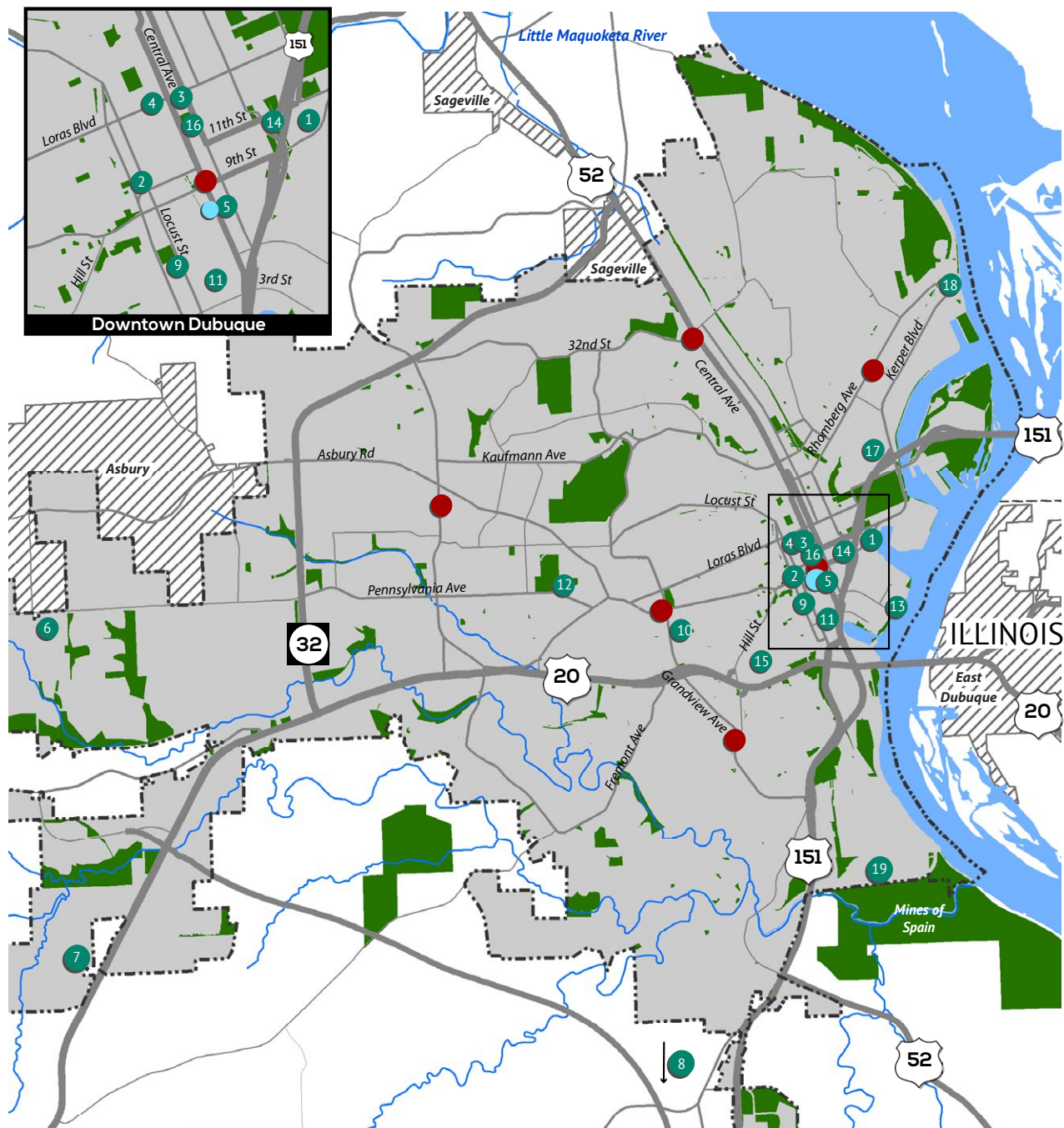
Five Flags

The City is in the process of studying the Five Flags Civic Center, which is a 4,000-seat arena adjacent to the Five Flags Theater, a 700-seat historic performing arts theatre. The Center has served Dubuque well, but the building age and design as well as other event, sports, and entertainment facilities developed in the Region have precipitated the study.

- ☐ A market study is being prepared and outreach was currently conducted to gather community opinions on Civic Center. The study will present information for decision-making regarding the future of the facilities.

■ FIGURE 7.8

□ Community Facilities Map



Community Facilities Map

- | | | | |
|--|--|-------------------------------------|---------------------|
| 1 Bus Storage Facility | 7 Dubuque Metropolitan Area Solid Waste Agency | 13 Grand River Center | ● Fire Stations |
| 2 Carnegie-Stout Public Library | 8 Dubuque Regional Airport | 14 Intermodal Transportation Center | ● Police Department |
| 3 City Hall | 9 Federal Building | 15 Mercy Medical Center | □ City Limits |
| 4 City Hall Annex | 10 Finley Hospital | 16 Multicultural Family Center | ■ Parks |
| 5 County Court House | 11 Five Flags Center | 17 Municipal Services Center | |
| 6 Dubuque County Emergency Responder Training Facility | 12 Flora Pool | 18 Sutton Pool | |
| | | 19 Water & Resource Recovery Center | |

THE CITY OF
DUBUQUE
Masterpiece on the Mississippi

**IMAGINE
DUBUQUE**



0 0.5 1 2 Miles

Community Facilities Recommendations

Infrastructure

- ❑ Continue to expand the sanitary sewer collection system to meet growth needs, particularly in proximity to the Southwest Arterial, the West End, and in the South Port. 🌿❤️
- ❑ Utilize the results of the water system dynamic model (currently under development) to identify current needs, as well as plan for future growth of the community. 🌿❤️🏠
- ❑ Continue the integration of the former Vernon Township and Barrington Lakes water systems into the overall City of Dubuque system. 🌿❤️
- ❑ Develop and adopt a stormwater ordinance to guide future growth and development and to address onsite infiltration and sustainable development practices. 🌿❤️🏠
- ❑ Partner with Green Dubuque and other similar organizations to define metrics to monitor progress on environmental goals as outlined in the Climate Action and Resiliency Plan. ❤️
- ❑ Continued expansion of fiber optic access throughout the community. 🌿❤️🏠

Public Safety

- ❑ Ensure budget and staffing needs for all City departments as Dubuque's population grows. ❤️🏠
- ❑ Identify and document deficiencies of existing 911 Communications Center, and explore facility expansion. ❤️🏠
- ❑ Continue to explore the possibility of adding a police substation to further community policing efforts and adequate geographic coverage. ❤️🏠
- ❑ Explore potential future sites of an additional fire station with access to the Southwest Arterial. ❤️🏠

Municipal

- ❑ Explore the potential for a small library branch within the West End and volunteer parking near the Carnegie-Stout Library. 🌿❤️🏠
- ❑ Strategically implement the Chaplain Schmitt Island and the South Port Master Plans through partnerships. 🌿❤️
- ❑ Implement future plans for Five Flags Civic Center based on outcomes from the Five Flags Civic Center Assessment and Study to better showcase this downtown venue. 🌿❤️
- ❑ Continue and expand partnership efforts with school districts, colleges, universities, and non-profits to maximize use of taxpayer dollars and enhance the utilization of facilities and other resources. 🌿🏠
- ❑ Evaluate and implement, where practical, green energy options for all public facilities. 🌿❤️

🌿.....VIABLE.....🌿
❤️.....LIVABLE.....❤️
🏠.....EQUITABLE.....🏠

Each recommendation listed relates to making Dubuque more viable, livable, and equitable. The symbols noted above correspond to these guiding principals and are listed along with the recommendations they pertain to.

