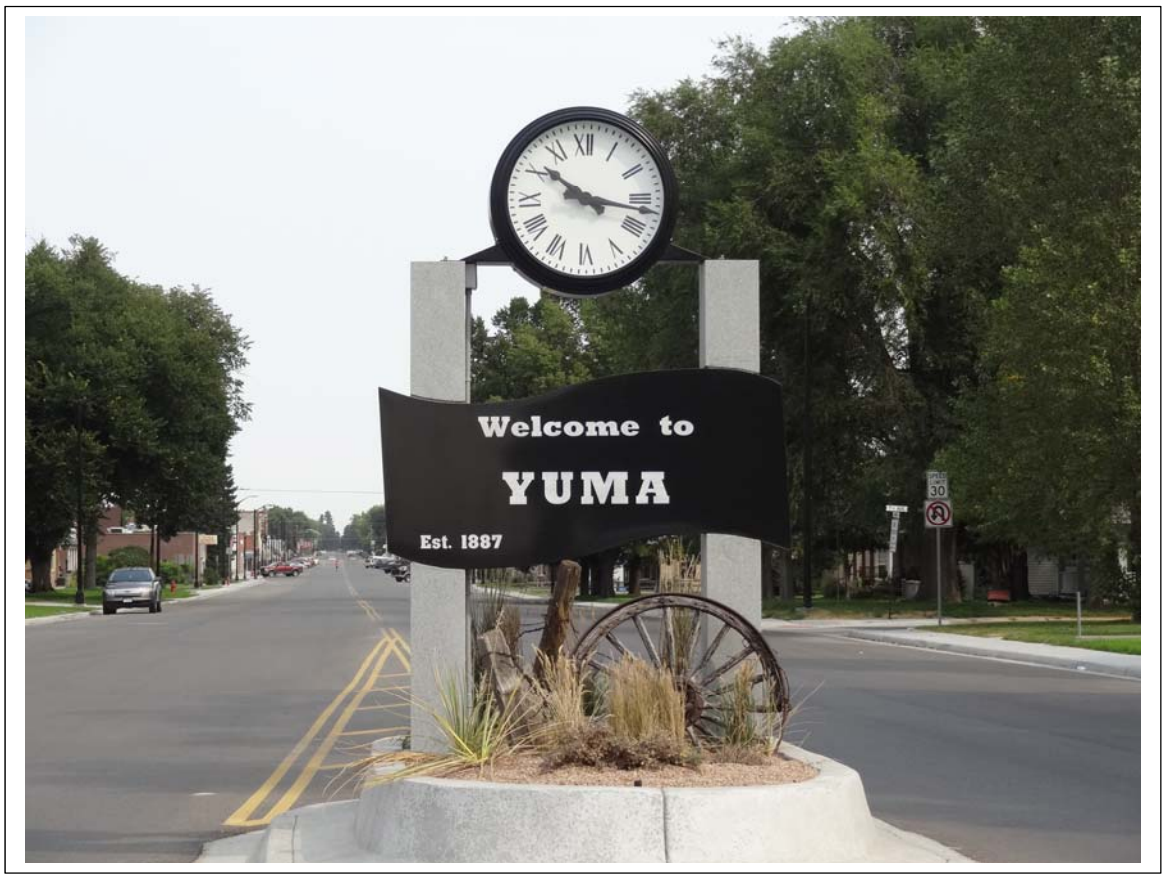
F I N A L

COMPREHENSIVE PLAN UPDATE
CITY OF YUMA, COLORADO



FEBRUARY 2, 2018

City of Yuma Comprehensive Plan

Prepared for

City of Yuma

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Date Prepared

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COMPREHENSIVE PLAN UPDATE
February 2, 2018

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INTRODUCTION

1.1 PURPOSE

The City of Yuma, Colorado, is a growing community in northeast Colorado (Figure 1-1) that desires to use a strategic approach for the financing, development, improvement, and delivery of various community facilities and services. The City also wants to serve as a catalyst that helps bring together other human resources, real property, and financial assets from the private sector, as well as selected Yuma County, State and federal agencies, to achieve various community development objectives.

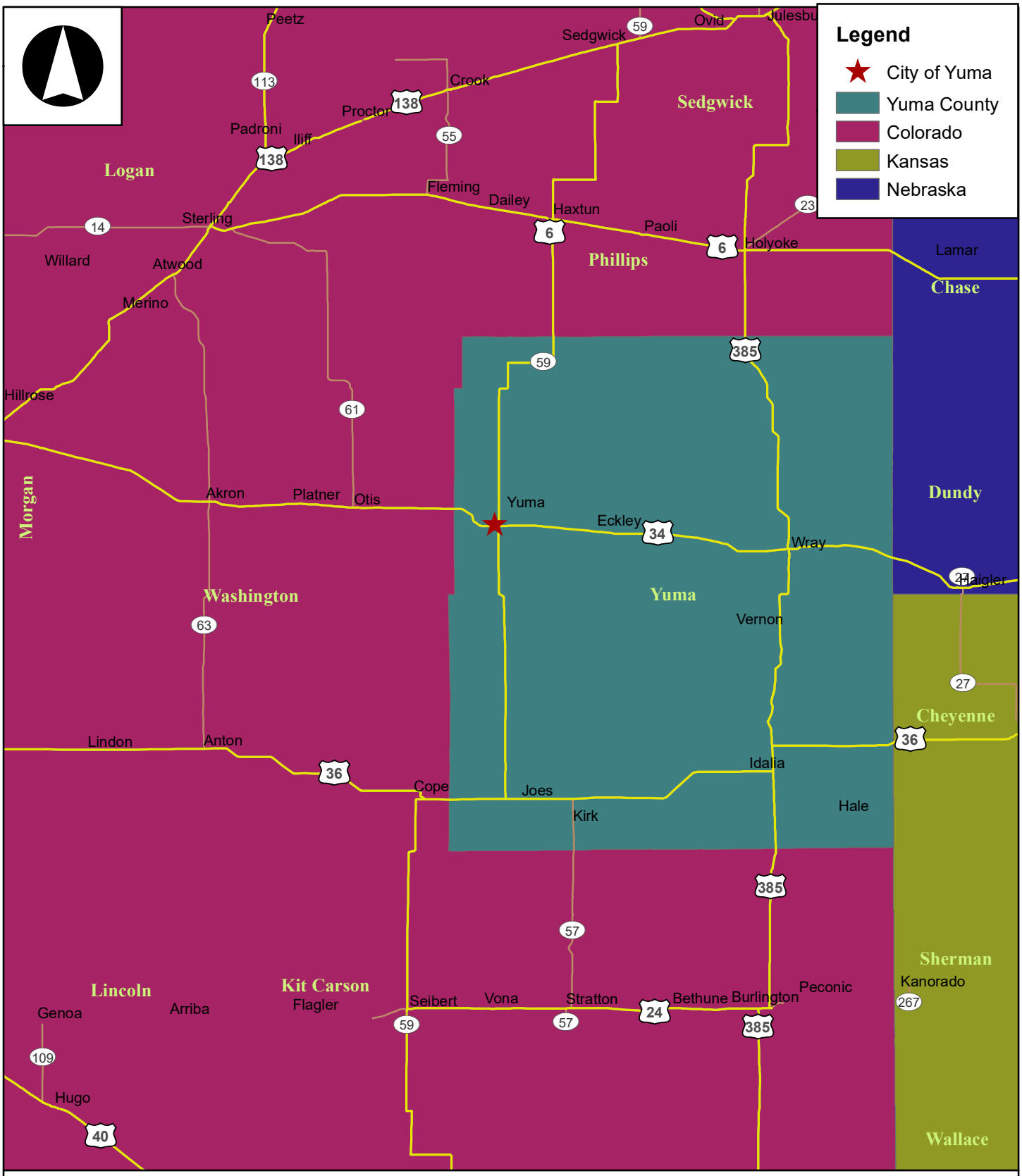
The Yuma Comprehensive Plan, or municipal master plan, outlines a community vision for making the City of Yuma a better place to live, work, invest and play. The vision presented in this document is eventually expressed through a series of community development objectives and strategies, or actions that are intended to address, pursue, and complete a series of community development issues and opportunities.

Municipal master plans are often considered to be the "play book" for municipal government to use as a guide for the improvement of existing facilities, development of new capital investments, the expansion of supporting infrastructure, and other services for a defined planning period. The City of Yuma does envision its use of the master plan for these applications. But, the City recognizes that future implementation of the plan will likely be far more successful and far-reaching if the recommended community development objectives and strategies are also supported, in part, by various community organizations, small businesses, and other interests in the community of Yuma. For this reason, the Yuma Comprehensive Plan more accurately represents a community master plan.

The Comprehensive Plan represents an update of an earlier municipal master plan for the City of Yuma that was prepared by Dwight Whitney, Land Use Planning Consultant, in 1979. The plan was accepted by the Town Planning Commission on June 26th, 1979. While this plan addressed a wide variety of relevant community issues, the City of Yuma has experienced considerable change since its adoption of the municipal master plan. This reality prompted the City of Yuma to update its 1979 plan. Concurrently, the City desired to have a "road map" that helps guide future decisions and actions of the City Council and municipal staff.

1.2 SCOPE

The Yuma Comprehensive Plan addresses a wide range of community issues and opportunities that relate to future land uses and related community growth, economic development, municipal utility and transportation systems, other municipal and community services, emergency operations, and land use regulations.



City of Yuma
Comprehensive Plan Update

City of Yuma, Colorado
Regional Location

PPC
Planning with heart for communities

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Figure 1-1

The implementation or action plan is based upon the assessment of these issues and opportunities by Pedersen Planning Consultants, as well as the insights and recommendations gained from the Yuma community. The process used to develop the plan and engage the community is outlined in Section 1.3 Planning Process.

The action plan includes a series of community development objectives and strategies that outline a series of specific tasks to be completed during the coming decade. A community development strategy represents any action that is undertaken and eventually completed to make the City of Yuma a better place to live, work, invest and play.

1.3 PLANNING PROCESS

1.3.1 Project Coordination

The completion of all project tasks was closely coordinated with City Manager Scott Moore, as well as Karma Wells, City Clerk/Treasurer. The City Council was kept abreast of the progress made toward the completion of the Comprehensive Plan via informal discussions of various project issues and monthly project status reports from its consultant. During the course of the planning process, the City Council, City Manager, and City Clerk/Treasurer also had the opportunity to access and review stakeholder interview summaries and preliminary chapters of the eventual draft report via emails and an on-line project Dropbox that was established by Pedersen Planning Consultants.

1.3.2 Community Participation

The planning process used to develop a community master plan for the City of Yuma involved substantive efforts to gain the perspectives, concerns and recommendations from small business owners, elected and appointed municipal officials, municipal staff, larger corporate interests, Yuma County representatives, and other residents living within the municipal boundary and a three-mile radius of the community. A combination of an initial public information meeting, stakeholder interviews, a community survey, and three community workshops was carried out to gain insights from the community concerning a wide range of issues and potential opportunities associated with making the City of Yuma a better place to live, work, play and invest. Each of these community outreach efforts is described more fully in the following paragraphs.

1.3.2.1 Public Information Meeting

A public information meeting was held on Wednesday, March 22, 2017 at Yuma Community Center. Pedersen Planning Consultants (PPC) presented an overview of the intended scope of the City of Yuma's Comprehensive Plan update, as well as the planning process that would be used to formulate the Comprehensive Plan. Members of PPC's project team were introduced to the audience. PPC's project manager subsequently facilitated an informal discussion of community issues and opportunities that residents believed should be considered in the plan. PPC also made available comment sheets that meeting attendees could use to provide additional written comments.

1.3.2.2 Stakeholder Interviews

In the early stages of the comprehensive plan process, Pedersen Planning Consultants individually interviewed approximately 55 stakeholders that represented a combination of City Council members, Planning Commission members, the City Manager and Clerk/Treasurer, other key municipal staff, Yuma County representatives, small business owners and larger corporate interests, and select non-profit organizations. These interviews were mainly conducted during the month of April 2017. A summary of information gained from each individual interview was documented for reference during the course of the master plan process. A list of persons interviewed for this project is provided in Appendix A of this report.

1.3.2.3 Community Survey

A community survey was prepared using SurveyMonkey software. It was made available to residents of the City, as well as persons living within a three-mile radius of the City, to complete between May 5 and June 30, 2017. The survey was prepared in both English and Spanish (Appendix B). Residents were encouraged to complete the community survey via the Internet or by completing hardcopy surveys that residents received with their municipal utility bills and returned to the City Clerk/Treasurer's Office. The availability of the survey was announced via newspaper articles in the Yuma Pioneer, public service announcements on Yuma radio station, and notices in the City's utility bills.

The City of Yuma established a link on its municipal website, yumacolo.org, entitled "Municipal Comprehensive Plan". The link allowed residents to connect to on-line versions of the community survey in English and Spanish using SurveyMonkey software. One hundred thirty-nine community surveys were completed on-line.

The City of Yuma also mailed a hardcopy version of the survey to residents via the City's May 2017 utility invoice. A reminder to complete the survey was included in the City's June 2017 invoice. By June 30, 2017, 277 completed hardcopy versions of the survey were returned to City Hall.

Pedersen Planning Consultants tabulated and compiled a total of 416 completed surveys to evaluate the importance, preferences and priorities of various community issues and opportunities to Yuma residents. Compiled results from the survey are presented in Appendix B of this report.

1.3.2.4 Community Workshops

Pedersen Planning Consultants organized three community workshops that each considered one or more community issues that were apparent from information gained from stakeholder interviews and the community survey.

Workshop Topic(s)	*Date of Workshop*	*Location*
Recreational Opportunities	July 31, 2017	Yuma Community Center
Pave and Maintain More Streets	August 2, 2017	Yuma Community Center
Grow and Sustain the Economy	August 2, 2017	Yuma Community Center

The format of each workshop generally included an initial presentation of background information concerning each community planning issue or opportunity. Dependent upon the size of the audience, PPC organized small groups to consider potential solutions and strategies to addressing each issue and opportunity. Each group was furnished with a summary sheet for recording the group's recommendations and observations, and relevant maps to help facilitate individual group discussions. Following an established time period for each group discussion, a member of each group presented the results of their discussions and related recommendations. Summaries of the insights received from each of the workshops are presented in Appendix C.

1.3.2.5 Public Hearing

The City of Yuma's Planning Commission conducted a public hearing on the draft Comprehensive Plan update at the City Hall on October 30, 2017. PPC presented an overall summary of the conclusions and recommendations contained in the draft plan and the related planning process. The Planning Commission received public comments and generally discussed desired revisions to the Comprehensive Plan. The Planning Commission tabled any consideration of potential plan adoption and scheduled a workshop with the City Council for November 28, 2017 to determine all desired revisions to the draft Comprehensive Plan.

1.3.3 Independent Evaluations by Pedersen Planning Consultants

Concurrent with the community participation process, Pedersen Planning Consultants made independent evaluations of the environment and natural hazards, demographic and economic trends, municipal utility systems, municipal transportation facilities, municipal emergency and evacuation procedures, and municipal land use regulations. Many of these evaluations considered issues and opportunities that were not identified during stakeholder interviews, the community survey, or community workshops. For these analyses, PPC researched selected information from reliable governmental and private sector sources. The information gained from these sources was correlated with insights and data obtained from community stakeholders, the community survey, and community workshops, as well as from the City Council, Planning Commission, and key municipal staff.

1.3.4 Development of Community Development Objectives and Strategies

The insights gained from the community and information gained from the independent evaluations of Pedersen Planning Consultants (PPC) were subsequently used by PPC to draft a preliminary set of community development objectives and strategies. The objectives and strategies represented a "first cut" for the development of an action plan for making the community a better place to live, work, play and invest during the coming decade. While many substantive recommendations were gained from the community concerning various issues, desired outcomes and preferences, Pedersen Planning Consultants further considered community recommendations and priorities, and its own evaluations, in the context of:

- how the City manages, operates and maintains its municipal utilities and transportation facilities and how it delivers other community services;

- recognizing that the need and feasibility of achieving some recommended objectives and strategies was straight forward while others needed more technical and economic evaluation;
- potential agencies and organizations that have resources that could help support the implementation of various community development objectives and strategies.

1.3.5 Refinement and Prioritization of Preliminary Community Development Objectives and Strategies

At this point in the planning process, it was essential to narrow the review of preliminary objectives by a smaller number of municipal decision-makers who would eventually influence and play a role in the future implementation of Comprehensive Plan recommendations. On September 6, 2017, PPC presented and discussed a preliminary set of objectives and strategies with members of the City Planning Commission and City Council in order to refine each objective and its related strategies. The refinement process essentially included a discussion of the rational for each objective, recommended revisions or deletions to some proposed objectives and strategies, and the inclusion of some new objectives and strategies.

1.3.6 Public Review and Revision of the Draft Report

The availability of the draft Comprehensive Plan report for public review provided an opportunity for all community residents, the Planning Commission and City Council, key municipal staff, to recommend further revisions to the Comprehensive Plan report. PPC completed various revisions to the draft report following the receipt of comments and recommendations from the general public, City Planning Commission and City Council.

1.4 REPORT ORGANIZATION

The Comprehensive Plan report contains several chapters and appendices that examine various issues influencing the future development and sustainability of the City of Yuma. These include:

- Chapter 1: Introduction
- Chapter 2: Environment and Natural Hazards
- Chapter 3: Demographic and Economic Trends
- Chapter 4: Land Use Trends
- Chapter 5: Municipal Utility Systems
- Chapter 6: Municipal Transportation Systems
- Chapter 7: Emergency Operations and Evacuation
- Chapter 8: Land Use Regulations
- Chapter 9: Future Land Use Expansion
- Chapter 10: Action Plan
- REFERENCES
- APPENDICES

1.5 CONSISTENCY WITH COLORADO REVISED STATUTES

The preparation of this municipal master plan has been made in recognition of requirements established by the State of Colorado concerning the content and processes that are to be used to

prepare and adopt a municipal master plan. These requirements are outlined in Title 31 of the Colorado Revised Statutes that outline the powers and functions of all Colorado municipalities.

C.R.S. 31-23-206 states that the preparation of a master plan for the physical development of a municipality is the duty of municipal planning commissions. The plan is to serve as an advisory document that guides the City's future decisions concerning land development within the municipal boundary, as well as on adjacent lands within a three-mile radius of the municipality.

C.R.S. 31-23-206 also provides some guidance concerning the process used to prepare the plan and the overall content of the master plan. These requirements generally include the following:

- encourage public participation in the development of the plan;
- locate existing and proposed land uses;
- locate existing utility and transportation systems and determine future needs;
- prepare water supply element that anticipates future water needs and related facility requirements;
- forecast future community growth and anticipated housing demands;
- determine and evaluate natural hazards such as soils, flooding, and wildfire, as well as habitats of threatened and endangered species;
- include a recreation and tourism element that identifies related needs of residents and visitors to the community;
- address regulatory needs, e.g., zoning, for the management of future land use development.

CHAPTER TWO
ENVIRONMENT & NATURAL HAZARDS

2.1 GENERAL

Various environmental conditions influence the City of Yuma. These conditions generally impact the personal lifestyle of residents, the delivery of public services, the economy of the community, land use, and future land and facility development.

Aside from regular seasonal changes in climate, there are several less frequent conditions and more extreme weather events that occasionally impact the City of Yuma. These natural hazards include tornados, thunderstorm wind events, wildfires, blizzards, as well as higher intensity rainfall events and related flooding.

The availability of water resources is a critical element associated with agricultural activities surrounding the City of Yuma. The long-term sustainability of agriculture and its significance upon the economy of Yuma is dependent upon the availability of this resource for crop and livestock production and other agricultural operations.

2.2 CLIMATE

2.2.1 Ambient Temperature

Long term, historical weather data for the City of Yuma indicates that the community experiences a mild climate throughout the year. Average ambient temperatures between 1950 and 2010 ranged from a low of about 15 degrees Fahrenheit in January to approximately 91 degrees Fahrenheit in July (Western Regional Climate Center, 2016).

2.2.2 Precipitation

Historical precipitation records between 1893 and April 2017 document that rainfall, hail, sleet, and snowfall in Yuma generates about 17 inches of mean annual precipitation (Western Regional Climate Center, 2017). Between 1981 and 2010, annual precipitation rose to just under 18 inches per year.

Daily precipitation recorded for Yuma documented five rainfall events that generated between three and four inches of rainfall over a 24-hour period.

TABLE 2-1
MAXIMUM DAILY PRECIPITATION
CITY OF YUMA, COLORADO
1908-2016

Date	Precipitation (inches)
October 19, 1908	4.1
June 8, 1962	3.1
September 17, 1996	3.2
July 20, 2000	3.7
May 25, 2011	3.1

Source: Weather DB, 2017

2.2.3 Surface Wind

Historical wind data, which identifies prevailing wind direction and velocities in Yuma, is not available from any public weather monitoring station in the City of Yuma.

Armstrong Consultants, which is presently preparing a master plan for the municipal airport, estimated prevailing wind direction at Yuma Municipal Airport. This estimate was based, in part, upon the use of observations that were made at Colorado Regional Airport in Akron, Colorado between 2006 and 2016. A wind rose developed for the Yuma Municipal Airport suggests that the predominant wind direction in Yuma is generally north to northwest (Rostas, 2017).

2.3 STORM EVENTS AND NATURAL HAZARDS

2.3.1 Tornadoes

Tornadoes represent the more prevalent type of storm event that occasionally influences the City of Yuma. From 1950 through 2016, 79 tornadic events occurred in Yuma County. But available records suggest that only 16 of the 79 tornadic events occurred within a 10-mile radius of the City of Yuma (National Oceanic and Atmospheric Administration (NOAA), National Centers for Environmental Information, 2017). All 16 of the tornadoes occurred between the months of April through July.

TABLE 2-2
TORNADOES WITHIN 10 MILE RADIUS OF CITY OF YUMA
1950-2016

Date	*Location in Relation to City of Yuma*	*Deaths*	*Injuries*	*Property Damage (In $1000s)*	*Crop Damage*
6/30/1957	7.8 miles SE of Yuma	0	0	0.25	0
7/30/1957	2 miles S of Yuma	0	0	2.5	0
5/13/1958	2 miles NE of Yuma	0	0	0.03	0
6/15/1958	0.5 miles East of Yuma	0	0	2.5	0
6/20/1962	6-8 miles NNE of Yuma	0	0	0.25	0
6/12/1983	7-8 miles SE of Yuma	0	0	0.25	0
7/15/1984	10 miles North of Yuma	0	0	0	0
6/30/1985	3-4 miles NW of Yuma	0	0	0	0
7/31/1985	8-9 miles NE of Yuma	0	2	250	0
7/7/1987	3 miles SW of Yuma	0	0	0	0
5/29/2007	4 miles SE of Yuma	0	0	0	0
6/4/2008	3 miles SSW of Yuma	0	0	0	0
6/26/2008	3 miles NW of Yuma	0	0	0	0
4/17/2015	1 miles WSW of Yuma	0	0	0	0
5/7/2016	10 miles SE of Yuma	0	0	0	0
5/24/2016	7-8 miles N of Yuma	0	0	0	0

Source: National Oceanic and Atmospheric Administration, National Centers for Environmental Information, 2017.

One tornado, which occurred on July 31, 1985, was responsible for two personal injuries. This event and several other tornadoes, generated property damage to agricultural operations in the vicinity of Yuma. Fortunately, none of the documented tornadoes touched down within the city limits of Yuma.

While tornadic activity in the vicinity of Yuma is occasional, the potential threat of this potentially dangerous storm event requires the community to sustain its preparedness for emergency operations related to public safety, the protection of infrastructure, and the delivery of essential public services.

2.3.2 Thunderstorm Wind

Thunderstorm winds arise from convection (occurring within 30 minutes of lightning being observed) and characterized by velocities of, at least, 50 knots (58 miles per hour) (National Oceanic and Atmospheric Administration, National Weather Service, 2007). Forty-one thunderstorm wind events have occurred within a 10-mile radius of Yuma from 1950 through 2016 (National Oceanic and Atmospheric Administration (NOAA), National Centers for Environmental Information, 2017). These severe thunderstorm events are occasionally accompanied by hail, sometimes greater than one-inch in diameter.

TABLE 2-3
THUNDERSTORM WIND EVENTS WITHIN 10 MILE RADIUS OF CITY OF YUMA
1950-2016

Date	*Location*	*Velocity (Knots)*	*Deaths*	*Injuries*	*Property Damage (In $1000s)*	*Crop Damage*
8/16/1960	2 miles SE of Yuma	N/A	0	0	0	0
7/24/1969	2 miles SE of Yuma	N/A	0	0	0	0
8/5/1969	2 miles SE of Yuma	N/A	0	0	0	0
6/19/1989	In City of Yuma	N/A	0	0	0	0
6/1/1990	5 miles S of Yuma	N/A	0	0	0	0
6/19/1991	In City of Yuma	N/A	0	0	0	0
7/7/1996	10 miles NE of Yuma	52	0	0	0	0
7/1/1998	3 miles N of Yuma	52	0	0	0	0
5/13/1999	7 miles W of Yuma	60	0	0	0	0
7/14/1999	In City of Yuma	55	0	0	0	0
4/20/2001	7 miles SE of Yuma	65	0	0	0	0
6/28/2003	In City of Yuma	52	0	0	0	0
7/11/2005	5 miles SW of Yuma Airport	65	0	0	0	0
4/23/2006	4 miles S of Yuma	56	0	0	0.5	0
6/20/2006	In City of Yuma	52	0	0	0	0
7/4/2006	4 miles S of Yuma	52	0	0	0	0
7/11/2006	5 miles SE of Yuma	56	0	0	0	0
9/16/2007	1 mile W of Yuma	55	0	0	0	0
6/4/2008	In City of Yuma	70	0	0	50	0
4/15/2009	1 mile W of Yuma	62	0	0	0	0

Table 2-3 continues on the next page

TABLE 2-3 (CONTINUED)
THUNDERSTORM WIND EVENTS WITHIN 10 MILE RADIUS OF CITY OF YUMA
1950-2016

Date	*Location*	*Velocity (Knots)*	*Deaths*	*Injuries*	*Property Damage (In $1000s)*	*Crop Damage*
6/26/2009	2 miles W of Yuma	57	0	0	0	0
7/23/2009	1 mile W of Yuma	63	0	0	0	0
7/23/2009	In City of Yuma	56	0	0	2	0
7/14/2010	1 mile W of Yuma	54	0	0	0	0
7/21/2010	5 miles SW of Yuma Airport	52-61	0	0	0	0
8/9/2010	1 mile W of Yuma	57-60	0	0	0	0
9/20/2010	2 miles W of Yuma	56	0	0	0	0
6/16/2011	8 miles N of Yuma	52	0	0	0	0
7/9/2011	1 mile W of Yuma	50	0	0	0	0
7/26/2011	1 miles W of Yuma	56	0	0	0	0
8/1/2012	3 miles ESE of Yuma Airport	52	0	0	0	0
4/8/2013	1 mile W of Yuma	54	0	0	0	0
6/14/2014	1 mile W of Yuma	52	0	0	0	0
8/7/2014	In City of Yuma	52	0	0	0	0
9/29/2014	In City of Yuma	66	0	0	0	0
5/24/2016	9 miles N of Yuma	96	0	0	0	0
5/24/2016	10 miles NE of Yuma	96	0	0	N/A	0
5/30/2016	3 miles NW of Yuma	52	0	0	0	0
6/28/2016	1 mile SE of Yuma	56	0	0	0	0
7/22/2016	In City of Yuma	78	0	0	0	0
7/31/2016	2 miles S of Yuma Airport	52	0	0	0	0

Source: National Oceanic and Atmospheric Administration, National Centers for Environmental Information, 2017.

During the past 66 years, documented thunderstorm wind events have all occurred from the months of April through July. Available records suggest that thunderstorm winds on April 23, 2006 and June 4, 2008 were the only events that generated property damage. The recorded velocities from several other thunderstorm events, however, suggest that property damages likely occurred to, at least, some residential and agricultural facilities within and near the City of Yuma, and were never reported.

The frequency of thunderstorm wind events in the vicinity of Yuma is greater than the occurrence of tornadoes. Further, these events can generate significant property damage within the City of Yuma. For this reason, community preparedness for future thunderstorm wind events requires the City of Yuma to adopt and enforce appropriate building code standards that address structural wind load requirements. Such standards can help reduce potential adverse impacts from higher wind conditions. Recommended changes to building code regulations are discussed more fully in Chapter Eight.

2.3.3 Wildfires

The presence of grasslands in an environment that is characterized by lower precipitation and occasional higher wind events provides the elements necessary to ignite and spread a significant wildfire event. For example, on March 18, 2012, strong winds ranging from 58 to 70 miles per hour toppled live electrical distribution lines near Kirk, Colorado (south of Yuma). The arcing of the downed electrical lines reportedly ignited a wildfire that injured three volunteer firemen, destroyed several homes, burned thousands of acres of grassland and pasture land, and damaged agricultural equipment (National Oceanic and Atmospheric Administration (NOAA), National Centers for Environmental Information, 2017).

Similar environmental conditions exist in the agricultural lands surrounding the City of Yuma, as well as undeveloped grasslands within Yuma. Consequently, wildfires represent a potential natural hazard to all land uses within the community. The continued vigilance and prompt response of the Yuma Volunteer Fire Department to future wildfires is essential to minimize the potential threats associated with this natural hazard.

Surprisingly, the NOAA storm event database documents only one wildfire event in Yuma County between 1950 and 2016.

2.3.4 Flooding

The NOAA Storm Event database reports only five flood events since January 1, 1950 through December 31, 2016. While the summary of past flood events presented in Table 2-4 likely represents an incomplete data set prior to 1996, the summary provides some general insight concerning the impact of flood events during the past two decades.

TABLE 2-4
FLOOD EVENT SUMMARY
CITY OF YUMA, COLORADO
1950-2016

Date	Type of Event	Rainfall (inches)	Impact/Damage
9/17/96	Flash Flood	N/A	Water in 2 buildings. Water over Hwy 59. 3-4 feet of water in Yuma Industrial Park
7/20/2000	Flash Flood with Hail	0.75	Some streets flooded 8 home basements flooded
5/29-30/ 2007	Flash Flood with Hail	N/A	City streets flooded
6/4/2008	Flash Flood	N/A	Street flooding throughout City and some basements flooded. All stormwater detention ponds filled to capacity.
6/1-2/2015	Flash Flood	1.20-2.50	Flood waters over Hwy 59 N of City.

Source: National Oceanic and Atmospheric Administration, 2017.

Available data suggests that flood events occur primarily from May through September. Flash flood events, with higher intensity rainfall and hail, are more common. These events typically generate the flooding of some municipal streets and roads, segments of U.S. Highway 34 and Colorado Highway 59, as well as flooding of the basements of some homes.

The flash flood of June 1-2, 2015 also indicates that higher intensity rainfall events can quickly fill the capacity of municipal stormwater detention ponds. Further, maximum daily precipitation records indicate that rainfall events can occasionally generate rainfall of three to four inches. For that reason, it is evident that the City should complete a stormwater management plan to determine future stormwater detention requirements and strategies for accommodating stormwater flows that will be generated from future flood events.

2.4 SOILS

2.4.1 Predominant Soil Mapping Units

Available soils data from the U.S. Department of Agriculture, Natural Resources Conservation Service indicate that the City of Yuma is primarily characterized by two different soil mapping units: Kumu-Keith silt loam and Ritchfield silt loam (Figure 2-1). Each of these soil mapping units generally exhibits the characteristics summarized in Table 2-5 and occur on ground slopes that are less than three percent.

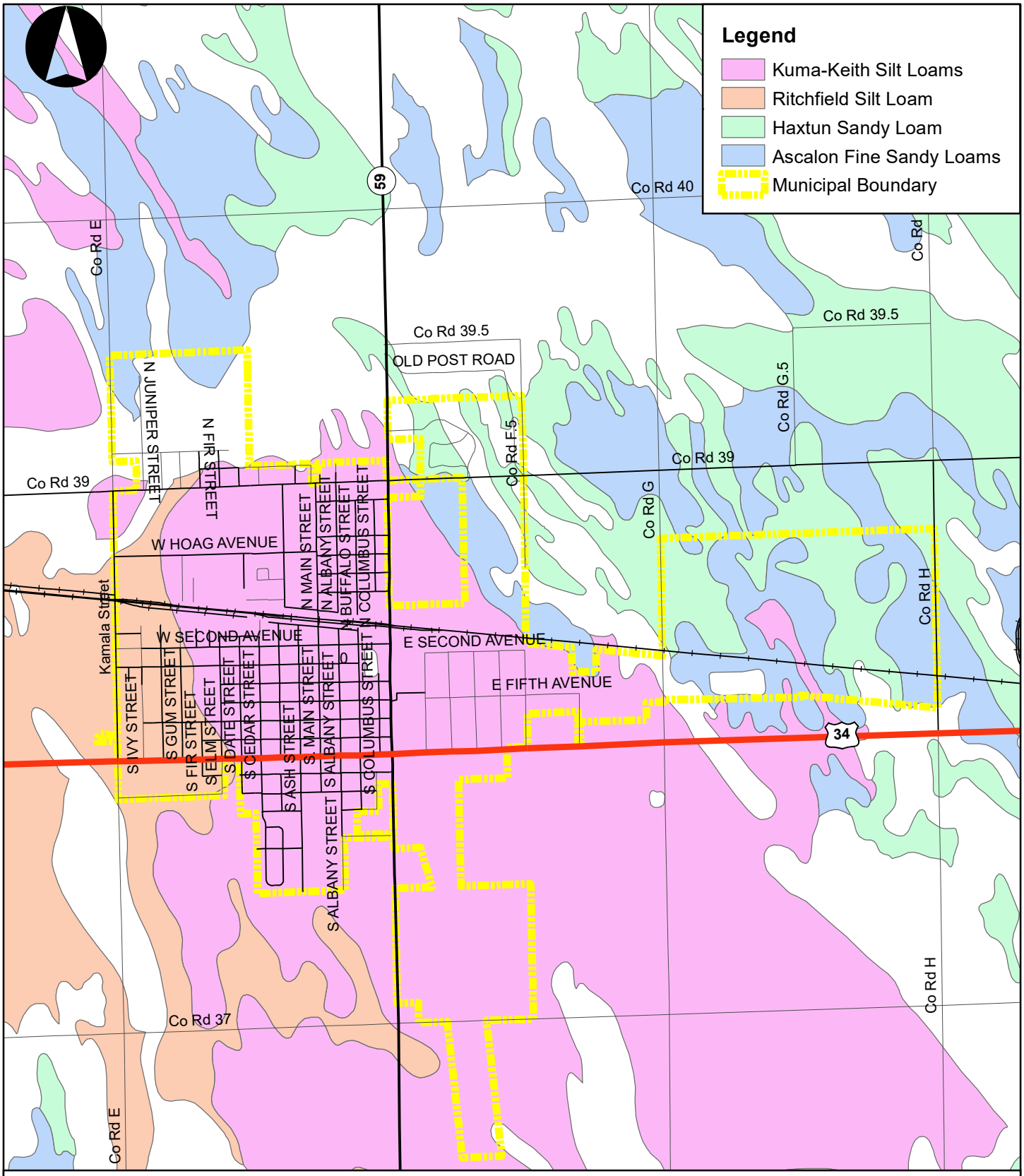
TABLE 2-5
PREDOMINANT SOIL MAPPING UNITS IN CITY OF YUMA, COLORADO

Soil Mapping Unit	*Permeability*	*Effective Rooting Depth (inches)*	*Available Water Capacity*	*Surface Runoff*	*Water Erosion Hazard*	*Wind Erosion Hazard*
Kumu-Keith Silt Loam	Moderate	>60	High	Slow	Slight	Moderate
Ritchfield Silt Loam	Moderately Slow	>60	High	Slow	Slight	Moderate
Haxtun Sandy Loam	Moderate	>60	High	Slow	Slight	Severe
Ascalon Fine Sandy Loam	Moderate	>60	Moderate	Medium	Slight	Severe

Source: U.S. Soil Conservation Service, 1981.

In the northwest part of Yuma, somewhat sandier soils, classified as Manter sandy loam and Ascalon fine sandy loan, characterize lands in the vicinity of Indian Hills subdivision. Near the northeast corner of Yuma, Ascalon fine sandy loam and Haxtun sandy loam represent the predominant soil types in the vicinity of the municipal wastewater treatment plant (Figure 2-1 and Table 2-5).

Eighteen additional soil mapping units characterize lands within a three-mile radius of Yuma's municipal boundary. These areas contain a variety of sandy loam soils.



City of Yuma
Comprehensive Plan Update

Predominant Soil Mapping Units City of Yuma

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Figure 2-1

2.4.2 Soil Suitability and Limitations

As part of its historical and continuing completion of regional soil surveys throughout the United States and various U.S. Territories, the Natural Resources Conservation Service (NRCS) also evaluates the suitability of soils to support various type of land uses. While general in nature, these assessments are useful for the consideration of future land use expansion and the location of potential land uses.

The following assessments evaluate the suitability of local soil mapping units to support potential land uses, e.g., dwellings without basements. The Illustrations prepared for each assessment depict the suitability of local soils in terms of their potential limitations. The suitability ratings of each soil mapping unit, within the City of Yuma and a three-mile radius of the City, rate each soil mapping unit as Very Limited, Somewhat Limited, Not Limited, or Not Rated.

“Not limited" indicates that the soil has features that are very favorable for the specified land use. Good performance and very low maintenance can be expected.

"Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected.

"Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected (U.S. Department of Agriculture, Natural Resources Conservation Service, 2017).

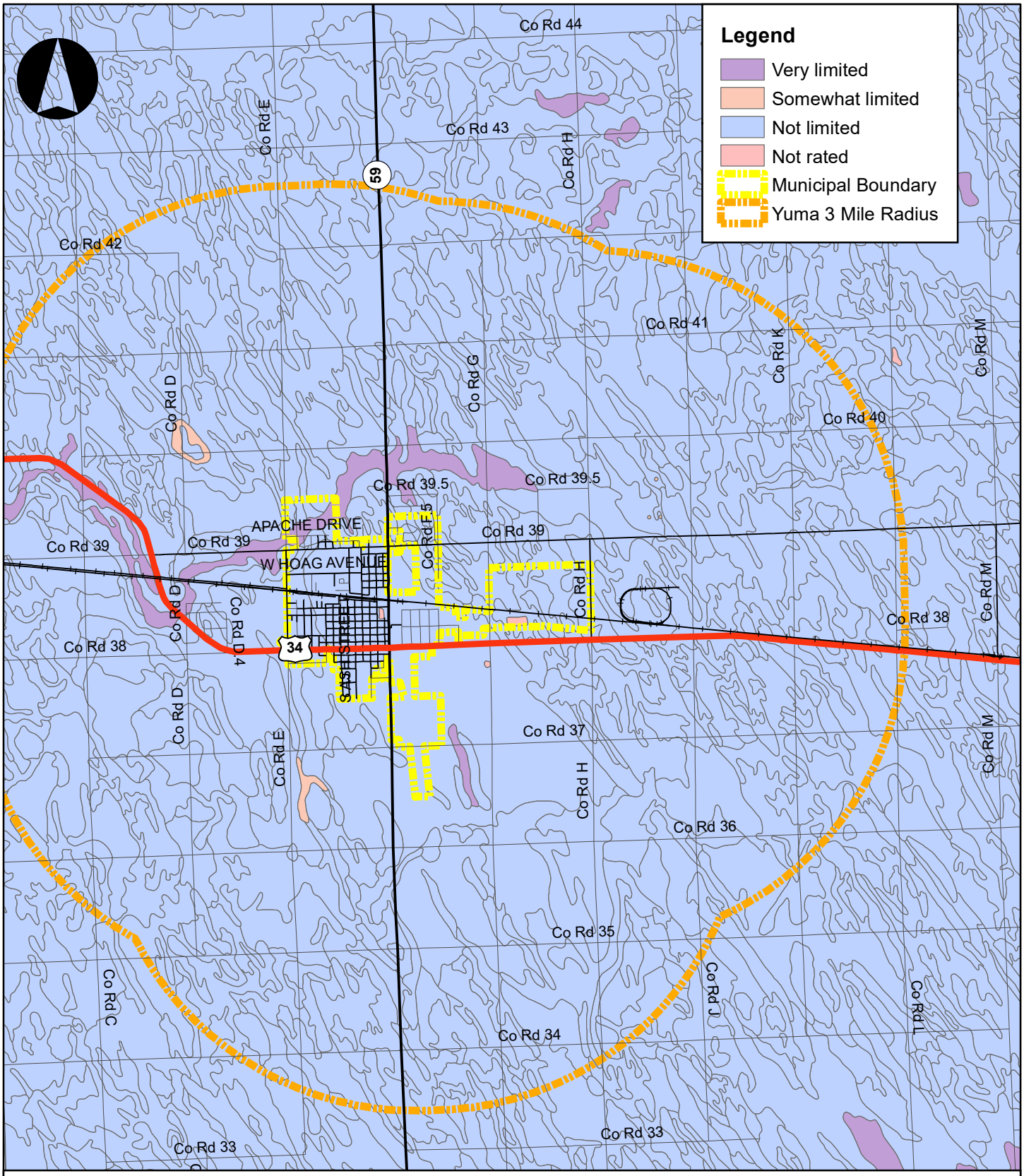
“Not rated” identifies soil mapping units that were not evaluated by NRCS for a specified type of land use.

2.4.2.1 Dwellings With Basements

NRCS evaluations indicate that most of lands within the City of Yuma and within a 3-mile radius of the municipal boundary do not pose any limitations to the development of dwellings with basements. However, NRCS considers an area that extends from western Yuma County, through a portion of Indian Hills subdivision (inside the municipal boundary), to lands north and northeast of the municipal boundary, as Very Limited (Figure 2-2). Much of this area is characterized by Albinas loam. The rationale expressed by NRCS for the Very Limited rating is the potential flood hazard associated within this soil mapping unit. Potential flooding can contribute to the movement of footings associated with building foundations.

2.4.2.2 Dwellings Without Basements

With the exception of a portion of Indian Hills subdivision in northwest Yuma, NRCS identifies no limitation for the construction of dwellings without basements within the present municipal boundary. Similar to dwellings with basements, NRCS considers the area that extends from western Yuma County, through a portion of Indian Hills subdivision (inside the municipal boundary), to lands north and northeast of the municipal boundary, as Very Limited. Much of this area is characterized by Albinas loam. The rationale expressed by NRCS for the Very Limited rating is the potential flood hazard associated within this soil mapping unit.



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Soil Suitability
Dwellings With Basements
Vicinity ofYuma

Figure 2-2

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In addition, there are several areas situated southwest, southeast and northeast of the City that NRCS rates as "Somewhat Limited" (Figure 2-3). These areas are characterized primarily by Rago loam and, secondarily, by Platner loam. The limitations identified by NRCS for these soil mapping units are based primarily upon NRCS consideration of shrink swell potential.

2.4.2.3 Small Commercial Buildings

NRCS considers small commercial buildings to be commercial facilities that are constructed on shallow foundations, have structural load limits that are similar to single-family dwellings, and do not exceed three stories. Most lands within the municipal boundary of Yuma have no soil limitations for these types of commercial structures.

However, NRCS identifies Very Limited and Somewhat Limited limitations associated with two soil mapping units in the vicinity of the Yuma County Fairgrounds. The Very Limited soil mapping units again represent Albinas loam that has a potential for flooding. Somewhat limited soil mapping units in this area include Manter sandy loam and Ascalon sandy loam (Figure 2-4).

Somewhat Limited soils are also present in portions of the municipal golf course. Manter sandy loam in this area contains this rating.

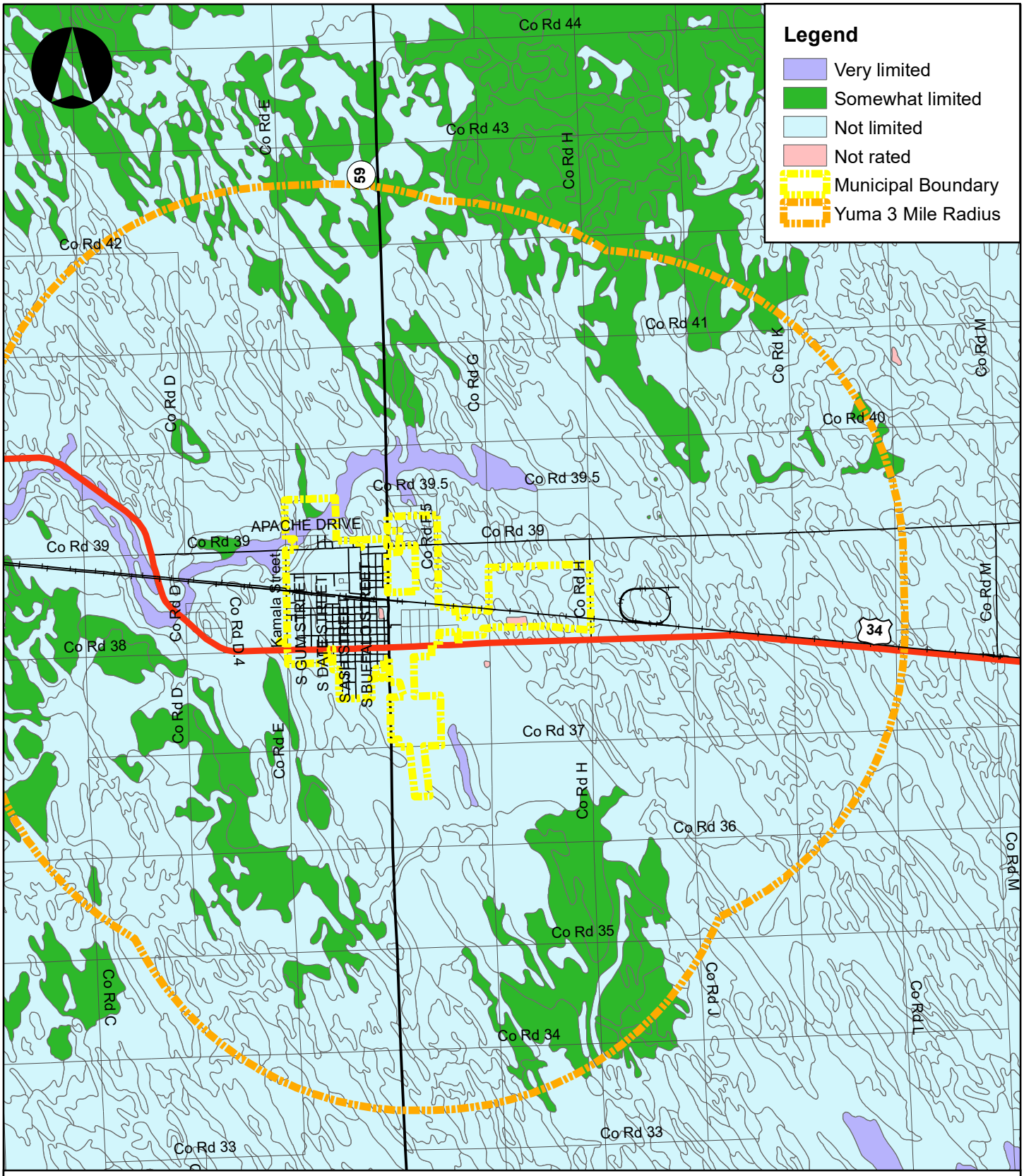
There are significant land areas within a three mile radius of the municipal boundary that contain several soil mapping units rated by NRCS as Somewhat Limited. This is particularly true on lands that are situated north, east, and southwest of the City (Figure 2-4). Lands with no limitations for small commercial buildings are primarily located within one mile east and west of the municipal airport.

2.4.2.4 Local Roads and Streets

A significant portion of lands within the municipal boundary contain soil mapping units that are rated as Very Limited for the development of local roads and streets. The rationale for this rating is based upon NRCS' determination that these soil mapping units do not have adequate strength to support the loads generated by vehicular traffic (Figure 2-5).

Much of the municipal golf course, as well as most lands in the vicinity of the municipal wastewater treatment plant, contain soil mapping units that are rated as Somewhat Limited. NRCS believes that soil mapping units such as Haxtun sandy loam, Manter sandy loam, and Ascalon fine sandy loam are Somewhat Limited because of potential influences of the seasonal freezing and thawing of soil moisture (frost action) that can damage paved roadways.

Within three miles of the City, most all of the lands are similarly rated as Very Limited or Somewhat Limited for the development of local roads and streets. Ascalon fine sandy loam, Haxtun sandy loam, Manter sandy loam, and Julesburg loamy sand are the predominant soil mapping units that are rated Somewhat Limited because of the potential influence of frost action on roadway pavements. Rago loam, Ritchfield silt loam, Kuma-Keith silt loams and Platner loam are all rated Very Limited in light of their low strength to support the loads generated by vehicular traffic. Albinas loam is also rated Very Limited for road and street development because of potential hazards associated with flooding.



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Soil Suitability
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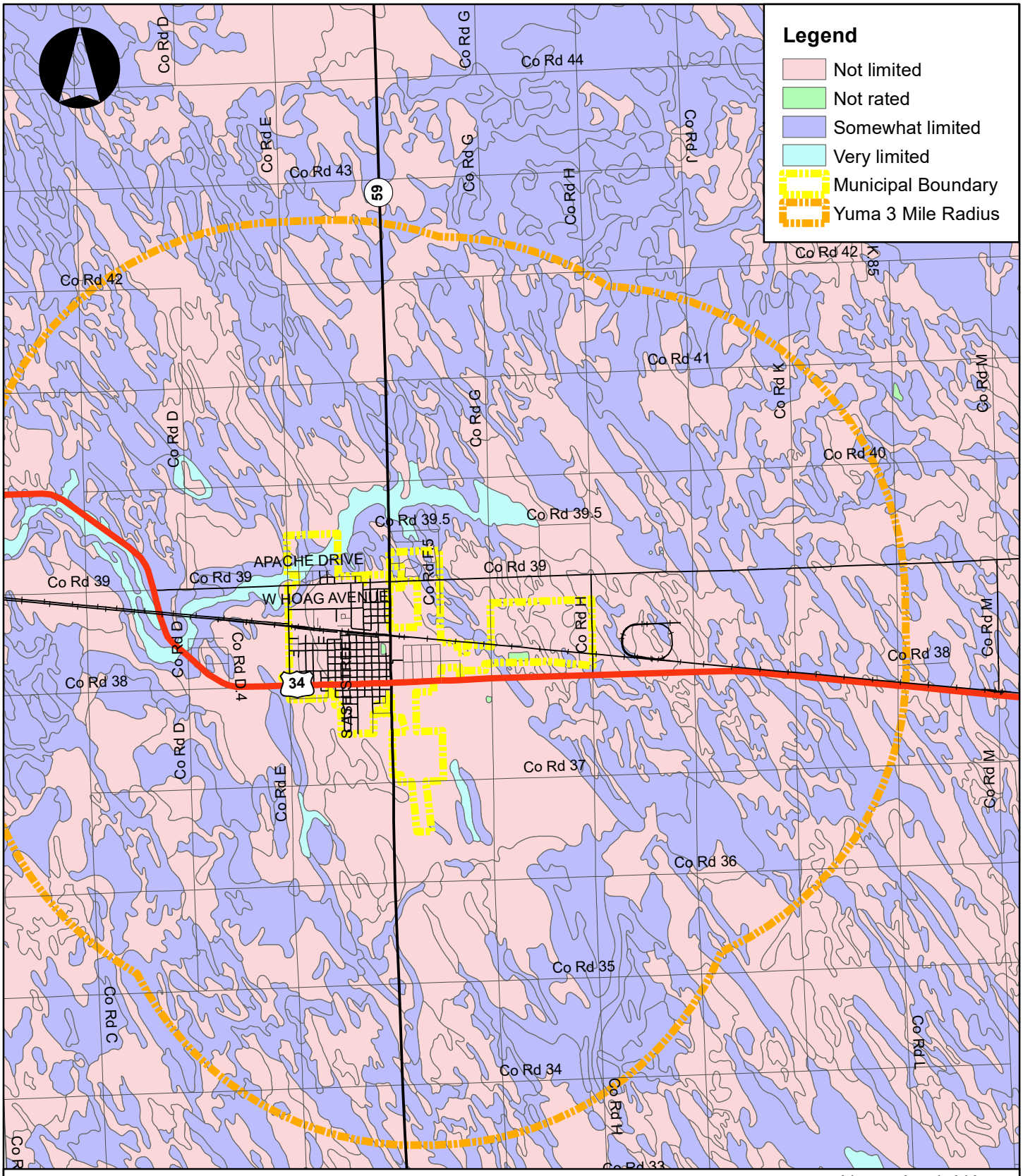
Figure 2-3



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Soil Suitability
Small Commercial Buildings
Vicinity ofYuma

Figure 2-4

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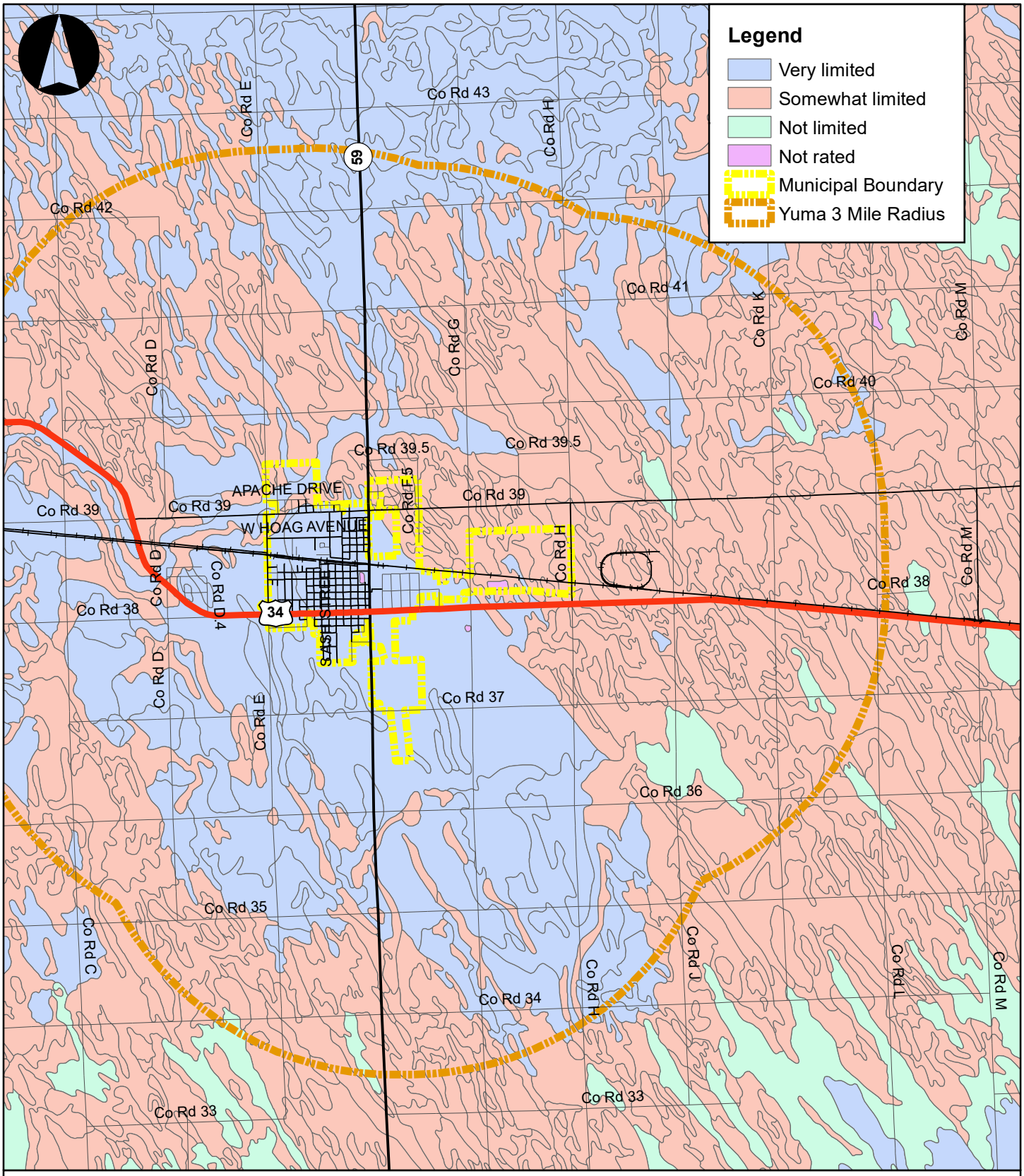

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Soil Suitability
Local Roads and Streets
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Figure 2-5

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NRCS ratings concerning the suitability of soils for local roads and streets suggest the need to establish specific street and road standards for any new road construction within the City, as well as potential extensions of existing streets to lands outside of the municipal boundary. Such standards will, in part, need to include soil testing to verify the adequacy of soils to support the loads generated by future vehicular traffic. If not, future road construction within and outside of the municipal boundary will likely require the application of imported soil material.

2.4.2.5 Septic Tanks

The potential use of septic tanks is an important consideration for future land use expansion because it represents one option for the treatment of wastewater that is generated from future land use development. NRCS considers most lands within the City of Yuma as Very Limited or Somewhat Limited for the use of septic tanks (Figure 2-6). NRCS indicates that Kumu-Keith silt loams, rated as Very Limited, can seep effluent in the bottom layer of effluent drain fields and, thereby, reduce the effectiveness of soil-based treatment. Ritchfield silt loam, rated as Somewhat Limited, is characterized by slower water movement that can hamper the treatment of soil-based wastewater treatment.

Lands north, east, and west of the municipal boundary include some soil mapping units such as Ascalon fine sandy loam and Manter sandy loam that exhibit no limitations for septic tank operation. However, these areas are interspersed with various other soil mapping units that are rated Somewhat Limited or Very Limited. These soil conditions suggest that the extension of the municipal wastewater system will be necessary to support any future land use expansion beyond the City's present municipal boundary.

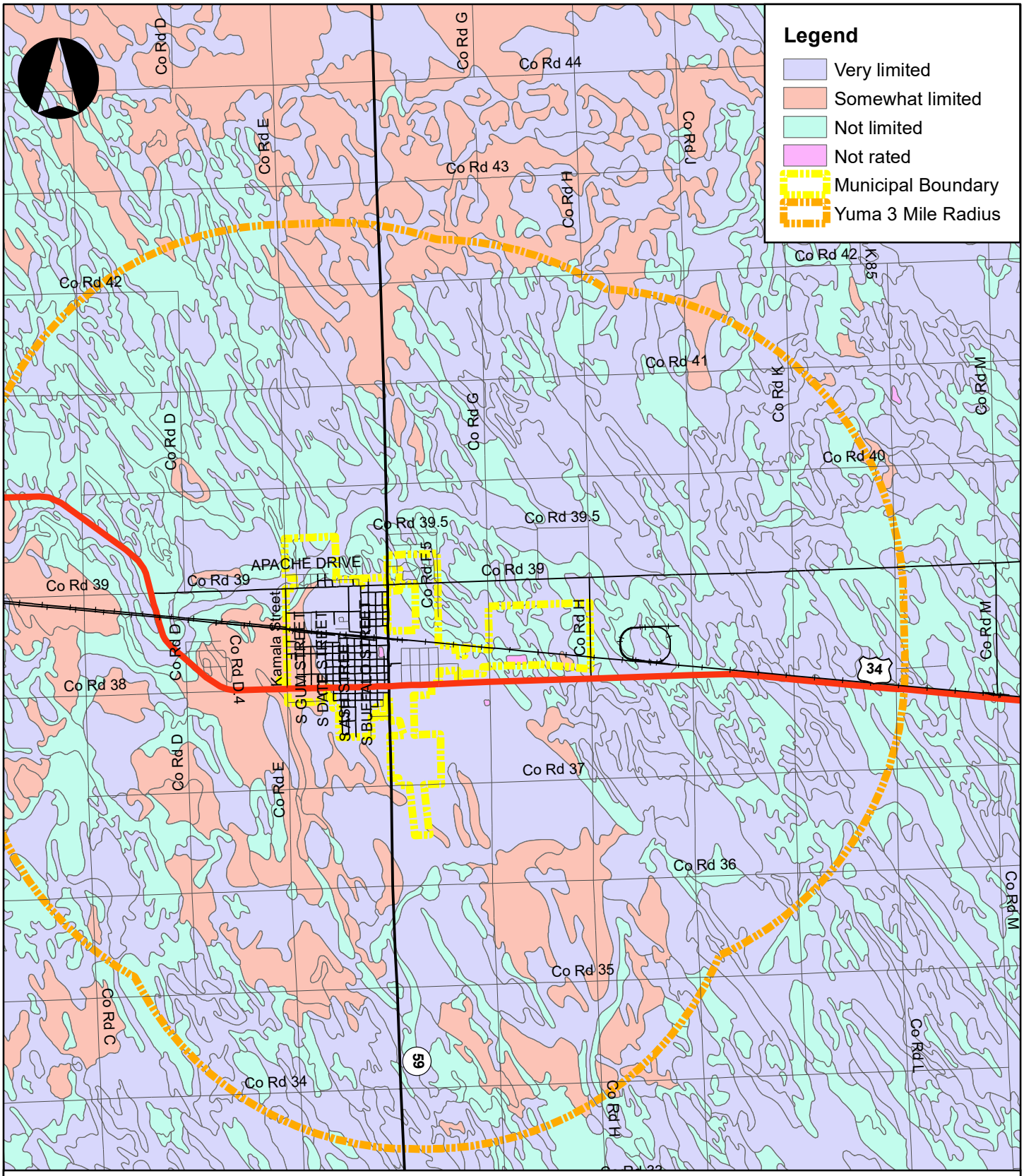
2.4.2.6 Recreational Paths and Trails

NRCS rates virtually all soil mapping units within the City's municipal boundary as Somewhat Limited for the development of recreational paths and trails. The ratings for the two predominant soil mapping units in the City, Kumu-Keith silt loam and Ritchfield silt loam, are based on NRCS' contention that these soils could generate dusty conditions along paths and trails (Figure 2-7).

Similarly, most of the land area within a three-mile radius of the City contains soil mapping units that are viewed by NRCS as Somewhat Limited. NRCS believes that most soils within the three mile radius could generate dusty conditions along paths and trails.

Some isolated soil mapping unit areas, within one to three miles of the municipal boundary, are rated by NRCS as Very Limited. These areas contain soil mapping units such as Valent sand that NRCS believes is too sandy for the development of recreational paths. NRCS also identifies Colby silt loam as Very Limited in light of its potential water erosion hazard.

Dusty soils are not necessarily the most ideal soil base to work with for development of a community pathway or trail system. However, PPC does not believe that these characteristics represent a significant deterrent that would hamper the development and maintenance of a local trail system.



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Septic Tanks
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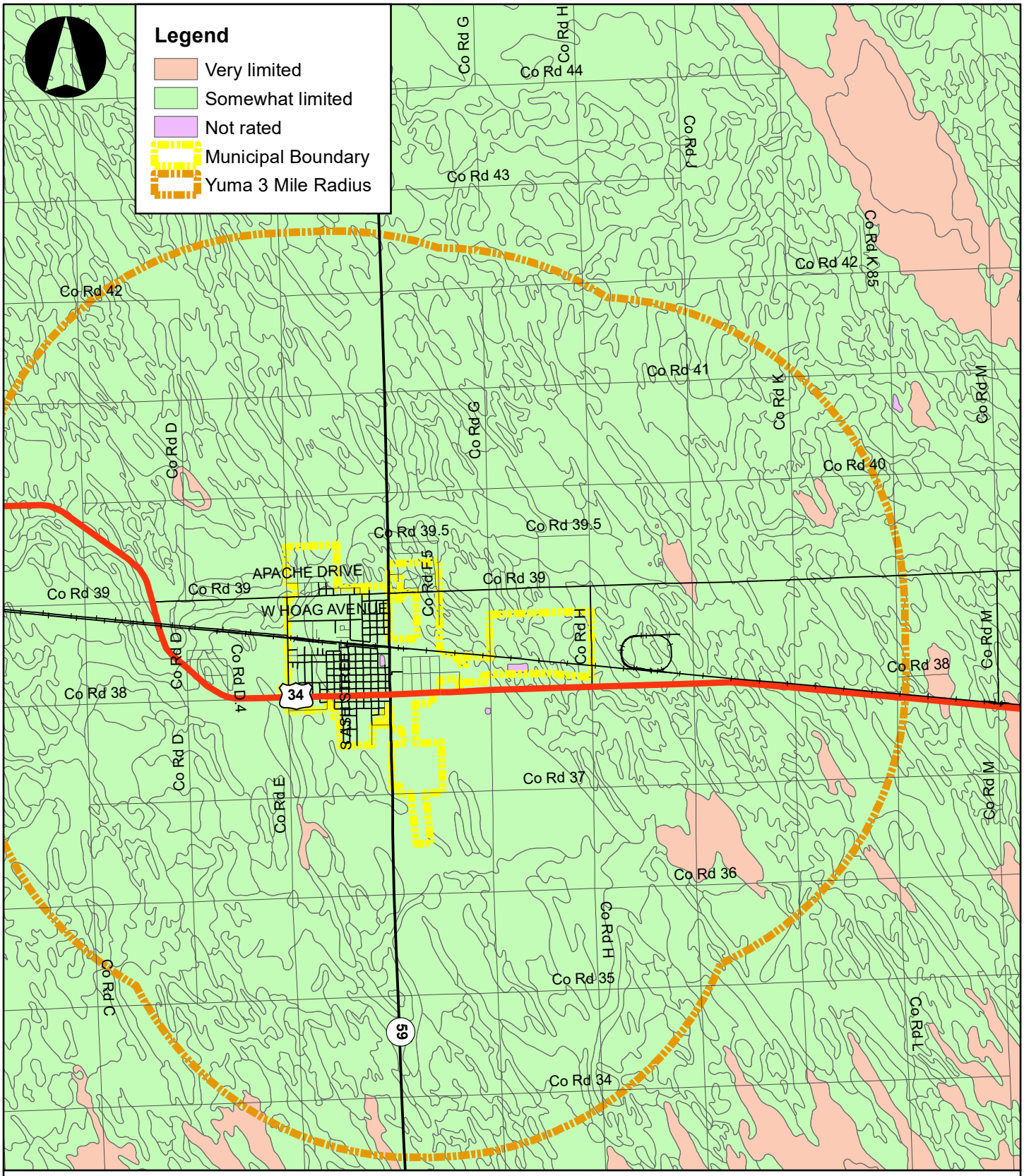
Figure 2-6



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Soil Suitability
Recreational Paths and Trails
Vicinity of Yuma

Figure 2-7

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2.5 WATER RESOURCES

2.5.1 General

Groundwater resources are an essential natural resource in Yuma County as they enable the use of lands in the unincorporated areas of the County for agricultural crop and livestock production. While dry land farming takes place in some parts of the County's unincorporated area, the extent of agricultural production would be significantly less without the availability of groundwater resources for irrigation purposes.

Groundwater resources also supply the City of Yuma drinking water system. The City also uses these resources to support its irrigation of the municipal golf course, parks, and the cemetery.

2.5.2 Ogallala Aquifer

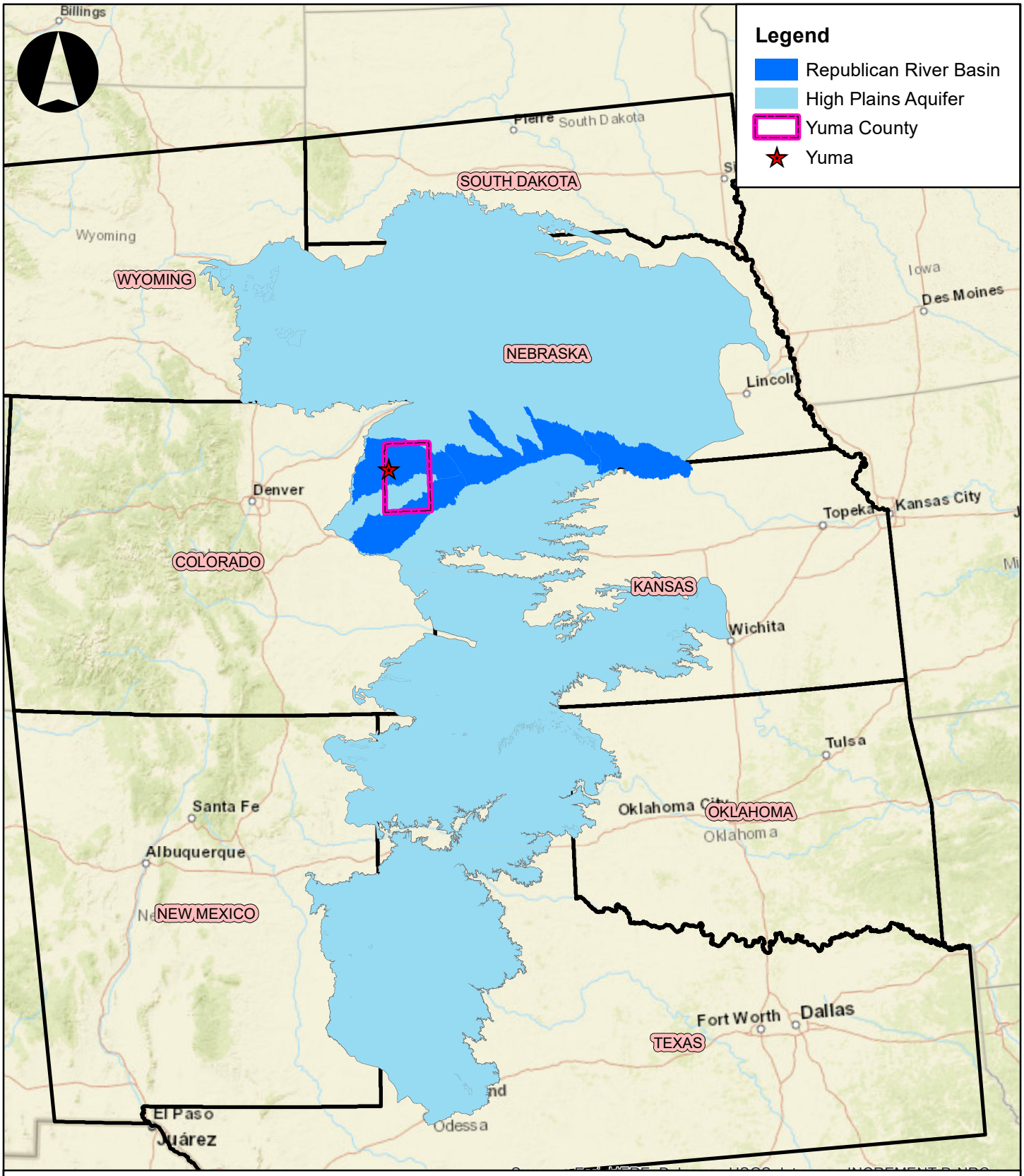
Ground water in Yuma County is available from the Ogallala Aquifer (Figure 2-8) which underlies roughly 175,000 square miles of land area beneath portions of Texas, New Mexico, Oklahoma, Colorado, Kansas, Nebraska, South Dakota, and Wyoming. The Ogallala formation is the primary geologic formation in what is otherwise known as the High Plains Aquifer System. Over 95 percent of the ground water withdrawn from the Aquifer is used for irrigation (McGuire, 2017).

The Ogallala is an unconfined aquifer. The recharge of the aquifer is derived almost entirely from rainfall and snowmelt (Water Encyclopedia, 2017).

Yuma County is situated within one part of the High Plains Aquifer, also known as the Republican River Basin (Figure 2-9). The Basin comprises several drainages in a 25,000 square mile area that encompasses northeast Colorado, southwest Nebraska and northern Kansas. The City of Yuma is located near the western edge of this basin within the North Fork Republican River drainage.

The U.S. Geological Survey reported in 1964 that the aquifer saturation depth within Yuma County ranged from zero to about 250 feet below ground elevation (Weist, 1964). This estimate was based upon the results of field investigations and the examination of more than 600 groundwater wells between 1956 and 1958.

However, for the past six decades, increased consumption of the groundwater supply that lies beneath Yuma County has gradually reduced the top water saturation level of the aquifer in the vicinity of Yuma. In essence, the increased consumption of ground water for irrigation and domestic uses has greatly exceeded the natural recharge of the aquifer. The U.S. Geological Survey estimates the top water saturation level of the aquifer, in the vicinity of Yuma, has dropped as much as 50 to 100 feet between 1950 and 2013 (Figure 2-9).



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High Plains Aquifer System and Republican River Basin

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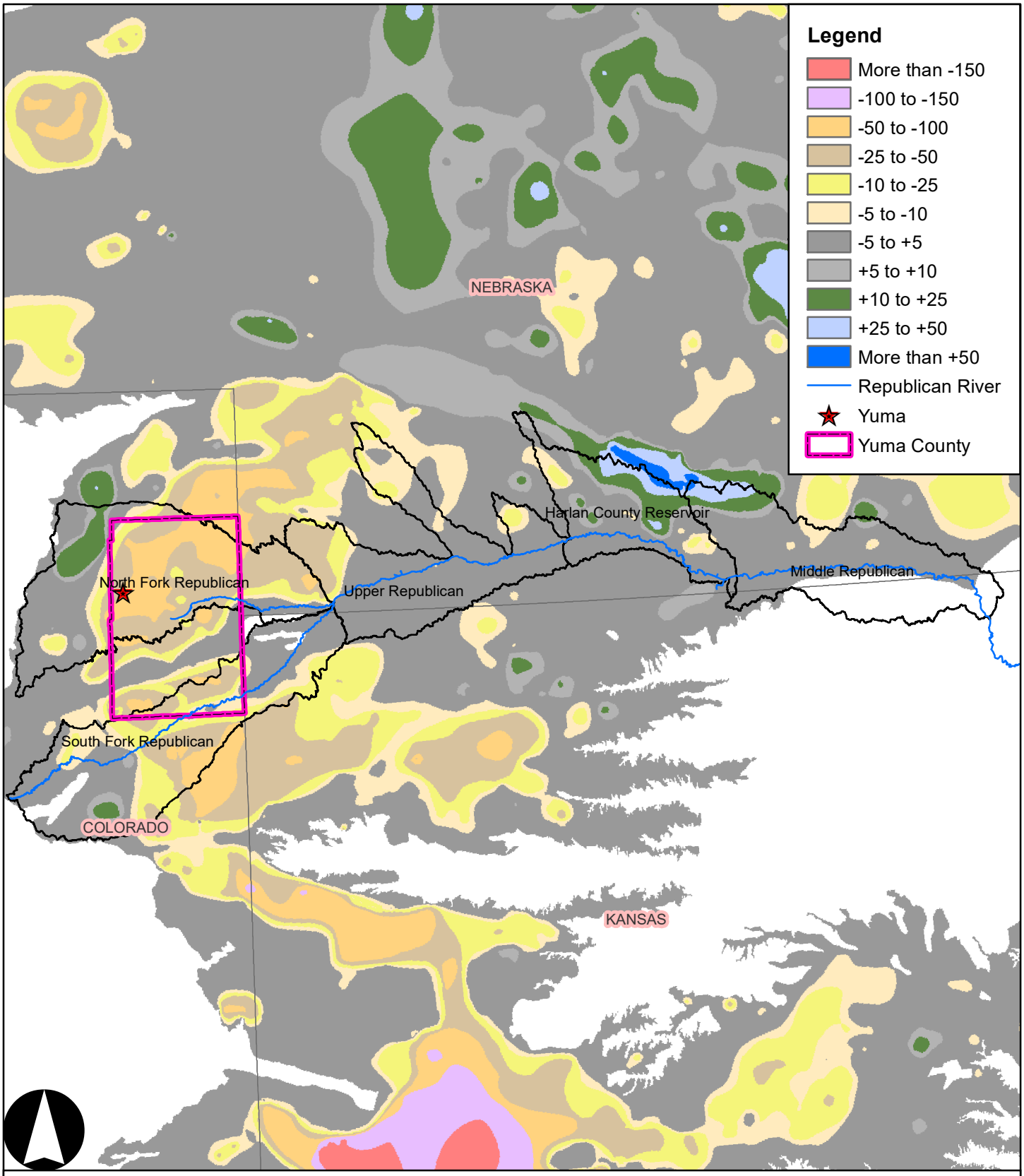
Figure 2-8



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High Plains Aquifer Water Level Change 1950 to 2013

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Figure 2-9

2.5.3 Groundwater Wells

The City of Yuma owns 5 potable wells and two irrigation wells within the City limits. The City of Yuma also owns 2 potable wells outside the city limits near the southwest corner of the City and one irrigation well near the northeast corner of the City.

Within a three-mile radius of the municipal boundary, there are 79 additional groundwater wells (Figure 2-10). Most all of these are irrigation wells that support privately-owned agricultural operations. Three of the groundwater wells support commercial facilities such as Yuma Ethanol and Unger Feedyards.

2.5.4 Primary Resource Issue

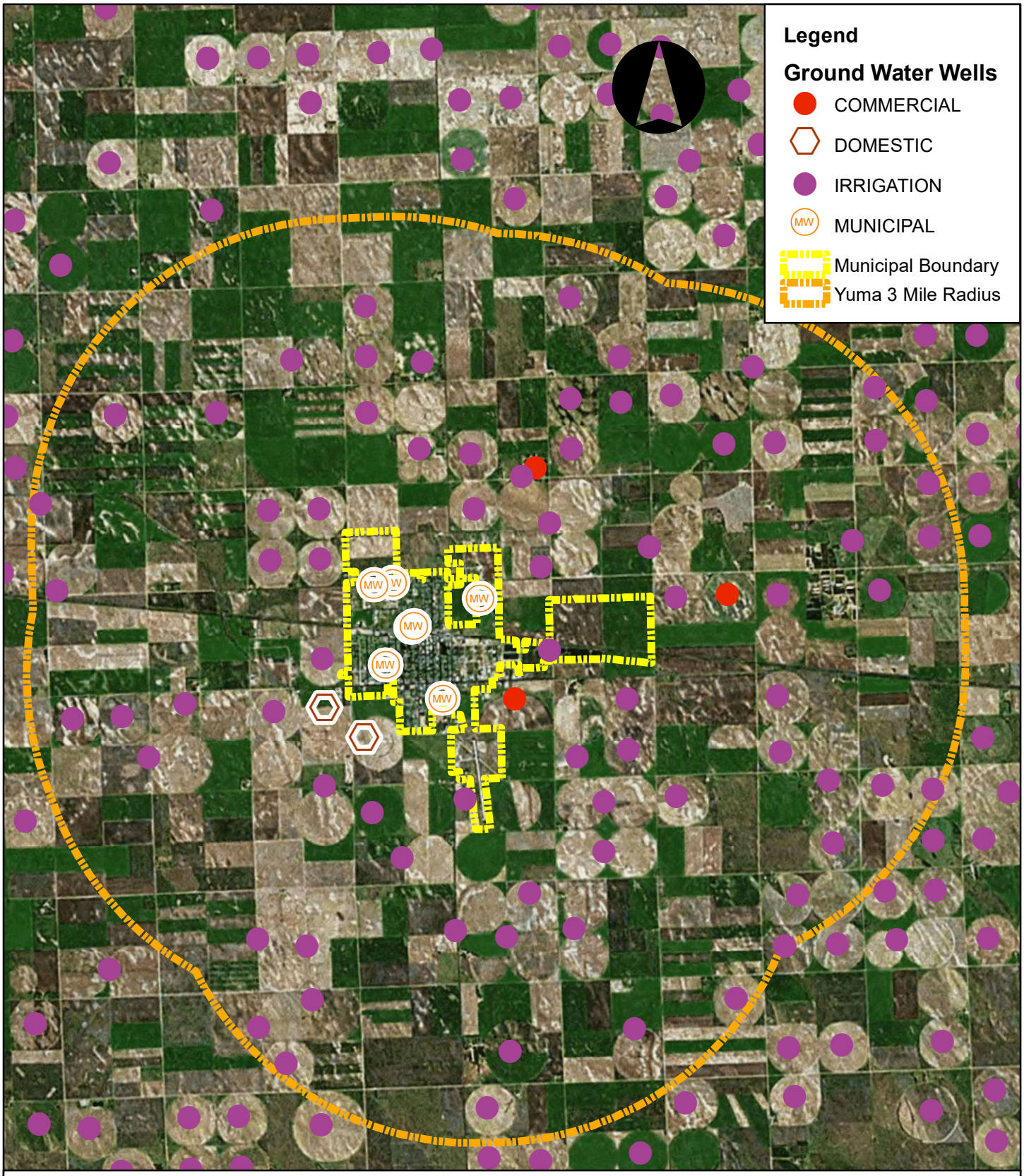
The primary issue associated with groundwater resources of the Ogallala Aquifer is simply the gradual depletion of the groundwater resource. Consumptive water demands that support agricultural land use and domestic water supplies throughout the High Plains Aquifer System are regularly exceeding the annual recharge rates.

The imbalance between consumption vs. supply in Yuma County is further complicated by past water agreements between Kansas, Nebraska and Colorado that initially resulted in the establishment of a Republican River Compact on December 31, 1942. The State of Kansas later raised issues concerning the Compact in 1998. Subsequently, the states of Nebraska, Kansas and Colorado entered into a final settlement stipulation agreement, dated December 15, 2002, to resolve pending litigation in the U.S. Supreme Court regarding the Republican River Compact in the case of the State of Kansas vs. State of Nebraska and State of Colorado. The U.S. Supreme Court approved the final settlement stipulation on May 19, 2003. Since that time, modifications to the 2002 final stipulation agreement have been proposed by the State of Colorado. Ultimately, these proposals have led to further disagreements by the three states, additional arbitration hearings and administrative decisions, with no clear resolution of outstanding issues.

While the details concerning how to implement the Republican River Compact may never be fully agreed upon by the three states, the uncertainty regarding the future availability of ground water poses, at least, two more important questions:

- How long will groundwater supplies allocated for the Republican River be available to support the economy and lifestyle of communities like the City of Yuma?
- Will the State of Colorado impose further restrictions upon the annual allocations of ground water for irrigation purposes in order to meet its obligations associated with the Republican River Compact?

In the absence of, or a significant reduction in, groundwater supplies to support agricultural production, the regional economy of Yuma County would be significantly impacted. Such impacts would likely erode property values, generate an out-migration of a sizeable portion of the existing workforce, close various smaller retail businesses, diminish county and municipal revenues, and reduce household incomes. In this context, it is essential that the City of Yuma take steps to encourage greater diversification of the local economy and encourage greater water conservation.



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Groundwater Wells Vicinity of Yuma

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Figure 2-10

While the future availability of groundwater resources from the Ogallala Aquifer remains uncertain, it is encouraging that Yuma County's agricultural industry continues to use advanced irrigation and fertilization system technologies that seek to enhance production yields and conserve groundwater resources. In addition, research in biotechnology continues to seek the development of genetically modified crops that help reduce the amount of groundwater used for crop production (Little, 2009).

CHAPTER THREE
DEMOGRAPHIC AND ECONOMIC TRENDS

3.1 INTRODUCTION

A wide variety of available information provides considerable insight into the characteristics of the resident population and local economy of the City of Yuma. The assessment of related demographic and economic trends also helps identify a range of potential growth scenarios that will likely influence the type and extent of future growth in Yuma during the coming decade. Assumptions concerning future growth are important to evaluate the adequacy of lands in the City to accommodate future land use needs and potential economic development opportunities. The preparation of population forecasts for the City of Yuma also provide a basis for estimating future service demands on municipal utilities, transportation systems, and other municipal services.

3.2 RECENT POPULATION GROWTH

3.2.1 Yuma County and the City of Yuma

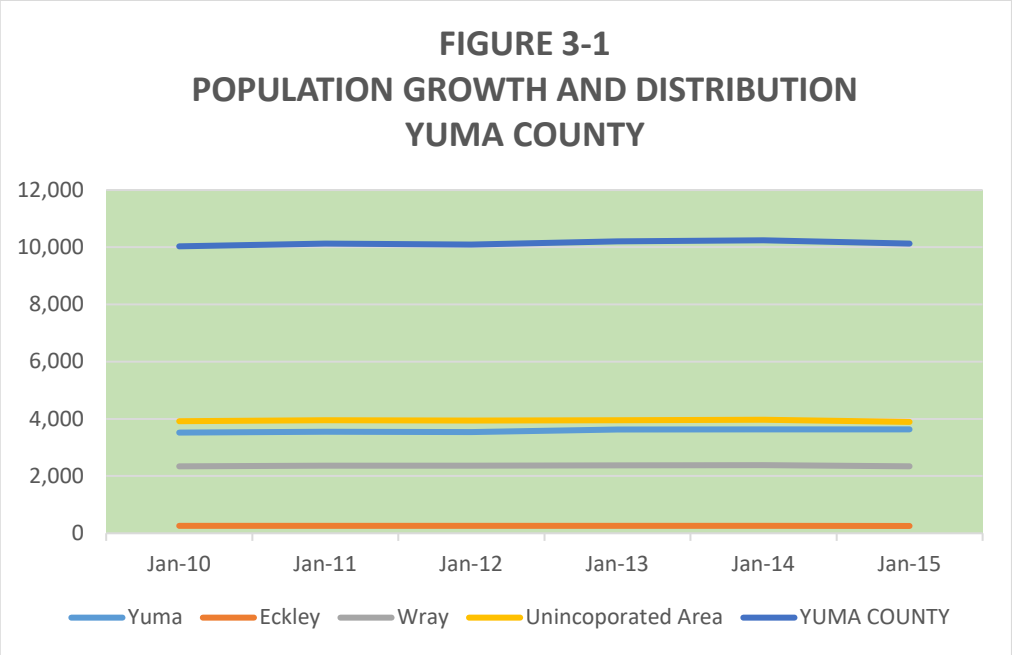
The Colorado Department of Local Affairs, State Demography Office, published population estimates for all cities and counties in Colorado in August 2016. Estimates for Yuma County, its three municipalities, and the unincorporated area of Yuma County are presented in Table 3-1. These estimates suggest that the City of Yuma included a resident population of approximately 3,632 residents in July 2015 and represented about 36 percent of Yuma County's total population. The City of Wray comprised approximately 23 percent of the total County population while the Town of Eckley included almost three percent of the total county population. While the City of Yuma was the most populated municipality in Yuma County in 2015, 38 percent of all Yuma County residents resided in the unincorporated area.

TABLE 3-1
POPULATION DISTRIBUTION IN YUMA COUNTY
JULY 2010 - JULY 2015

City/Town/ Area	*July 2010*	*July 2011*	*July 2012*	*July 2013*	*July 2014*	*July 2015*	*Proportion of County Population in 2015 (Percent)*	*Estimated Change From 2010 to 2015 (Persons)*	*Annual Growth Rate (Percent)*
Yuma	3,520	3,553	3,539	3,623	3,632	3,632	35.9%	112	0.6%
Eckley	257	259	258	259	260	255	2.5%	-2	-0.2%
Wray	2,340	2,360	2,358	2,369	2,382	2,345	23.2%	5	0.0%
Unincorporated Area	3,915	3,952	3,937	3,957	3,969	3,893	38.4%	-22	-0.1%
YUMA COUNTY	**10,032**	**10,124**	**10,092**	**10,208**	**10,243**	**10,125**	**100.0%**	**93**	**0.2%**

Source: Colorado Department of Local Affairs, State Demography Office, 2016.

The 2015 population of the City of Yuma represented an increase of about 112 persons (3.2 percent) over the previous five years, or an annual growth rate of about 0.6 percent since 2010 (Figure 3-1).



Source: Colorado Department of Local Affairs, State Demography Office, 2016.

The focus of recent population growth in Yuma County was in the City of Yuma; its modest population increase exceeded the combined growth of Eckley and Wray, as well as the unincorporated area.

These estimates are remarkably close to estimates prepared by the U.S. Census, Population Estimates Program. The U.S. Bureau of the Census estimated that the City of Yuma's resident population in 2015 included 3,601 residents, or about 31 persons less than estimated by the Colorado State Demography Office.

3.2.2 2016 Population Estimate for Yuma County and the City of Yuma

In order to estimate the resident population in July 2016, PPC initially examined preliminary natural growth (births and deaths) and migration data for Yuma County that was obtained from the Colorado Department of Local Affairs, State Demography Office.

Between July 2015 and July 2016, natural growth included approximately 145 births and 100 deaths, or an addition of 45 persons to the Yuma County population. This growth was countered by a negative net migration (in-migration less out-migration) of about 20 persons. Consequently, only 25 persons were added to the Yuma County population, or a total of about 10,150 residents in July 2016.

In July 2015, the City of Yuma's population represented almost 36 percent of the total County population. Assuming a similar proportion in 2016, the City's population rose to approximately 3,642 residents. This represents annual growth rate of almost 0.3 percent.

3.3 DEMOGRAPHIC CHARACTERISTICS

Available information from the U.S. Bureau of Census, 2015 American Community Survey, provides a range of demographic characteristics that are relevant to the Comprehensive Plan. These include racial and ethnic composition, age distribution, length of residency, and other family and household characteristics.

3.3.1 Race and Ethnicity

The City of Yuma is predominantly a Caucasian community. In 2015, Caucasians comprised 3,183 persons, or about 88 percent of the City of Yuma's total population. Yet, considerable ethnic diversity characterizes the community (U.S. Census, 2017).

The U.S. Census, American Community Survey estimates for the 2011-2015 period also indicate that about 32 percent of Yuma's total resident population includes Hispanic or Latino Americans, or persons of Spanish, Portuguese, or Latin American ancestry. Mexican Americans make up a significant portion of this population.

African Americans comprise just over three percent of the resident population. Other races, not identified by the U.S. Census, include another six percent of the community.

Just over two percent of the Yuma community includes persons of mixed racial backgrounds. These mixed races represent combinations of American Indian, Alaska Native, Asian and Caucasian backgrounds (U.S. Census, 2017).

On a cumulative basis, results from the U.S. Census, American Community Survey estimates for the 2011-2015 period exceed 100 percent and are, at best, confusing. The confusion apparently lies with the U.S. Census Bureau and its definition of persons of Hispanic or Latin American ancestry.

- *Federal policy defines "Hispanic" not as a race, but as ethnicity. And it prescribes that Hispanics can in fact be of any race.* Results from the 2010 Census regarding racial identity suggest that standard U.S. racial categories are confusing or do not provide relevant options for Hispanics to describe their racial identity (Pew Research Center, 2015).

- A 2015 Pew Research Center survey of multiracial Americans found that two-thirds of Hispanics consider their Hispanic background to be part of their racial background, not something separate. Consequently, Hispanics have a unique view of race that does not match up with U.S. Government definitions of race (Pew Research Center, 2015).

3.3.2 Language

Two primary languages are commonly spoken and used in the City of Yuma: English and Spanish. This reflects the racial and ethnic backgrounds of the resident population.

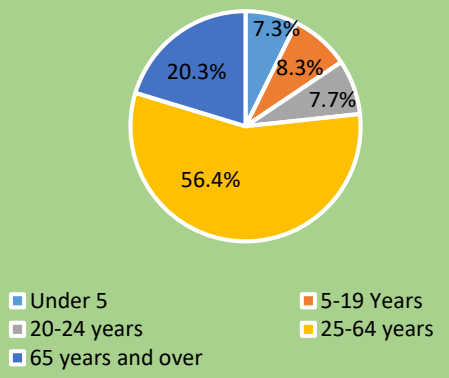
In 2015, almost 75 percent of the resident population spoke only English; the remaining 25 percent spoke Spanish. A very small proportion of the population speaks other Indo-European languages (U.S. Bureau of the Census, American Community Survey, 2015). While these languages are not identified by the U.S. Census in its American Community Survey, these languages generally represent languages used in Europe and other European settlements in South and Southwest Asia (Cowgill, Warren and Jasanoff, 2012).

The prevalent use of both English and Spanish in the community suggests the need for bi-lingual communications in the workplace; as well as the need for bilingual public notices to enable and maintain effective communication with the community. It also points to a significant need for Spanish-only speakers to learn English; otherwise their assimilation into the Yuma community will be hampered, as well as limit social and economic opportunities afforded by the community. Spanish-only speakers need to gain a greater understanding and appreciation of America, the City of Yuma, and its related cultural traditions. English-only speakers could benefit from greater opportunities to learn Spanish to enhance their working and social relationships with Hispanic and Latino residents.

3.3.3 Age Distribution

The age distribution of the community in 2015 was generally similar to many other rural communities in the Rocky Mountain region (Figure 3-2). However, there are trends associated with various age groups in the population that bear consideration.

Figure 3-2
Proportion of Total Resident Population
City of Yuma



Source: U. S. Census Bureau, 2017.

- Children under five years comprised about seven percent of the total resident population in 2015. The number of children in this age group was about four percent less than in April 2010. In the short-term, this trend may reflect a modest decline in child care demand.
- Children and young adults, ranging from five to 19 years of age, generally represent the combined school age population for elementary, middle school and high school education. In 2015, the U.S. Census American Community Survey estimated that this age group included 8.3 percent of the total resident population, or about 301 persons. This compares to 797 students in the same group reported by the U.S. Census Bureau for the 2010 Census. School enrollments for Yuma School District 1 have remained generally stable since 2010 (Chrisman, 2017). Consequently, American Community Survey estimates for this age group in 2015 are considered unreliable.
- Young adults, between 20 and 24 years of age, are very mobile and in transition as they often relocate to other communities for school, work, or recreation. In 2010, the U.S. Census reported that this age group included 195 persons which represented almost six percent of the total resident population. In 2015, the American Community Survey reported that this age group

represented almost 8 percent of the total population, or approximately 276 persons. This increase suggests the availability of entry level jobs in the local economy, the desire to remain in the community, as well as financial constraints to pursuing higher education or technical training in other communities.

- The primary working age population includes residents between 25 and 64 years of age. In 2010, the U.S. Census reported 2,098 persons in this age group which represented almost 60 percent of the total resident population. In contrast, the American Community Survey estimated that this age group included about 56 percent of the total resident population, or about 2,032 persons, in 2015. The recent decline in the primary working age population may reflect the possible out-migration of some persons that formerly were associated with oil and gas production or other supporting industries in Yuma County. Nevertheless, the proportion of residents in the working age population suggests the continued availability of a substantive number of employment opportunities in the community.
- In 2015, adults nearing or in their retirement years (ages 65 and over) comprised about 20 percent of the resident population (approximately 730 residents) of Yuma. This contrasts with 571 residents (16 percent) reported by the 2010 U.S. Census. This trend signals that residents nearing, or in their retirement years, represent a growing segment of the community that will increase the demand for senior housing and supporting community services. Because of the availability of senior housing opportunities, this trend may also suggest that residents in this age group are choosing to remain in the community rather than seek housing in other communities within or outside of Yuma County.

3.3.4 Education

The educational attainment of residents provides some insights concerning the quality of the local workforce to earn personal and household incomes, support the local economy, and contribute to the Yuma community.

In 2015, approximately 86 percent of Yuma residents, over 18 years of age, had graduated from high school or other higher education. Almost 28 percent had received a Bachelor's degree or other higher education (U.S. Census, American Community Survey, 2015).

3.3.5 Family and Household Characteristics

In 2015, the American Community Survey estimated that there were 1,705 housing units in the City of Yuma. Each occupied housing unit contained one household. Assuming the July 2015 population estimate of 3,632 persons (Table 3-1), the average household in Yuma contained about 2.13 persons. About 51 percent of all households in 2015 represented a family household. A family household is a household that includes, at least, one other family member who is related to the householder by birth, marriage or adoption. Most all of these households included a married couple. But five percent of all households were families where the householder was a single parent.

The remaining households (49 percent) represented what the U.S. Census refers to as "non-family households". This designation generally refers to persons living alone, or one person living with another person whom they are not related to by marriage, birth or adoption. The substantive proportion of non-family households in Yuma reflects a sizeable number of persons living alone, as well as immigrant households that may contain a number of individuals who are not related to the head of household.

3.4 ECONOMY

3.4.1 General

Private and public sector activities in Yuma County primarily influence the economy of the City of Yuma. The economy of the City is secondarily influenced by commercial truck and passenger vehicle traffic that regularly passes through the community via U.S. Highway 34 and Colorado Highway 59.

Some of the larger employers in Yuma County are situated within or less than 10 miles from the municipal boundary and provide employment opportunities for many Yuma residents. And while many Yuma County government jobs are based in the City of Wray, various municipal, county, state and federal agencies are situated in the City of Yuma.

The following paragraphs provide an overview of various economic indicators and related trends that provide insights concerning the stability and potential growth of the Yuma County economy. Potential economic development opportunities within or near the City of Yuma are also identified to assess the prospects for future private and public investments, potential economic growth, and related land use expansion during the coming decade.

3.4.2 Labor Force and Participation

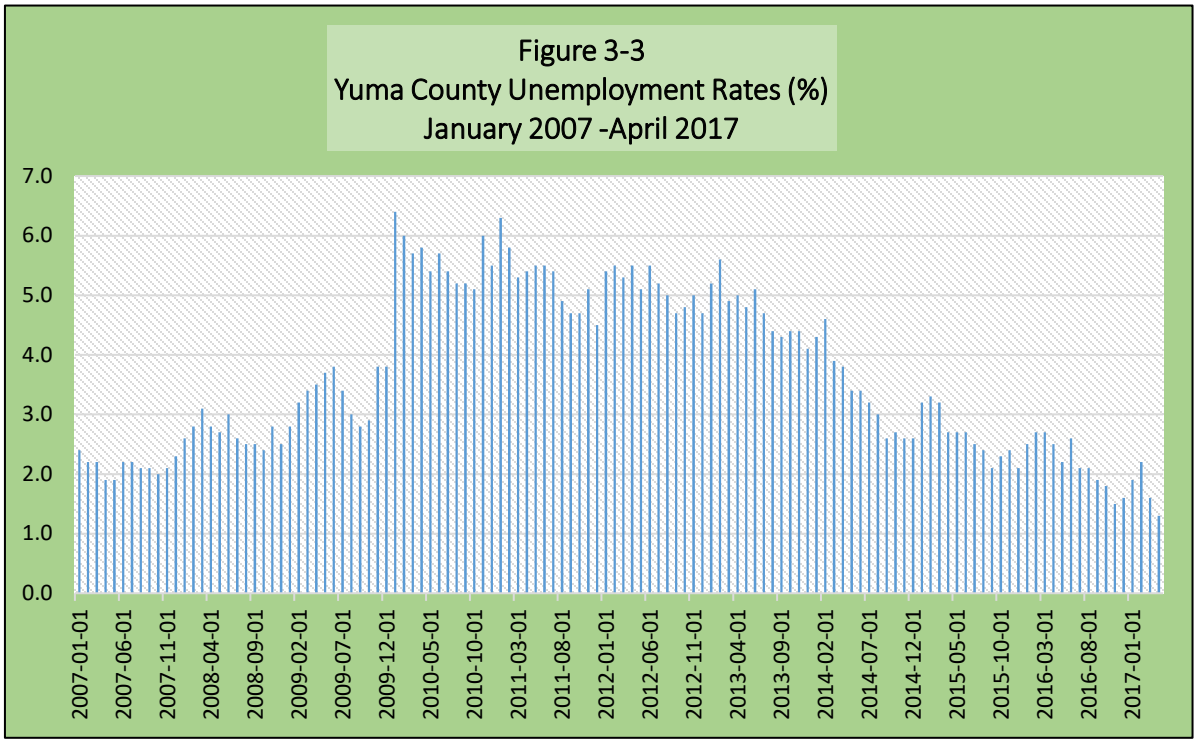
In the United States, the labor force is considered to represent all persons 16 years of age and over. In 2014, the Colorado Department of Local Affairs, State Demography Office, forecasted the future size of the labor force in each of Colorado's counties to the Year 2040.

More recent, updated State Demography Office forecasts for Yuma County suggest that the 2017 labor force in Yuma County may include about 8,088 persons. With an estimated labor participation rate of almost 69 percent, the Colorado's State Demography Office estimates that the 2017 employed labor force comprises about 5,551 persons. By 2027, the State Demography Office expects that the size of the employed workforce will rise to about 5,948 residents (Colorado Department of Local Affairs, State Demography Office, 2017).

State of Colorado labor force forecasts for Yuma County are generally consistent with recent estimates by the U.S. Bureau of Labor and Statistics. The Bureau estimated that Yuma County's employed civilian labor force included 5,489 persons in April 2017 (Federal Reserve, St. Louis and U.S. Bureau of Labor Statistics, 2017).

3.4.3 Unemployment

Most economists consider 3.0 percent as "full employment", or, when all persons in the labor force, are able to work, are employed, or unemployed but looking for work. In October 2007, just prior to the national economic recession, unemployment in Yuma County was a mere 2.0 percent. Unemployment rates rose from 2.3 in December 2007 to 3.8 in June 2009 (Figure 3-3). But, similar to other Rocky Mountain communities, the effects of the national recession lingered and continued to have significant impact upon regional economy of the Rocky Mountain Region. Unemployment rates in Yuma County soared to 6.4 percent in January 2010 and 6.3 percent in January 2011.



Source: U.S. Bureau of Labor Statistics, 2017; Federal Reserve Bank, St. Louis, MO, 2017.

In the following six years, unemployed rates gradually retreated to as low as 1.3 percent in April 2017 (Federal Reserve Board, St. Louis and U.S. Bureau of Labor Statistics, 2017). Yuma County gained national attention in a June 2, 2017 article in the Wall Street Journal that reported that Yuma County's April 2017 unemployment rate was one of the lowest unemployment rates among all counties in the nation.

While the recovery to lower (near 2.0 percent) unemployment rates took over a decade to be realized, the gradual recovery reveals the presence of a strong economic base. The strong economic base is generally characterized by agricultural production by both individual families and larger international corporate interests, value-added economic production, supporting services in the private sector, and governmental employment.

3.4.4 Sources of Employment

3.4.4.1 General

The source of employment for the employed labor force of Yuma County further illustrates what comprises the economic base of the County economy (Table 3-2). Covered employment generally refers, in part, to workers in the private and public sectors of the economy that are covered by State of Colorado unemployment insurance, or federal workers who are covered by the Unemployment Compensation for Federal Employees Program. Further, covered employment estimated by the U.S. Bureau of Labor Statistics includes jobs that are held by residents within or outside of the Yuma County economy.

Other employed persons, who are not covered by State of Colorado unemployment insurance or federal Unemployment Compensation for Federal Employees Program, typically include self-employed persons, as well as owners and employees of some smaller business enterprises.

TABLE 3-2
AVERAGE ANNUAL COVERED EMPLOYMENT BY INDUSTRY
2011 THROUGH 2016
YUMA COUNTY, COLORADO

Industry	*Annual Average Employment*					
	2011	*2012*	*2013*	*2014*	*2015*	*2016*
Total Covered	**3,861**	**3877**	**3,922**	**3,998**	**3,954**	**3,900**
Federal Government	55	53	49	46	43	45
State Government	38	35	36	36	54	55
Local Government	887	899	916	905	885	902
Private Sector	2,881	2891	2,921	3,011	2,973	2,898
Goods-producing	*1,181*	*1181*	*1,207*	*1,240*	*1,207*	*1,131*
Natural resources & mining	985	985	986	1,007	977	919
Construction	119	115	141	154	150	120
Manufacturing	77	81	80	78	81	92
Service-providing	*1,700*	*1710*	*1,715*	*1,771*	*1,766*	*1,767*
Trade, transportation, & utilities	706	711	742	770	803	827
Information	47	48	35	32	32	27
Financial activities	187	197	186	190	189	186
Professional & business services	83	81	120	124	104	104
Education and health services	287	285	286	311	295	270
Leisure and hospitality	325	305	270	261	247	274
Other services	64	83	75	83	93	79

Source: U.S. Department of Labor, Bureau of Labor Statistics, 2017.

3.4.4.2 Private Sector

Available covered employment data for 2016 shows significant employment in Yuma County's private sector that represented about 74 percent of all covered employment (Table 3-2). A sizeable proportion of these jobs are associated with agricultural production and related support services.

Smithfield Foods is a wholly-owned subsidiary of Shuanghui International Holdings, Ltd. Smithfield's Hog Production Division is the largest employer in Yuma County. In July 2016, Smithfield Foods reported the employment of 200 workers at its hog production facilities in Yuma, Colorado (Smithfield, 2016).

Cattle feedlots are another primary source of employment in Yuma County. In 2016, the average annual employment at local feedlots included approximately 159 jobs (U.S. Bureau of Labor Statistics, 2017).

Other significant sources of employment in the private sector of Yuma County include jobs at farm equipment dealers, dairies, supermarket and grocery stores, farm supply merchant wholesalers, and farms and ranches.

3.4.4.3 Public Sector

Public sector employers in Yuma County include various agencies of the federal government, State of Colorado, Yuma County, City of Yuma and City of Wray. The public sector workforce comprises about 26 percent of Yuma County's total covered employment. In 2016, governmental agencies included a workforce of about 45 federal workers, 55 employees of the State of Colorado, and 902 persons in Yuma County and municipal government (U.S. Bureau of Labor Statistics, 2017).

3.4.4.4 Employment Trends

Agricultural production and related support services continue to dominate Yuma County. During the coming decade, agriculture is likely to continue its role as the hub of the regional Yuma County economy. Despite the ever present challenges associated with volatile commodity and livestock prices, the agricultural industry in Yuma County is strongly supported by the presence of agricultural equipment suppliers, professional and technical services, and financial institutions.

But, sustaining present agricultural production levels beyond the coming decade is uncertain due to potential restrictions upon groundwater supplies from the Ogallala Aquifer (see Chapter Two: Environment and Natural Hazards, Section 2.5.2). Potential restrictions upon future groundwater use for irrigation purposes could gradually force closures of some agricultural operations, or, at a minimum, generate reductions in regional crop and livestock production. Any significant reductions in agricultural production would diminish the demand for labor, as well as support services directly dependent upon agricultural production.

Despite the uncertainty regarding the future availability of groundwater resources, Yuma County is demonstrating signs of some diversification of its economic base. And much of this diversification is taking place in or near the City of Yuma. An expansion in manufacturing has generated increased employment between 2014 and 2016. This growth has been accompanied with greater employment in professional and business services. Steady growth in trade, transportation and utilities has also been evident during the 2011-2016 period.

3.4.5 Income

The median household income in Yuma County was $42,026 in 2016. This income included earnings received by the householder and any person over 15 years of age that resided in the same household (U.S. Census Bureau, 2016).

In 2016, the average annual wages or salaries received by residents working in the private sector of the Yuma County economy generally ranged from approximately $28,225 in professional and business services, $49,651 in financial institutions, and $53,228 in information services (Table 3-3). In the overall private sector, the annual employee compensation was $36,122.

TABLE 3-3
AVERAGE ANNUAL WAGE OR SALARY BY INDUSTRY
2011 THROUGH 2016
YUMA COUNTY, COLORADO

Industry	*Annual Average Wage or Salary (in dollars)*					
	2011	*2012*	*2013*	*2014*	*2015*	*2016*
TOTAL COVERED	**33,186**	**33,968**	**35,357**	**36,531**	**37,649**	**36,548**
Financial activities	**43,803**	**43,063**	**41,824**	**42,036**	**46,387**	**42,112**
State Government	**46,863**	**48,108**	**46,902**	**51,296**	**40,294**	**39,181**
Local Government	**32,714**	**33,665**	**34,572**	**35,534**	**36,531**	**37,475**
Private	**32,947**	**33,725**	**35,352**	**36,569**	**37,808**	**36,122**
Goods-producing	40,853	40,660	41,934	43,176	44,415	40,684
Natural resources & mining	42,377	41,932	43,989	44,447	45,323	41,868
Construction	33,088	34,751	30,558	37,174	40,554	34,259
Manufacturing	33,310	33,575	36,608	38,633	40,612	37,235
Service-providing	*27,457*	*28,936*	*30,721*	*31,944*	*33,290*	*33,202*
Trade, transportation, & utilities	29,523	31,689	32,193	34,494	36,437	37,110
Information	42,589	42,862	46,066	47,530	48,640	53,228
Financial activities	43,471	45,148	49,038	49,728	53,479	49,651
Professional & business services	39,988	36,245	44,242	43,715	29,566	28,225
Education & health services	24,938	25,748	26,149	25,908	27,954	31,297
Leisure & hospitality	11,261	12,155	10,909	10,843	11,472	12,258
Other services	24,133	24,440	30,678	32,961	38,319	32,387

Source: U.S. Bureau of Labor Statistics, 2017.

In the public sector, governmental employees received average annual wages and salaries in 2016 that ranged between $37,475 in Yuma County and municipal government to $42,112 for federal government workers. The average annual compensation for employees of the State of Colorado was $39,181 (Table 3-3).

3.4.6 Primary Industry Trends

Available employment, wage, and sales tax information suggest that the three primary industries in Yuma County include agriculture, wholesale trade, and retail trade. The significance of these industries to the Yuma County economy are described more fully in the following paragraphs.

3.4.6.1 Agriculture

General

Yuma County is a significant producer of both crops and livestock. Crop production primarily includes the planting and harvest of corn for both grain and silage, wheat for grain and green chop silage, various types of hay, pinto beans, and other vegetables. Livestock production is primarily comprised of hogs and cattle.

Agricultural production takes place on some 800 farms in Yuma County. Between 2007 and 2012, the number of farms fell from 970 farms in 2007 to 834 farms in 2012, a decline of about 14 percent. The decline likely reflects the impact of the national recession upon smaller family farm operations, the availability of groundwater supplies for irrigation, the age of farm owners, and other related factors. A more recent inventory of the number of farms operating in Yuma County is not available at the time of this report.

The economic value of this industry is derived from revenues earned by family farm operations, as well as the larger corporate agricultural interests, in Yuma County. However, the earnings of larger corporate operations are likely retained at corporate headquarters located outside of Colorado. Nevertheless, both family farms and corporate livestock production facilities employ a significant portion of the employed labor force. For example, in 2016, corn farmers expended $3,238,767 in annual wages to support their operations. Cattle feedlots in Yuma County expended $6,342,478 for the operation of their facilities. Wages generated from the operation of Smithfield Foods hog production facility in 2016 is not available. Aside from wages, both family farms and corporate production facilities also purchase equipment, materials, supplies and support services from local small business enterprises.

The success of agricultural producers in Yuma County can primarily be tied to available groundwater supplies and the extensive experience of local farmers, ranchers, and the management of larger corporate livestock operations. The application of new technologies has also enabled local farmers to increase crop yields more efficiently. And, recognizing the need to conserve groundwater resources, the agricultural community continues to implement various techniques for increasing crop yields with less ground water.

The presence of larger corporate hog production, several cattle feedlot operations, and the Yuma Ethanol Plant in Yuma County, also enables an effective integration of local agricultural resources. Local feedlots share manure with local farmers that are used to enhance the soil base of local crop lands. Farmers provide field corn to hog and cattle producers and feedstock to the Yuma Ethanol Plant. Yuma Ethanol produces distiller's grain, a co-product of ethanol, and transports the grain to local feedlots and other cattle feeders. This integration contributes significantly to the financial viability and sustainability of the agricultural industry In Yuma County.

CHS, Inc., the largest U.S. farmer-owned cooperative, has played a significant role in Yuma County's integrated agricultural industry for over 100 years as this cooperative purchases and markets grains produced by local farmers, as well as provides other support services to its members. CHS formerly supplied Smithfield Food's feed mill in Yuma; but, in 2014, Smithfield

Foods canceled its grain handling contract as part of a corporate policy to purchase more of its grain supplies directly from farmers (Hirtzer, 2016).

Livestock Production

Cattle

A recent U.S. Department of Agriculture inventory documented 285,000 cattle and calves in Yuma County in January 2017. This represents the second largest county inventory of cattle and calves in Colorado that is preceded only by Weld County.

The extensive cattle inventory primarily reflects several cattle feedlots in Yuma County that are operated by JBS Five Rivers Yuma Feedlot, Cargill Cattle Feeders, Schramm Feedlot, and Unger Feedlot. Cargill Cattle Feeders, for example, annually processes about 95,000 head of cattle (Lemon, 2017).

Hogs

Significant hog production occurs in the vicinity of Yuma, Colorado at the production facilities owned and operated by Smithfield Foods. In July 2016, Smithfield Foods reported that its Yuma operation included 35,000 sows that were supported with 46,000 nursery spaces and 100,000 finishing spaces (Smithfield Foods, 2016).

Other Livestock

Various other livestock are commercially produced in Yuma County in considerably smaller volumes. These include, at least, horses, donkeys, burros, sheep, and chickens. Recent production volumes for these livestock are not available.

Crop Production

Corn

As wisely said by others before, corn is king in Yuma County. In 2015, roughly 216,000 acres were planted for corn. About 202,000 of the acreage planted for corn in 2015 were harvested and yielded 39,030,000 bushels, or approximately 193.2 bushels per acre. Preliminary estimates for 2016 indicate a slight increase that resulted in the production of roughly 39,160,000 bushels of corn, the highest volume of corn produced by any Colorado county (U.S. Department of Agriculture, National Agricultural Statistics Service, 2016 and 2017).

Most of the corn planted in Yuma County is field corn that is typically used as feed for cattle and hogs, or as feedstock for the local Yuma Ethanol plant. Some smaller acreages of corn production in Yuma County are also cut corn silage which is often used as feed for beef and dairy cattle.

Wheat

Some 135,000 acres of winter wheat were planted and harvested in 2015. The overall harvest yielded 6,810,000 bushels of wheat, or a yield of 51 bushels per acre. By comparison, considerably more acreage (143,000 acres) was planted in 2014; the

harvest of 137,000 acres yielded 8,335,000 bushels, or a yield of 60.6 bushels per acre (U.S. Department of Agriculture, National Agricultural Statistics Service, 2016).

Winter wheat is well known for its use to produce flours and, ultimately, for the preparation of various food products. Aside from other edible food products, winter wheat is regularly used by farmers as a seasonal cover crop, for erosion control, as a nutrient catch crop, and for soil building (Sustainable Agriculture Research and Education, 2012).

Sugar Beets

In 2015, sugar beets were planted on roughly 4,400 acres of land in Yuma County. The harvest yielded 165,000 tons of sugar beets, or about 37.5 tons per acre. As its name suggests, sugar beets are used for the production of sugar.

Other Crops

Several other crops are also commercially produced in Yuma County. These include sorghum, milo, millet, edible beans, potatoes, sunflowers, pumpkin, watermelon, and popcorn.

3.4.6.2 Wholesale Trade

Wholesale trade operations in Yuma County sell farm equipment, grain and bean commodities, and farm supplies. Available sales tax data indicates that the combined gross sales of wholesalers in Yuma County totaled roughly $22,755,000 dollars in 2015. Total sales by wholesalers in Yuma County has declined since, at least, 2013, when total gross sales were roughly $52,406,000 (Colorado Department of Revenue, Office of Research and Analysis, 2016).
The economic contribution of wholesalers to the Yuma County economy is primarily reflected in expenditures associated with wages and salaries. In 2016, wholesale businesses expended over $14.5 million in wages to the Yuma County economy (U.S. Bureau of Labor Statistics, 2017).

It is important to note that much of the wholesale trade activity takes place in the City of Yuma. In 2015, about 61 percent of total wholesale sales in Yuma County were made in the City of Yuma.

3.4.6.3 Retail Trade

The Yuma County economy includes a wide variety of retail trade establishments. In 2016, these establishments included roughly 267 small business enterprises that included grocery stores, retail shops, professional and business services, financial institutions, accommodations and food services, health care and education services, auto repair shops, and other services.

Retail establishments in Yuma County generated about $164,001,000 in gross sales in 2015. Roughly 44 percent of these sales ($72,698,000) were made in the City of Yuma.

The primary source of retail sales in Yuma County included food and beverage sales, as well as motor vehicle and automotive part sales. Together, these retail establishments garnered 36 percent of total retail sales in 2015.

3.4.7 Potential Economic Development Opportunities

3.4.7.1 Retail Leakage

A retail leakage analysis for a specific county or community helps to determine where potential consumer expenditures are being made. This analysis compares actual sales with potential sales to determine the extent of retail leakage, or the potential outflow of retail sales to other communities. In merchandise categories where actual retail sales exceed potential sales, these merchandise categories are faring well and likely receiving revenues from customers outside of the community. Conversely, merchandise categories that indicate a greater outflow of potential sales to other communities actually represent potential economic development opportunities. For this reason, a retail leakage analysis was made for Yuma County using available sales data for 2013-2015 (Tables 3-4 through 3-6).

While a retail leakage analysis was prepared for the City of Yuma, the withholding of confidential sales tax data by Colorado State Department of Revenue does not enable an effective presentation of retail leakage trends.

The analysis of Yuma County indicates that a significant outflow of potential retail sales was made in communities outside of Yuma County in 2013. Almost all merchandise categories show an outflow of potential retail sales in communities outside of Yuma County. One exception was sales by miscellaneous stores which represent other retail stores not reflected by other merchandise categories. These stores demonstrated a strong surplus suggesting that some of these sales were derived from incoming customers from outside of Yuma County.

TABLE 3-4
RETAIL LEAKAGE ANALYSIS BY MERCHANDISE GROUP
YUMA COUNTY, COLORADO
2013

Merchandise Group	*Proportion of Total Sales (%)*	*Potential Sales ($1000)*	*Actual Sales ($1000)*	*Surplus or Leakage ($1000)*	*Surplus or Leakage as a % of Potential*
Motor Vehicles and Auto Parts	21.5	32,108	29,505	-2,603	-8.1
Furniture/Home Furnishings	1.8	5,045	2,488	-2,557	-50.7
Electronics/Appliance Stores	0.6	4,096	872	-3,224	-78.7
Building Materials/ Improvement/Nurseries	5.7	10,858	7,861	-2,997	-27.6
Food & Beverage Stores	22.4	32,236	30,737	-1,499	-4.6
Health/Personal Care Stores	L	L	L	L	L
Service Stations	L	L	L	L	L
Clothing/Accessory Stores	0.9	7,294	1,184	-6,110	-83.8
Sporting Goods/Hobby/ Book/Music Stores	0.4	5,672	490	-5,182	-91.4
General Merchandisers/ Warehouse Stores	9.8	25,429	13,478	-11,951	-47
Miscellaneous Stores	8.6	7,690	11,737	4,047	52.6
Non-Store Retailers	L	L	L	L	L
TOTAL *	**100.0**	**358,937**	**137,091**	**-221,846**	**-61.8**

Notes: L - Not disclosed by Colorado Department of Revenue due to confidentiality. * - Total retail sales also include sales not disclosed by the Colorado Department of Revenue.

Source: Colorado Department of Revenue, 2017.

TABLE 3-5
RETAIL LEAKAGE ANALYSIS BY MERCHANDISE GROUP
YUMA COUNTY, COLORADO
2014

Merchandise Group	*Proportion of Total Sales (%)*	*Potential Sales ($1000)*	*Actual Sales ($1000)*	*Surplus or Leakage ($1000)*	*Surplus or Leakage as a % of Potential*
Motor Vehicles and Auto Parts	16.7	31,110	31,339	229	0.7
Furniture and Home Furnishings	0.8	4,826	1,541	-3,285	-68.1
Electronics and Appliance Stores	0.5	3,988	847	-3,141	-78.8
Building Materials/ Improvement/Nurseries	4.7	10,582	8,891	-1,691	-16
Food & Beverage Stores	16.9	30,421	31,763	1,342	4.4
Health/Personal Care Stores	L	L	L	L	L
Service Stations	L	L	L	L	L
Clothing/Accessory Stores	0.5	6,862	927	-5,935	-86.5
Sporting Goods/Hobby/ Book/ Music Stores	0.2	5,342	342	-5,000	-93.6
General Merchandisers/ Warehouse Stores	7.2	23,748	13,531	-10,217	-43
Miscellaneous Stores	23.0	7,845	43,151	35,306	450
Non-Store Retailers	L	L	L	L	L
TOTAL *	**100.0**	**387,869**	**187,569**	**-200,300**	**-51.6**

Notes: L - Not disclosed by Colorado Department of Revenue due to confidentiality. * - Total retail sales also include sales not disclosed by the Colorado Department of Revenue.

Source: Colorado Department of Revenue, 2017.

TABLE 3-6
RETAIL LEAKAGE ANALYSIS BY MERCHANDISE GROUP
YUMA COUNTY, COLORADO
2015

Merchandise Group	*Proportion of Total Sales (%)*	*Potential Sales ($1000)*	*Actual Sales ($1000)*	*Surplus or Leakage ($1000)*	*Surplus or Leakage as a % of Potential*
Motor Vehicles and Auto Parts	17.7	26,210	29,093	2,883	11
Furniture and Home Furnishings	0.9	3,868	1,484	-2,384	-61.6
Electronics and Appliance Stores	0.6	2,993	972	-2,021	-67.5
Building Materials/ Improvement/Nurseries	3.5	7,439	5,698	-1,741	-23.4
Food & Beverage Stores	18.6	31,745	30,509	-1,236	-3.9
Health/Personal Care Stores	L	L	L	L	L
Service Stations	L	L	L	L	L
Clothing/Accessory Stores	0.7	4,495	1,133	-3,362	-74.8
Sporting Goods/Hobby/ Book/Music Stores	0.2	4,241	374	-3,867	-91.2
General Merchandisers/ Warehouse Stores	5.7	16,303	9,288	-7,015	-43
Miscellaneous Stores	L	L	L	L	L
Non-Store Retailers	L	L	L	L	L
TOTAL*	**100.0**	**368,855**	**164,001**	**-204,854**	**-55.5**

Notes: L - Not disclosed by Colorado Department of Revenue due to confidentiality. * - Total retail sales also include sales not disclosed by the Colorado Department of Revenue.

Source: Colorado Department of Revenue, 2017.

In 2014, actual retail sales rose 37 percent and the proportion of overall retail sales made in Yuma County increased somewhat. A greater expenditure of potential retail sales within Yuma County signaled that more customers from outside Yuma County were purchasing goods and services in Yuma County, or local customers were making more retail purchases at home. The change in retail leakage reflected a significant increase in sales by miscellaneous stores and a modest rise in sales by food and beverage stores. All other merchandise categories experienced a continued leakage of potential of retail sales to other communities outside of Yuma County.

Overall retail sales in 2015 in almost all merchandise categories continued to show a significant outflow of retail sales outside of Yuma County. Actual retail sales dropped 13 percent and the resident population of Yuma County declined by 118 persons. However, sales of motor vehicles and automotive parts exhibited a surplus that again reflected a growth in sales from consumers outside of Yuma County along with loyalty from local customers. The disclosure policy used by the Colorado Department of Revenue does not enable PPC to determine if miscellaneous stores continued to demonstrate a surplus in sales in 2015.

Stepping back from available information, retail leakage estimates for 2013-2015 point to potential economic development opportunities in several retail merchandise categories. Retail leakage estimates for 2015 suggest potential investment opportunities for sporting goods, hobby, book and music stores, clothing and accessory stores, electronics and appliance stores, furniture and home furnishing outlets, general merchandise stores, and, to a lesser extent, building material stores.

Due to the limited number of retail businesses associated with service stations, health and personal care stores, and the related disclosure policy of the Colorado Department of Revenue, potential opportunities with these merchandise categories cannot be assessed in the context of retail leakage. However, other criteria, e.g., vehicular traffic, can be used to consider these potential opportunities.

While considerable retail leakage is evident in Yuma County, this does not necessarily mean that investments related to the merchandise categories characterized by significant leakage will represent a profitable business enterprise. For this reason, it is essential that potential investors and entrepreneurs need to carefully examine the financial feasibility of any specific business enterprise associated with retail trade. At the same time, these type of retail outlets represent potential investment opportunities that can be promoted by the City of Yuma. It is recommended that retail leakage information, and other relevant considerations such as potential site locations, available utility services, demographic and economic characteristics, and land use regulations are shared with potential investors.

3.4.7.2 Visitor Accommodations

The development of visitor accommodations in rural communities sometimes represents a potential small business opportunity, particularly if the community is accessible via a well-traveled State and/or federal highway, a municipal airport, and/or a rail corridor used by Amtrak or other passenger rail service. The potential market, or customer, is an important consideration that influences, at least, the potential average length of stay, the purpose of overnight stay, the cost of accommodations, and the amenities that are likely to be expected by customers.

Another important consideration is the type and capacity of visitor accommodations that already serve incoming visitors to the community. In Yuma, two nice motels, i.e., Harvest Inn and Nelson

Inn, are situated along U.S. Highway 34 which represents the access point for most all visitors to the community. Harvest Motel includes 29 guest rooms (Bukowski, 2017) while Nelson Inn comprises 33 guest rooms (Nelson, 2017).

Existing motels serve a variety of guests that generally include truckers, oil and gas workers, railroad workers, as well as persons visiting to attend family reunions, tournaments, funerals, and school-related activities. The composition of the potential market is generally very short-term, e.g., one- to two-night stays. One exception are oil and gas workers that support exploration and production projects. Private contractors involved in regional oil and gas exploration projects will often negotiate lower room rates in exchange for longer rental periods for personnel they employ for short- and medium-term projects.

The extent of annual room occupancy needed to support the financing of hotel development and long-term operation and maintenance of any visitor accommodation varies considerably. Many factors influence the size of investment required to support site and facility development, the cost of fixed furniture, fixtures and equipment, as well as eventual facility management, operations and maintenance. Visitor accommodations often target occupancies of, at least, 60 to 70 percent to remain financially viable. The completion of a feasibility study, along with a related financial and management plan, should be the starting point for any serious consideration of a new visitor accommodation in the City of Yuma.

Available lodging sales data suggests that recent motel occupancies may not be sufficient to sustain existing motel accommodations. The financial viability of additional motel facilities would likely require more substantive demand from visitors coming to or passing through the City of Yuma.

- The Colorado Department of Transportation estimates that average annual daily traffic along U.S. Highway 34 ranged between 6,600 and 8,300 vehicles in 2016. Along Colorado Highway 59, average annual daily traffic ranged between 1,400 and 2,900 vehicles.
- A growing number of community events will continue to draw more people to Yuma. A greater number of multi-day community events, which are designed, in part, to attract visitors, will generate increased occupancy rates. At some point, increased vehicular traffic along U.S. Highway 34 and a greater number of multi-day events may eventually generate demands for additional motel rooms.

The expansion or addition of new visitor accommodations to a community can, in some cases, attract more highway traffic. Motorists, who travel through a community, will often be more drawn to communities where they observe more options for places to stay. Motels can be developed and established through conventional financing or purchase of a motel franchise. Their development will require a site location in a Commercial 1 or Commercial 2 zoning district.

Bed-and-breakfast facilities can be established through the use and/or improvement of existing homes. Bed-and-breakfast facilities are regarded in many local jurisdictions as a home occupation. However, a conditional use permit process for these facilities is recommended to ensure their compatibility with existing residential neighborhoods (see Chapter 8: Land Use Regulations).

In terms of prospects for future economic development, the development of a number of bed-and-breakfast facilities in the community appear to be a more promising economic opportunity.

- Average annual wages and salaries in all industries of the Yuma County economy range from $28,225 to $53,228. Annual personal per capita incomes of just over $51,000 in Yuma County suggest the availability of limited capital to support larger small business investments.
- Bed-and-breakfast facilities typically require limited investments for initial facility renovation or improvement.
- Bed-and-breakfast facilities could be established within the City limits, as well as at farm homes within a three-mile radius of Yuma.
- Bed-and-breakfast facilities are more effectively operated and maintained by owner operators. The pressure for achieving high occupancy rates is reduced if owner operators seek a more realistic opportunity to gain supplemental household income.

In order to enable and encourage this type of development, the City of Yuma's zoning regulations will need to include a conditional use permit process and related facility and operational criteria for these facilities in residential zoning districts. These needs are discussed more fully in Chapter 8 concerning land use regulations.

3.4.7.3 Workforce Development

Rapid changes in the technologies used by various industries increasingly require on-the-job training for existing workforces. With expanded production and normal attritions in a company labor force, employers are often faced with reviewing and selecting job applicants who do not have the complete skill set needed to tackle specific job requirements.

Employees in rural communities such as Yuma rely on internal job training programs that are provided to employees by larger corporate businesses, family-owned businesses, and other small business employers. Many smaller business enterprises do not have adequate resources to provide extensive training programs to their employees. And larger corporate concerns sometimes have to relocate new employees from other communities, or relocate portions of local production, to obtain a more skilled workforce that is needed to support ongoing operations and planned expansions in production.

Some recent high school graduates desire to remain in Yuma and seek employment within the community, but do not possess the vocational skills required by a particular industry. Similarly, somewhat older residents of Yuma may wish to enter or return to the workforce in Yuma but do not have the complete set of skills needed for a particular line of work. In either case, these residents will likely be forced to relocate to another community where they can gain the skills needed.

From the perspective of future economic development, one of the primary factors that discourage outside investments in rural communities is the lack of a skilled workforce for employers to draw upon to manage, operate and maintain production lines and related support facilities. Communities that seek to expand the vocational skills of its workforce are more attractive to potential small businesses that may consider the City of Yuma for the relocation or expansion of an existing business, or the establishment a new business enterprise.

In the face of these realities, there lies an opportunity to establish a higher educational facility in the City of Yuma that focuses upon developing and expanding the skills of Yuma County's labor force. Such a facility can be used by larger corporate interests in the community to support job skill orientation and other on-the-job training programs. Younger and older farmers could obtain training

concerning various aspects of agriculture, e.g., agricultural equipment, new irrigation technologies, animal husbandry and livestock management. Residents seeking a career in nursing could acquire skills and fundamental education needed to become a nursing aide. Technical skills associated with oil and gas exploration and production could be provided to those residents seeking future opportunities in this industry.

The skill-based training of such a facility would focus upon skill sets that can support existing industries in Yuma County, as well as new industries that will, over time, emerge within or near the City of Yuma. The range of potential programs and staff will grow in response to the demands expressed by both employers and the Yuma County workforce.

In the Community Survey made available to residents of the City of Yuma, as well as within a three-mile radius of Yuma, Yuma residents expressed the need for a skill-based training facility.

- 73 percent of the survey respondents said that the economy of Yuma and Yuma County needs to diversify to create new job opportunities;
- 73 percent of the survey respondents indicated that the City should take steps to attract new private sector investments into the community;
- 61 percent of the survey respondents said Yuma needs a place where I, or other family members, can gain vocational job skills; and,
- 73 percent of the survey respondents agreed that the City should look for opportunities to provide vocational skills as part of an overall post high school education program.

The development of skill-based training facilities is not common in many rural communities. But, they are emerging as rural communities recognize what it takes to sustain and strengthen their local economies, increase the skill sets of their workforce, enhance the opportunity for employed workers to gain higher wages, and make their community a more attractive place to invest.

Carbon County Higher Education Center (CCHEC), based in the City of Rawlins, Wyoming, represents a successful example of a skill-based, vocational education facility in a rural community. The program, which was established in 1985, was the result of an agreement between Carbon County School District 1 and Western Wyoming Community College. CCHEC has evolved over the last three decades as its program was designed and continues to expand to meet growing demands for skill-based learning. Its present program includes vocational training and related certifications associated with the energy industry, health and medical services, as well as academic classes associated with business, criminal justice, computer science, emergency management, education, psychology, and sociology. More information can be accessed via the CCHEC website: cchec.org. An experienced and informative point-of-contact is Mr. David Throgmorton, Executive Director.

3.4.7.4 Business Park

An important consideration for investors and small business owners that desire to establish, relocate or expand a business in a community such as Yuma, is what existing properties are available and suitable to support their business operations. Some investors hire site locators to assist them with this task; other entrepreneurs take on the task themselves, or with the assistance of other staff already employed by the investor. Most investors hope to quickly locate and purchase suitable

properties so that they can quickly move on to the acquisition of necessary financing and other actions necessary to establish the business operation.

The maintenance of a land use database and the application of a geographical information system (GIS) is an effective economic development tool that can be used to quickly identify properties for prospective investors. But, in many rural communities, properties that are "shovel ready", or more suitable for planned business operations, are sometimes not available for various reasons. This constraint can be minimized through the development of a commercial/industrial business park that can significantly help make the community more attractive to potential investors.

In concept, a business park in the City of Yuma would ideally target companies that would help expand and diversify the City of Yuma's economic base. With this perspective, the business park would seek to attract, at least, the following:

- commercial and/or light industrial companies that employ, at least, 10 or more full-time employees;
- value-added enterprises derived from agricultural crop and livestock production operations in Yuma County;
- smaller manufacturing and technology companies, wholesale trade operations, warehousing, transportation and distribution operations, and support services to the agricultural industry.

Commercial operations in the business park would not include commercial retail enterprises or larger "big box" stores. The City would not seek to attract commercial operations that compete with other smaller business enterprises within the City of Yuma.

Lot sizes should be variable to accommodate a combination of smaller and larger company operations. The business park might include a combination of two, five, 10- and 20-acre lots that could be purchased as fee simple property or leased from the City of Yuma.

Connections to municipal water, wastewater, and electrical power systems should be available for reasonable tap and appropriate connection fees. Vehicular access and primary roadways within the business park would be paved to minimize dust emissions and maintain the attractiveness of the business park. Reasonable site and facility development criteria would be established within municipal land use regulations to maintain a safe and attractive business environment.

The business park would ideally have convenient access to U.S. Highway 34. Rail access to some larger lots would be very desirable for those operations that might receive materials and supplies and/or distribute products more cost effectively via rail. However, discussions with representatives of Burlington Northern Santa Fe Railway (BNSF) indicate that any rail spur would need to be, at least, 7,000 feet in length, to enable other freight and passenger traffic to pass when a freight train stops at customer location (Karl, 2017).

The development of a business park by the City of Yuma will require the purchase of lands within the City's municipal boundary, or within a three-mile radius of the City. If outside of the corporate limits of the City of Yuma, business park lands would also require subsequent annexation by the City of Yuma.

3.4.7.5 Value-Added Enterprises

"Building upon what you are blessed with" represents another effective approach to economic development. In view of abundant crop and livestock production in Yuma County, there are potential opportunities to establish value-added enterprises in Yuma County and the City of Yuma.

Wheat to Breads and Baked Goods

One knowledgeable stakeholder in the City of Yuma indicates that local wheat production in Yuma County could be used to support the production of baked good products. Such products could, in turn, be marketed directly to customers in small retail outlets along the urbanized Front Range of Colorado (Deering, 2017).

Montana Wheat, based in southwest Montana, exemplifies this type of operation. Montana Wheat uses its family-owned wheat production to support the operation of its own mill and bakery operation and related retail outlets in more urbanized communities of Montana. Wheat varieties grown in Yuma County, e.g., Snowmass or Byrd, could supply the production of breads and other baked goods. Byrd variety represents about 20-25 percent of all wheat grown in Colorado. If desired, supplemental grains, e.g., Prozo millet, could be obtained from Perry Brothers in nearby Otis, CO (Deering, 2017).

A feasibility study of this type of operation would need to be completed by potential investors to:

- examine potential consumer markets;
- identify site, facility, and transportation requirements and determine related costs;
- estimate management, operation and maintenance requirements and costs;
- determine capital investment requirements, estimate potential revenues and expenses, cashflow requirements, and potential return-on-investment.

3.5 ANTICIPATED POPULATION GROWTH: 2018-2027

3.5.1 General

The development and application of a population forecast for the City of Yuma is a necessary step in the community planning process. Population estimates are used to help determine potential land use needs for accommodating future land use expansion, as well as the anticipated demand for various types of supporting utility systems, transportation networks, and public services that are provided by the City of Yuma, Yuma County, and the State of Colorado.

While various social and economic factors influence community growth, these considerations ultimately "boil down" to estimates of future natural growth (births less deaths), as well as net population migration (in-migration less out-migration). The Colorado Department of Local Affairs, State Demography Office, annually updates its forecasts of future resident populations for all counties within the State of Colorado.

In order to prepare a forecast of the resident population for only the City of Yuma, further assumptions were needed concerning what proportion of the total Yuma County population, forecasted by the State Demography Office, will reside in the City of Yuma. Pedersen Planning Consultants made a range of assumptions for three variable growth scenarios and applied these

assumptions to the overall population for Yuma County in order to derive a population forecast for the City of Yuma (see section 3.5.3).

3.5.2 Yuma County Population Forecast

At the time of this report, the most recent forecast by the Colorado State Demography Office estimates that the resident population of Yuma County will rise from an estimated 10,202 residents in 2017 to 10,675 residents in 2027 (Colorado State Demography Office, 2015). This forecast suggests an increase of about 473 residents over the coming decade, or an increase of just under five percent by 2027.

State estimates of Yuma County's resident population presume that positive natural growth (more births than deaths) will be the predominant influence of future population growth in Yuma County during the next 10 years. The State forecast suggests, in essence, a gradual increase in local birth rates and a very gradual decline in death rates during this period.

Regular swings in the amount of in- and out-migration are expected to bring about a net annual migration (in-migration less out-migration) that will range from an annual estimated influx of four persons to an outflow of 22 persons. Somewhat greater out-migration is anticipated from 2023 through 2027.

3.5.3 City of Yuma Population Forecast

The State of Colorado's most recent estimate of the City of Yuma's resident population is 3,632 persons in July 2015. The City of Yuma's estimated resident population in July 2015 represented roughly 36 percent of the total Yuma County population.

The State Demography Office estimate of 3,520 persons in 2010 suggests an increase of 112 persons over the 2010-2015 period, a growth of almost 3.2 percent, or about 0.6 percent per year. Further, the City of Yuma is the only community in Yuma County that experienced growth between 2010 and 2015.

Three different growth scenarios for the City of Yuma were considered to estimate what proportion of the estimated Yuma County population might reside in the City of Yuma in the coming decade (Table 3-7). Each of

TABLE 3-7
CITY OF YUMA GROWTH SCENARIOS
2018-2027

Year	*Colorado State Demography Office Yuma County Forecast*	***City of Yuma Population Forecasts***		
		Declining Growth	*Anticipated Limited Growth*	*Moderate Growth*
2017	10,202			
2018	10,246	3,689	3,689	3,689
2019	10,294	3,706	3,706	3,706
2020	10,342	3,723	3,723	3,723
2021	10,389	3,636	3,740	3,844
2022	10,436	3,653	3,757	3,861
2023	10,481	3,668	3,773	3,878
2024	10,532	3,581	3,792	4,002
2025	10,582	3,598	3,810	4,021
2026	10,632	3,615	3,828	4,040
2027	10,675	3,630	3,843	4,057

Sources: Colorado State Demography Office, 2017; Pedersen Planning Consultants, 2017.

these scenarios represent plausible sets of conditions that could impact future community growth. However, actual conditions in the coming decade may include a combination of conditions outlined in one or more of the following scenarios.

1) Declining Growth Scenario,
2) Limited Growth Scenario, or
3) Moderate Growth Scenario.

These scenarios are described, as follows.

3.5.3.1 Declining Growth Scenario

The Declining Growth Scenario would occur with the imposition of significantly tighter restrictions upon the allocations of water for the irrigation of agricultural crops for most years of the coming decade. Such restrictions would likely be a result of regional drought conditions in the High Plains Aquifer System that would sustain for, at least, three or more growing seasons. Such conditions would gradually reduce farm and ranch expenditures for farm equipment, materials, and supplies, as well as diminish sales in most all other retail merchandise categories. Sustained losses in retail sales would likely result in the closure of some small business enterprises, as well as other service enterprises in the private sector.

The Declining Growth Scenario could also be realized through an extended decline in commodity prices. Such conditions could generate impacts similar to those that would be experienced from tighter restrictions upon groundwater allocations.

Under the Declining Growth Scenario, the resident population of Yuma would gradually comprise about 34 percent of the total Yuma County population that is forecasted by the Colorado Department of Local Affairs, State Demography Office in 2027.

3.5.3.2 Limited Growth Scenario

The Limited Growth Scenario would somewhat resemble recent demographic and economic trends. Larger agricultural companies associated with cattle and hog production continue to operate on a profitable basis that would be sufficient to, at least, sustain ongoing operations and workforce. Family farms and ranches continue, for the most part, to operate on a sustainable basis despite some restrictions upon water irrigation use, fluctuating commodity prices, and occasional challenges associated with weather. Modest increases in overall retail sales occur despite significant outflows of retail expenditures to other communities outside of Yuma County. There is limited expansion in the number of new or expanding retail establishments and other business enterprises in the private sector.

Under the Limited Growth Scenario, the resident population of Yuma would continue to represent about 36 percent of the total Yuma County population that is forecasted by the Colorado Department of Local Affairs, State Demography Office.

3.5.3.3 Moderate Growth Scenario

The Moderate Growth Scenario would see a moderate growth in employment opportunities within the coming decade. Increased employment opportunities would accompany new investments by small business enterprises that establish, relocate or expand their business in the City of Yuma. A

greater diversification of Yuma's economic base would become more evident. New investments in the private sector would be influenced by an aggressive municipal economic development program, more favorable commodity prices, and increased agricultural production. The community would pursue and accomplish various community development strategies that would help attract more investors and other families and persons desiring to work and live in the community.

Under the Moderate Growth Scenario, the resident population of Yuma would initially continue to represent about 36 percent of the total Yuma County population that is forecasted by the Colorado Department of Local Affairs, State Demography Office for 2027. However, as various community development efforts are pursued and completed, the potential fruits of new economic investments and related job opportunities would likely increase the City of Yuma's proportion to about 38 percent of the total Yuma County population.

3.5.4 Conclusion

Over the coming decade, it is likely that the proportion of Yuma County residents living in the City of Yuma is expected to rise. A combination of social and economic factors is expected to drive that trend.

1. The City of Yuma is in close proximity to larger corporate agricultural operations.
2. The integrated nature of the agricultural industry in Yuma County enhances the sustainability of this industry.
3. The City of Yuma is a regional service center that serves farmers and ranchers throughout northeast Colorado.
4. A good variety of retail shopping opportunities are available to residents of the City and the surrounding unincorporated area. New retail outlets are emerging.
5. Schools provide quality educational opportunities from pre-school through high school.
6. Senior housing opportunities are available within the community.
7. Medical facilities and emergency medical services are readily accessible.
8. Recreational opportunities are available at the municipal golf course, baseball fields, municipal parks, swimming pool, and other activities within the City. Hunting areas are in close proximity to the City.
9. Supporting water, wastewater and electrical power systems have ample capacity to support future land use expansion and a larger residential population.

Despite these compelling factors, residents primarily rely upon the employment opportunities and income derived from a resource-based economy. Agricultural production in Yuma County is largely dependent upon the availability of ground water from the Ogallala Aquifer. Crop and livestock production is also influenced by ever-changing weather conditions, regulatory requirements associated with irrigation water, and commodity prices that are always uncertain. Consequently, one or a combination of these factors can diminish prospects for future community growth.

But, an intangible community asset evident from stakeholder interviews and responses to the Community Survey is the desire of many community residents to make the City of Yuma a more attractive place to live, work, and play. The community includes a very enterprising and hard-working resident population that does not fear change or a good challenge. Municipal government representatives are seeking opportunities to expand the community's economic base and improve the delivery of services it provides.

In the context of all preceding considerations, the Moderate Growth Scenario is believed to be more likely. The anticipated population for this scenario will be used for the consideration of future land use expansion, transportation needs, as well as the demand for supporting water, wastewater and electrical power system.

CHAPTER FOUR
LAND USE

4.1 INTRODUCTION

Chapter Four evaluates existing land uses, changing land use trends, and future land use needs. To the extent possible, future land use needs associated with housing, commercial and light industrial facilities, community and public facilities, and recreation were quantified and mapped to provide insights concerning the extent of future land use expansion that will be required to support anticipated community growth.

4.2 LAND USE INVENTORY

An essential portion of the overall land use evaluation involved the completion of a land use inventory that was completed by Pedersen Planning Consultants on March 24-25, 2017. This inventory required an initial expansion of spatial data files associated with the City of Yuma's geographical information system (GIS). Once completed, a two-person team completed a window survey of all land uses on every parcel of land within the City of Yuma, as well as all land parcels within a three-mile radius of the municipal boundary. Data collected was incorporated into the expanded geo-database of the City of Yuma GIS using ArcGIS software.

The availability of this information enabled the determination of the general type and location of all land uses within the City of Yuma and a three-mile radius of the City (Figure 4-1). Vacant, undeveloped lands were also documented to identify potential sites for future land use expansion. Land use information gained from the inventory was, in part, correlated with available data from the 2010 Census and 2015 American Community Survey to ascertain the type and extent of recent land use changes.

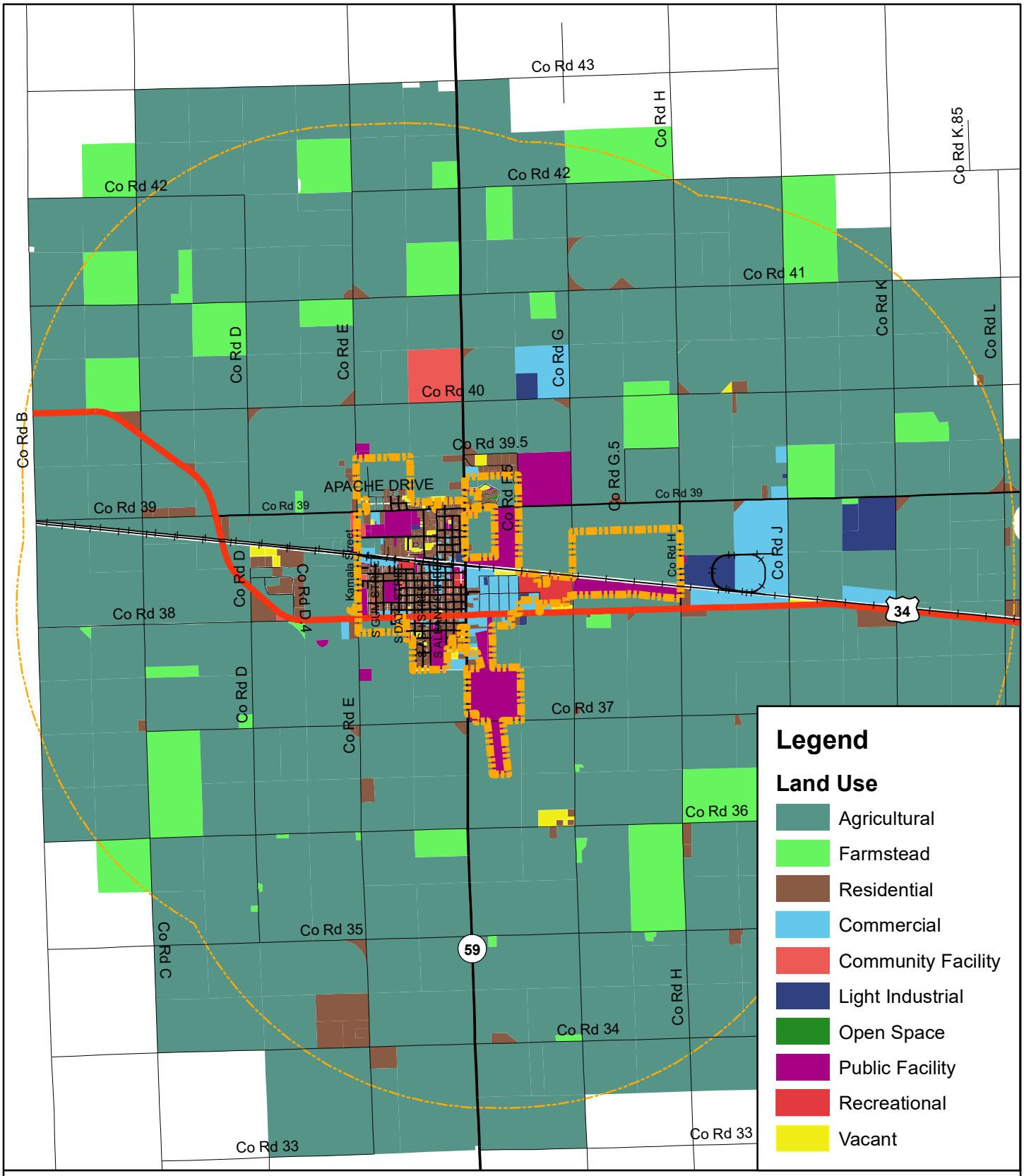
4.3 HOUSING

4.3.1 Size and Composition of the Housing Stock

Housing is the predominant land use within the City of Yuma. Residential uses are primarily concentrated on lands west of U.S. Highway 59 (Figure 4-2). Homes in the Village Park Subdivision, which are situated in the northeast corner of Yuma, represent one exception.

The March 2017 land use inventory documented approximately 1,490 housing units within the City of Yuma. Residential land uses included a combination of detached single family homes, attached residential units or townhomes, residential apartments, and mobile homes (Table 4-1)

- Detached single family homes (including manufactured homes) included 1,182 housing units that comprised approximately 79 percent of the City's overall housing stock in March 2017.
- Townhomes included 20 attached residential units at Villa Townhomes. These homes, which are rented to lower income households, represented about one percent of Yuma's housing stock.



City of Yuma
Comprehensive Plan Update

Land Use
Vicinity of Yuma
March 2017

Figure 4-1

PPC
Planning with heart for communities

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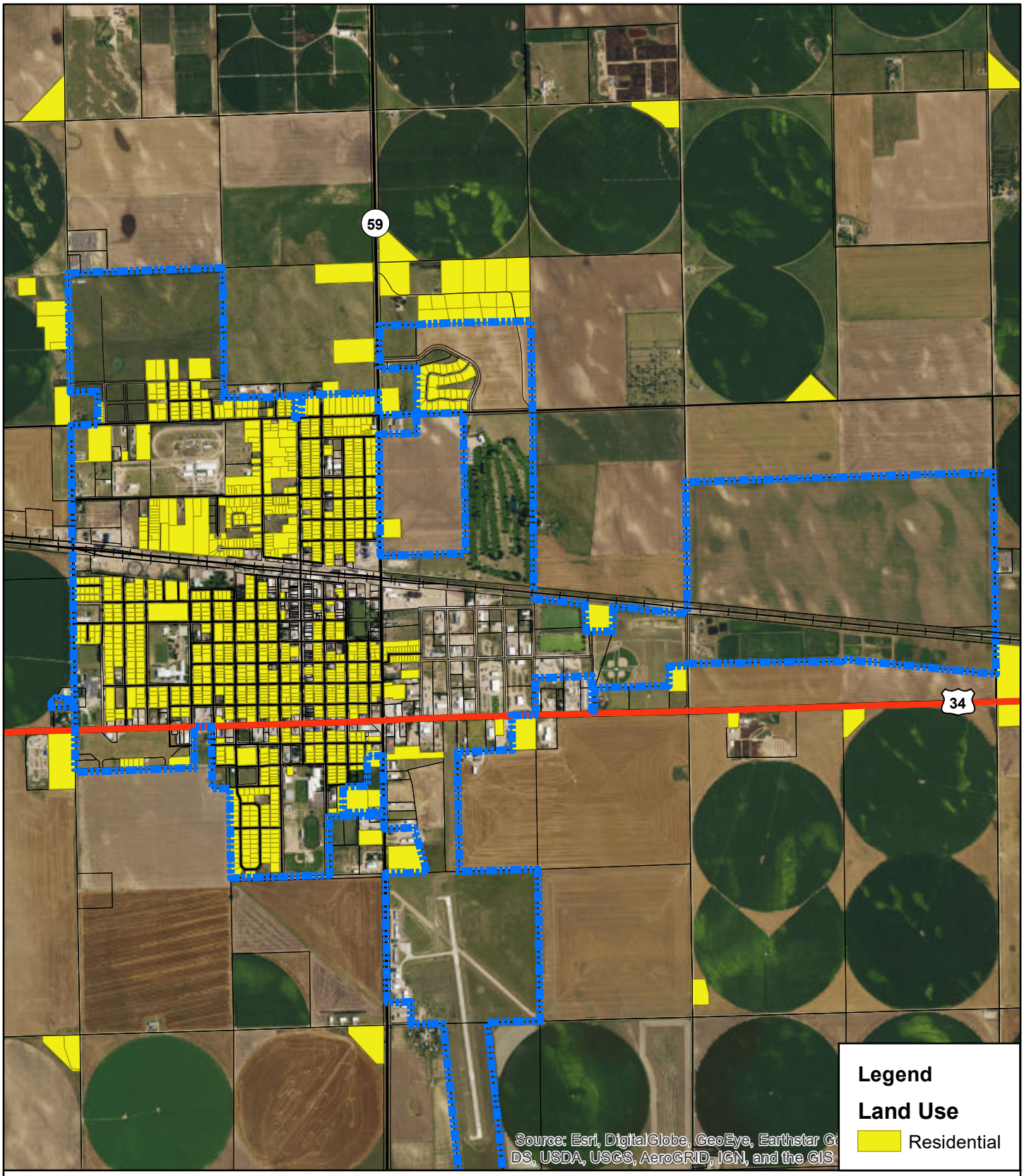

City of Yuma
Comprehensive Plan Update

Residential Land Use
City of Yuma

PPC
Planning with heart for communities

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Figure 4-2

- Thirteen residential apartments comprised another one percent of the housing stock.
- One hundred seventy mobile homes represented approximately 11 percent of all homes in the community.
- Senior housing represented about eight percent of the City of Yuma's overall housing stock. Skilled nursing or long-term care facilities included 30 residential units at Yuma Life Care Center. Parrish Care Center, a licensed assisted care facility, comprised 25 housing units. The Yuma Housing Authority manages, operates and maintains 50 apartment units at High Plains Manor which are available to both seniors and disabled persons over 62 years of age. However, the Yuma Housing Authority does not offer a public housing program for families.

TABLE 4-1
EXISTING HOUSING STOCK
CITY OF YUMA
MARCH 2017

Type of Dwelling	*Number of Units*	*%*
detached single family homes	1,182	79
attached single family homes	20	1
mobile homes	170	11
residential apartments	13	1
senior housing units	105	8
Total	**1,490**	**100**

Source: Pedersen Planning Consultants, 2017.

4.3.2 Housing Characteristics

4.3.2.1 City of Yuma

Available information from the 2015 American Community Survey points to an aging housing stock. In 2017, approximately 27 percent of the existing housing stock was 77 years or older. Most of the housing stock (about 46 percent) ranged from between 37 and 57 years of age. Less than three percent of occupied housing units were built since 2000 (U.S. Census Bureau, Population Estimates Program, 2016).

Roughly 61 percent of the housing stock were owner-occupied in 2015. The average household size of owner-occupied units was 2.21 persons.

Homes occupied by renters included approximately 39 percent of all housing units in 2015. About 1.88 persons per household occupied rental housing units (U.S. Census Bureau, Population Estimates Program, 2016).

In 2015, 62 percent of those occupying homes in the community had resided in their homes since 2000. Almost two-thirds of those persons moved into their present homes sometime between 2010 and 2015 (U.S. Census Bureau, Population Estimates Program, 2016).

4.3.2.2 Unincorporated Area Within 3-Mile Radius of Yuma

The land use inventory completed in March 2017 revealed that there were approximately 193 single family homes within a three-mile radius of the City of Yuma. These homes represented a combination of stick-built homes, manufactured and modular homes, and mobile homes.

Most homes were situated with farmsteads associated with family farm properties. Farmsteads in this area typically include one detached single family home along with one or more facilities supporting farm or ranch operations.

There are also a considerable number of homes that have been developed on smaller acreage properties of less than five acres in size that are unrelated to the owners of adjacent agricultural lands. Owners of farms in Yuma County have, for some time, sold smaller lots of land on the corners of agricultural properties that are not irrigated by circular pivot operations (Birnie, 2017).

The Yuma County Land Department requires landowners to provide an Activity Notice for the development of homes, garages, grain bins, shops, and other facilities in the unincorporated area of Yuma County that have taxable value. Between 2014 and 2016, Yuma County Land Department received five Activity Notices for the development of new homes on unincorporated lands within a three-mile radius of the City (Birnie, 2017).

During the land use inventory, one smaller residential subdivision called Sunny View Subdivision was observed on a 34.9-acre property at the intersection of CR G and CR 36. Three of the eight lots in the subdivision were developed.

4.3.3 Recent Residential Construction

There is no private multiple listing service established in Yuma County that maintains a database of recent sales of improved and unimproved residential properties, as well as an inventory of available properties for sale. Such information enables a more detailed evaluation of more specific housing trends, e.g., housing values, and consumer preferences.

However, recent building permit data maintained by the City of Yuma reflects the construction of only two new homes in 2015 and 2016. Most residential construction activity during this period included home additions, re-models, repairs, and other improvements. In addition, two mobile homes were also relocated to the community in 2016 (Ross, 2017).

4.3.4 Residential Development Trends

The predominance of an older housing stock in a smaller rural community sometimes signals a stagnant or declining local economy where the demand for new housing is limited and/or unaffordable to local residents. Older homes are not improved or replaced with new housing units. But, as described in Chapter Three concerning Demographic and Economic Trends, this is not the case in the City of Yuma where considerable economic activity is taking place in the vicinity of the community. Further, about 30 percent of home occupants in 2015 began residence in their existing homes between 2010 and 2015 which suggests either a somewhat recent influx of new residents and/or changing preferences in the local housing market. Consequently, other factors appear to be influencing residential development in the City of Yuma.

As stated earlier, about 39 percent of the housing stock in 2015 represented rental housing. Larger corporate employers are employing a significant number of employees from outside of Yuma that need housing once they arrive in the community. Local property management companies assist

employees of larger corporate companies by locating and leasing rental housing units for many of their employees (Hoch, 2017). Available rental housing inventories, many of which represent older homes, are then used to support this demand. Since older homes are helping satisfy the demand of incoming workers, there is little motivation among property owners to replace existing housing units and develop new housing units.

Another factor is the limited presence of potential residential developers. During the past few decades, most of the residential subdivisions and new residential construction were accomplished by local investors in the City of Yuma (Hoch, 2017).

Some local efforts have also been made to encourage residential developers from the Front Range to build new housing development projects in Yuma (McClung, 2017). However, these efforts did not result in the development of new housing units for various reasons.

One exception during the past decade was the development of Village Park Subdivision in northeast Yuma that brought together a combination of local and Front Range investors. Developers of this project formed a metropolitan district which enables developers to pass on the cost of future subdivision improvements to landowners who purchase lots in a residential subdivision (McClung, 2017).

The apparent lack of interest in new residential development in Yuma is that most residential developers in Colorado are located and working on new housing projects along Colorado's Front Range. In recent years, significant economic and population growth along the Front Range have generated significant demands for new housing. While residential expansion is gradually moving toward more rural communities near Denver, such growth remains a considerable distance away from the City of Yuma. Consequently, the City of Yuma is "off the screen" of consideration for potential investments as most residential developers are aggressively pursuing projects along the Front Range and likely unaware of Yuma's housing needs.

4.3.5 Future Housing Demands

A starting point associated with the attraction of new housing development in the community is the estimation of potential housing demand. For this reason, anticipated housing demands for the City of Yuma are presented for the 2018-2027 period. The forecasts are intended to provide the City of Yuma, community leaders and private investors with general guidance concerning the type and extent of future housing demands in the community.

Estimated demands presented in this analysis are not a forecast of potential building activity. Rather, the estimates present the total housing production that is necessary to achieve a *balanced housing market* during the coming decade. The statistical housing demand forecasts are presented on an

annual basis to indicate the number of housing units that are expected to be needed in a specific year.

A *balanced housing market* is a market condition that is generally characterized by the following conditions:

- The majority of residents are able to own or rent a home that they can afford;
- The majority of residents live in a home that generally fulfills their criteria and preferences for a decent place to live and is not overcrowded; and,
- Housing supply and demand are generally in equilibrium.

4.3.5.1 Model Assumptions

In order to calculate anticipated housing demand, a housing demand model was developed for the 2018-2027 period. Development of the statistical demand model required the determination and application of several assumptions concerning future housing characteristics and consumer preferences in the coming decade.

- In Chapter Three, the population forecasts for the Moderate Growth scenario suggest that the resident population of Yuma will gradually rise to roughly 4,057 persons by 2027 (see Table 3-7).
- The 2017 housing stock includes 1,490 units as documented by the March 2017 land use inventory. In 2015, the U.S. Census Bureau estimated that Yuma's housing stock comprised 61 percent owner-occupied homes and 39 percent renter-occupied housing units. The gradual establishment of new small businesses is expected under the Moderate Growth scenario which would generate a modest expansion of the employed workforce in the community. PPC assumed that the proportional demands for housing will continue to be roughly 60 percent owner-occupied housing units and 40 percent rental homes.
- In 2015, the average household size varied from 2.21 persons in owner-occupied homes to 1.88 persons in homes being rented. PPC assumed that average household sizes in the next decade will gradually diminish to 2.15 persons in owner-occupied homes and 1.80 persons in rental households in 2027.
- The rate of absorption of existing housing units by consumers purchasing a new home in Yuma is very high since there are very few newer homes in the community. However, with the potential availability of new home construction, the rate of absorption of existing inventory would decline considerably as new home construction emerges. Based upon its housing assessment experience in other rural communities, PPC expects that 25 percent of future housing demand would represent consumer purchases of existing improved residential properties by 2024 if new fee simple housing opportunities were available.
- Based upon results of the 2017 Community Survey, PPC assumed that 7 percent of the households occupied by the 21-64 year old age group would seek to purchase a new home in Yuma between 2018-2020 if new housing inventory were available and affordable to most residents. Responses from the Community Survey also suggest that almost 1.3 percent of

persons in the 21-64 year old age group would seek another rental home during the same period. Given the lack of newer fee simple and rental housing inventories, it was assumed that this rate of demand would continue through 2027.

4.3.5.2 Improved Fee Simple Residential Property Demands

Sales of improved fee simple residential property are expected to represent about 60 percent of the future housing demand. On a proportional basis, this demand will break down to comprise about 60 percent detached single-family homes, 30 percent attached single family housing units, and 10 percent mobile homes.

Population forecasts for fee simple home purchases reflect, in part, a modest demand generated from new incoming residents to the City of Yuma. These new residents will come to the community to replace retiring persons in the workforce as well as to support a modest expansion of the workforce to support new business start-ups.

The primary demand for fee simple home purchases is expected to be derived from existing residents of Yuma. Results from the 2017 Community Survey suggest that seven percent of respondents in the 21-64 year old age group plan to purchase a new home in the City of Yuma during the 2018-2020 period. The extent of demand from existing residents appears to be influenced by the lack of newer housing inventory in the community. The lack of new housing in the community has essentially generated a suppressed demand for new housing units.

The extent of demand presented in Table 4-2 presents demands for each year during the 2017-2027 period. As new improved fee simple residential properties are developed, the number of developed housing units would simply be deducted from the forecasts to determine a revised housing forecast for improved fee simple residential properties.

TABLE 4-2
ANTICIPATED HOUSING DEMAND
2017-2027
IMPROVED FEE SIMPLE RESIDENTIAL PROPERTY
CITY OF YUMA

Year	New Resident Demand	Existing Resident Demand	Total No. of Units	*Number of Housing Units*		
				Detached	*Attached*	*Mobile Homes*
2017	4	25	29	*17*	*9*	*3*
2018	7	25	32	*19*	*10*	*3*
2019	4	25	29	*18*	*9*	*3*
2020	4	25	29	*18*	*9*	*3*
2021	30	26	56	*34*	*17*	*6*
2022	5	26	31	*19*	*9*	*3*
2023	4	27	31	*18*	*9*	*3*
2024	31	27	58	*35*	*17*	*6*
2025	5	28	33	*20*	*10*	*3*
2026	5	28	33	*20*	*10*	*3*
2027	4	28	32	*19*	*10*	*3*
Total	**103**	**290**	**393**	***236***	***118***	***39***

Note: Forecast of housing demand is based, in part, upon population forecasts presented in Chapter Two and related growth assumptions of Colorado State Demography Office. This includes Years 2021 and 2024.

Source: Pedersen Planning Consultants, 2017.

4.3.5.3 Rental Housing Demand

It is anticipated that future demands for rental housing will comprise roughly 40 percent of all housing demand during the coming decade (Table 4-3).

On a proportional basis, rental housing demands will further comprise about 60 percent detached single family homes, 30 percent attached single family housing units, five percent mobile homes, and five percent residential apartments. Rental housing demands are predominantly expected to be derived from incoming new residents who are taking new jobs in the community, as well as other residents who are unable to afford or qualify for the financing of a fee simple residential property purchase.

TABLE 4-3
ANTICIPATED HOUSING DEMAND
2017-2027
RENTAL HOUSING
CITY OF YUMA

Year	*New Resident Demand*	*Existing Resident Demand*	*Total No. of Units*	*Number of Housing Units*			
				Detached	*Attached*	*Mobile Homes*	*Apts*
2017	3	5	8	*4*	*2*	*2*	*0*
2018	4	6	10	*4*	*2*	*2*	*2*
2019	3	5	8	*6*	*2*	*0*	*0*
2020	3	5	8	*5*	*2*	*1*	*0*
2021	20	6	26	*15*	*8*	*1*	*2*
2022	3	6	9	*5*	*4*	*0*	*0*
2023	3	6	9	*5*	*4*	*0*	*0*
2024	20	6	26	*15*	*8*	*1*	*2*
2025	3	6	9	*6*	*3*	*0*	*0*
2026	3	6	9	*5*	*2*	*1*	*1*
2027	3	6	9	*5*	*3*	*0*	*1*
Total	**68**	**63**	**131**	***75***	***40***	***8***	***8***

Note: Forecast of housing demand is based, in part, upon population forecasts presented in Chapter Two and related growth assumptions of Colorado State Demography Office.

Source: Pedersen Planning Consultants, 2017.

The extent of demand presented in Table 4-3 presents demands for each year during the 2017-2027 period. As new rental housing units are developed, the number of developed units would simply be deducted from the forecasts to determine a revised rental housing forecast.

4.3.5.4 Senior Housing Demand

As stated in Chapter Three, the U.S. Census estimates that roughly 20 percent of Yuma's total resident population is 65 years of age and older. The housing demands for this age group generally range from detached single family housing for persons who do not require or desire personal care, independent living for persons that may live independently in a senior living community, assisted living for persons requiring various levels of personal care, and skilled nursing care at a long-term care facility or nursing home.

The calculation of housing demands for the 65+ age group is challenging since there is overlap in the type of services and amenities that are available to seniors. For example, a long-term care facility such as Yuma Life Care Center offers a combination of both skilled nursing care and personal care. Further, many seniors, with relatively good health, live in owner-occupied homes and occasionally receive in-home health care by public or private home health agencies and/or members of their family. Others reside at High Plains Manor where seniors and some disabled persons live independently in what is, essentially, a senior housing complex. In this context, the forecast of potential demands for independent living, assisted living, and long-term care or skilled nursing care was prepared for the coming decade. The forecast was based upon the application of one of the following to the anticipated population of the 65+ year old age group (Table 4-4):

TABLE 4-4
SENIOR HOUSING DEMAND
2017-2027
CITY OF YUMA

Year	City of Yuma Population Forecast	Senior Population	a) Long-term		a) Assisted Living		b) Independent Living		c) Residences	
			Long-term Population	Anticipated Demand (Units)	Assisted Living Population	Anticipated Demand (Units)	Indept Living Population	Indept Living (Units)	Resident Population in Own Home	No. of Homes
2017	3,659	**732**	40	36	19	17	50	50	656	437
2018	3,689	**738**	40	36	19	17	50	50	628	419
2019	3,706	**741**	41	36	19	17	51	51	631	421
2020	3,723	**745**	41	36	19	17	51	51	634	422
2021	3,844	**769**	42	38	20	18	53	53	654	436
2022	3,861	**772**	42	38	20	18	53	53	657	438
2023	3,878	**776**	42	38	20	18	53	53	660	440
2024	4,002	**800**	44	39	21	19	55	55	681	454
2025	4,021	**804**	44	39	21	19	55	55	684	456
2026	4,040	**808**	44	39	21	19	55	55	688	458
2027	4,057	**811**	44	40	21	19	55	55	691	460

Notes: a) Long-term and Assisted Living demand: 1.12 persons per unit
b) Independent Living demand: 1 person per unit
c) Residents in Own Home demand: 1.5 persons per unit

Source: Pedersen Planning Consultants, 2017.

- Actual rates of long-term care services used by seniors in Yuma in 2017.
- The anticipated growth of the resident population is expected to gradually increase the demand for senior housing in the next 10 years. The anticipated demands for assisted living housing units and long-term care units are expected to be modest, but gradually exceed the available user rates for these services in the State of Colorado.
- Capacities of Parrish Care Home (assisted living facility) and Yuma Life Care Center (long term care facility). Responses to the 2017 Community Survey suggest that two percent of the 65+ year old age group plan on relocating to one of the existing senior housing facilities in Yuma sometime during the next three years.

The greatest demand for senior housing will be associated with independent living complexes in Yuma. Most seniors in Yuma are expected to continue their residency in owner-occupied homes. However, available home health care data suggests that, at least, 7.9 percent of this group will annually receive some type of in-home health care. Independent living will also continue to include seniors residing in High Plains Manor or other potential independent living complex in Yuma.

4.3.6 Opportunities for Attracting Future Residential Development

4.3.6.1 Fee Simple Residential Property and Rental Housing

A major hurdle to attracting future private investments in the City of Yuma is the availability of new and improved fee simple and rental housing opportunities to incoming workers and their families, as well as existing residents who desire to purchase a new home in the community. Conversely, housing needs represent a potential opportunity to experienced residential developers of fee simple and rental housing.

Representatives of some larger employers in the community have expressed no interest in the development of employee housing in Yuma given the extent of commitments that would be necessary to achieve this objective. Subsidized governmental housing programs are typically tied to federal household income limits, a complex set of project qualification requirements, and lengthy project review and approval periods. In view of anticipated demands, a more prudent approach is

for the City of Yuma to seek and work with one or more established residential development companies to develop a fee simple housing project, as well as a complex of rental housing units.

The anticipated demands for new fee simple and rental housing are not huge, but they are sizeable enough to enable the development of detached and attached single family homes on fee simple properties, as well as the development of rental housing in the form of detached and attached single family homes. The limited anticipated demand for residential apartments could easily be incorporated into the anticipated demand for attached single family units. In order to attract interest from residential developers based on the Front Range of Colorado, the City of Yuma will likely need to offer some incentives or concessions regarding land, utility taps, and/or site and facility development criteria.

4.3.6.2 Senior Housing

Senior housing demand forecasts for the City of Yuma do not suggest any significant growth that would prompt the development of expanded senior housing facilities that provide assisted living and long-term care services. However, the demand for these senior housing facilities is constantly changing as some seniors transition to greater care that is available at assisted care or skilled care facilities. As stated earlier, at least 7.9 percent of seniors receive some type of home health care services.

Another factor influencing future demands for long-term care is the perceptions of Yuma residents regarding existing senior housing facilities. Forty percent of persons from the 65+ year old age group disagreed with the proposition posed in the 2017 Community Survey that they were able to locate an acceptable nursing home or long-term care facility for themselves or an aging relative.

High Plains Manor has a "waiting list" of persons seeking housing units in this independent living complex. Further, this complex has eligibility requirements tied to household income limits. While some of this demand represent persons living outside of the City of Yuma, there is some demand for more independent living units for lower income residents.

However, seniors, whose income exceeds income limits of High Plains Manor and seek a senior retirement community environment have no options except to leave the community. Given the age of the housing stock in Yuma, it is also likely that many seniors, who currently reside in owner-occupied homes, need renovations or other improvements to make their homes more functional, safe, and convenient. Further, there is a sizeable number of seniors who live alone; some of these seniors may seek or prefer a more sociable environment that could be realized in a senior independent living complex or senior retirement community. In view of these considerations and the number of seniors residing in owner-occupied homes, there appears to be an opportunity to develop a senior living complex.

A senior living complex for independent living would be oriented to providing a variety of social and recreational opportunities and related lifestyle amenities. Aside from one and two-bedroom housing units with kitchens, amenities of the facility would desirably include amenities such as a fitness center, community garden, swimming pool, pickleball court, woodworking shop, library, theatre, and billiard room.

4.4 COMMERCIAL

The March 2017 land use inventory documented approximately 231 commercial properties in the City of Yuma. A wide range of commercial activities are supported on these commercial properties (Figure 4-3). Commercial activities are primarily associated with wholesale and retail trade.

Commercial land uses are scattered throughout the community. Many wholesale and retail trade activities are situated along the U.S. Highway 34 corridor. Various other retail trade enterprises and commercial offices are located along South Main Street. The greatest concentration of non-retail commercial operations are situated in the Yuma Industrial Park that is located east of Colorado Highway 59 between the BNSF rail corridor and East 8th Avenue (U.S. Highway 34).

4.4.1 Wholesale Trade

Wholesale trade companies represent a significant important component of the City of Yuma's economy. Wholesale trade merchants located in the City primarily represent grain and field bean merchant wholesalers, e.g., CHS/M&M Cooperative, Bartlett and Company, and C&F Foods, livestock merchant wholesalers, e.g., Smithfield Hog Division, and agricultural equipment merchants.

Aside from direct employment, these companies generate indirect expenditures for various services from various retail trade enterprises in the community. Their presence in the economy is also significant to family farm operations in Yuma County as they provide local market destinations for grain and field bean production, as well as convenient access to sources of agricultural equipment and related professional and technical support services. In 2015, wholesale merchants based in Yuma generated roughly $13.9 million in sales (Colorado Department of Revenue, 2017).

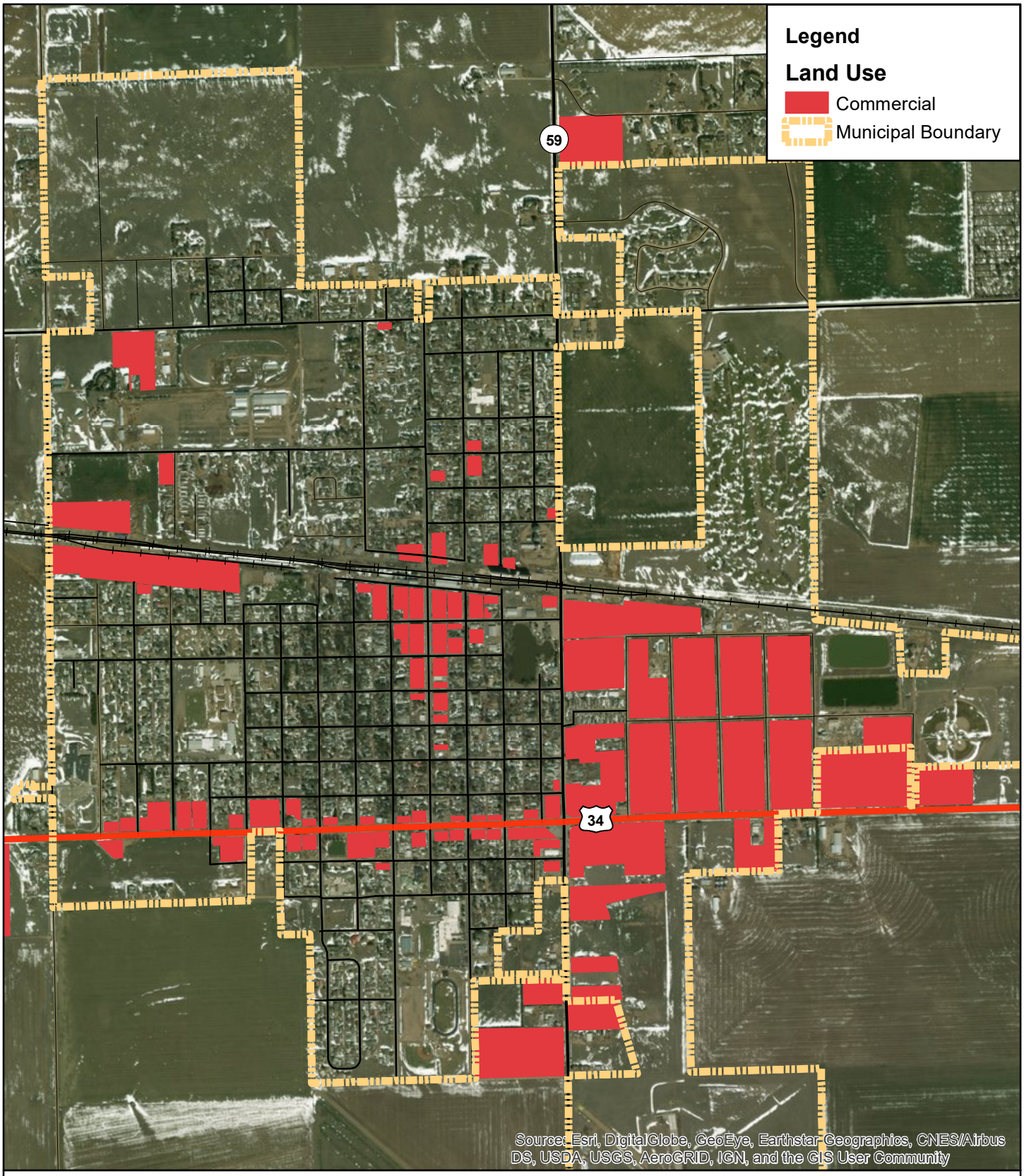
4.4.2 Retail Trade

Retail trade enterprises in the community include food and beverage establishments, general merchandise stores, automobile dealerships and automotive part stores, grocery stores, service stations, furniture and home furnishing stores, and other retail enterprises. During the 2013-2015 period, the retail trade industry in the City of Yuma captured between 44 and 46 percent of all retail sales in Yuma County (Table 4-5).

TABLE 4-5
TOTAL RETAIL SALES IN CITY OF YUMA AND YUMA COUNTY

Year	*Yuma County*	*City of Yuma*	*Proportion of Retail Sales in City of Yuma (percent)*
2013	$137,091,000	$60,610,000	44
2014	187,569,000	86,056,000	46
2015	164,001,000	72,698,000	44

Source: Colorado Department of Revenue, 2017.



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Commercial Land Use
City of Yuma

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Figure 4-3

4.4.3 Other Commercial Activities

Other commercial activities within the City of Yuma comprise finance and insurance agencies, real estate agencies, professional and technical services, and other services supporting the local and regional economy. Two motels, Nelson Inn and Harvest Inn, provide accommodations to incoming visitors and business travelers.

4.4.4 Commercial Development Trends and Opportunities

The City of Yuma has become an important commercial center in northeast Colorado. Its significance to the regional economy is, again, due to a significant amount of wholesale trade activity that centers around livestock production, the purchase and marketing of grain and other commodities, as well as the sale of agricultural equipment and various technical services to farm and ranch operations in Yuma County and other counties in northeast Colorado.

During the coming decade, the significance of Yuma to the economy of Yuma County and northeast Colorado will likely attract new commercial investments and companies associated with wholesale trade, transportation and distribution, manufacturing, communications, and retail trade. In view of this potential opportunity, the City of Yuma needs to take steps to accommodate and encourage commercial expansion within the community.

4.4.4.1 Business Park

As discussed in Chapter Three, the development of a combined industrial/business park with variable lot sizes would provide an attractive area for the location of wholesale trade, transportation and distribution, manufacturing, and communication facilities (Figure 4-4). A combined industrial/business park would enable the City of Yuma to market and attract both industrial and related office functions in one area of the City. The business park would ideally provide convenient vehicular access to U.S. Highway 34 and Colorado Highway 59, rail access, and supporting municipal utility systems.

A master plan/feasibility study will need to be prepared for the industrial/business park. The scope of the master plan will need to more specifically determine and evaluate, at least, the following:

- Target industries, lot sizes, and more specific site and facility criteria for selected industry targets.
- Identification of competitive business and industrial parks within 100 miles of Yuma.
- Determination of preliminary costs for site and utility development.
- How properties are purchased and what prices will be needed to support the City's initial site development and related utility improvement costs.
- Management requirements to market the industrial/business park properties, oversee operation and maintenance of common space areas, and monitor the revenues and expenditures derived from property sales and City expenditures.

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Proposed Business Park
City of Yuma

Figure 4-4

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Site and facility criteria developed during the master planning of the business park would also need to be adopted and incorporated into municipal zoning and subdivision regulations to avoid future regulatory issues that can slow and discourage the approval of industrial projects, as well as impair private investment decisions. Such standards should reflect an objective to establish a physically attractive business environment that is attractive and responsive to the needs of prospective investors.

While the availability of "shovel-ready" commercial sites does not guarantee that commercial business enterprises will come, an attractive business park will clearly address one of the important considerations associated with establishing, expanding, or relocating a potential commercial business operation. The question for potential investors is: "Where can we establish our businesses in the City of Yuma?" The presence of the business park and the development of supporting infrastructure will greatly facilitate the marketing of small business enterprises to prospective site locators and industrial companies.

4.4.4.2 Truck Stop

Growing truck traffic along U.S. Highway 34 suggests the need for an expanded truck stop operation, or development of an additional truck stop operation, in the City of Yuma. Available traffic counts by the Colorado Department of Transportation provide insight concerning retail trade opportunities along the U.S. Highway 34 corridor:

- In 2016, an average annual daily traffic of approximately 8,300 vehicles traveled along U.S. Highway 34 between Main Street and Albany Street. While this traffic volume primarily represented travel by passenger vehicles, 590 of the vehicles comprised combination trucks, e.g., semi-truck and trailers; an additional 290 vehicles were single unit trucks.
- An average annual daily traffic of approximately 2,900 vehicles traveled just north of the U.S. Highway 34/Colorado Highway 59 intersection in 2016. Roughly 320 of these vehicles comprised combination trucks; an additional 150 trucks represented single unit trucks.
- South of the U.S. Highway 34/Colorado Highway 59 intersection, annual average daily traffic included 1,700 vehicles in 2016. This volume included 200 combination trucks and 100 single unit trucks.

Truck traffic passing through the City of Yuma also includes single unit and combination trucks that travel through the community along Beatty Avenue. Available traffic counts from CDOT suggest that as much as one-third of the trucks traveling north on Colorado Highway 59 may be traveling along the Beatty Avenue corridor to avoid traffic congestion along U.S. Highway 34.

The potential demand for services afforded by truck stops along U.S. Highway 34 is heightened because of:

- regular transport of livestock to other finishing locations east and west of Yuma;

- transport of supplemental grains and other agricultural equipment to wholesale trade enterprises situated in the vicinity of Yuma; and,
- hours-of-service regulations outlined in Part 395 of the Federal Motor Carrier Safety Regulations that are imposed upon interstate truck drivers. These regulations, which establish limits for when and how long truckers can drive, provide opportunities to serve truckers associated with interstate commerce.

The feasibility of an expanded truck stop operation, or new truck stop facility, would require completion of a more detailed assessment of trucker service needs and potential market, related site and facility requirements, construction, operation and maintenance costs, and overall business plan. Should the feasibility study point to a feasible business opportunity, one or more potential sites should be identified by the City of Yuma. Potential available sites along with information gained from the feasibility study could then be shared with individual investors as well as larger developers of truck stop facilities.

4.4.4.3 Retail Expansion

In light of the expansion of retail activities and commercial services along U.S. Highway 34, it could be concluded that U.S. Highway 34 has gradually become Yuma's main street. At the same time, the completion of $4.6 million of attractive improvements to South Main Street make this commercial area a viable location for the establishment of new retail enterprises, commercial services, and other commercial offices that are not dependent upon pass-through vehicular traffic along Highway 34. The size of commercial properties in this area are particularly conducive to the establishment of smaller sole proprietorships and family-owned business enterprises.

The viability of the South Main Street commercial area could be further enhanced with the expansion of vehicular parking opportunities. The recent construction of new sidewalks along both sides of South Main Street helps "set the stage" for establishing a "walk and shop" environment in the downtown area. If on-street parking facilities were supplemented with a more centralized parking lot and/or a small pocket park was developed, some local consumers and visitors coming to the downtown area will be more encouraged to take the time to walk around and shop at more than one retail establishment and/or remain in the downtown area for meals, beverages, entertainment, or other scheduled events. This change would contrast with retail activities along U.S. Highway 34 (8th Avenue) where most consumers appear to drive and park their vehicles at one retail establishment of interest; then, after shopping or having a meal, consumers then depart for home or other destinations.

Former plans for the improvement of South Main Street included provisions for the landscaping of sidewalk areas in the downtown area. Landscaping along or adjacent to sidewalk areas would further enhance the attractiveness of the overall commercial area to both consumers and entrepreneurs seeking a small business location. Local business owners and the City of Yuma, along with the Yuma County Conservation District, could work cooperatively to purchase, plant, and maintain trees and shrubs along existing sidewalk areas.

4.5 LIGHT INDUSTRIAL

4.5.1 Types and Locations of Light Industrial Activities

Light industrial land uses typically include activities that extract, fabricate, assemble, and/or refine raw or semi-refined materials. Light industrial uses also include the design, assembly, finishing, packaging, and storing of products or materials that have been processed at least once. In the City of Yuma, grain elevators that simply store grains obtained from agricultural producers are considered to be commercial. In contrast, Smithfield Hog Division processes grains that are used in their hog production facilities in the unincorporated area of Yuma County.

Consequently, industrial activities within and in the vicinity of the City of Yuma, represent "light industrial" uses such as feed mills, cattle feed yards, manufacturers and distributors of chemical products for agriculture, welding operations, as well as residential and commercial construction. The land use inventory completed in March 2017 documented several properties that were being used for light industrial activities (Table 4-6).

TABLE 4-6
LIGHT INDUSTRIAL FACILITIES
CITY OF YUMA AND WITHIN 3-MILE RADIUS OF CITY

Facility Name	*Location/Address*
Agri-Inject, Inc.	5500 E Hwy 34
Andrews Welding & Steel	7817 CR 39
C&F Foods, Inc.	200 W 1st
Ken's Welding and Machine Shop	510 N. Birch
McCormick Excavation and Paving	New: coming in 2017
Ritchey's Redi-Mix Concrete Inc.	509 S. Idlewild
Smithfield Hog Division	110 Detroit
Unger Feedyard	5795 CR 40
Yuma Dairy	8798 CR 39
Yuma Ethanol	CR 38480 CR H
Yuma Redi Mix	200 S. Flagstaff

In this context, existing municipal zoning regulations need to have greater clarity concerning permitted uses for industrial land uses. This need is discussed more fully in Chapter 8 concerning land use regulations.

Light industrial land uses are scattered throughout the City of Yuma. These land uses are primarily concentrated along the rail corridor and within the Yuma Industrial Park. However, many of the properties in Yuma Industrial Park support a variety of commercial land uses.

4.5.2 Recent Light Industrial Expansion

McCormick Excavation and Paving, based in Stratton, Colorado, announced intentions to establish an asphalt plant in the City of Yuma in 2017. This company, which serves clients in Colorado, Kansas and Nebraska, operates facilities in Stratton, Burlington, and Limon, Colorado, as well as Colby, Kansas. Through assistance of the City, McCormick Excavation and Paving was able to locate and purchase a site for the planned asphalt plant near the southeast corner of the City.

The scope of services offered by McCormick Excavation and Paving generally includes earthwork, asphalt sales, paving, crack filling, patching, and chip sealing, asphalt milling, as well as the recycling of asphalt and concrete. The proximity of these capabilities and related assets to the City can be useful to enhance the quality and cost of future street and road improvements in Yuma, as well as future improvements to a proposed community trail system.

4.5.3 Future Industrial Expansion

While some vacant properties within the City limits, e.g., Yuma Industrial Park, may be or eventually become available to support some future industrial expansion, the availability of a new business park that accommodates a combination of commercial and light industrial activities is more likely to attract new light industrial enterprises to the City. As stated earlier, it is essential that municipal land use regulations incorporate appropriate and reasonable site and facility development criteria that enable the compatible development of commercial and light industrial activities in a new industrial/business park.

4.6 COMMUNITY FACILITIES

4.6.1 Type and Location of Community Facilities

Community facilities are privately-owned facilities that are generally available for public use. In Yuma, this includes facilities such as local churches, the Old Thresher's Village facilities, the Yuma Museum, and offices of non-profit organizations (Table 4-7 and Figure 4-5). These facilities are important to the community as they help instill and sustain community values and an appreciation of community history, provide services addressing community issues, as well as provide supplemental recreational opportunities to local residents.

4.6.2 Recent Community Facility Expansion

No new community facilities have been constructed in Yuma between 2015 and 2017. However, St. John's Lutheran Church completed an addition to its facilities in 2015.

Offices for non-profit organizations are situated in various locations in the community. Most of these are located along South Main Street or within offices in the commercial Quintech complex.

TABLE 4-7 COMMUNITY FACILITIES CITY OF YUMA AND WITHIN 3-MILE RADIUS OF CITY	
Facility Name	***Location/Address***
Church of Jesus Christ of Latter-Day Saints	207 S. Kamala Street
Church of Nazarene	505 E. Beatty Avenue
First Presbyterian Church	110 W. 4th Avenue
First Southern Baptist Church	1101 S. Albany
Freedom Fellowship Church	501 S. Main Street
Irrigation Research Foundation Farm	40161 Hwy 59
Faith Bible Baptist Church	3265 CR 38
Kingdom Hall of Jehovah's Witnesses	720 N Detroit
Old Threshers of Yuma	Off CR E between Hoag Ave and Beatty Ave, adjacent to Yuma Fairgrounds
Rural Communities Resource Center (RCRC)	204 S. Main Street
St. John's Catholic Church	508 S. Ash Street
St. John's Lutheran Church	401 South Albany
Seventh Day Adventist Church	6th and Hickory
Yuma Church of Christ	611 N. Albany
Yuma Museum	306 South Detroit
Yuma United Methodist Church	520 W. 4th Avenue

4.6.3 Future Community Facility Expansion

4.6.3.1 Yuma Museum

The Yuma Museum is situated immediately south of the Yuma Community Center on a land parcel owned by the City of Yuma. The historical Blach school house is also situated immediately west of the Museum. These facilities are open to the public and are made accessible by the Yuma Museum Board upon request.

This facility, which opened in the early 1970s, encompasses roughly 4,500 square feet of floor space. The Museum contains various historical items that were obtained or donated to the Yuma Museum during the past 45 years. Unfortunately, the Museum is in need of both structural and roof repairs. The Museum has limited funds available to support the completion of repairs to this facility as fundraising efforts of the Museum Board primarily include an annual ice cream social event where sales are donated to the Museum (Vincent, 2017).

At the time of this report, the Yuma Museum Board is contemplating various options for conveying the history of Yuma and its people to the general public. One option being explored is to expand the Museum to include a 2,100-square foot indoor display area and an 800-square foot outdoor exhibit area. Concurrently, the Museum Board has also requested some financial support from the City of Yuma to help sustain the work of the Yuma Museum.

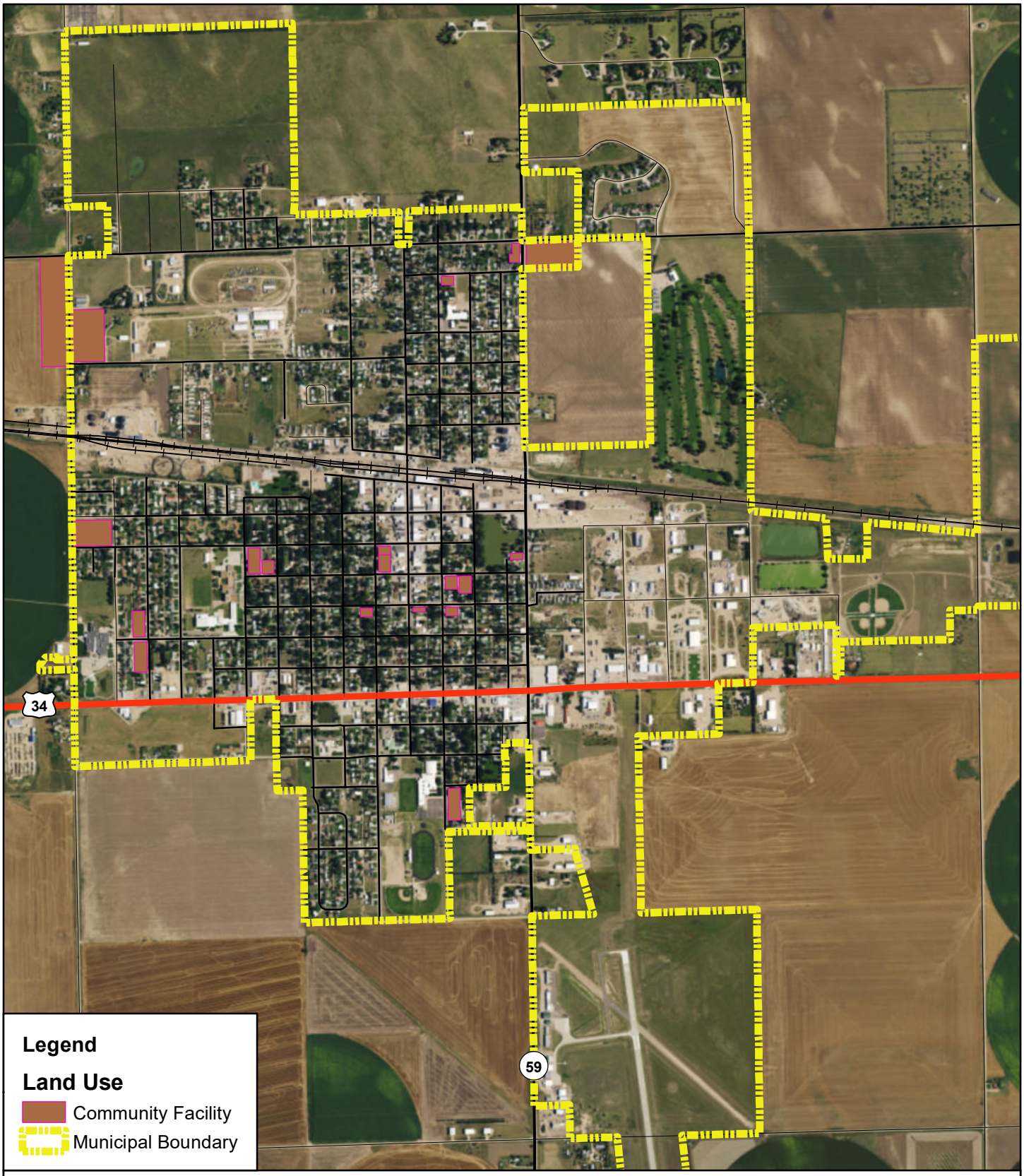

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Figure 4-5

A logical location for the Yuma Museum is in the vicinity of properties owned by the Old Threshers of Yuma along Kamala Street. For example, an undeveloped 10 acre-property owned by the Old Threshers of Yuma is situated immediately west of the existing Old Threshers of Yuma Complex. The proximity of these facilities would enable an expanded presentation of community history in one location. However, Yuma Museum Board representatives point out that it has had discussions with the Old Threshers of Yuma concerning this possibility, but discussions ruled out this option. Yuma Museum officials also believe that its present location along Detroit also generates greater exposure to incoming visitors (Birnie, 2017)

4.6.3.2 Accommodation of Other Community Facilities

Yuma should continue to accommodate community facilities in light of their contribution to the well-being of the community. Most community facilities are generally compatible in residential areas as long as adequate provisions are made for vehicular access and parking and consideration is made of anticipated vehicular traffic. Review and conditional approval processes should be incorporated into municipal zoning regulations to ensure that future community facilities are compatible with adjoining land uses.

Another possible approach to ensuring the future availability of lands for community facilities is the establishment of a zoning district for community facilities and the incorporation of the zoning district in the revision of the existing zoning map for the City of Yuma. This option is discussed more fully in Chapter Eight, Land Use Regulations.

4.7 PUBLIC FACILITIES

Public facilities in the City of Yuma comprise facilities that are owned and operated by the City of Yuma, Yuma County, Yuma School District 1, Yuma Hospital, State of Colorado, and the U.S. Government (Table 4-8). These generally include administrative facilities, multi-purpose community centers, schools, hospital and medical clinics, municipal parks and related recreational facilities, as well as facilities supporting the operation and maintenance of public utilities, emergency response services, and transportation networks. Public facilities associated with municipal utilities are described in Chapter Five. The Yuma Airport, and municipal roads and streets, are discussed in Chapter Six. Recreational facilities are discussed separately in Section 4.8 of this chapter

4.7.1 City Administrative Facilities

The primary public administrative facility in the community is the Yuma Municipal Center on South Main Street. This facility was originally built in 1948, expanded in 1996, and served as the community hospital until 2007. The Yuma Hospital District completed construction of a new hospital along the west end of 8th Avenue (U.S. Highway 34) and opened the facility on June 4, 2007 (Colorado Center for Community Development, 2012). Subsequently, the City of Yuma negotiated acquisition of the former community hospital and occupied the former hospital facility in 2008.

The Yuma Municipal Center houses most of the administrative offices of the City. The facility currently contains the City Council chambers, offices of the City Clerk/Treasurer, City Manager, Public Services Department, Utility Services Department, and the municipal library. The City of Yuma also leases some office space to various Yuma County and State agencies such as the Colorado State

Patrol, Yuma County Economic Development Corporation, and Northeastern Colorado Association of Local Governments Area Agency on Aging, Sexual Assault Response Advocates, Inc. (SARA), Yuma County Human Services, Yuma Municipal Court, and Yuma County Driver's License Department.

TABLE 4-8
PUBLIC FACILITIES
LOCATED WITHIN CITY OF YUMA

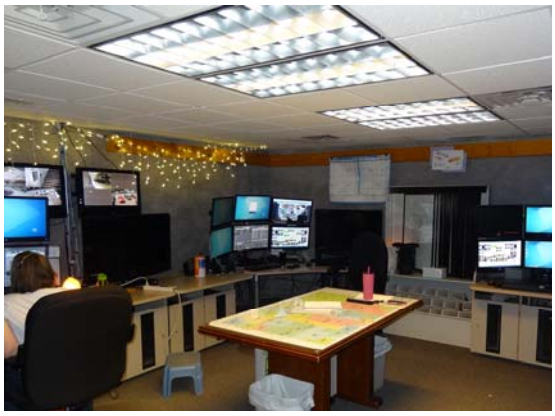
Agency	*Location*
CITY OF YUMA	
Ambulance Service	304 East Second Avenue
Community Center/Senior Center	421 East Second Avenue
Municipal Airport	CO Hwy 59/CR 37
Municipal Center	910 S. Main Street
Municipal Shop	Second Avenue
Municipal Shop and Sanitation	115 W. Railroad Avenue
Police Department	216 East Third Street
Yuma Volunteer Fire Department	210 South Buffalo Street
YUMA COUNTY	
Fairgrounds	410 West Hoag Street
Yuma County Sheriff (Yuma Substation)	501 West Hoag Avenue
Yuma County Government	422 West Hoag Avenue
STATE OF COLORADO	
District Hospital	1000 West 8th Avenue
School District 1: Yuma High School	1000 S. Albany Street
School District 1: Yuma Middle School	500 S. Elm Street
School District 1: Morris Primary School	416 S. Elm Street
School District 1: Little Indians Pre-School	709 W. 3rd Avenue
Colorado Department of Transportation	CO Hwy 59/CR 37
U. S. GOVERNMENT	
U. S. Post Office	315 South Main Street
National Resource Conservation Service	508 East 8th Avenue
JOINT OR OTHER	
W-Y Communications & City Emergency Operations Center	216 West Third Street

Note: Only government facilities are listed. Governmental agencies that are located within a *private* building/facility are not included in this table.

4.7.2 Emergency Response Facilities

The City of Yuma's emergency response agencies include the Police Department, Ambulance Service, and the Yuma Volunteer Fire Department. These agencies are located in separate facilities east of South Main Street between East Second Avenue and East Third Avenue. Other emergency response agencies, which are operated by the Yuma County Sheriff and Colorado State Patrol, are situated in other facilities within Yuma (Figure 4-6).

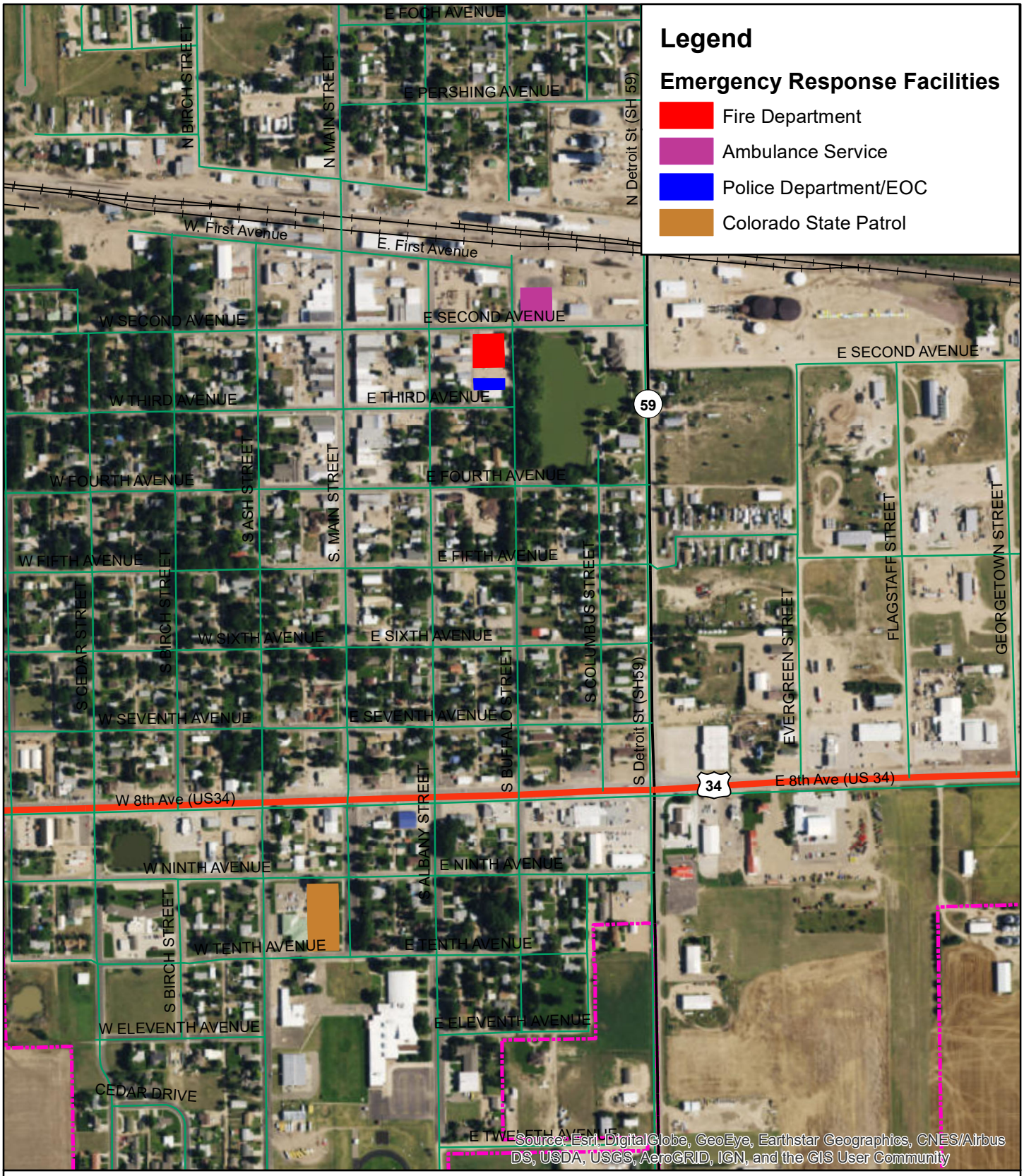
The basement of the Police Department facility houses the W-Y Communications Center and the City Emergency Operations Center. The W-Y Communications Center is the central dispatch that supports all emergency responses in Yuma and Washington counties. In the event of a more significant emergency incident, the Emergency Operations Center is periodically used by City emergency response agencies to coordinate emergency responses with representatives of other municipal, county, State and federal agencies.



4.7.3 Yuma Community Center

The Yuma Community Center represents another important public facility that supports a variety of community activities. Such activities include Tae Kwon Do classes, Seniors Meet and Eat Program, Seniors Strength Exercise Program, a Bridge group, 4-H meetings, Craft Fairs, and Quinceanera celebrations (a Hispanic tradition celebrating a young girl's coming of age on her 15th birthday). Meeting rooms are rented out for private meetings, wedding receptions, funerals, reunions, etc., and has been used for community events like Sunrise Service community worship on Easter Sunday, Knights of Columbus Fish Fry, Ground Hog Suppers, and the Yuma High School Prom (Harms, 2017).

The Community Center's kitchen is the only commercial kitchen in Yuma that is available to the public. The Center also rents the kitchen out to four different catering groups in Yuma.



City of Yuma
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Emergency Response Facilities
City of Yuma

Figure 4-6

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4.7.4 Yuma School District 1

4.7.4.1 Existing Facilities and Enrollment

Yuma School District 1 serves about half of Yuma County. The District's service area encompasses most of the western half of Yuma County and a small portion of the east side of neighboring Washington County. Within the City of Yuma, Yuma School District has three public schools and one preschool facility in the community. These include:

- Little Indians Preschool;
- Morris Elementary School (Kindergarten to Grade 4);
- Yuma Middle School (Grades 5-8); and,
- Yuma High School (Grades 9-12).

Between 2011 and 2017, annual K-12 student enrollments remained around 820 students with little change (Table 4-9). Hispanic or Latino students comprised about 54 percent of the District's school enrollment in 2015-16 and 2016-2017 school years (Chrisman, 2017).

TABLE 4-9
SCHOOL ENROLLMENT TRENDS IN
YUMA SCHOOL DISTRICT 1
SCHOOL YEARS 2011-2012 THROUGH 2016-2017

School Year	*Kindergarten-12th Grade Enrollment (students)*	*Proportion of Students Who Are Hispanic or Latino (percent)*
2011-2012	829	50
2012-2013	816	52
2013-2014	813	53
2014-2015	824	52
2015-2016	821	54
2016-2017	824	54

Source: Chrisman, 2017.

4.7.4.2 Planned Facility Expansion

Yuma School District 1 plans to again pursue approval of a bond issues for the renovation and expansion of Yuma High School in November 2018. A $17 million bond issue was narrowly defeated in November, 2016 by an 85-vote margin. Despite the defeat of the proposed bond issues, Yuma School District 1 has completed a number of facility improvements with funds that remain available (Yuma Pioneer, 2017).

4.7.5 Other Governmental Facilities

Various other public agencies from Yuma County, the State of Colorado, and the U.S. Government also have established offices in the City of Yuma (Refer back to Table 4-8**).**

4.7.5.1 Yuma County Fairgrounds

The Yuma County Fairgrounds is one of the more significant public facilities in the City of Yuma. This complex is used primarily for the annual Yuma County Fair. The Fairgrounds, which encompass 55.7 acres, generally include a rodeo arena and grandstand area, various livestock show facilities, home economic project exhibit facilities, and other support facilities.

4.7.6 Recent Public Facility Expansion

The number of public facilities in Yuma has not increased for several years since the construction of the Yuma District Hospital in 2007. However, a number of public facility relocations have taken place. Some of the relocations have involved Yuma County agencies moving their offices into the Yuma Municipal Center. The inclusion of selected County and State governmental offices into the Municipal Center brings greater convenience to local residents that occasionally need to visit more than one governmental agency. Concurrently, the sharing of office space with selected County and State agencies helps defray a portion of the operation and maintenance costs expended by the City.

4.7.7 Needed Public Facility Improvements

4.7.7.1 Yuma Community Center

This facility requires some improvements and renovation in order to sustain the facility life of this public facility and possibly expand the range of future facility uses. The Community Center facility generally consists of:

- three meeting/activity areas on the ground floor that include a large/main room that opens up to the outdoor patios overlooking Lake Yuma for larger gatherings (capacity 300 persons); a medium-sized room on the west side of the Center (capacity 60 people) that can be expanded into the large/main room; and a third smaller meeting room.
- a large commercial kitchen.
- a second floor/balcony area overlooks the main downstairs meeting room. Exercise and other classes/activities take place on the second floor. An indoor walking path is located along the perimeter of the balcony. The stairs leading up to the second floor are equipped with a stair lift that makes the second floor/balcony area accessible to disabled persons.

Facility management of the Yuma Community Center identified the need for the repair of brick on portions of the east side of the building (Harms, 2017).

Beyond building repairs and potential renovation, the future use and management of the Yuma Community Center should be re-evaluated along with building use policies and user fees. A majority of respondents (55 percent) to the 2017 Community Survey saw a need to improve the Yuma Community Center to allow for more uses of this facility. These issues should be addressed as part of an overall master plan for this facility.

Other rural communities such as Saratoga, Wyoming have learned that a community center serving multiple public uses requires close oversight to ensure that future building uses are adequately marketed, operated and maintained. Further, user fees, fundraising events, and policies must be adequate to support the long-term cost of facility management, operation and maintenance. Community leaders in the Town of Saratoga, Wyoming established a separate community center board and small full-time staff to oversee management of its Platte Valley Community Center (Crimmins, 2017).

Aside from use by the Yuma community, the presence and operation of a multi-purpose community center in the City of Yuma also represents a community asset that can be used to attract future investments in the community. Small conferences, weddings, and business meetings typically bring some visitors to the community. A positive experience at the Yuma Community Center can induce curiosity about the community among incoming visitors; some of these visitors will include small business owners and other potential investors.

4.8 RECREATIONAL AREAS AND FACILITIES

Recreational areas and facilities represent other important community assets that are essential for the well-being of all community residents, as well as those persons residing in close proximity to the City of Yuma (Figure 4-7). These community amenities are also important to sustain the existing workforce and their families, as well as attract new workers to the community.

The City of Yuma owns, operates, and maintains several recreational parks that provide a variety of recreational opportunities.

4.8.1 Municipal Recreational Areas and Facilities

4.8.1.1 City Park

City Park is situated along Park Avenue between Cedar Street and Elm Street (Figure 4-7). The park includes:

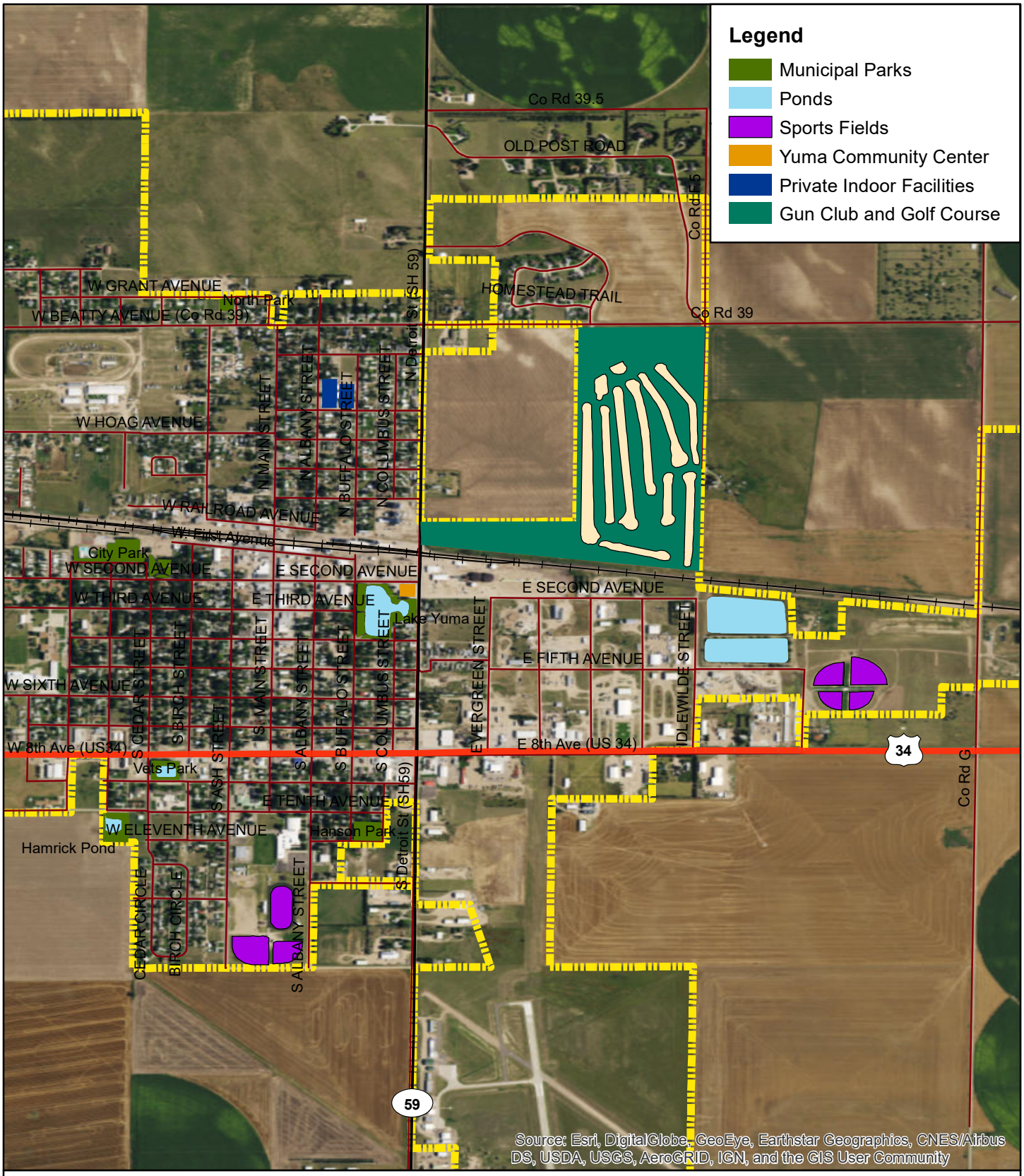
- an outdoor swimming pool complex that is available for open swim, lap swimming, and water aerobics;
- tennis courts;
- skateboard area;
- sand volleyball court;
- children's playground;
- soccer field; and,
- vehicular parking areas.

A grassed, open space area encompasses over half of the park property.

At the time of this report, the City intends to construct a new soccer field on the northeast side of the park. Completion of the field is scheduled for the Fall of 2017.

4.8.1.2 Star Park

Star Park, also known as the old City Park, is adjacent to the east side of City Park (Figure 4-7). This park is the oldest municipal park in Yuma that is named after a concrete star formation located in the southeast corner of Star Park (City of Yuma, 2017). This park includes a four picnic shelters, children's' playground, and grassed open space area.



City of Yuma
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Recreational Areas and Facilities
City of Yuma

Figure 4-7

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4.8.1.3 Lake Yuma

Lake Yuma, also known as the Duck Pond, is located along West Second Avenue between Buffalo Street and Detroit Street (CO Highway 59). This park area includes a paved concrete walkway that extends 2,280 feet around the lake perimeter (City of Yuma, 2017). Picnic sites, park benches, a playground, and a gazebo are situated along this pathway. The Yuma Community Center and Yuma Museum are located along the east side of the park.

4.8.1.4 Pioneer Lake

Pioneer Lake is located along East 5th Avenue and Idlewild. A paved concrete walkway extends 2,340 feet around Pioneer Lake. A few picnic tables are available adjacent to the walkway. A small dock provides opportunity for shoreline fishing.

4.8.1.5 Jeff Armstrong Ball Park

Jeff Armstrong Ball Park is situated on the east side of the City. This park contains four ball fields that accommodate organized baseball and softball league play for T-ball (5-6 years of age), co-ed baseball (7-8 years of age), major league baseball (9-12 years of age), and girls softball (9-12 years of age). These leagues are organized by the City of Yuma Recreation Department.

The ballfield facilities are also available for Informal baseball and softball play when the fields are not scheduled for league play.

4.8.1.6 Veterans' Park

Veterans' Park is adjacent to the south side of U.S. Highway 34 between South Cedar Street and Birch Street. This park comprises a Veterans' Memorial, picnic tables, and a concrete walkway that extends 930 feet around the perimeter of the park (City of Yuma, 2017). This park is also immediately adjacent to Yuma Life Care Center; consequently, the park provides a convenient recreational amenity to residents of this senior housing facility.

4.8.1.7 Hansen Park

Hansen Park is located on the south side of the City and east of Yuma High School between South Buffalo Street and South Columbus Street. This park includes uncovered picnic tables, children's playground, and grassed open space area.

4.8.1.8 North Park

North Park is a small neighborhood park situated along the City's northern boundary. This park includes a gazebo with picnic tables and a playground for children.

4.8.2 Other Recreational Facilities in the City of Yuma

Other important recreational assets in the community include gymnasium and recreational fields that are owned, operated and maintained by Yuma School District 1. These facilities are shared with the City of Yuma to enable the delivery of several indoor and outdoor recreational programs that are organized by the City of Yuma Recreation Department.

4.8.2.1 Morris Elementary School Gymnasium

Organized Indoor recreational programs are held at Morris Elementary School for soccer and volleyball. Indoor soccer programs for kindergarten through 3rd grade take place in the school gymnasium during the months of February and March. The gymnasium is also used to support the Wee Volleyball program for kindergarten-4th grade children in August and September.

4.8.2.2 Yuma Middle School

A flag football program for kindergarten through 3rd grade children takes place on the football field in August and September.

Fifth and sixth grade children participate in an organized volleyball program held at the gymnasium during August, September, and October.

4.8.2.3 Yuma High School

The Yuma High School Track is used by the City of Yuma for the delivery of organized track and field activities in March and April.

4.8.3 Planned Recreational Improvements

The City of Yuma Parks Department has recently outlined plans for various improvements to municipal parks. These planned improvements are summarized in Table 4-10.

TABLE 4-10 PLANNED PARK IMPROVEMENTS CITY MUNICIPAL PARKS		
Park	***Planned Improvements***	***Anticipated Cost (dollars)***
City Park	ADA compliant playground surfacing	$10,000
	Concrete curbing around playground area	3,000
	Replace old tennis court surface with "sport court"	50,000-85,000
	New park sidewalk	34,496
Lake Yuma	Add riprap and fill material to banks of lake	N/A
	Install steel landscape bridges near old school house and community center	N/A
	Install a windmill aeration system	1,500
Star Park	Improve surface stormwater flow from Park Ave./Cedar Street	N/A
	Possibly add sidewalk along west park boundary	N/A
Hansen Park	Replace existing concrete picnic tables with new tables	N/A
Source: Wills, 2017.		

4.8.4 Future Recreational Expansion

Results from stakeholder interviews of various community leaders, as well as responses to the 2017 Community Survey, indicate relatively strong support for the development of a community recreational center, a community trail or pathway system, and a new community swimming pool. Residents participating in the July 31 Community Workshop concerning recreational opportunities added further insights about the scope of the potential recreational development opportunities.

4.8.4.1 Community Recreation Center

Sixty-one percent of those responding to the 2017 Community Survey expressed their agreement with a survey question proposition that stated: *There is a need for a new indoor recreation center that offers a variety of recreational opportunities.* In a subsequent July 31 Community Workshop concerning recreational opportunities, six groups of about five persons per group reported that the indoor recreational center should provide a wide range of indoor opportunities. The prominent recommendations, which received greater concurrence among all groups, included a basketball court, racquetball court, pickle ball court, an indoor/outdoor swimming pool, rock climbing wall, and cardio studio/fitness room.

Community Workshop

RESPONSES TO QUESTION 2: What recreational activities should be incorporated into an indoor recreational center?						
Recommendation	***Group 1***	***Group 2***	***Group 3***	***Group 4***	***Group 5***	***Group 6***
Basketball court	●		●	●	●	
Racquetball court	●	●	●	●	●	
Pickle ball court	●	●	●		●	
Indoor/Outdoor swimming pool	●	●		●	●	●
Weight room	●		●			
Rock climbing wall	●		●	●	●	
Locate rec center where existing pool is	●					
Gymnasium		●				●
Indoor walkways		●				
Community space		●				
Multi-purpose rooms			●			●
Cardio studio/Fitness room			●	●	●	●
Children rooms/Play area			●	●	●	
Community garden			●			
Classrooms			●		●	●
Child care room			●		●	
Indoor firing range				●		
Party area for rental					●	
Splash pad for seasonal use					●	
Kitchen leased to private café concessionaire						●

The northwest corner of City Park could likely accommodate an indoor recreation center. There is, at least, one acre of land available north of the existing swimming pool if the existing tennis courts were to be removed. Given the poor, unplayable condition of these courts, the removal of these courts would not represent a loss in recreational assets at City Park. With removal of the existing swimming pool, the potential building site could incorporate, at least, another 18,900 square feet, or about 0.43 acre of land area. Consequently, there is almost 1.5 acres of land area that could be used for the indoor recreation center and related vehicular parking area.

Another potential location is developed City lands that are situated east of Jeff Armstrong Ball Park. This park is located on a 38.9-acre parcel owned by the City of Yuma. Roughly half of the site is used for the ball fields and related vehicular parking. Consequently, a considerable amount of land area is available at this location to support the indoor recreational facility.

In advance of specific site selection, a facility master plan should be prepared for the proposed indoor recreational center. The master plan should determine desired floor space needs and vehicular parking area requirements, facility management, operation and maintenance requirements, as well as preliminary costs for site and facility development, fixed furniture and equipment requirements, and long-term facility operation and maintenance. Completion of a master plan will ensure that:

- The selected site contains adequate land area for the indoor recreational center.
- The City is aware of the extent of costs necessary to support the development and operation of an indoor recreational center.

4.8.4.2 Community Swimming Pool

As part of the 2017 Community Survey, 69 percent of respondents expressed agreement with the proposition that the City of Yuma needs a new public swimming pool. During the subsequent July 31 Community Workshop concerning recreational opportunities, six groups of about five persons also addressed the following question: *What amenities should be incorporated in the development of a new swimming pool?*

RESPONSES TO QUESTION 3: What amenities should be incorporated in the development of a new swimming pool?

Recommendation	*Group 1*	*Group 2*	*Group 3*	*Group 4*	*Group 5*	*Group 6*
Splash pool		●	●	●	●	●
Zero entry		●	●		●	
Slides		●	●		●	
Lap Swim		●	●		●	●
Physical therapy		●				
Indoor pool			●			●
Indoor /Outdoor Pool				●	●	
Multiple smaller pools			●			
Grassy area outside of sun			●	●		
Locker rooms			●			
Steam sauna			●			
Diving boards			●			
Conveniently accessible location			●			
Child play area				●		
Lily pads					●	
Fountains					●	
Shade around pool						●

The amenities that received greater concurrence included a swimming pool that would accommodate lap swim and contain a splash pool. Other amenities given importance included zero entry and slides. Residents also expressed other creative ideas that are included in the preceding table. It is also important to note that two of the six workgroups at the Community Workshop also recommended an indoor/outdoor pool.

In the context of resident recommendations for both the community center and the swimming pool, there appears to be relatively strong support for development of an indoor/outdoor swimming pool within a larger indoor community recreation center. While this type of swimming pool may be preferred, the cost of developing, operating and maintaining a year-round swimming facility may be cost prohibitive. But this option should not initially be ruled out and should be considered as part of an overall facility master plan for an indoor recreation center.

The inclusion of a community swimming pool, whether indoor, outdoor, or indoor/outdoor pool, within an indoor community recreation center is prudent. An indoor community recreation center can bring together several types of recreational activities into one location. Parks/Recreation Department staff assigned to work at a recreational center could be used to oversee and support the operation of the swimming pool along with various other recreational activities at one location.

4.8.4.3 Community Trail or Pathway System

Community Preferences

Fifty-three percent of the respondents to the 2017 Community Survey supported the need for a community pathway or trail system for walking, biking, and/or jogging. During the July 31, 2017 Community Workshop, participating residents outlined various routes for a community trail system. There was some consensus among six small groups that examined the question: *Where should a community trail be located?*

RESPONSES TO QUESTION 1: Where should a community trail be located?						
Recommendation	***Group 1***	***Group 2***	***Group 3***	***Group 4***	***Group 5***	***Group 6***
Wrap around golf course, cemetery, & Old Post Road	●		●			●
Pave E5th Avenue through Industrial Park	●			●		
Add pedestrian access to Kamala Street	●					
Pavements		●				
Baseball fields			●	●	●	●
Ponds			●			
Fairground			●			
Yuma Hospital			●		●	
City Parks			●			
Countryside			●			
Community Center to Pioneer Lake via 2nd Ave				●		
Evergreen Street				●		
High School						●
Connect to Veterans Park						●
Trail width to accommodate people and bikes						●

Most residents participating in the July 31 workshop recommended that the trail system should, in part, include a trail around the ball fields at Jeff Armstrong Ball Park. Two of the six groups considering the trail system also recommended that the trail system connect to Yuma Hospital where there is a fitness trail that fronts the hospital complex, as well as pass through the Yuma Industrial Park via East 5th Avenue. When resident responses are considered on a cumulative basis, it appears that residents would also prefer to see the community trail extend to all existing municipal parks, the high school, the County Fairground, the golf course, cemetery, and along other selected streets.

Design Criteria for Pathway or Trail System

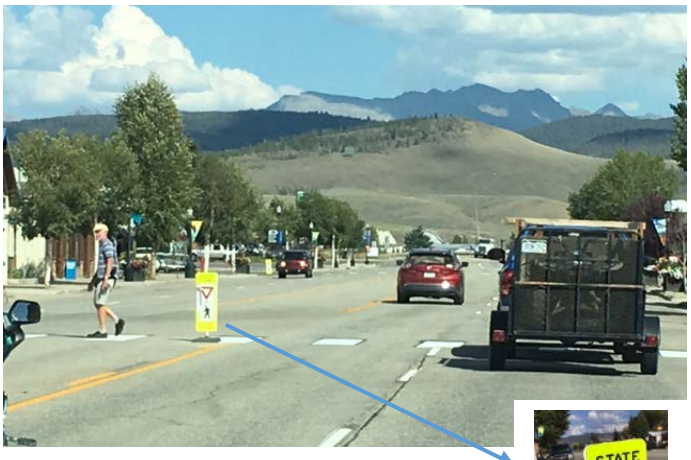
Community pathways or trail systems ideally connect residents to recreational areas, shopping areas, schools, churches, and places of employment. When feasible, it is also desirable for the overall trail system to pass near all residential areas so that all residents will be encouraged to use the trail. Community trail systems represent a recreational asset and a concurrent opportunity to enhance the personal health of local residents. Trails enable families and friends to get together, move about, and experience the community in another way.

While community trails afford countless benefits to the community, they can also pose potential hazards unless consideration is made of potential land use conflicts with pedestrians, bicyclists, and joggers. In the City of Yuma, the three greatest hazards include the Burlington Northern Santa Fe (BNSF) rail corridor, U.S. Highway 34, and Colorado Highway 59.

- Within the municipal boundary, the BNSF rail corridor crosses three potential streets that could be incorporated into an overall community trail system. These streets include Kamala Street, Detroit Street, and CR G. Ideally, trail crossings would be limited to two points. Such crossings would have to include, at least, at-grade rail crossings, a gate with adjoining fencing, and signage advising residents how, when and where to cross the rail corridor. Any crossings would also require the approval of the Burlington Northern Railway.

- U.S. Highway 34 contains four lanes of vehicular traffic that make highway crossings by pedestrians, bicyclists, and joggers unsafe except where there are designated crosswalks and related traffic signalization. Safe crossings are only available at the intersections of U.S. Highway 34 at Main Street and Detroit Street (Colorado Highway 59).

- Colorado Highway 59 is a two-lane highway that extends north and south through the City of Yuma. Safe crossings are available only at its intersection with U.S. Highway 34. Crosswalks would need to be established at any other crossing point along Colorado Highway 59. Additional portable signage would also be necessary at any crosswalk to remind motorists that they must yield to pedestrians in a designated crosswalk.



Various communities in Colorado have extensive community trail systems. Many are paved with either concrete or asphaltic surfaces; others contain gravel or other type of aggregate surface. While desirable, the development of an extensive community pathway or trail system can be costly. However,

the cost of constructing a community pathway system should not dissuade the City of Yuma from establishing one. Community trail systems represent an important amenity that will continue to be important to existing residents, as well as incoming workers and their families that will eventually reside in the community. Secondly, many street rights-of-way in the City of Yuma already contain sidewalks. Further, paved walkways are already available at Veterans' Park, Lake Yuma, Pioneer Lake, Yuma Hospital, Main Street, and along the frontage of all public schools. The connection to these community assets and other facilities can initially be achieved by the installation of a steel fence post with an attached small plate that reads*: Yuma Community Trail*. These markers would initially be installed at the beginning and end of each block that is included in the community pathway.

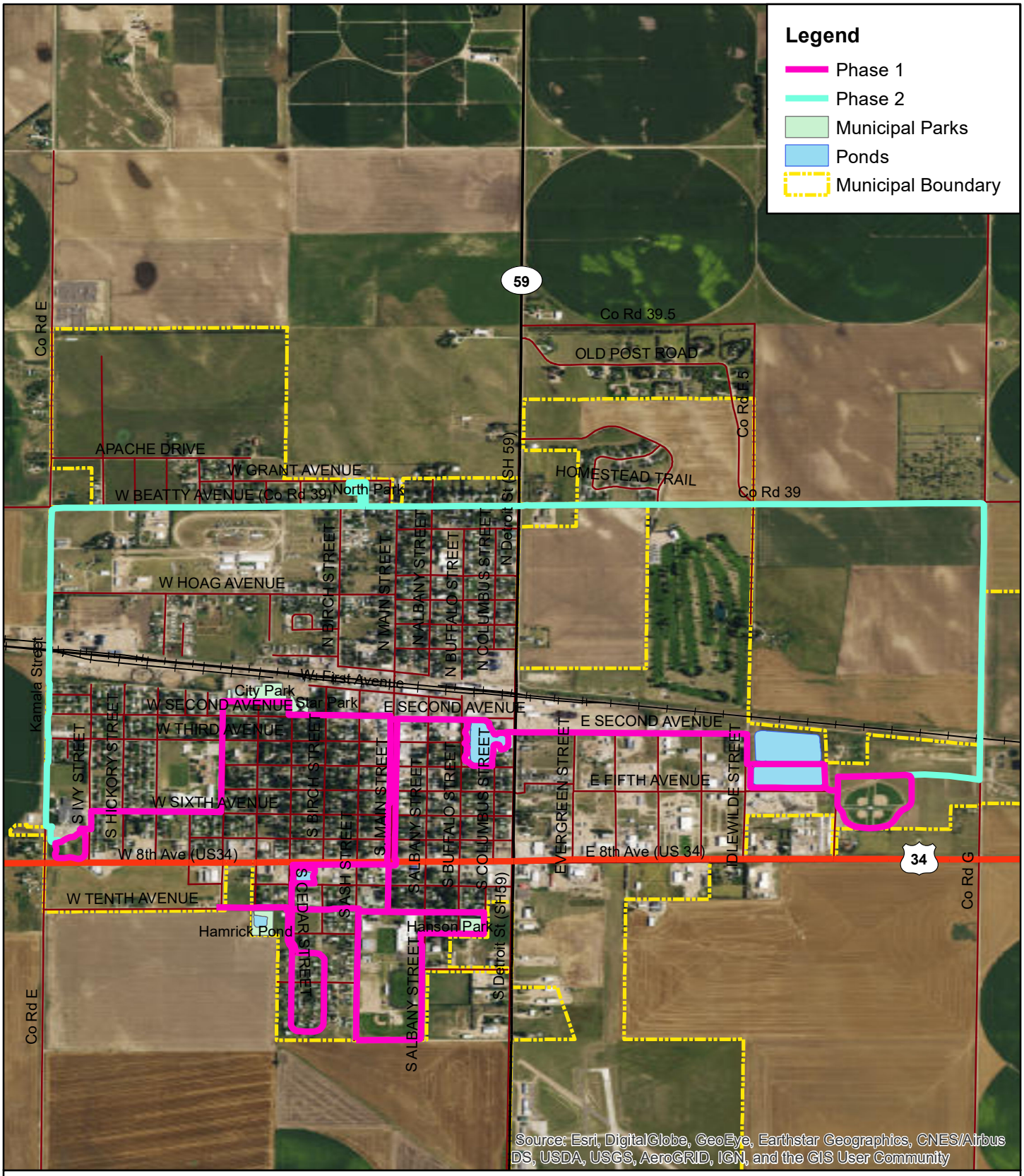
As public use of the overall community trail system increases, some segments of the pathway may need to be enhanced with the construction of a new paved concrete or asphalt sidewalk. But these improvements can be undertaken as greater use of the trail system is realized, the City budgets some funds for future trail improvements, and available grant opportunities are pursued. The construction of new sidewalks along the community trail route should also be accomplished in conjunction with the paving or re-paving of municipal streets that are located along the community pathway route.

Higher use segments of the community trail are recommended to be a minimum of 8-10 feet wide in order to accommodate shared uses of the trail by persons walking, jogging, and bicycling. At a point where higher bicycle traffic becomes a reality along one or more segments of the trail system, selected segments of the trail can be signed to indicate which users have the right-of-way, or striping can be installed to define where bicycle traffic should travel.

In various residential areas, existing sidewalks in Yuma have widths of less than three feet along some street right-of-ways. Other residential areas have no sidewalks along street or road right-of-ways. Where limited or no sidewalks are present, it is recommended that a bicycle lane be established via striping along the existing street that adjoins the community pathway route. The segregation of bicycle traffic from pedestrians and joggers in these areas will help avoid user conflicts and enhance user safety.

Implementation Strategy

A plausible approach to establishment of a community trail system is to review and adopt a recommended route for the proposed community trail system (Figure 4-8). This proposed system is based upon consideration of the insights received from residents during the July 31 Community Workshop, consultation with the City Parks Department, the experience of PPC, and a block-by-block evaluation of potential constraints and opportunities along the proposed trail route. If desired, the recommended route can be further revised to address other issues and opportunities.



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Proposed Community Trail System
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Figure 4-8

As proposed in Figure 4-8, the community pathway should be established in two phases. The first phase should include all designated trail routes south of BNSF rail corridor. The City Parks Department will need to procure and install steel fence posts with a small steel plate (which reads "*Yuma Community Trail*") at the beginning and end of each block along the proposed trail route. The trail sign should be located somewhere in the street right-of-way, but not within the graded road or paved street. The opening of the community trail should be publicized in the Yuma Pioneer along with an illustration of the trail route.

As Phase 1 improvements are being completed, appropriate BNSF representatives should be contacted to confirm and approve design and construction criteria for rail crossings at Kamala St and CR G. Once an agreement is accepted by BNSF, the City will need to make necessary improvements at each rail crossing. Subsequently, the City Parks Department could proceed with the installation of signage at the beginning and end of each block north of the BNSF rail corridor.

4.8.4.4 Other Recreational Opportunities

The fourth question posed to those residents attending the July 31 Community Workshop asked*: Are there other recreational needs that need to be addressed?* Responses summarized in the following table provided a variety of creative recommendations.

RESPONSES TO QUESTION 4: Are there other recreational needs that need to be addressed?						
Recommendation	***Group 1***	***Group 2***	***Group 3***	***Group 4***	***Group 5***	***Group 6***
Splash park					●	
Dog park					●	
Soccer fields				●	●	
Rock wall					●	
Parks/activities for 0-5 year old children					●	
Gymnastics					●	
More fencing around parks					●	
More picnic seating in shaded areas					●	
Indoor activities, e.g., art, music					●	
Pump track for bikes				●		
Ice skating				●		
Open bowling alley	●		●			
Handicap accessible sidewalks			●			
Stroller friendly sidewalks			●			
Youth programs	●					
Billiards area	●					
Update slides at parks						●
More shade at parks						●
More benches at parks						●
Restrooms at parks						●
Garden area in older part of City park						●

Only two of the recommendations were recommended by more than one group. These included the opening of a bowling alley and soccer fields.

Bowling alleys are commonly private enterprises that are operated and maintained by companies or a sole proprietor from the private sector. Consequently, the City Parks Department should not attempt to establish this type of recreational opportunity.

In contrast, soccer fields are commonly constructed by municipal or county recreational agencies for public use. Soccer participation is a growing recreational activity that can be an important recreational amenity to the dependents of an incoming workforce. At the present time, a soccer program is already organized and promoted by the City of Yuma. But, in other communities, organized soccer programs are frequently organized and managed by local volunteers and their related association with U.S. Youth Soccer or American Youth Soccer Organization (AYSO) or other national soccer organizations. In view of the limited staff resources devoted to parks and recreation, it is recommended that the City construct one or two soccer fields on undeveloped municipal property that are situated east of the ball fields at Jeff Armstrong Ball Park. The City Parks Department should subsequently seek volunteers from the community to establish and manage an organized soccer program.

The soccer field dimensions should ideally conform to the FIFA Laws of the Game or U.S. Youth Soccer, AYSO or other national organizations. If field dimensions are 130 feet long x 100-feet wide, then any field dimension can be marked off to accommodate play by various age groups ranging from under six years of age through adult play (Table 4-11).

TABLE 4-11
SOCCER FIELD DIMENSIONS
RECOMMENDED BY U.S. YOUTH SOCCER

Age Group (years of age)	*Field Length (yards)*		*Field Width (yards)*		*Goal Size (feet)*
	Minimum	*Maximum*	*Minimum*	*Maximum*	
Under 6	25	35	15	25	4 x 6 or smaller
Under 8	25	35	15	25	4 x 6 or smaller
Under 10	55	65	35	45	6 x 18 or 6 x 12
Under 12	70	80	45	55	6 x 18 or 7 x 21
Under 14	100	130	50	100	8 x 24
Under 16	100	130	50	100	8 x 24
Under 19	100	130	50	100	8 x 24

Note: The Colorado Soccer Association is one of 55 state associations that are members of U.S. Youth Soccer.
Source: U.S. Youth Soccer, 2017.

CHAPTER FIVE
MUNICIPAL UTILITIES

5.1 INTRODUCTION

Chapter Five examines three municipal utility systems that are owned, operated and maintained by the City of Yuma. These systems include:

- water supply, storage, and distribution system;
- wastewater collection, treatment, and disposal system; and,
- electrical energy distribution system.

Each of these systems are critical to the support of existing and future land uses in the community, as well as essential to enable potential land use expansion in the coming decade.

5.2 WATER SYSTEM

5.2.1 Service Area

The municipal water system serves the entire community, as well as a number of customers in the adjoining unincorporated area of Yuma County (Figure 5-1). In 2016, the municipal water system provided water service to about 1,602 metered taps. At least 1,247 of the taps served residential land uses.

5.2.2 Water Consumption

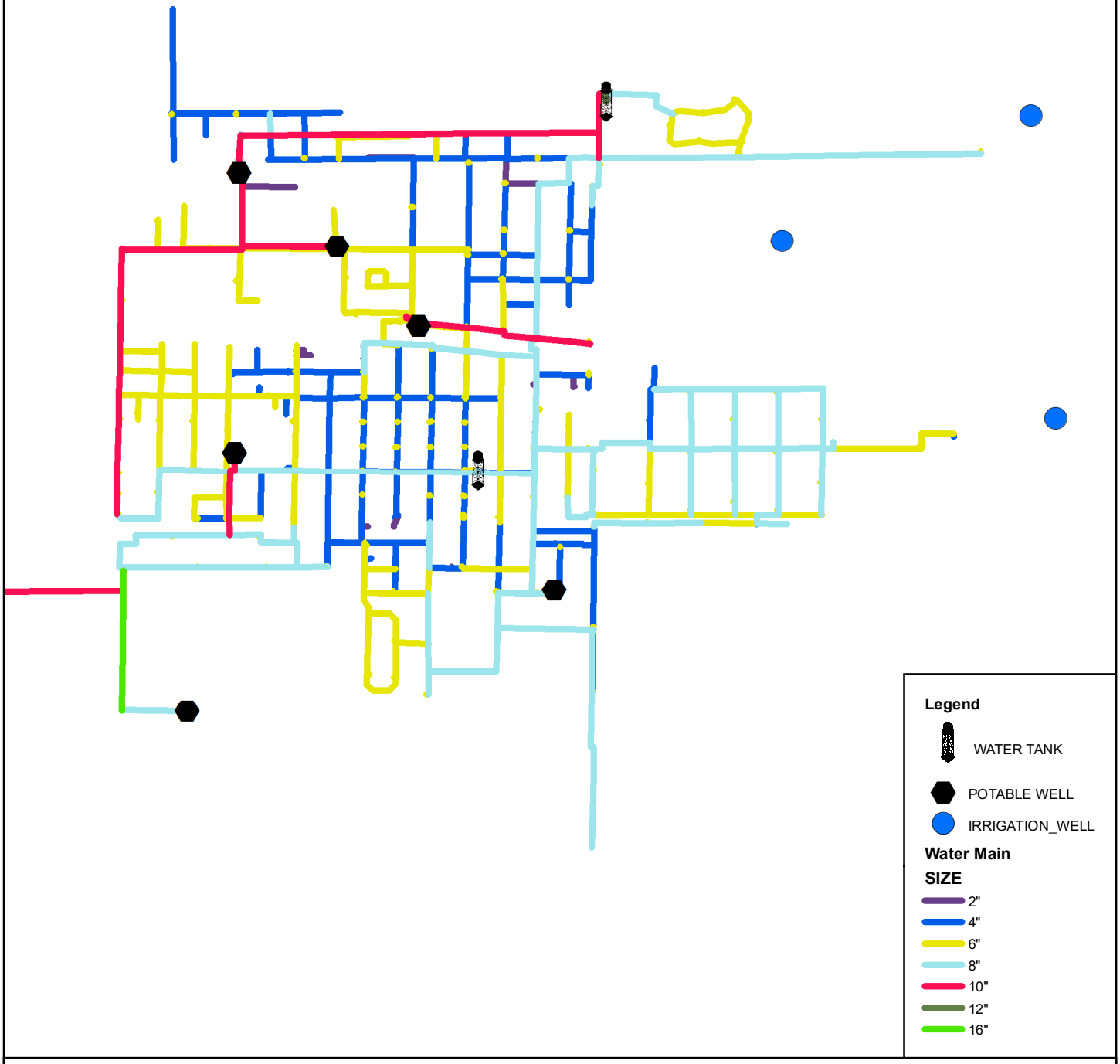
5.2.2.1 Water Demands in 2017

Available pump records for all municipal groundwater wells indicate that the City annually consumes almost 1.0 million gallons of water per day, or about 1,100 acre-feet (AF) per year, of water (Strait, 2017). In 2016, ground water pumped from municipal potable and irrigation wells totaled 975,776 gallons per day.

Potable water consumption for domestic uses in 2016 represented roughly 997 AF/year, or approximately 890,072 gallons per day (Strait, 2017). This volume equates to a per capita consumption of about 244 gallons of water per day.

A review of metered water consumption data for 2016 provides some insight concerning overall water consumption by the Yuma community (Table 5-1). Available data for 2016 presents consumptive volumes for residential and commercial accounts, tax exempt public and community facilities, and metered uses of the City of Yuma.

Roughly 67 percent of all metered consumption in 2016 represented residential water use. Parrish Care Center and Yuma Life Care center represent commercial accounts and High Plains Manor is a Tax Exempt account (Wells, 2017). Consequently, the consumption of water by these residential facilities are not included in residential water volumes.



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Municipal Water System
City of Yuma

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Figure 5-1

TABLE 5-1
2016 METERED WATER CONSUMPTION
(In Thousands of Gallons)

Month	Residential	Commercial	Tax Exempt	City of Yuma	Total
January	6,623	2,550	485	7	9,665
February	5,536	2,258	562	5	8,361
March	6,627	3,117	734	1,694	12,172
April	7,141	2,648	642	1	10,432
May	8,531	2,942	1,667	1,553	14,693
June	20,664	5,047	3,741	3,776	33,228
July	20,022	3,832	4,362	7,123	35,339
August	21,502	4,516	4,366	8,512	38,896
September	25,509	5,287	4,647	4,053	39,496
October	15,308	3,649	2,668	1,327	22,952
November	10,791	2,968	1,746	3,386	18,891
December	7,096	2,835	633	379	10,943
TOTAL	**155,350**	**41,649**	**26,253**	**31,816**	**255,068**

Source: City of Yuma, 2017.

When residential water consumption data is correlated with the number of housing units observed during the March 2017 land use inventory, it is evident that single family residential households in 2016 annually consumed an average of about 112,166 gallons, or about 307 gallons per day. Assuming an average of 2.21 persons per household, each resident consumed an average of roughly 139 gallons per day.

There are many factors influencing household water consumption. However, typical daily household uses suggest that average household consumption should be closer to 200 or less gallons per day. The disparity of this rough estimate of household water needs and actual consumption suggests that other factors, e.g., seasonal lawn irrigation, leaks in connections from houses to meters, are significantly influencing the higher rate of household water consumption.

Monthly residential water consumption data reveals that summer and fall consumption is two to four times winter consumption rates. Residential water consumption in the month of September 2016 indicates an average household consumption of about 614 gallons per day compared to approximately 139 gallons per day in February.

Ultimately, steps need to be taken by the City of Yuma to discourage excessive water consumption. The adoption and use of an increasing block rate structure or seasonal rate structure that discourage water consumption over a reasonable amount of household water consumption is a useful tool to achieve greater water conservation. This approach, as well as other rate structures, should be examined to encourage greater water conservation by residential users.

It is also apparent from the review of water pump records for the City's potable wells that a portion of potable water supplies are used for irrigation. In the absence of a more critical evaluation of

irrigation uses, it is believed that the City should examine the type of irrigation sprinkler systems being used for seasonal lawn applications. Existing consumption of groundwater supplies for irrigation appears to be excessive.

5.2.2.2 Anticipated Water Demands

During the coming decade, the demand for water to support domestic uses will rise with a growth in resident population and related land use expansion. Should domestic water consumption continue at a rate of about 244 gallons per capita per day, average day demands can be expected to rise to about 990,000 gallons per day by 2027 (Table 5-2). If maximum day demands in the coming decade represent a factor of 1.9366 x average day demand, maximum day demands are anticipated to increase to roughly 1.9 million gallons per day in 2027.

TABLE 5-2
ANTICIPATED WATER DEMAND FOR POTABLE WATER CONSUMPTION
CITY OF YUMA
2017-2027

Year	*Population*	*[1] Average Day Demand (Number of Gallons)*	*[2] Maximum Day Demand (Number of Gallons)*
2016	3,642	890,072	N/A
2017	3,659	892,796	1,728,989
2018	3,689	900,116	1,743,165
2019	3,706	904,264	1,751,198
2020	3,723	908,412	1,759,231
2021	3,844	937,936	1,816,407
2022	3,861	942,084	1,824,440
2023	3,878	946,232	1,832,473
2024	4,002	976,488	1,891,067
2025	4,021	981,124	1,900,045
2026	4,040	985,760	1,909,023
2027	4,057	989,908	1,917,056

Notes: 1) Based on a consumption rate of 244 gallons per day per person. 2) Based on a rate of 244 gallons per day per person times a peaking factor of 1.9366.

Sources: City of Yuma, Pedersen Planning Consultants, 2017.

The City of Yuma has 1,863 acre-feet (AF) per year, or about 1,663,193 gallons per day, of supply from the Ogallala aquifer that are appropriated for potable water uses (Strait, 2017). At first glance, the community's potable consumption of about 890,072 gallons per day in 2016 suggests that roughly 0.773 million gallons of supply remain available to support future land use expansion.

However, the anticipated maximum demand of roughly 1.9 million gallons per day by 2027 for potable water consumption would exceed this authorized maximum appropriation volume. A water system is ideally designed such that source capacity alone is able to meet, and preferably exceed,

the widely used and accepted standard of maximum day demand (Washington Department of Health, Division of Environmental Health, Office of Drinking Water, 2009).

5.2.3 Water Supply, Capacity, and Treatment

5.2.3.1 Ground Water for Potable Water Uses

The water system includes seven groundwater wells that are used for potable water uses. These wells draw from the Ogallala Aquifer (Figure 5-1). The Utility Services Department disinfects the water supplies at each well through the application of a 10 percent sodium hypochlorite solution.

Available pump records for the seven potable wells provides insight concerning the volume of water produced at each well and the maximum appropriation authorized for each well source (Table 5-3).

TABLE 5-3
POTABLE WELL PRODUCTION
CITY OF YUMA
November 2015-October 2016

Month	Mitchell *Acre Ft.*	Shop *Acre Ft.*	W. School *Acre Ft.*	Hansen *Acre Ft.*	Hamrick *Acre Ft.*	Koenig *Acre Ft.*	Fair-grounds *Acre Ft.*	
Nov '15	0.67	0.14	44.03	0.13	0.12	0.10	0.1070	
Dec '15	0.76	0.16	42.54	0.10	0.08	0.10	0.1135	
Jan '16	0.33	0.19	5.38	34.48	0.09	0.08	0.1105	
Feb '16	0.86	0.15	0.13	41.49	0.08	0.19	0.1258	
Mar '16	11.71	0.16	0.13	31.34	0.08	0.07	0.1013	
Apr '16	10.99	37.57	0.11	0.69	0.05	0.04	0.9053	
May '16	38.60	22.14	0.71	11.40	0.07	0.08	0.1473	
Jun '16	79.60	0.13	0.09	46.23	0.10	0.14	0.0982	
Jul '16	66.60	0.13	71.66	1.05	0.00	20.67	3.3205	
Aug '16	8.65	30.60	28.83	0.12	0.00	83.54	0.1412	
Sep '16	0.12	65.74	53.29	0.10	0.00	5.10	0.1320	TOTAL
Oct '16	0.27	48.37	42.00	0.09	0.27	0.07	0.1013	ALL WELLS
AF Used	**219.16**	**205.48**	**288.90**	**167.22**	**0.94**	**110.18**	**5.4039**	**997.2839**
AF Appropriated	**280.00**	**380.00**	**400.00**	**220.00**	**200.40**	**162.70**	**220.00**	**1863.10**

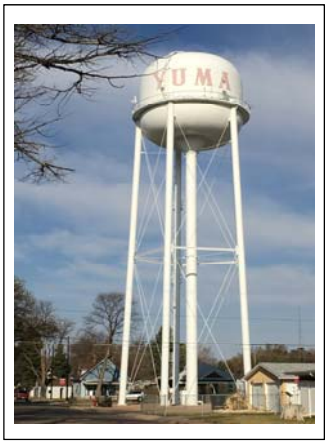
Note: 1 AF (Acre Feet) per Year = 892.75 gallons per day

Source: City of Yuma, Utility Services Department, 2017.

5.2.3.2 Ground Water for Irrigation Uses

The municipal water system also includes three groundwater wells that are used for irrigation purposes (Figure 5-1). The City has about 420 AF/year, or about 374,955 gallons per day, of supply appropriated from the Ogallala Aquifer for irrigation purposes. The City's present consumption of about 96 AF/year, or 85,704 gallons per day, of this supply per year indicates that the City has a significant volume of water that could be used to support future irrigation water uses.

5.2.4 Water Storage



Water storage facilities supporting the municipal water system include two elevated, steel water storage tanks (Figure 5-1). The largest tank, which was built in the late 1970s, has a capacity of 750,000 gallons. A smaller 250,000-gallon tank was built in the 1950s.

The City of Yuma Utility Department contracts divers to enter existing storage tanks about once every five years. Selected contractors clean and inspect the tanks, remove any sediment in the tank, as well as recommend any needed repairs. The most recent inspection of both tanks was completed in June 2015 by Inland Potable Services, Inc.

During the June 2015 inspection, Inland Potable Services, Inc. identified and completed some minor repairs to the larger tank as some spalling was found on this tank. Inspection of the smaller 250,000-gallon tank revealed the presence of some holes in the roof of the tank, as well as the need for some epoxy applications to the tank interior. These repairs were completed in January 2017 (Strait, 2017). Otherwise, related inspection reports by the contractor indicated that the exterior, interior, and foundation of both storage tanks remained in good condition (Inland Potable Services, 2015).

5.2.5 Water Distribution

The distribution system includes a combination of older cast iron and ductile iron pipe, as well as polyvinyl chloride (PVC) pipe. Since 1970, PVC pipe has been used for pipe replacements. The Utility Services Department sees the need to gradually replace all cast iron and ductile iron pipe due to the age of existing pipe.

The City water distribution system includes 156 hydrants. The hydrants range in age from 1913 to 2016 (Strait, 2017). Even though the Utility Department has not encountered any significant issues with older hydrants, it is recommended that a gradual replacement of older hydrants be programmed and budgeted.

Insurance Services Office, Inc. (ISO) periodically conducts a Public Protection Classification (PPC) survey in the City of Yuma. The most recent survey was completed on June 5, 2014. The survey enables ISO to complete an analysis of the structural fire suppression delivery system. Results from the survey are used as part of the underwriting process of insurance companies that determine rates for fire and property insurance coverage. One aspect of the survey involves the monitoring of flows that are available from selected fire hydrants on the water distribution system.

During the June 2014 field survey, six hydrants were observed to contain a residual pressure ranging between 24 and 57 psi. ISO requires a minimum residual pressure of, at least, 20 psi for hydrants operating in a water distribution system. Necessary flow rates used by ISO reflect standards to characterize system conditions, but may not reflect the flows required for fire suppression. Various factors, e.g., pipe size, influence the rate of flow available for fire suppression. A hydraulic capacity analysis would help reveal any potential improvement needs at any fire hydrant location.

5.2.6 Planned System Improvements

There are no formally adopted water system plans that have recently been completed for the City of Yuma (Strait, 2017). Such a plan would typically examine anticipated water demands, outline future improvements to municipal groundwater wells, water storage tanks, distribution system, as well as operation and maintenance procedures. Anticipated costs for recommended improvements would also be determined to facilitate the determination of budgets for future capital improvements. The system plan would also evaluate the adequacy of the existing rate structure and service fees, as well as potential sources of funding that might be available to support the construction and installation of planned facility improvements.

The development of a detailed water system plan is beyond the scope of the overall Yuma Comprehensive Plan. In the absence of a water system plan, the experience and insights of the Utility Services Department personnel, and other recommendations presented in the Comprehensive Plan, point to the need for some technical evaluation of the water distribution systems, as well as a number of physical improvements to the water distribution system.

5.2.6.1 Hydraulic Capacity Analysis

The completion of a hydraulic capacity analysis of the water distribution system is a necessary evaluation to help the Utility Services Department determine the adequacy of existing piping, valves, fire flow pressures, and other appurtenant facilities. This task is typically performed by engineers within municipal public works organizations or personnel from consulting engineering firms.

The hydraulic capacity analysis is typically accomplished through the use and application of a water modeling software such as WaterCad. The hydraulic capacity analysis can also be used to evaluate alternate approaches to future extensions of the distribution system. WaterCad and other modeling software products can also be integrated with AutoCAD or ArcGIS software to facilitate the evaluation and presentation of model results.

Given the need to replace older distribution pipe in the distribution system, a primary question that can be answered through the hydraulic capacity analysis is the adequacy of the size of existing pipe throughout the entire distribution system. This question should be considered in the context of both existing and anticipated water demands.

Given the capabilities and technical capacity of personnel within the Utility Services Department, it is recommended that the City of Yuma purchase WaterCad or other comparable software and complete its own in-house analysis. Since the Utility Services Department already has the software and capacity to use AutoCAD and ArcGIS software, these planning tools can be integrated with the software selected by the City of Yuma.

5.2.6.2 Replacement of Older Distribution Pipe

As stated earlier, the Utility Services Department has already determined that it needs to replace older cast iron and ductile iron pipe that make up a portion of the existing distribution system. This is a prudent decision as the general rule of thumb for the life expectancy of water system pipes is about 70 years before corrosion generates the need for replacement (American Water Works Association, 2011). While the "life" of iron pipe, e.g., ductile iron pipe, often extends over 100 years in many municipal systems, the potential corrosion of pipes in a distribution system can cause three different and related problems:

1) pipe mass is lost through oxidation to soluble iron species or iron-bearing scale;
2) scale can accumulate as large tubercles that increase head loss and reduce water capacity; and,
3) the release of soluble or particulate iron corrosion decreases the aesthetic quality of the water that can generate customer complaints of "red water" at the tap (McNeil and Edwards, 2001).

Most of the older pipe consists of 4-inch cast iron water mains that are located west of Detroit Ave. (Figure 5-2). Smaller segments of two-inch galvanized iron pipe are also located in several areas of the City. The size of polyvinyl chloride (PVC) pipe that needs to replace the older cast iron and galvanized iron mains should be determined using the results of the recommended hydraulic water modeling of the water distribution system (see section 5.2.6.1).

In view of the costs associated with pipe materials and the labor required to complete pipe replacements, the replacement of older cast iron, ductile iron, and galvanized iron pipe will need to be undertaken on an incremental basis. Such improvements could be undertaken by Utility Service Department personnel and/or a private contractor. While the replacement of pipes is more realistically completed on an incremental basis, it is essential that some replacements are completed each year to ensure continued system reliability.

5.2.6.3 Replacement of Older Fire Hydrants

The age of existing fire hydrants prompts the gradual replacement of older fire hydrants that were manufactured in 1967 or earlier. In 2017, twenty (20) fire hydrants in the distribution system were manufactured prior to 1967 (Figure 5-3). The rationale for the replacement of these hydrants is that it is often difficult to obtain replacement parts and/or cost effectively re-build fire hydrants that are 50 years of age or more.

The replacement of older fire hydrants should be accomplished on an incremental basis until all operating fire hydrants are within a reasonable life expectancy. The intent of this improvement is to sustain system reliability, particularly in the event of an emergency event requiring fire suppression. Some older hydrants should be replaced each year to ensure that replacement of all older hydrants is completed within a reasonable time period.

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Planned Pipe Replacement Water Distribution System City of Yuma

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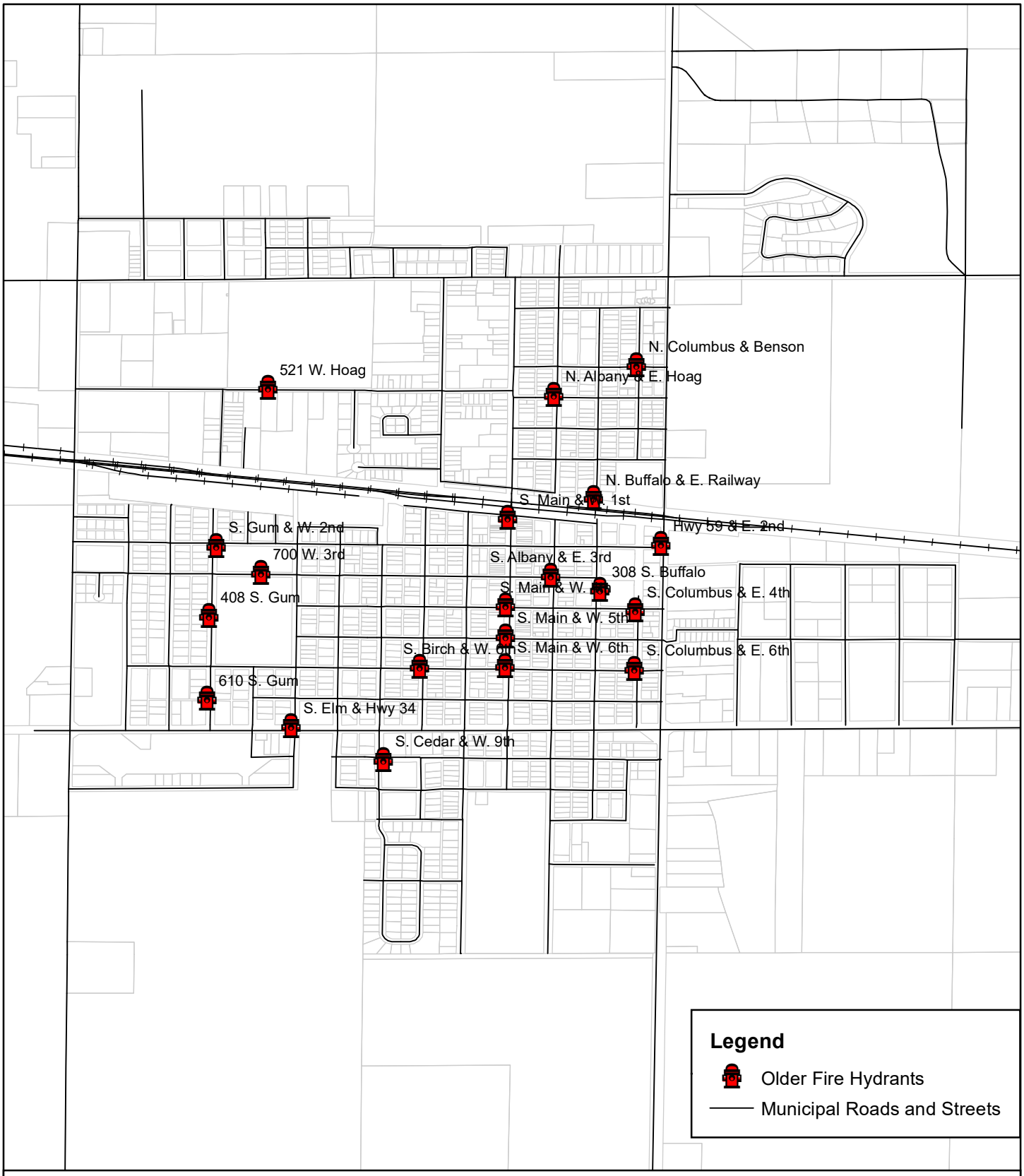
Figure 5-2



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Fire Hydrants Manufactured Before 1967 City of Yuma

Figure 5-3

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5.2.6.4 Future Extensions of Distribution System

This Comprehensive Plan recommends, in part, the development of new housing by private enterprise and the expansion of private commercial and light industrial activities within a new business park (see Chapter Four: Land Use). To accomplish these objectives, the City of Yuma will need to gradually extend its water distribution system and other municipal utilities to support these land uses. Future land use expansion should take place within, or in close proximity to, the municipal boundary, to help reduce the financial burden of future system extensions.

The potential location of a business park in an area east of CR G and south of Beatty Avenue would require generally a southerly extension of an existing 8-inch line at the municipal cemetery south along the west side of CR G to the proposed business park entrance. To achieve a looped circulation system, it would also be prudent to connect the business park with an existing 6-inch line, or larger pipe, in the vicinity of Jeff Armstrong Ball Park. Connections from Armstrong Park to the business park entrance would, in part, require installation of a water main below the BNSF rail corridor.

Future residential expansion could desirably take place on vacant lands or agricultural lands that are situated in the following general areas:

Just east or west of the municipal golf course. Potential extensions of the water distribution system east and/or west of the municipal golf course could be served by an existing 8-inch line from East Beatty Avenue.

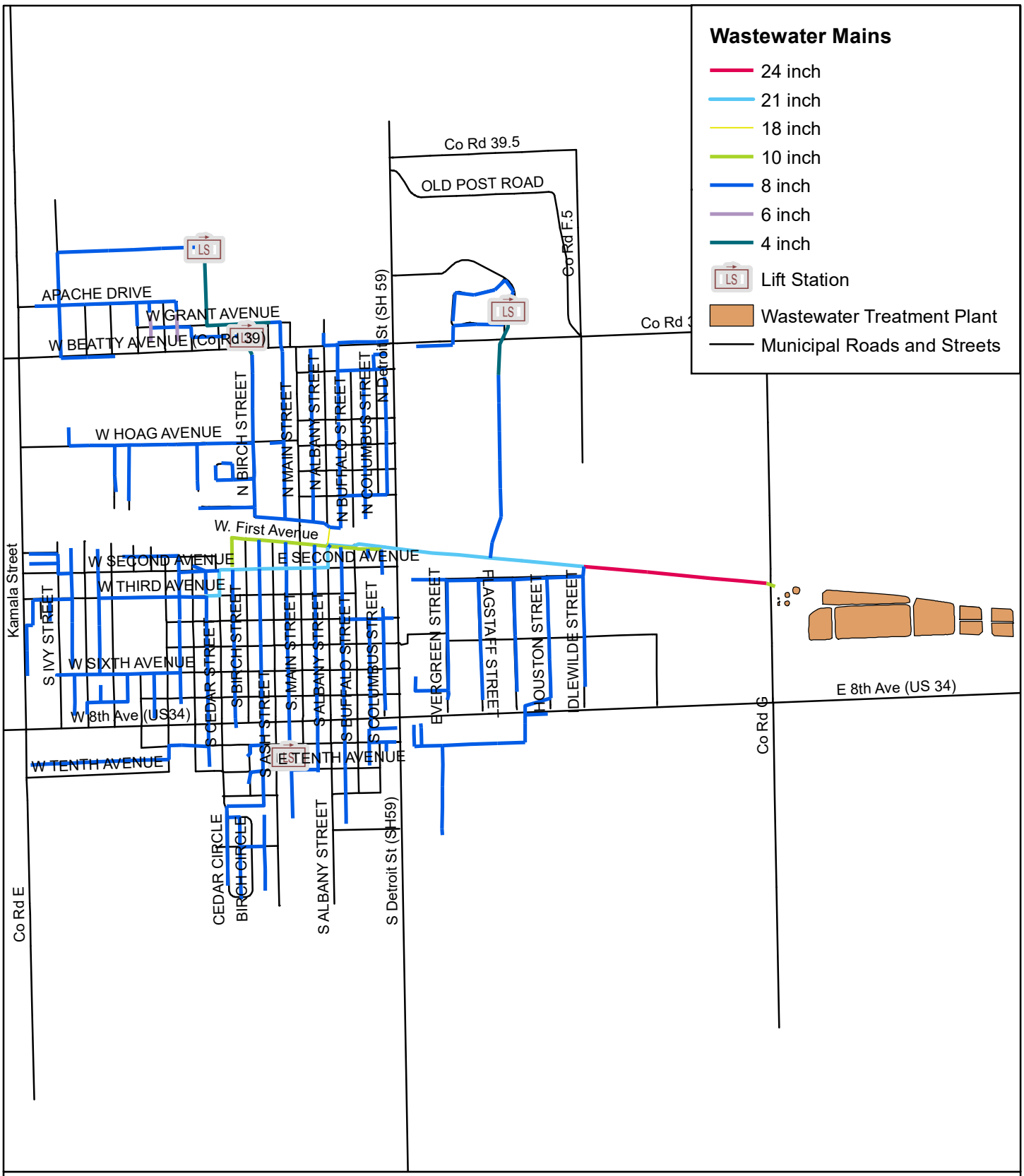
West of Kamala Street between U.S. Highway 34 and the BNSF rail corridor. The area west of Kamala Street would potentially tie into an existing 10-inch water main that extends along West Kamala Street. If necessary, this area could be served by the potable Koenig groundwater well situated just south of U.S. Highway 34.

West and southwest of West 10th Avenue. Potential residential expansion in this area would likely extend from an existing 16-inch water main that is located south of U.S. Highway 34 along CR E. This main is supplied by the potable Hamrick Well that has a 400 gallon per minute capacity.

5.3 WASTEWATER SYSTEM

5.3.1 Service Area

The municipal wastewater system comprises collection and treatment facilities that are connected to almost all residential, commercial, light industrial, community and public facilities in the community. The extent of the service area and general layout of the overall wastewater system is depicted in Figure 5-4.



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Municipal Wastewater System City of Yuma

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Figure 5-4

5.3.2 Wastewater Generation

5.3.2.1 Average and Peak Daily Flows

A review of available wastewater influent flow records for 2016 indicate that average daily flows to the water treatment plant represent about 274,025 gallons per day (Table 5-4). With an estimated 2016 population of 3,642 residents, the per capita wastewater generation is about 75 gallons per day. Aside from the infiltration of ground water, about 60 to 80 percent of the per capita water consumption in most communities typically becomes wastewater (Metcalf and Eddy, Inc., 1979). In the City of Yuma, average daily flows to the treatment plant comprised only 31 percent of daily potable water consumption in 2016 (890,072 gallons per day).

Peak flows in Yuma typically occur in the month of July. The peak day flow of 552,000 gallons in 2016 occurred on July 25, 2016. On this day, wastewater treatment plant records also report that the City received about two inches of rainfall. Consequently, the peak flow was influenced, in part, by inflow.

TABLE 5-4
2016 AVERAGE DAILY AND PEAK DAY FLOWS
YUMA WASTEWATER TREATMENT PLANT
IN GALLONS PER DAY

Month	*Average Daily Flow*	*Peak Day Flow*
January	262,500	345,000
February	267,300	377,000
March	261,100	383,000
April	260,400	362,000
May	287,700	405,000
June	292,300	428,000
July	293,900	[1)]552,000
August	271,200	363,000
September	272,300	364,000
October	268,400	332,000
November	274,800	365,000
December	276,400	362,000
Annual Average Daily Flow: 274,025		

Notes: 1) A 2-inch rainfall occurred during peak day flow on July 25, 2016.

Source: City of Yuma, Utility Services Department, 2017.

5.3.2.2 Anticipated Wastewater Flows

In order to calculate anticipated wastewater flow rates for the coming decade, the present rate of per capita wastewater generation (75 gallons per day) was applied to the anticipated resident population estimates for the 2018-2027 period (Table 5-5). The population estimates are presented in Table 3-7 of Chapter Three. Anticipated wastewater flows suggest that average daily flows will rise to almost 305,000 gallons per day by 2027.

The examination of monthly influent flow records for 2016 suggest a peaking factor of 2.0 to calculate peak day flows for the coming decade. Using this assumption, peak daily flows to the plant would be roughly 608,550 gallons per day by 2027. Since the existing treatment plant has a capacity to treat up to 750,000 gallons per day, anticipated peak day flow suggest that the existing treatment plant has ample capacity to support future population growth and additional land use expansion during the coming decade. However, once peak daily flows reach 75 percent of treatment capacity, the City should commence planning of a future expansion to the treatment plant.

TABLE 5-5 ANTICIPATED WASTEWATER FLOWS CITY OF YUMA 2017-2027			
Year	*Population*	*[1)]Average Daily Flow (Gallons per Day)*	*[2)]Peak Day Flow (Gallons per Day)*
2017	3,659	274,425	548,850
2018	3,689	276,675	553,350
2019	3,706	277,950	555,900
2020	3,723	279,375	558,750
2021	3,844	288,300	576,600
2022	3,861	289,575	579,150
2023	3,878	290,850	581,700
2024	4,002	300,150	600,300
2025	4,021	301,575	603,150
2026	4,040	303,000	606,000
2027	4,057	304,275	608,550
Notes: 1) Average daily flow assumes a per capita generation rate of 75 gallons per person per day. 2) Peak day flow estimate assumes a peak day factor of 2.0.			
Sources: City of Yuma, Utility Services Department, 2017; Pedersen Planning Consultants, 2017.			

5.3.3 Wastewater Collection System

The collection system consists of a combination of clay tile and PVC pipe. The City has replaced some of the clay tile pipe due to root intrusion, grease build-up, and other issues (Strait, 2017).

The City Utility Services Department cleans one-half of the collection system each year, as well as all dead-end lines, through the use of a hydraulic jetter. Periodically, the City also has camera work done to investigate selected trouble areas of the collection system (Strait, 2017).

There are four lift stations that support transport of wastewater to the wastewater treatment plant (Figure 5-4). Two of these lift stations do not have rails that provide access to their pumps which represent a safety hazard to City operations/maintenance personnel (Strait, 2017).

5.3.4 Wastewater Treatment Plant

The municipal wastewater treatment plant, which is situated on the east side of the community (Figure 5-4), employs an activated sludge with extended aeration process. The plant capacity is 750,000 gallons per day (Strait, 2017).

5.3.5 Planned System Improvements

Similar to the municipal water system, no formally adopted system plan has recently been prepared for the municipal wastewater system. Such a plan would typically examine anticipated wastewater flows, outline future improvements to the wastewater collection system and wastewater treatment plant, as well as update and clarify operation and maintenance procedures. Anticipated costs for recommended improvements would also be determined to facilitate the determination of budgets for future capital improvements. The system plan would also evaluate the adequacy of the existing utility rate structure and service fees, as well as potential sources of funding that might be available to support the construction and installation of planned facility improvements.

The development of a detailed wastewater system plan is beyond the scope of the overall Yuma Comprehensive Plan. In the absence of a wastewater system plan, the experience and insights of the Utility Services Department personnel, and other recommendations presented in the Comprehensive Plan, point to the need for some technical evaluation of the wastewater collection system, as well as a number of physical improvements to the water distribution system.

5.3.5.1 Replacement of Clay Tile Pipe

The City Utility Services Department envisions the gradual replacement of all clay tile pipe in the collection system (Figure 5-5). The pipe would be replaced with polyvinyl chloride (PVC) pipe which characterizes the remainder of the collection system. This appears to be a reasonable decision based upon the comparative advantages and disadvantages of both types of pipe.

Clay tile pipe, or vitrified clay pipe, is manufactured from a blend of clay and shale, set at a high temperature to turn the pipe into an inert ceramic. This type of pipe is regularly used in gravity sewer collection mains because of its extended “facility life”. Unfortunately, clay tile pipes are more susceptible to root infiltration. Clay pipes are joined with hubbed fittings; consequently, they do not provide a reliable seal against water. Tree roots are attracted to the water leaking through the joints which often results in sewer line damage (AAA Auger Plumbing Service, 2017)

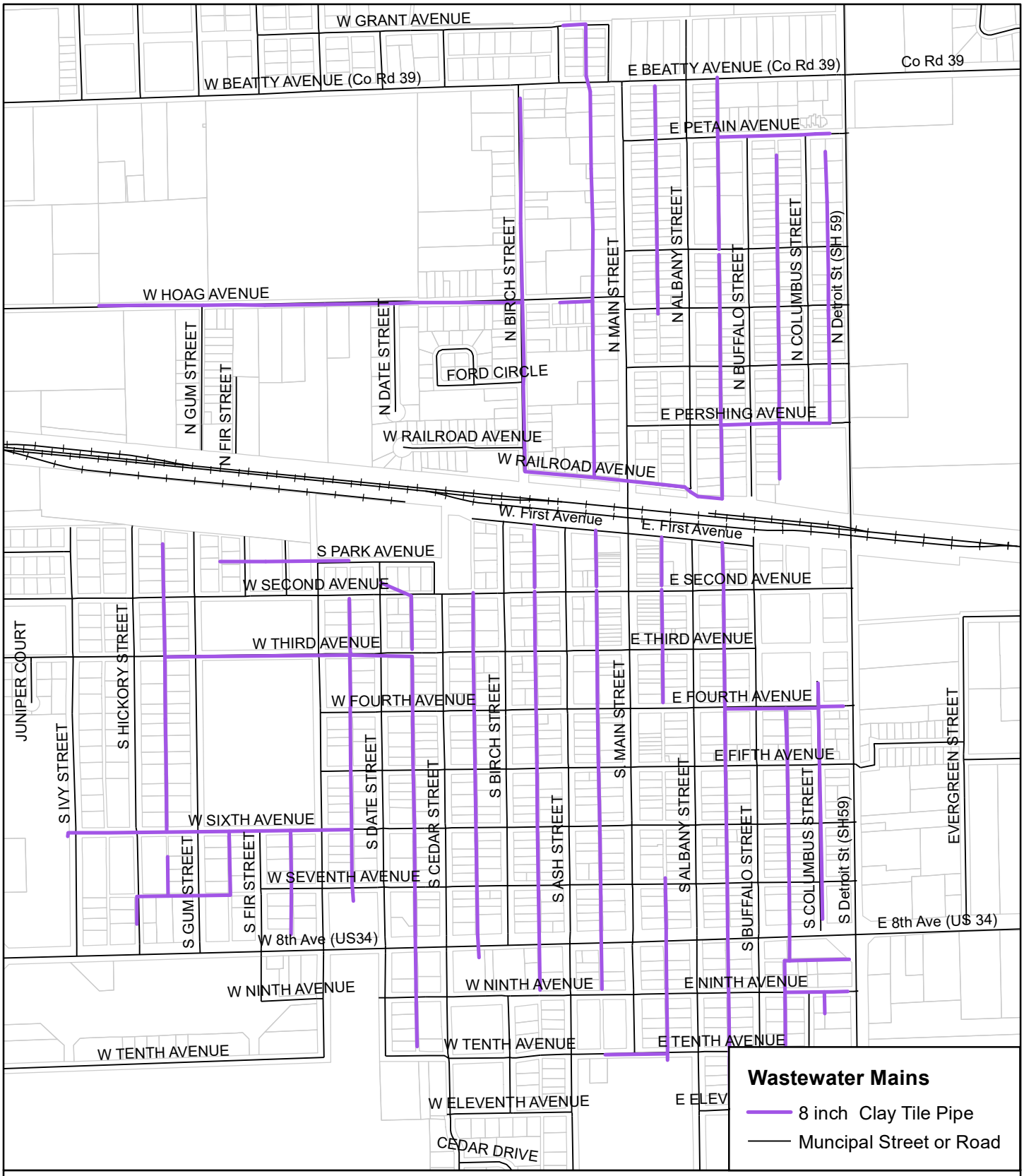
In contrast, polyvinyl chloride (PVC) pipe is a lighter pipe material that is commonly used in sewer collection systems. When installed properly, PVC pipe is long-lasting and impervious to root penetration (AAA Auger Plumbing Service, 2017). However, some clay pipe manufacturers report that PVC pipe will lose 65-80 percent of its strength after 50 years of service (Bruce, 2008). Consequently, while clay tile pipe is more likely to have a longer facility life, it is also more likely to generate greater maintenance costs and the related requirement for pipe replacement.

5.3.5.2 Renovation of Lift Stations

The City Utility Services Department reports the need for two different types of lift station improvements:

1) As stated earlier, two of the City’s four lift stations require the installation of rails that will enable safe access to pumps inside the lift stations.

2) Installation of SCADA systems in each of the four lift stations. This improvement will enable the use of remote telemetry that can be used for offsite monitoring of lift station functions.



City of Yuma
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Planned Pipe Replacement
Wastewater Collection System
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Figure 5-5

5.3.5.3 Adoption of Fats, Oil and Grease Ordinance and Best Management Practices Manual

The City of Yuma needs to prepare and adopt a Fats, Oil and Grease (FOG) ordinance. Food service establishments regularly generate food, cooking oil, and grease wastes. When these wastes are not managed properly, animal and vegetable-based oils and grease are discharged directly into the wastewater collection system where fats, oil and grease cool and solidify. Grease clings to pipes in the collection system and, as grease builds up, a pipe can become clogged. These blockages generate considerable cleanup work for the Utility Services Department. Potential backup in the collection system can also generate potential hazards to food and beverage establishments (City of St. Petersburg, Florida, 2017).

At the time of this report, the Utility Services Department has already drafted a proposed ordinance which will soon be submitted to the Yuma City Council for its consideration (Strait, 2017). The eventual adoption of a FOG ordinance should also be supplemented with the preparation of a Fats, Oil, and Grease (FOG) Best Management Practices Manual that would be distributed to all existing and new food and beverage establishments. Such a manual would provide useful, practical information to food service managers and kitchen personnel that would enhance understanding of relevant issues, how to effectively manage fats, oil and grease wastes, and regulatory requirements associated with the fats, oil, and grease regulations.

5.3.5.4 Reuse of Wastewater Effluent and Sludge

Sewage sludge and wastewater effluent are both by-products of the wastewater treatment process. The City Utility Services Department desires to reuse effluent and sludge generated from the wastewater treatment process in two ways:

1. sell wastewater effluent to a nearby ethanol plant; and,
2. develop a program that enables reuse of wastewater sludge for amending soils on selected municipal lands.

Re-Use of Wastewater Effluent

The re-use of effluent from the municipal wastewater treatment process is a highly beneficial use because of the opportunity for an ethanol plant to decrease the amount of ground water that is withdrawn from the Ogallala Aquifer for ethanol production. Corn dry grind ethanol plants consume roughly 3 to 4 gallons of water for every one gallon of ethanol produced. The average volume of water required to support operation of a 50-million-gallon ethanol plant ranges from 150 to 250 million gallons per year (Ramchandran, 2013). For example, the Yuma Ethanol plant has a 40-million-gallon production capacity; its water consumption would be somewhat less.

In a typical dry grind ethanol plant, water is used for grinding, liquefaction, fermentation, separation, and drying. Heating, cooling and drying are the major water consumption steps. Cooling tower accounts for 70% of total water consumption (Ramchandran, 2013). An ethanol plant could primarily use the wastewater effluent to support its cooling process (Strait, 2017). Consequently, the potential use of treated wastewater effluent in the ethanol production process would help to conserve water resources in the Ogallala Aquifer.

The City of Yuma Utility Services Department has already obtained a General Permit under the Colorado Discharge Permit System for Domestic Wastewater Treatment Works with Land Disposal of Effluent that authorizes the proposed reuse of effluent.

Reuse of Sludge

The potential application of wastewater sludge as a soil amendment on municipal-owned lands could be beneficial to enhance the quality of surface soils on selected municipal properties. Concurrently, the reuse of sludge will also help offset the costs associated with the transportation and disposal of sludge in other locations outside of Yuma.

The use of wastewater sludge for this purpose would require the City of Yuma to gain authorization for the use of biosolids from the Colorado Department of Public Health and Environment, Water Quality Control Division. Biosolids regulation number 64 establishes *"….requirements, prohibitions, standards and concentration limitations on the use of biosolids as a fertilizer and/or organic soil amendment in a manner so as to protect the public health and prevent the discharge of pollutants into state waters."* The Utility Services Department has already completed its collection of soil samples from selected municipal sites and shared the information with the Colorado Water Quality Control Division (Strait, 2017). Continued coordination with the Colorado Water Quality Control Division will be necessary to gain the necessary authority for this recycling project.

5.3.5.5 Future Extensions of the Collection System

Future extensions of the collection system would need to occur in the same general areas envisioned for the extension of the municipal water distribution system (see section 5.2.6.4). These areas would include:

Just east or west of the municipal golf course. An extension east of the golf course would likely connect to an existing 8-inch line along Detroit Avenue or along the west side of the golf course. A westerly extension would probably connect to an existing 8-inch line on the south side of Village Park East subdivision and/or a replacement of an existing 4-inch collection line on the south side of the subdivision.

West of Kamala Street between U.S. Highway 34 and the BNSF rail corridor. An extension to this area would likely require an extension of 8-inch lines along CR E that are situated north of 8th Avenue (U.S. Highway 34).

West and southwest of West 10th Avenue. This area would likely connect to existing 8-inch collector lines along West 10th Avenue.

Municipal airport. The Utility Services Department also envisions extending the collection system to unsewered facilities at the municipal airport and surrounding area. This extension will require the construction of a lift station (Strait, 2017) and connection to an 8-inch line along Evergreen Street.

5.4 ELECTRICAL DISTRIBUTION SYSTEM

5.4.1 Service Area and Customer Base

The electrical distribution system (Figure 5-6 and Figure 5-7) serves almost all land uses within the municipal boundary of the City. Within the service area, the electrical distribution system serves 1,336 residential customers, 339 small commercial customers, and four large customers (Prettyman, 2017).

5.4.2 Electrical Energy Demands

Electrical demands vary throughout the year. Summer energy consumption is about 7.6 megawatts (MW) while winter consumption ranges between 4.8 and 5.5 MW. Summer demands are boosted, in part, by demands generated from grain elevator operations. System demands are not increasing significantly as only a few homes and one small business have been developed in Yuma during the past three years (Table 5-6).

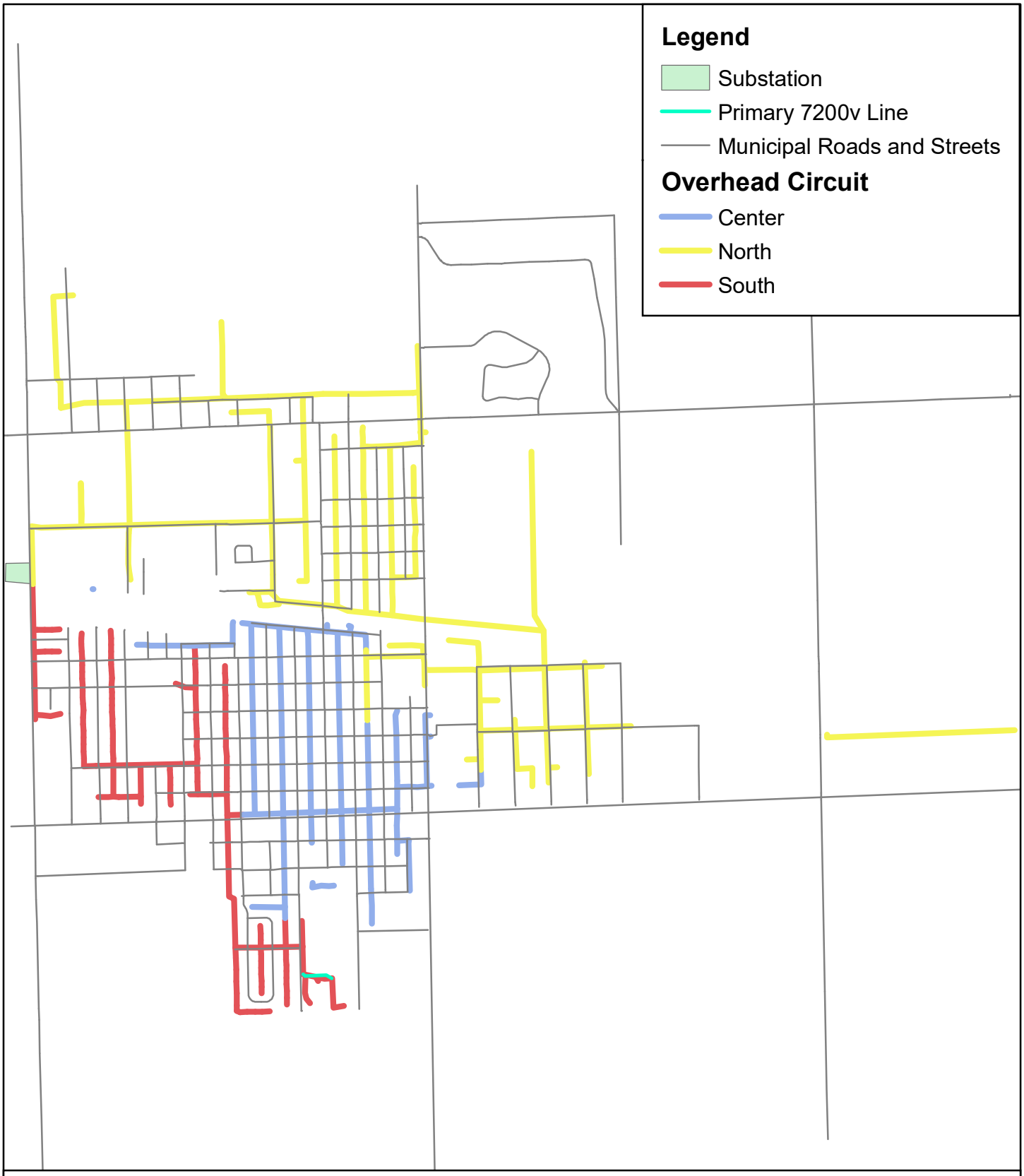
TABLE 5-6
ELECTRICAL ENERGY DEMAND
CITY OF YUMA
2014-2016

	Total Load (kW)		
Month/Year	*2014*	*2015*	*2016*
January	4,752	5,016	5,244
February	5,028	4,608	4,788
March	4,572	4,392	4,524
April	4,044	3,960	4,236
May	5,280	3,708	4,404
June	5,844	6,492	7,584
July	6,816	6,900	7,596
August	6,312	6,660	7,236
September	6,240	6,768	5,904
October	4,044	4,788	4,824
November	5,232	5,124	4,854
December	5,268	5,496	5,496

Source: NMPP Energy, 2017.

5.4.3 Source of Electrical Energy

The City of Yuma purchases roughly 35 percent of its energy from Western Area Power Administration (WAPA) and supplemental power through the MEAN system. Bulk power is purchased from WAPA and sold to its municipal customers (Prettyman, 2017). *Western supplies approximately 3 MW of contract demand from hydro-electric resources located in the Rocky Mountain Region. The City has an agreement with the Western-Rocky Mountain Region for purposes of power and energy from the Loveland Area Projects (LAP) and from the Salt Lake City region for power and energy from the Colorado River Storage Project (CRSP). MEAN supplies the City's supplemental capacity and energy requirements under its Service Schedule M (SSM) agreement* (JK Energy Consulting, 2015).



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Overhead Circuit
Municipal Electrical Distribution System

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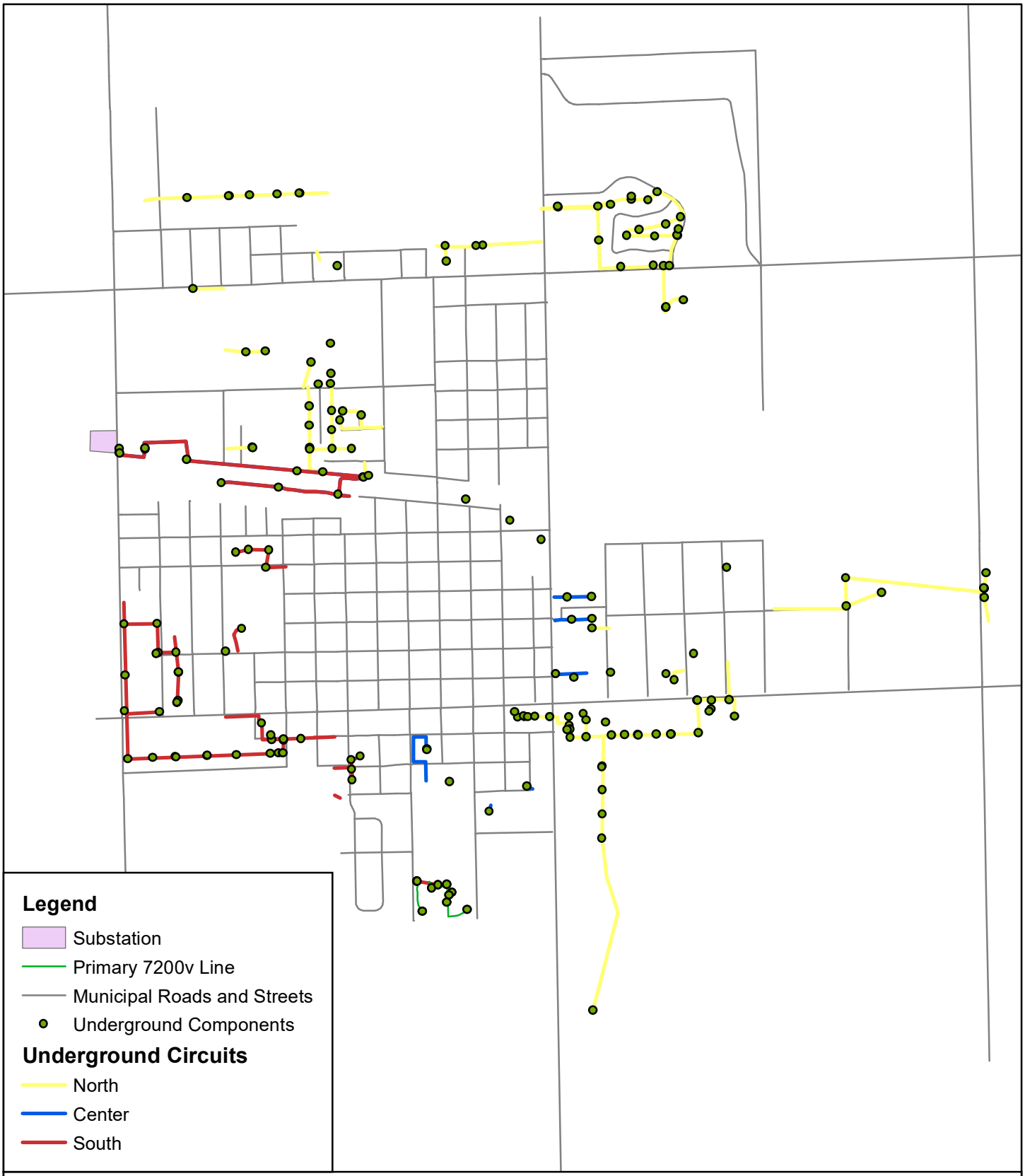
Figure 5-6



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Underground Circuit
Municipal Electrical Distribution System

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Figure 5-7

5.4.4 Electrical Substations

Electric substations consist of a number of incoming and outgoing circuits. A substation receives electrical power from a generating station via incoming transmission lines, steps down voltages, and delivers electrical power via outgoing distribution lines.

A city-owned substation is located near the northwest corner of the community. It has a capacity of about 16 megawatts (MW). The substation was upgraded in 2011. A tie-line connects the City of Yuma substation and a substation owned and maintained by Tri-State north of the City of Yuma, which could be used in case of an emergency.

5.4.5 Distribution Network

The distribution network comprises north, central and south circuits that include a combination of overhead and underground distribution lines, power poles, transformers, junction boxes, and other supporting equipment. The overhead distribution network (Figure 5-6) contains a combination of #6, #4, #2, 1/0 and 4/0 gauge wire. The underground distribution network (Figure 5-7) comprises a combination of #2, 1/0, and 4/0 gauge wire.

5.4.6 Planned System Improvements

5.4.6.1 Construction of New Substation

The City of Yuma sees the need for a second substation to be added to the municipal electrical system. A new substation would provide redundancy that is needed to:

- ensure system reliability in the event that the existing substation was damaged or needed repair; and,
- accommodate future demands generated from future land use expansion.

The substation would desirably be constructed on the east side of the community closer to an existing transmission line. The substation would have a capacity of about 16 megawatts (MW), or comparable to the existing substation on the west side of Yuma. The design and construction of a new substation is estimated to cost about $1.5 million. Much of that cost would be associated with a new power transformer at the substation (Moore, 2017).

5.4.6.2 Upgrade of Center Circuit of Underground Distribution System

The Utility Services Department, Electrical Division, envisions the completion of an upgrade to the center circuit of the underground distribution system. This improvement, which could be completed by personnel from the Electrical Division, would generally include the replacement of some 1,800-feet of aging wire that characterizes the underground center circuit of the distribution system, as well as some transformers (Prettyman, 2017). Some of the materials needed for this improvement were previously obtained by the City and remain available for installation by the City (Moore, 2017).

CHAPTER SIX
TRANSPORTATION

6.1 INTRODUCTION

Chapter Six examines transportation needs associated with municipal streets and roads, as well as the municipal airport. This evaluation is based primarily upon discussions with the Public Services Department concerning municipal streets and roads, as well as conclusions and recommendations of Armstrong Consultants regarding the municipal airport.

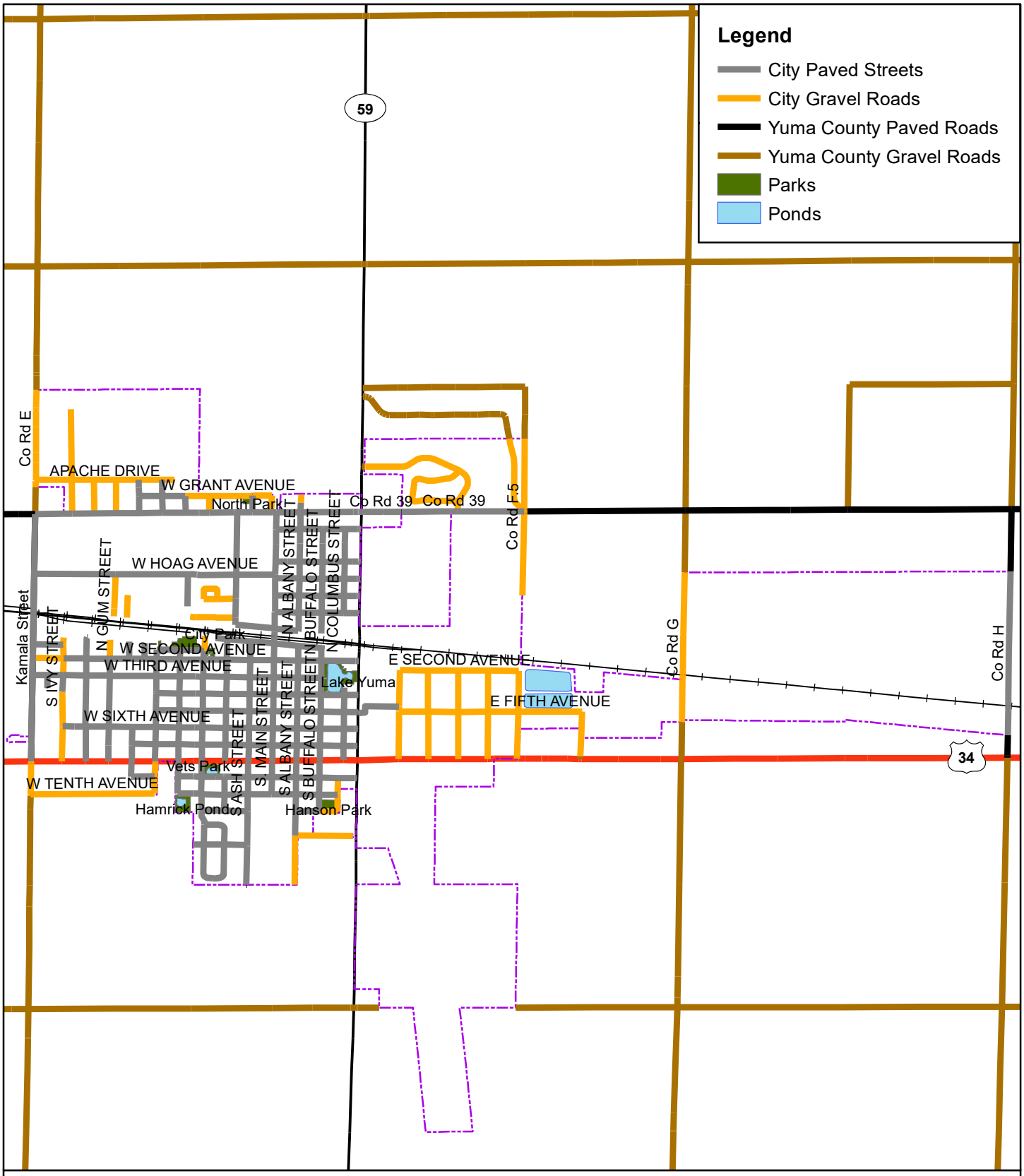
6.2 MUNICIPAL STREETS AND ROADS

The municipal street and road network includes a combination of paved streets and unpaved aggregate roads (Figure 6-1). These roadways are maintained by the Public Services Department, Streets Division.

6.2.1 Paved Streets

Paved roadways in the municipal road network primarily represent roadways that historically have been improved with one or more chip seal or slurry seal treatments (Gonzalez, 2017). The pavements on some selected street segments, e.g., Main Street in downtown area, have been fully reconstructed.

The Public Services Department annually reviews the conditions of all paved streets to identify potholes, longitudinal, horizontal and "alligator" cracking, stormwater ponding, and other issues that influence the use of existing roads. Subsequently, the Department prepares an annual list of street segments that are recommended for new chip treatments. The Department's recommended list of street segments for chip seal treatments in 2018 is presented in Figure 6-2 and Table 6-1.



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Municipal Roads and Streets
City of Yuma

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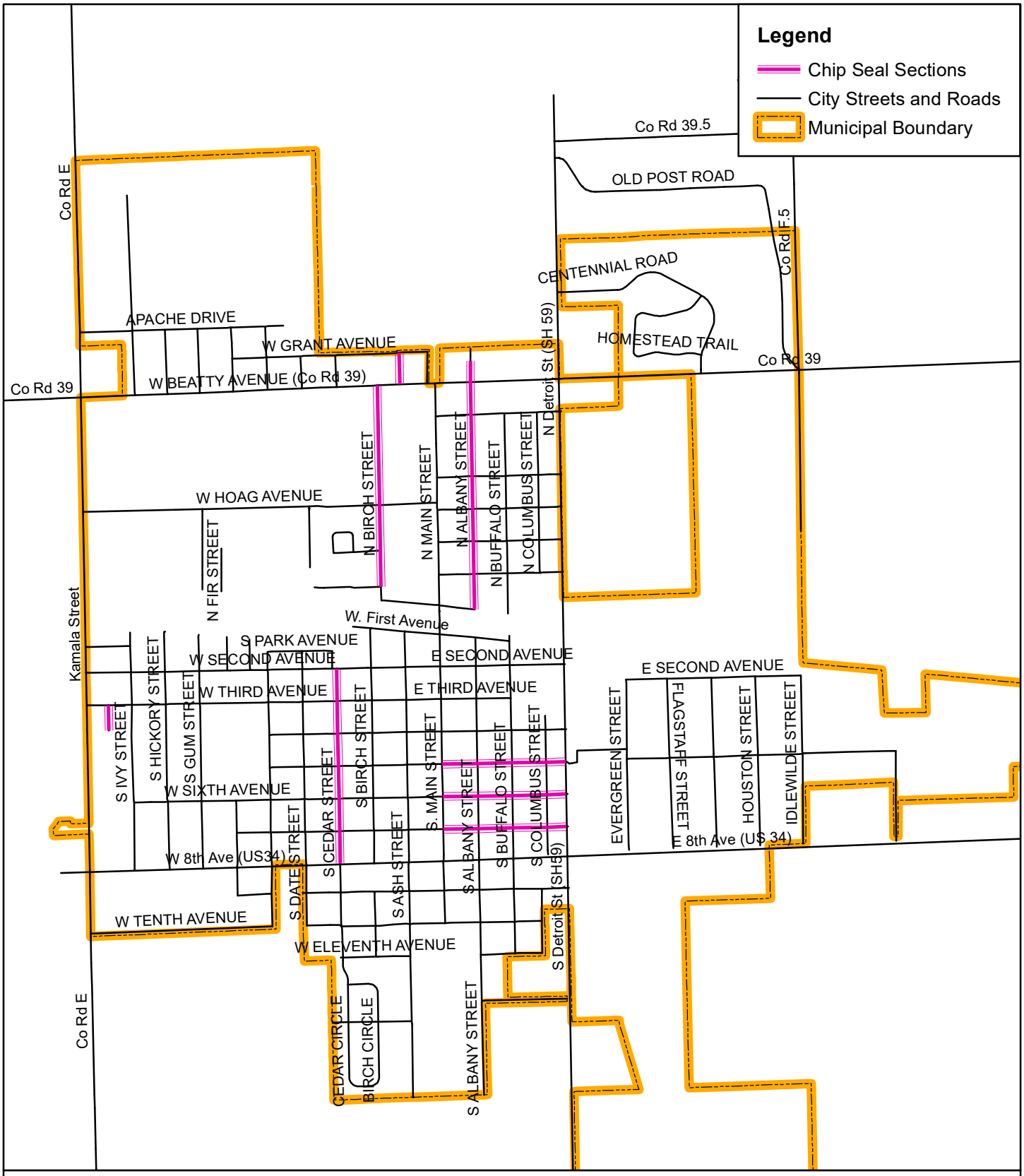
Figure 6-1



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Recommended Chip Seal Improvements on Selected Streets in 2018 City of Yuma

Figure 6-2

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TABLE 6-1
RECOMMENDED CHIP SEAL IMPROVEMENTS ON SELECTED STREETS IN 2018
PUBLIC SERVICES DEPARTMENT CITY OF YUMA

Street or Avenue	*Boundaries*	*Width (feet)*	*Length (feet)*	*Square Feet*	*Square Yards*
N. Ash St	W. Beatty Ave to Grant St	50.0	320.0	16,000.0	1,777.8
N. Birch St	W. Beatty to W. Hoag Ave	44.5	1,289.0	57,360.5	6,373.4
N. Birch St	W. Hoag Ave to W. Railroad	44.2	1,045.0	46,189.0	5,132.1
N. Albany St	E. Railroad Ave to E. Beatty	47.0	2,525.0	118,675.0	13,186.1
N. Albany St	E. Beatty to North ½ block	47.0	195.0	9,165.0	1,018.3
E. 7th Ave	S. Detroit to S. Columbus	33.5	179.5	6,013.25	668.1
E. 7th Ave	S. Columbus to S. Buffalo	34.5	331.5	11,436.75	1,270.8
E. 7th Ave	S. Buffalo St to S. Albany	34.5	327.0	11,281.5	1,253.5
E. 7th Ave	S. Albany St to S. Main	34.2	315.5	10,790.1	1,198.9
E. 6th Ave	S. Main St to S. Albany	35.0	289.0	10,115.0	1,123.9
E. 6th Ave	S. Albany St to S. Buffalo	35.0	330.0	11,550.0	1,283.3
E. 6th Ave	S. Buffalo St to S. Columbus	34.0	324.0	11,016.0	1,224.0
E. 6th Ave	S. Columbus St to S. Detroit	34.0	180.0	6,120.0	680.0
E. 5th Ave	S. Detroit to S. Columbus	34.0	179.0	6,086.0	676.2
E. 5th Ave	S. Columbus to S. Buffalo	34.0	324.0	11,016.0	1,224.0
E. 5th Ave	S. Buffalo St to S. Albany	34.1	330.0	11,253.0	1,250.3
E. 5th Ave	S. Albany St to S. Main	34.0	302.4	10,281.6	1,142.4
S. Cedar St	W. 2nd Ave to W. 3rd	46.7	317.0	14,803.9	1,644.9
S. Cedar St	W. 3rd Ave to W. 4th	46.6	317.0	14,772.2	1,641.4
S. Cedar St	W. 3rd Ave to W. 5th	46.6	320.0	14,912.0	1,656.9
S. Cedar St	W. 5th Ave to W. 7th	47.7	689.0	32,865.3	3,651.7
S. Cedar St	W. 7th Ave to W. 8th	47.0	297.0	13,959.0	1,551.0
Juniper Court	W. 3rd Ave to 1 block south	34.4	326.5	11,231.6	1,248.0

Source: City of Yuma, Public Services Department, 2017.

Residents attending an August 2, 2017 Community Workshop concerning municipal roads and streets identified their priorities for improvements to various paved street segments (Table 6-2). Urgent priorities were expressed for improvements to street segments on 2nd, 3rd, and 4th Avenue, as well as North Main.

TABLE 6-2
RESIDENTS PRIORITIES FOR IMPROVEMENTS TO PAVED STREETS
RESPONSES to QUESTION: What paved streets need improvements?

Priority	*Recommendation*	*Group 1*	*Group 2*	*Group 3*
Urgent	3rd Ave.: E of Main St. to Buffalo	•	•	•
Urgent	Alley behind Post Office	•		
Urgent	4th Ave.: E of Main to Buffalo		•	
Urgent	2nd Ave: Main to Hwy 59		•	
Urgent	Double yellow line on N. Main		•	
Important	East Railway between Main and Albany			•
Important	One block S of Beatty Ave. from Main St. to N. Albany	•		
Important	W. 3rd Ave.: Between Elm St. and Gum St.			•
Important	South Ash St.: Between 5th Ave. and 6th Ave.			•
Desirable	Apache Drive	•		

Some stakeholders interviewed during preparation of the Comprehensive Plan also recommended the need for the gradual reconstruction of various paved streets in the community. Concern was expressed for the quality of the sub-base materials, drainage, and other issues that cannot be addressed by chip seal treatments.

Many of the paved streets are also characterized by concrete curbing adjacent to the edge of pavement. Street curbs and gutters serve an important function in that they direct stormwater flows to existing stormwater drains and retention ponds. The curbing along many City streets has either been damaged, or in some level of disrepair.

Chapter 12.08.10 of the Municipal Code provides authority to the City Council to order the construction, installation, repair, and maintenance of sidewalks, curbs, and gutters within the City when it determines that these improvements are necessary. When required, the City Council is required to give written notice to the owner, or agent in charge, of the appropriate properties to construct or repair the sidewalk, curb and gutter areas needing improvement within 30 days. In view of this authority, the Public Services Department, Streets Division, should complete an inventory of streets that contain curbs and gutters requiring repair or replacement via new construction.

6.2.2 Aggregate Roads

Roadways with an aggregate surface are seasonally re-graded to maintain an adequate road surface. Results to the Community Survey indicate that residents have a strong desire to have more aggregate roads improved with a paved surface. This was one of three priorities that were expressed in response to the final question of the survey: *If there were only three things the City could do with limited funding, what would be your top three priorities?*

Residents who attended the August 2 Community Workshop concerning municipal roads and streets provided more specific insights concerning which gravel roads they desire to be paved (Table 6-3).

TABLE 6-3
RESIDENTS PRIORITIES FOR IMPROVEMENTS TO AGGREGATE ROADS
RESPONSES to QUESTION: What gravel roads need to be paved?

Priority	*Recommendation*	*Group 1*	*Group 2*	*Group 3*
Urgent	S. Ivy: Hwy 34 to 2nd Ave.	•	•	
Urgent	E. 5th Ave.: Ballfields S to Hwy 34.	•		
Urgent	W. 10th Ave. to Parrish Care Center: S. Elm N to Hwy 34	•	•	•
Urgent	Ivy St.: W. 6th Ave. Hickory to Ivy			•
Urgent	Ivy St. to Kamala St. on 2nd Ave.		•	•
Urgent	Homestead Trail		•	
Urgent	E. 2nd Ave. to Idlewild		•	
Important	Industrial Park and area by ballfields		•	
Important	Railway Ave. W of N. Birch		•	
Important	Ford Circle		•	•
Important	S. Columbus (E. side of Hanson Park)		•	
Important	E. 12th Ave.		•	
Important	S. Albany (by High School ballfields)		•	
Important	W. Railway Ave.			•
Important	W. Grant Ave.			•
Important	Homestead Trail	•		•
Desirable	S. Albany St.	•		
Desirable	Ford Circle	•		•
Desirable	Ballfield Road			•
Desirable	Idlewild St.			•

Urgent priority was assigned to several aggregate road segments at the August 2 Workshop. Residents concurred with the paving of South Ivy Street between U.S. Highway 34 and 2nd Avenue, the gravel road along West 10th Avenue to Parrish Care Center, and the gravel road along South Elm Street to U.S. Highway 34.


South Ivy Street, south-north view

6.2.3 Other Road Improvements

Other insights concerning resident preferences for future street and road improvements were reflected from responses to a third question posed to residents attending the August 2nd Community Workshop concerning municipal roads and streets. The type and scope of other recommended improvements are summarized in Table 6-4.

TABLE 6-4 RESIDENTS PRIORITIES FOR OTHER STREET AND ROAD IMPROVEMENTS RESPONSES to QUESTION: Are there other street and road issues that need to be addressed?				
Priority	***Recommendation***	***Group 1***	***Group 2***	***Group 3***
Urgent	Evergreen to Idlewild on N. side of Hwy 34		•	
Urgent	Detroit from railroad track to Hwy 34.		•	
Important	Re-pave streets that have dips, e.g., Albany, Cedar, Birch	•		
Important	Fix dip on N. Main St. and Railway intersection			•
Important	Lower speed limit on Ash St.			•
Desirable	Intersections at 5th Ave. & Birch and 5th Ave. & Cedar			•
Desirable	Surface drainage issue on Cedar St. between 4th & 5th Ave.			•

6.2.4 Determination of Future Road Improvements

The City of Yuma has limited funds to make significant improvements to its street and road network. For this reason, it is essential that priorities for future street and road improvements continue to be made on an annual basis. It is also important that residents of the community understand the basis and rationale for future road improvements and their related priorities.

Some larger urban communities, as well as county, state, and federal agencies, have developed methods for determining a Pavement Condition Index (PCI). PCI is a rating system that is used to evaluate paved roadway conditions and prioritize future maintenance and road improvement projects. Public transportation agencies typically review and evaluate paved roads with chip and seal treatments in the same way that other paved roadways are rated in terms of their condition.

A few agencies have separately developed criteria for evaluating and rating the condition of unpaved aggregate roads. The criteria for aggregate roads, as would be expected, differs considerably from paved roadways. However, criteria still can be established and used to rate and evaluate road conditions and priorities.

The development of a simplified methodology for the City Public Services Department to evaluate street and road conditions can easily be established. Through the application of the Yuma Geographical Information System (GIS) and related spatial data files, each street and roadway in the community can be annually surveyed by the Director of the Public Services Department over the course of about two days. Separate criteria for paved streets and aggregate roadways would initially be established based upon the experience of the Public Services Department and available information from other transportation agencies. Annual observations of pavement surfaces, the crowns of aggregate roads, and other road conditions would be scored by the Public Services Department to rate the condition of all street and road segments. The ratings would then be used by the Department to determine a recommended list of road improvements that would be completed during the coming Spring and Summer season.

These findings could be shared with residents via the newspaper or public information meetings that would enable residents to be aware of and understand the priorities of the City Public Services Department. In a public information meeting setting, residents could also share improvement needs to representatives of the Public Services Department. Overall, periodic communications with residents will further enhance public trust and the determination of future road improvement priorities.

6.3 YUMA AIRPORT

Yuma Airport is situated on the south side of the City (Figure 6-3). At the time of this report, Armstrong Consultants is in the midst of completing a master plan for the municipal airport. In order that airport facility needs could be incorporated into the Yuma Comprehensive Plan, Armstrong Consultants graciously shared relevant background information, as well as some preliminary conclusions and recommendations, associated with existing airport facilities. Selected findings are briefly highlighted in the following sections of Chapter Six, but will eventually be presented in greater detail in the final airport master plan report.

6.3.1 Airport Users and Air Traffic

Available records from the Federal Aviation Administration indicate that seventeen (17) based aircraft are the primary users of the Yuma Airport.

Yuma Municipal Airport serves a mix of single-engine piston and multi-engine piston driven, turboprop, turbo jet, and helicopter aircraft. These users include agricultural spray operators, business and recreational transport, air ambulance, and flight training (Armstrong Consultants, 2017).

Fifteen (15) of the 17 based aircraft are single-engine aircraft. These and other users carried out about 4,300 annual operations in 2016.

6.3.2 Existing Facilities and Planned Facility Improvements

6.3.2.1 Runways

The municipal airport primarily contains two runways. Runway 16-34 is the main runway. The dimensions of the runway are 4,200-feet long x 75-feet wide. The dirt surface for Runway 12-30 is approximately 2,740 feet long x 60-feet wide.

Armstrong Consultants concludes that runway dimensions are adequate to serve the anticipated types of aircraft that are expected to use the airport during the next 20 years. However, if warranted by future demands, Armstrong Consultants also recommends that lands be reserved for a potential extension of runway 16-34. The firm recommends that consideration be given to accommodating a third runway that would be used during periods of any future runway closure due to construction.

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Yuma Airport
City of Yuma

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Figure 6-3

Runway markings, lighting, and visual aids on, or adjacent to Runway 16-34 include the following:

- Two-box Precision Approach Path Indicators;
- Runway End Identifier Lights;
- Medium Intensity Runway Lights; and,
- Rotating airport beacon (Armstrong Consultants, 2017).

No runway markings or lighting are available on Runway 12-30.

6.3.2.2 Pilot Lounge

A small pilot lounge is situated within an existing T-Hangar. The lounge provides seating for both transient and local aircraft operators.

Armstrong Consultants concluded that the existing lounge, comprising roughly 190 square feet, is inadequate to accommodate the existing and anticipated peak hour number of pilots and passengers. Since opportunities to expand the existing lounge are limited, Armstrong Consultants recommends that a small airport terminal be constructed that would contain about 560 square feet of floor area.

6.3.2.3 Hangar Facilities

The municipal airport contains eight conventional box hangars and eight T-hangars. These hangars presently provide storage for approximately 16 aircraft. By 2036, Armstrong Consultants estimates that airport hangars will need to accommodate the storage of about 19 based aircraft.

The City of Yuma should continue providing long-term land leases to interested parties for the construction of aircraft storage hangars. This allows tenants to retain ownership of the hangar while leasing the ground, reduces capital outlay requirements for the City and enables the City to collect land lease revenue, property taxes on the hangar and other improvements (Armstrong Consultants, 2017).

6.3.2.4 Aviation Fuel Facilities

Existing aviation fuel facilities at the airport are privately operated by Yuma Ag Service which provides crop dusting, seeding and spraying services. Aviation fuel presently stored by Yuma Ag Service supports the delivery of its agricultural services.

Armstrong Consultants recommends the installation of two above ground fuel storage tanks and related self-serve dispensing facilities that would be available for public use on a 24-hour basis. The tanks would include:

- one 12,000-gallon capacity storage tank that would store 100-Low Lead fuel (100LL); and,
- a second 12,000-gallon capacity storage tank for the storage of Jet-A fuel.

6.3.2.5 Aircraft Parking

One paved aircraft parking apron is available at the airport. The apron contains 10,250 square yards of concrete and two aircraft tie-downs. Armstrong Consultants recommends the installation of three additional tie-downs to accommodate anticipated peak hour operations, as well as protect other based or transient aircraft that will be parked at the airport.

The construction of a second parking apron is also recommended to accommodate a potential fixed-based operator (FBO) operation. The apron would include a de-icing pad and also be used to support future hangar development.

The construction of a concrete helicopter parking pad is also recommended by Armstrong Consultants to separate rotorcraft from fixed-wing aircraft. The separation would help reduce potential damages to fixed wing aircraft from helicopter rotor downwash.

6.3.3 Other Planned Improvements

6.3.3.1 Instrument Approach Procedure

For the aircraft operating under Instrument Flight Rules (IFR), an instrument approach procedure is a series of predetermined maneuvers under instrument meteorological conditions (IMD) from the beginning of the initial approach to a landing, or to a point from which a landing may be made visually (Armstrong Consultants, 2017). The establishment of such a procedure for Yuma Airport is essential to help attract greater air traffic to the airport. The procedure enables aircraft to operate more safely in the vicinity of the airport during inclement weather conditions. At the time of this report, the establishment of an instrument approach procedure for Yuma Airport is in progress and expected to be completed in 2018.

CHAPTER SEVEN
EMERGENCY OPERATIONS AND EVACUATION PLAN

The City of Yuma uses the most current version of the "Yuma County Emergency Operations Plan". This version is available for review on *oem.yumacountysheriff.net*. This plan continually changes; therefore, a specific written plan is not included in this Chapter.

CHAPTER EIGHT
LAND USE REGULATIONS

8.1 INTRODUCTION

Municipal land use regulations are adopted and enforced to maintain a reasonable set of community development standards that are traditionally outlined in subdivision, zoning, and building regulations, as well as ordinances relating to signage, resource conservation, impact fees, and other land use issues. Land use regulations attempt to balance land use development and financial investment opportunities with public health, safety and welfare considerations, community development objectives and strategies, natural resource conservation issues, and the enhancement of property values.

Land use regulations for the City of Yuma are found in three sections of the Municipal Code. These include:

- Title 15: Building and Construction Regulations
- Title 17: Zoning Regulations
- Title 18: Subdivision Regulations

Chapter Eight provides a review of these regulations and related recommendations for future revision. The review was made in the context of relevant land use development issues, potential opportunities for future land use expansion, as well as opportunities to enhance future land use management.

The specific wording of recommended revisions is not included in this Comprehensive Plan document. The Comprehensive Plan provides, in part, the direction and guidance concerning the adoption of new regulations and/or future amendments to existing municipal land use regulations. Various American land use law precedents essentially mandate that the rationale for changes to zoning maps and other land use regulations are based upon findings, conclusions or recommendations contained in an adopted municipal master plan. Such consistency strengthens the legal basis of future land use decisions by the City of Yuma. Consequently, the adoption of an updated comprehensive plan must precede the adoption of specific new land use regulations.

8.2 BUILDING AND CONSTRUCTION REGULATIONS

8.2.1 General Scope

Most of the regulations outlined in Title 15 relate to the City's adoption of various building codes such as the 2003 International Residential Code, 2003 International Plumbing Code, 2003 International Mechanical Code, 2014 National Electric Code, and 2003 International Fire Code. The City has also adopted amendments to selected standards associated with some of these codes to reflect consideration of local climatic, soil, and other geographic conditions.

In Title 15, Chapter 15.04, recent amendments by the City have designated the City Council as the municipal Board of Appeals. In this capacity, the City Council hears and decides appeals or orders or determinations by the City Building Official relating to any of the adopted building and construction codes. Chapter 18.08 gives authority to the City Council to appoint a City Building Official.

Chapter 15.58 concerning appeals also indicates that any person who is denied an electrical, plumbing, or building permit can appeal to the City Council. This section could likely be merged with recent amendments for Chapter 15.04.

Chapter 15.48 adopts a 1994 edition of a uniform sign code prepared by the International Conference of Building Officials. The remaining sections of this chapter give the City authorization to issue penalties for any violations of the uniform sign code.

Chapter 15.50 concerns the development of privately-owned facilities that manufacture, store, mix and load, and transport pesticides, fertilizers, and herbicides. These land use regulations probably represent the most detailed set of land use regulations in Title 15. The Planning Commission and City Council must approve the construction of any new facility. But the construction of a new facility that replaces a similar facility, and is larger than the original facility, requires only approval by the Planning Commission. Compliance with the regulation does not involve any required inspection by the City of Yuma, Yuma County, or a responsible State agency. This section of Title 15 contains many good design, construction and operational standards that are necessary in the City, but the process for review and approval can be confusing.

8.2.2 Regulatory Issues and Opportunities

8.2.2.1 Building Permit Process

Chapter 15.08 authorizes the City Council to appoint a Building Official. The duties of the Building Official are to review building permit applications, issue building permits, inspect conditions of properties where permits have been issued, and enforce provisions of all building codes adopted by the City.

Chapter 17.11.1101 gives the Director of Public Works, a designee, or authorized representative, the authority to review and issue building permits, inspect properties where permits have been issued, issue stop and desist orders, and issue Certificates of Occupancy.

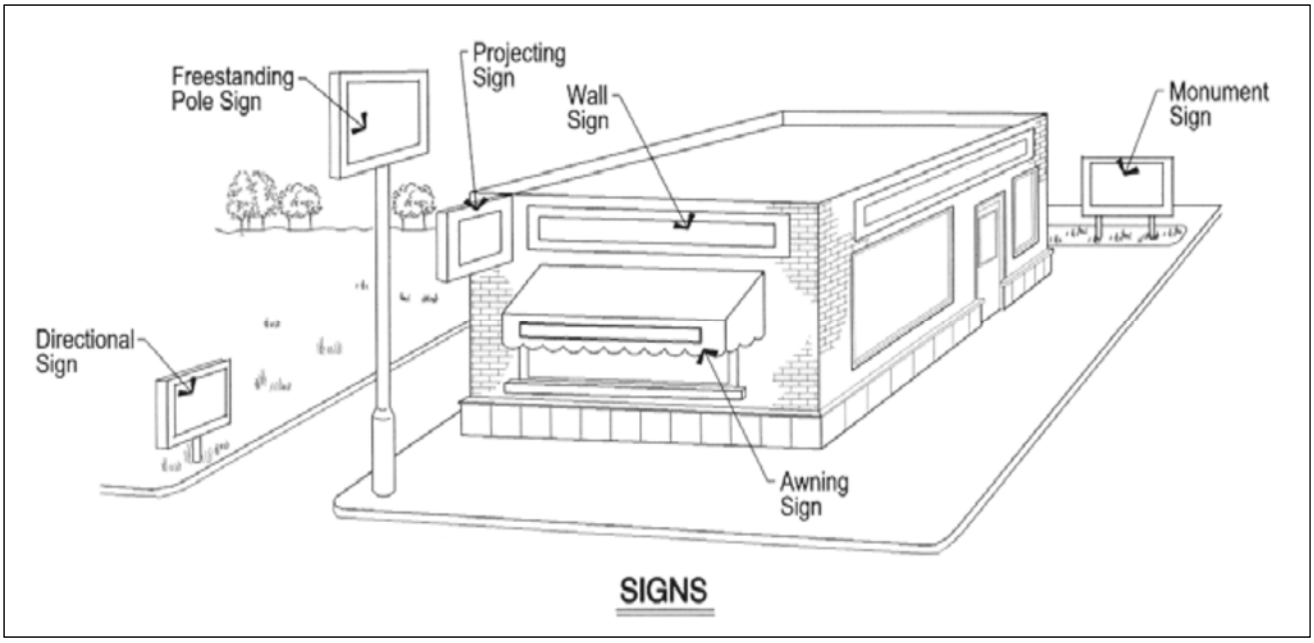
While Chapters 15.08 and Chapter 17.11.1101 do not contradict each other, they add confusion, particularly to persons unfamiliar with the building permit process. The incorporation of the building permit process description within land use regulations is very helpful to landowners or contractors, as well as to the City Building Official. Besides clarification concerning who administers the building permit process, landowners, contractors and other users of the regulations need to know what types of construction require a building permit, what information will be required for the building permit, permit fees, where a permit application is submitted and obtained, and how it is approved.

The availability of this information within land use regulations significantly reduces the number of questions from contractors who are unfamiliar with local land use regulations. Further, it ensures that permit requirements are consistently applied to all persons requesting building permit approval.

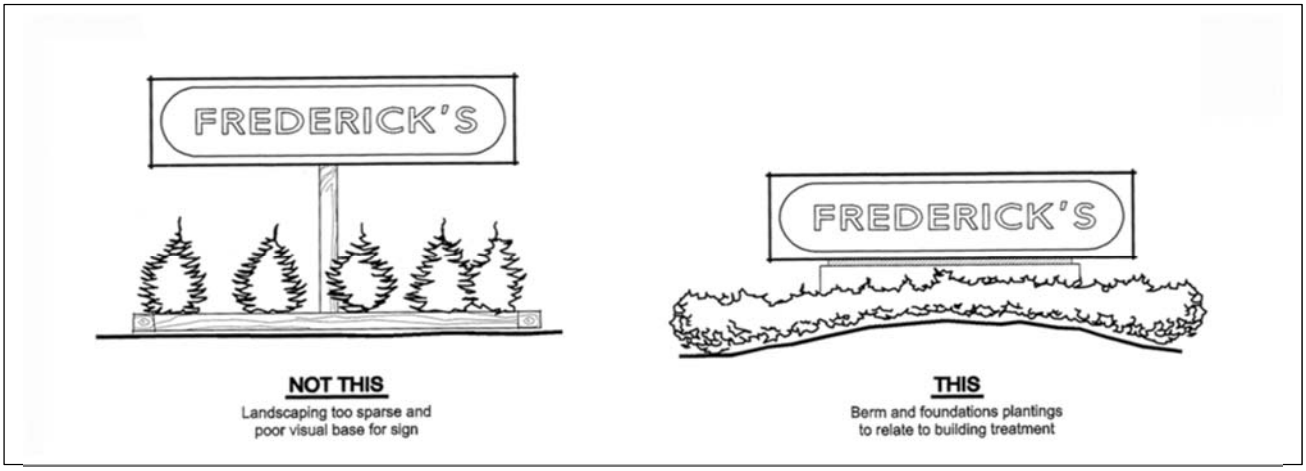
8.2.2.2 Sign Regulations

Sign regulations would ideally be incorporated into one overall chapter of the municipal land use regulations called "Development Standards". This chapter would ideally include, at least, subdivisions, outdoor lighting, fencing, mobile home parks, building design standards, vehicular parking standards, as well as signs.

Sign regulations can also be better communicated through the use of digital pictures and other illustrations. These examples can be combined with size limitations and other narrative to facilitate the understanding of City requirements.



Source: State of Colorado, Department of Local Affairs



8.2.2.3 Regulations for Pesticide, Fertilizer, Herbicide Manufacturers and Distribution Facilities

As stated earlier, the regulations for pesticide, fertilizer, and herbicide manufacturing and distribution facilities are very relevant given the presence of these types of facilities within the community and the prospect for the development and/or expansion of these type of facilities in the future. An update of these regulations may be appropriate given possible updates to Colorado Revised Statutes and/or regulations administered by the Colorado Department of Public Health and Environment.

8.3 ZONING REGULATIONS

8.3.1 General Scope

The zoning regulations establish various types of land use districts for residential, commercial, and industrial land uses, as well as mobile home parks. The various chapters within the zoning regulations include a combination of procedures, permitted uses, appeal processes, and development standards. The format used makes it difficult for most landowners, contractors, and other residents to wade through and find applicable zoning requirements for their property of interest.

8.3.2 Regulatory Issues and Opportunities

8.3.2.1 Use Regulations

A review of permitted and conditional land uses within each zoning district needs to be made. Both permitted and conditional land uses should be updated to reflect more recent types of land uses for all zoning districts. Light industrial and commercial land use definitions and permitted uses need to be clarified to reflect the range of actual land uses and bring greater flexibility to these economic enterprises. Consideration should also be given to making potential adjustments to zoning district boundaries that are reflected on the municipal zoning map.

The existing summary of permitted and conditional land uses in tabular form provides a useful review tool for some users of zoning regulations. But, other users prefer the review of regulations for a specific zoning district that applies to their property of interest. In that format, regulations for one specific zoning district outline permitted and conditional land uses, minimum lot area, minimum setbacks, building heights, vehicular parking and storage, fencing, accessory uses and buildings, and landscaping in one section of the zoning chapter. References are made to a Development Standards chapter for some requirements, e.g., signs, that require a more detailed description.

The need for that type of format or re-organization is perhaps best illustrated by Chapter 17.06, Special Regulations. These regulations outline a combination of permitted uses and construction standards for a series of various land uses such as mobile homes, radio and television towers, home occupations, household pets, arcades, and adult businesses. Land use information would ideally be incorporated into more detailed regulations for each zoning district. More detailed development standards should be organized within one overall Development Standards chapter. This re-organization would greatly facilitate the future use of regulations by all users.

Land uses, e.g., medical marijuana dispensaries and marijuana establishments, that are prohibited in all zoning districts should be in a separate section of zoning regulations chapter entitled "Prohibited Land Uses". In the event that other types of land uses are deemed unnecessary or undesirable by the City Council in the future, such land uses would be identified in that section of the zoning regulations.

8.3.2.2 Amendment Procedures

Chapter 17.10 of the zoning regulations outlines procedures for making amendments to the municipal zoning map. This is an appropriate and important section of land use regulations.

However, noticeably absent are procedures for the amendment of the comprehensive plan and related land use map that are included in the comprehensive plan. The intent of the land use amendment process is to enable future revisions to the adopted community land use plan map that is contained within the Comprehensive Plan. Future land use, demographic and economic trends, as well as the preferences of the community, may prompt future changes in the vision of the community. The land use amendment process is also established to ensure that no changes in the community land use plan map are made without a reasonable consideration of the consequences of potential changes in land use policy.

8.3.2.3 Administration and Enforcement

As stated earlier, Chapter 17.11 of the zoning regulations outlines authority and responsibilities of a Director of Public Works, a designee, or other authorized representative, to review and issue building permits, carry out building inspections, and issue Certificates of Occupancy (see section 8.2.2.1). This information is more appropriately placed in a separate chapter relating to procedures and/or the building and construction regulations.

This chapter also provides the authority and responsibilities for the Planning Commission and the City Council. While the responsibilities outlined are tied to procedures associated with zoning, this information should again be located in a separate chapter associated with procedures for all land use approval processes.

8.3.2.4 Airport Influence District

Chapter 17.12 of the zoning regulations appropriately includes an overlay district for the Yuma Airport. This regulation is very important to the Federal Aviation Administration and required for consideration of any federal funding of municipal airport improvements. The on-line version of these regulations does not contain the related map of the overlay district boundaries, but it is evident from the narrative of these regulations that such a map has already been prepared and adopted by the City of Yuma.

A revision of the overall municipal land use regulations would desirably include a separate chapter for Overlay Districts. The airport regulations would be placed there, as well as any future regulations that might be associated with other community issues, such as floodplain areas, that may eventually be determined for the community by the U.S. Department of Homeland Security, Federal Emergency Management Agency.

8.3.2.5 Historic District

Chapter 17.13 of the zoning regulations gives the City of Yuma authority to establish a series of historic districts in the community. As noted in the regulations, the establishment of historic districts helps protect some unique structures and places within the community if and when it wants to. From a regulatory perspective, the historic district represents another overlay district. Adjacent land uses, e.g., residential or commercial, would be permitted but a plan review process is required for the modification of any structures in a historic district location. Chapter 17.13 should be placed in a new chapter that includes overlay districts.

8.4 SUBDIVISION REGULATIONS

Chapter 18.02 of the Municipal Code outlines subdivision review and approval procedures and design criteria for "minor" and all other types of subdivisions. The legal definitions provided in the subdivision regulations distinguish a minor subdivision as a land subdivision that creates not more than two lots.

In some rural communities, a third type of land subdivision is sometimes defined in subdivision regulations to provide even more simple regulations for subdivisions that create only one new lot, consolidate one or more lots, change a boundary line between two adjoining lots or parcels, change a subdivision plat to correct errors in legal descriptions or monument locations, and require no change in zoning. Consideration should be given to adding a review and approval process for these potential types of land subdivision that might be entitled "Simple Subdivision". If this approach were taken, a minor subdivision might be re-defined as a land subdivision that creates two to five lots.

Regardless of the type of subdivision, the incorporation of a required pre-proposal conference with the Director of Public Works and subdivision developer representative is very helpful to ensure that subdivision applicants understand the review and approval process. This initial element of a review and approval process facilitates the work of the applicant before substantive investments are made for master plan reports, preliminary and final design drawings, and other work products. It also helps the City to minimize potential claims from applicants during project review periods that they were unaware of subdivision review and approval procedures and related information requirements.

This portion of the land use regulations would also benefit from the segregation of subdivision review and approval procedures in one chapter of land use regulations and a separate chapter for Development Standards that would, in part, include design standards and criteria for subdivisions.

8.5 OTHER ELEMENTS OF EXISTING LAND USE REGULATIONS

8.5.1 Definitions

A host of definitions are scattered throughout the building and construction, zoning, and subdivision regulations. It would facilitate all users of the land use regulations if one chapter of the overall land use regulations included all legal definitions.

8.6 RECOMMENDED LAND DEVELOPMENT CODE

The City of Yuma could consider updating and re-organizing the present land use regulations into one overall land development code.

The preparation of a land development code would bring together existing building and construction, zoning and subdivision regulations into a much easier format to review, use and apply regulations to specific land development projects. Those benefits would apply to applicants seeking building permits, zone changes, and subdivision approvals; municipal staff who administer land use regulations; as well as Planning Commission and City Council members who will review, deliberate, as well as recommend, approve or disapprove proposed land development projects.

Other examples of land development codes, or unified development codes, for municipalities are available from the Colorado Department of Local Affairs, Community Development Office. These codes can be conveniently reviewed from https://www.colorado.gov/pacific/dola/land-use-codes.

CHAPTER NINE
FUTURE LAND USE EXPANSION

9.1 INTRODUCTION

One function of the Comprehensive Plan for the City of Yuma is to identify and recommend areas where future land use expansion can feasibly occur to accommodate future community growth. Potential growth areas include lands within the City, as well as within a three-mile radius of Yuma.

The recommendation of potential growth areas does not presume or represent the concurrence of existing landowners to change their existing land uses, the desire of landowners to sell their lands to private or public entities, or an attempt by the City of Yuma to force landowners to annex their properties. Rather, the recommendations are intended to simply provide a guide to the City of Yuma, residents of the community, and prospective investors concerning potential annexation opportunities.

The limitation of potential growth areas to within a three-mile radius of Yuma reflects consideration of the State of Colorado's Municipal Annexation Act of 1965. Municipalities in Colorado cannot make annexations beyond three miles of their municipal boundaries in any given year. Further, municipalities are required to adopt a Three-Mile Plan prior to the completion of any annexation. The plan is to be updated annually.

The Comprehensive Plan can also serve as the City's Three-Mile Plan as long as the plan addresses the elements outlined in C.R.S. 31-12-105(1)(e)(1) of the Municipal Annexation Act of 1965:

> *Prior to completion of any annexation within the three-mile area, the municipality shall have in place a plan for that area that generally describes the proposed location, character, and extent of streets, subways, bridges, waterways, waterfronts, parkways, playgrounds, squares, parks, aviation fields, other public ways, grounds, open spaces, public utilities, and terminals for water, light, sanitation, transportation, and power to be provided by the municipality and the proposed land uses for the area.*

In the following paragraphs, potential land use expansion areas are identified. Each of these areas are described in terms of proposed location, general land characteristics, potential land use constraints, proposed land use, as well as conceptual requirements for providing vehicular access, recreational opportunities, as well as the extensions of municipal water, wastewater, and electrical distribution systems.

9.2 CRITERIA

The criteria used to determine potential land use expansion areas reflect land use needs and opportunities that are anticipated during the coming decade. These are described more fully in Chapters Three and Four of this Comprehensive Plan.

Land use expansion needs are also expressed in the context of the Action Plan outlined in Chapter Ten that identifies a series of community development objectives and strategies. Based upon these evaluations and related conclusions and recommendations, various land areas were identified that:

a. will facilitate the implementation of community development objectives and strategies outlined in the Yuma Comprehensive Plan;
b. will help remove barriers to future land use expansion;
c. appear suitable to support one or more types of future land use development;
d. will help strengthen the economy of the community;
e. will enable the potential development of additional community amenities;
f. do not pose significant constraints to future land use development;
g. can be served by reasonable extensions of the municipal road network, as well as supporting water, wastewater, and electrical distribution systems.

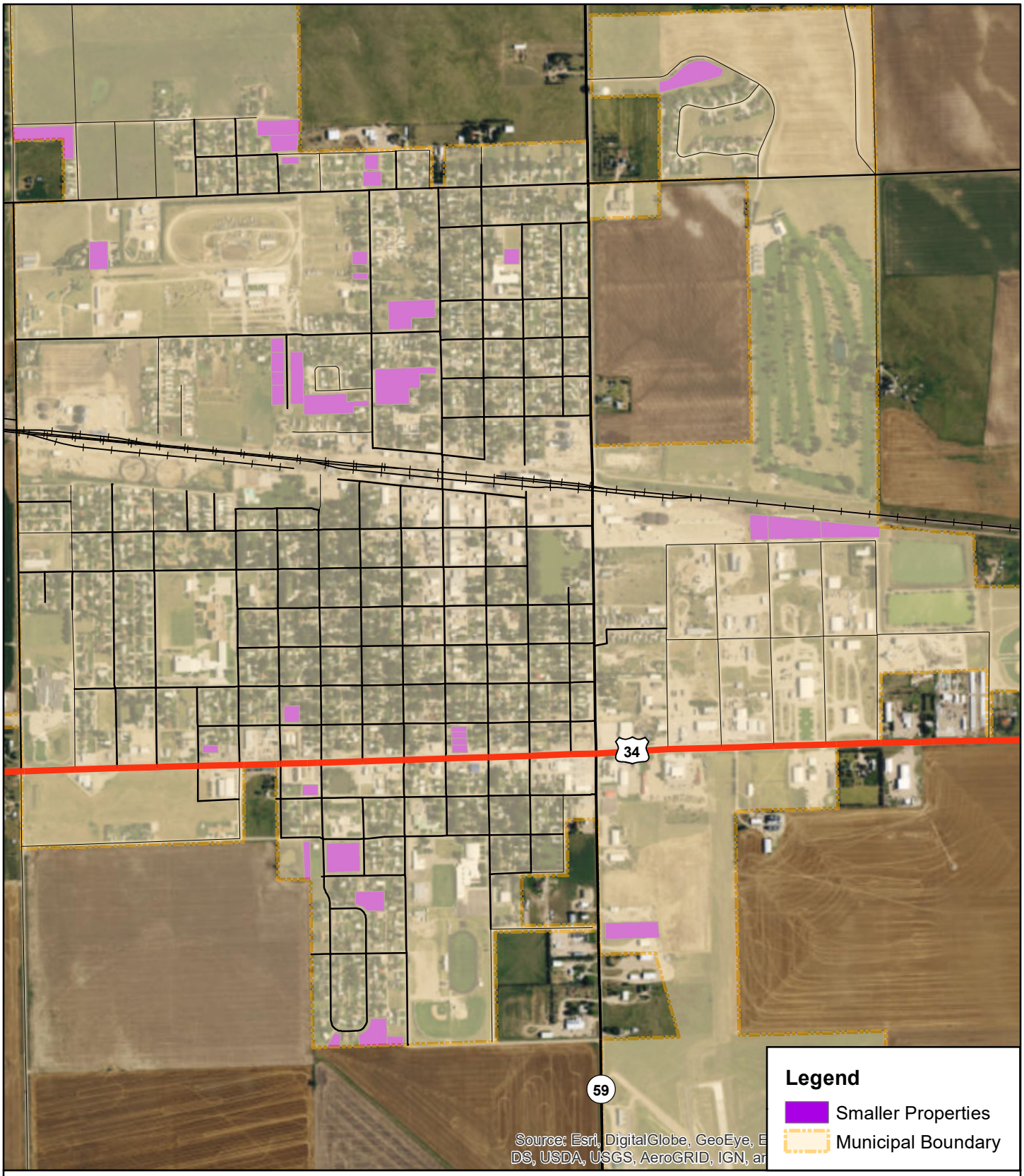
9.3 POTENTIAL LAND USE EXPANSION AREAS WITHIN THE MUNICIPAL BOUNDARY

9.3.1 Smaller Properties Less Than 10 Acres in Size

During the March 2017 land use inventory, there were approximately 36 land parcels within the municipal boundary that were observed to be vacant properties (Figure 9-1). In the coming decade, these parcels can be used to support various types of land uses that are associated with their current zoning designations.

In March 2017, most of these properties were adjacent to either residential or commercial land uses. In some cases, the vacant status of these lands may be the result of a landowner's desire to: have greater open space adjacent to an existing residence, reserve an adjoining lot for potential expansion of a commercial property, hold an adjoining property for potential future sale, or achieve other personal or business objectives.

Within Yuma Industrial Park, there were, at least, three vacant parcels on the north side of the Industrial Park and immediately south of the BNSF main rail line. These parcels, which range between 0.9 and 2.2-acres in size, are suitable for future light industrial expansion.



City of Yuma
Comprehensive Plan Update

Smaller Properties Less Than 10 Acres in Size Within City ofYuma Recommended for Future Land Use Expansion

PPC
Planning with heart for communities

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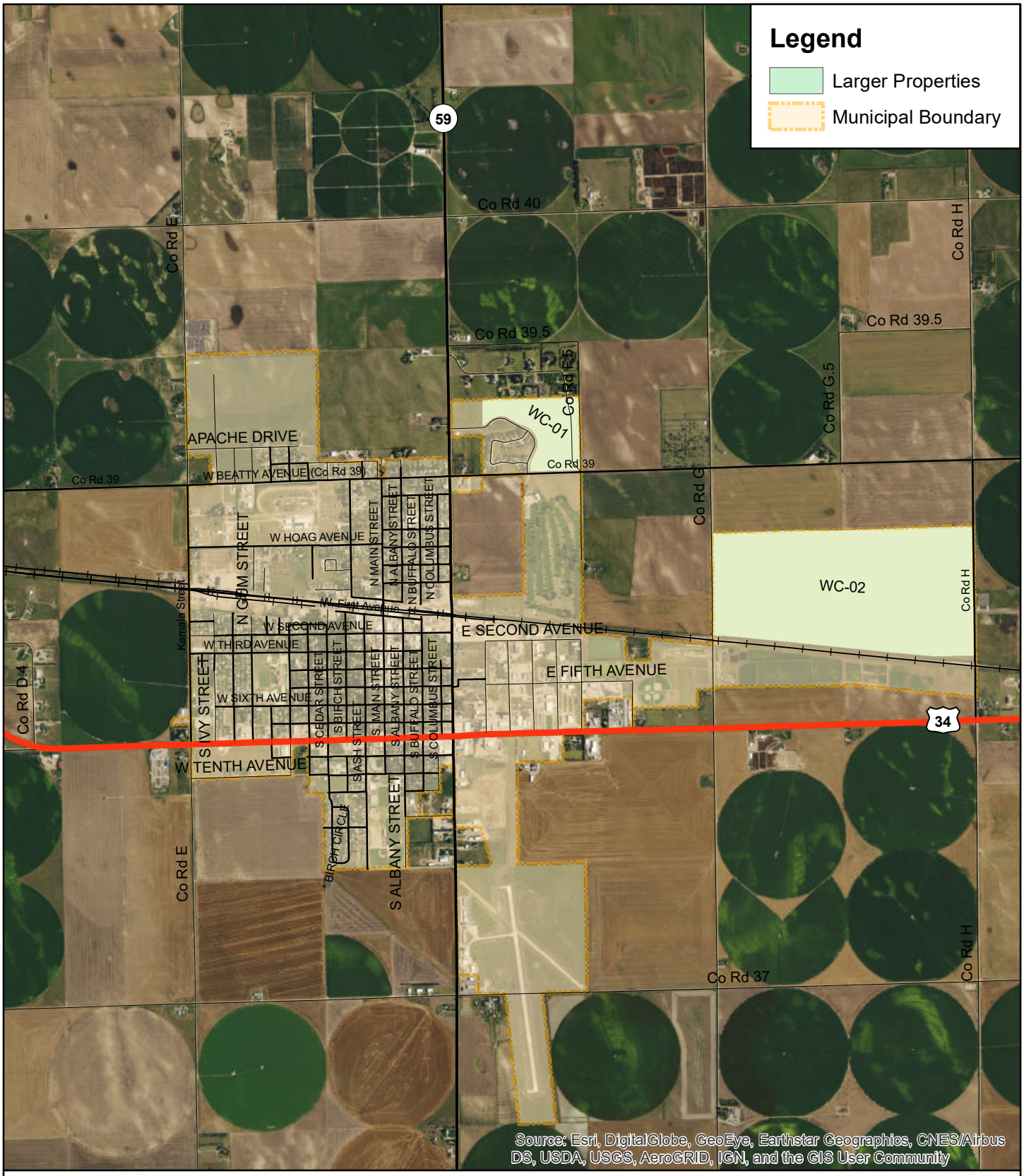
Figure 9-1

9.3.2 Larger Land Parcels

In addition, there are two other larger developable land parcels within the City that remain in agricultural use (Figure 9-2). These properties include Areas WC-01 and WC-02, described as follows:

Area WC-01	
Property Description	Village Park East Addition Yuma
Present Use	Agricultural
General Area Character	45.9 acres northeast of developed portion of Village Park East Addition
Potential Land Use	Residential
Land Use Constraints	None
Vehicular Access	CR 39 and Centennial Road
Water Distribution	Would require connection to 8-inch water main along CR 39 and 6-inch water main along Centennial Road
Wastewater Collection	Would require connection to 8-inch sewer main along Centennial Road.
Electrical Distribution	Possible connection to north underground circuit along Centennial Road.
Recreational Opportunities	Adjacent to Yuma Golf Course. Proposed community trail will pass along Beatty Avenue.

Area WC-02	
Property Description	Roughly 281 acres of agricultural land situated between CR G and CR H that is immediately north of wastewater treatment plant and BNSF main line.
Present Use	Agricultural production
General Area Character	Generally rural. Agricultural uses continue north of the property. Yuma Ethanol complex situated east of property. Jeff Armstrong Ball Park SW of property.
Potential Land Use	Business Park for mixed commercial (non-retail) and light industrial uses.
Land Use Constraints	Site configuration limits ability to feasibly develop rail spur into a potential business park.
Vehicular Access	CR G and CR H
Water Distribution	Would require connection to 6-inch line in vicinity of Jeff Armstrong Ball Park and the extension of 8-inch line from municipal cemetery to create looped system.
Wastewater Collection	Collection system within business park would likely require construction of collection line along CR G to wastewater treatment plant.
Electrical Distribution	Possible connection to north underground circuit along CR G. Eventual connection to new electrical substation near CR H and U.S. Hwy. 34.
Recreational Opportunities	Proposed community trail will pass along CR G.



City of Yuma
Comprehensive Plan Update

Larger Properties Within City of Yuma Recommended for Future Land Use Expansion

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Figure 9-2

The potential development of these properties into the City could accommodate:

- new residential uses on the north side of Yuma that would help address future housing demands for an incoming workforce, as well as demands for new housing from existing residents of the community.
- mixed commercial (non-retail) and light industrial uses within a new business park on the east side of Yuma, as well as additional area for residential expansion. In essence, the gradual, incremental development of a business park would establish a new employment center within the community.

9.4 POTENTIAL LAND USE EXPANSION AREAS OUTSIDE OF THREE-MILE RADIUS OF THE CITY

9.4.1 Smaller Properties Less Than 10 Acres in Size

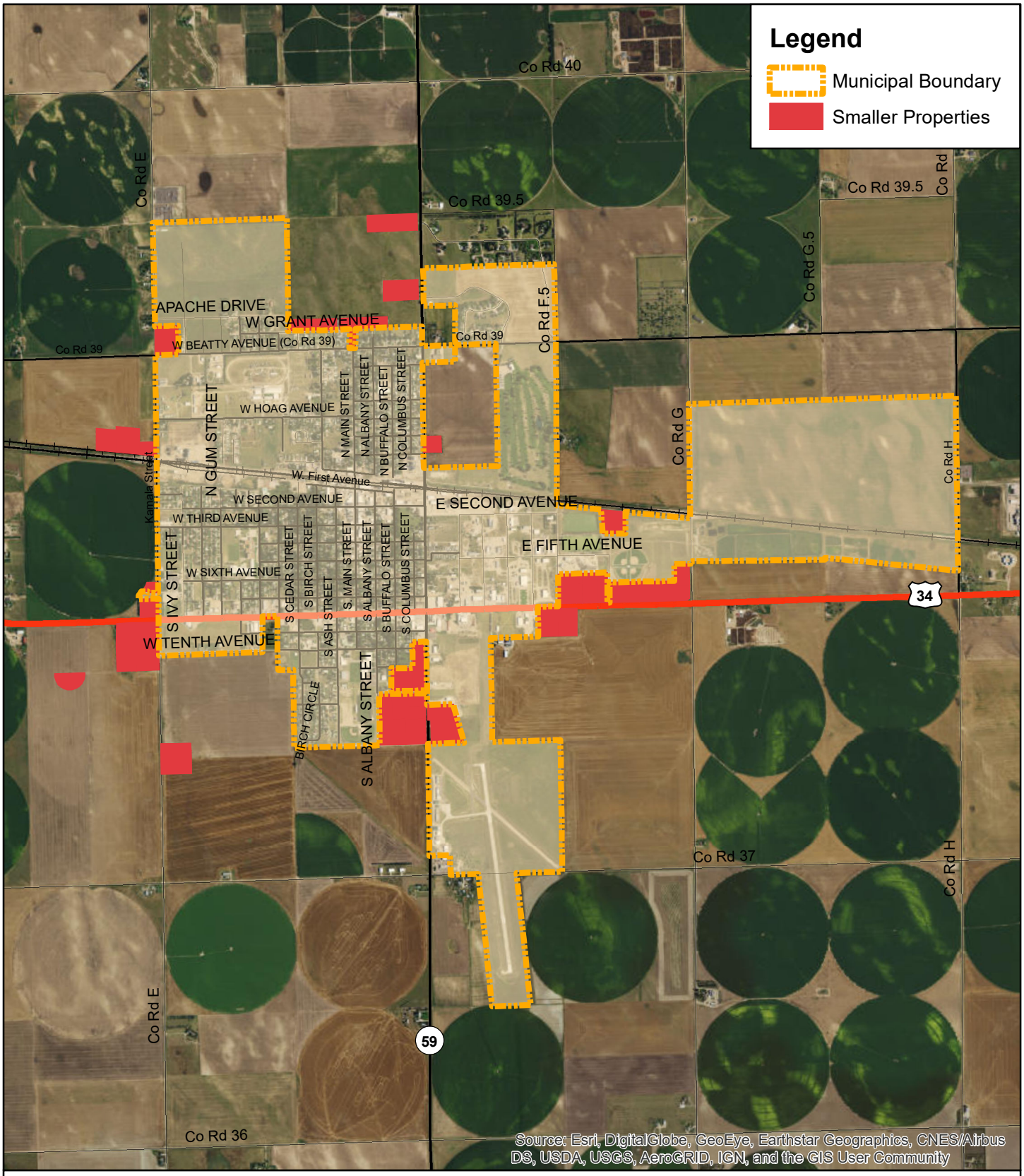
During the March 2017 land use inventory, there were about 46 vacant, or undeveloped, land parcels, less than 10 acres in size, that were situated immediately adjacent to, but outside the municipal boundary (Figure 9-3). In the coming decade, these parcels could be developed and used to support various types of land uses. Their potential annexation into the City of Yuma would bring greater continuity to the delivery of municipal utility and transportation facilities in the vicinity of Yuma.

9.4.2 Larger Land Parcels

In order to accommodate future land use expansion, opportunities for the potential annexation of some properties outside of the three-mile radius of the City of Yuma needs to be available to both private investors and the City of Yuma. Future land use expansion and annexation of some properties outside of the municipal boundary would help "open the door" to future investments by the private sector and the City of Yuma. As stated earlier, the Municipal Annexation Act of 1965 authorizes municipalities, with conditions, the opportunity to annex lands within a three-mile radius in any given year. However, reasonable land use expansion involves the selection of potential expansion areas that can be supported by feasible extensions of municipal utility systems and that are in close proximity to recreational opportunities, employment centers, and supporting commercial services.

Fifteen larger land parcels are recommended for future land use expansion and annexation (Figure 9-4) recognizing that:

- not all of these areas are needed to support future land use expansion in the coming decade;
- a larger inventory of potential annexation areas is necessary as various landowners may prefer to sustain existing land uses or not sell their properties to private investors or the City of Yuma;
- a smaller inventory of potential annexation areas would likely limit or constrain the marketability of lands suitable for future land use expansion.



City of Yuma
Comprehensive Plan Update

Smaller Properties Less Than 10 Acres in Size Adjacent to Municipal Boundary Recommended For Future Annexation

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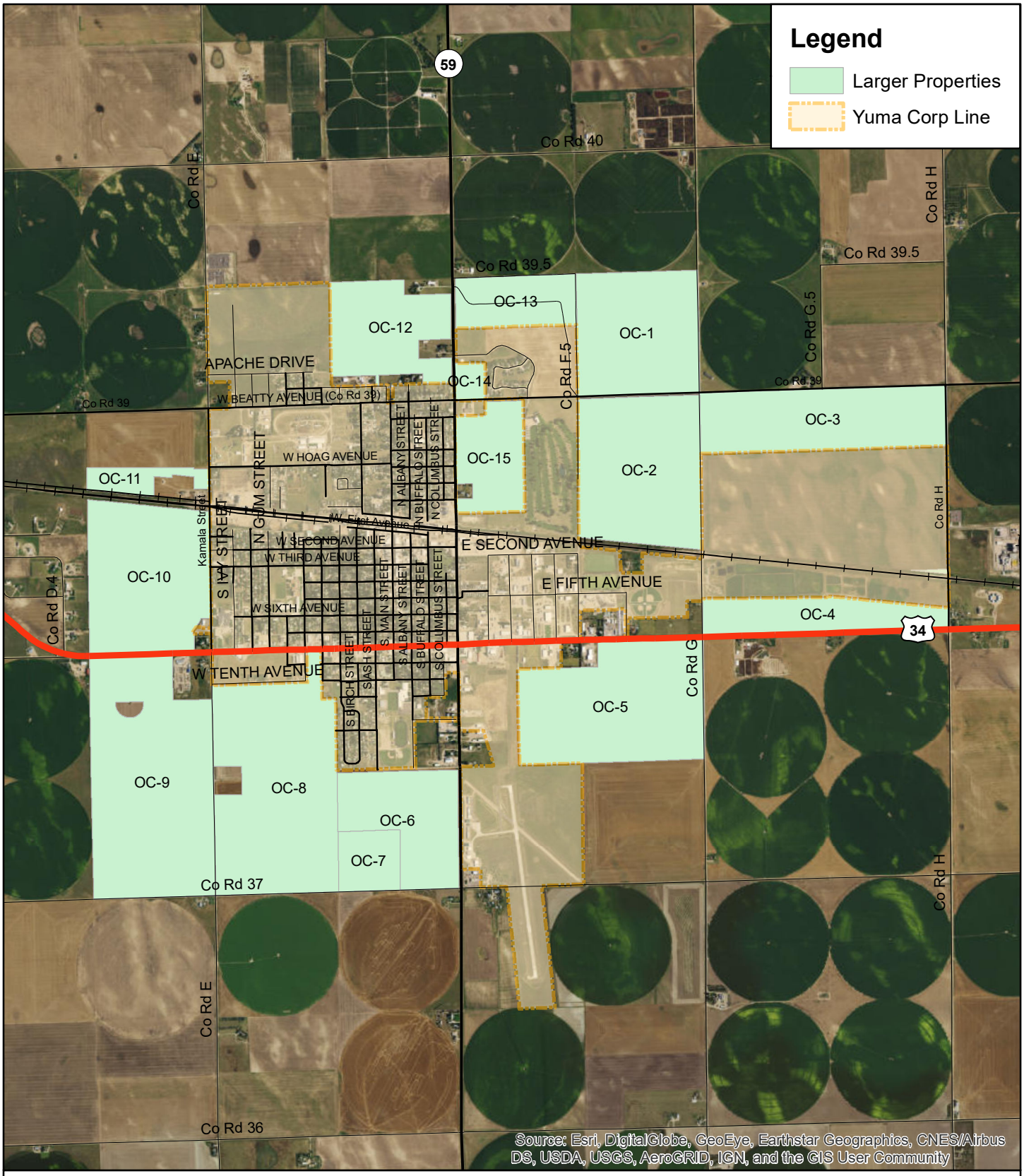
Figure 9-3



City of Yuma
Comprehensive Plan Update

Larger Properties Outside City of Yuma Recommended for Future Annexation

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Figure 9-4

Area OC-1	
Property Description	122 acres of land immediately west and north of municipal cemetery
Present Use	Agricultural production
General Area Character	Rural setting, but near residential development west of property that is located within Village Park East subdivision
Potential Land Use	Residential
Land Use Constraints	None
Vehicular Access	CR 39 adjacent to south side of property
Water Distribution	Connection to 8-inch water main along CR 39
Wastewater Collection	Likely require extension of 8-inch sewer main along CR 39
Electrical Distribution	Likely require extension of north underground circuit
Recreational Opportunities	Close proximity to Yuma Golf Course; proposed community trail system will pass along Beatty Avenue

Area OC-2	
Property Description	199 acres immediately east of Yuma Golf Course
Present Use	Agricultural production
General Area Character	Rural setting. BNSF main line runs along south side of property
Potential Land Use	Residential
Land Use Constraints	None
Vehicular Access	CR 39 and CR G
Water Distribution	Potential connection to 8-inch main along CR 39
Wastewater Collection	Would require construction of collection system within subdivision and connection to existing collection lines south of BNSF main line
Electrical Distribution	Likely require extension of north underground circuit
Recreational Opportunities	Adjacent to Yuma Golf Course. Proposed community trail system will pass along Beatty Avenue and CR G. Close proximity to Jeff Armstrong Ball Park.

Area OC-3	
Property Description	160 acres north of Panda Yuma Ethanol Addition
Present Use	Agricultural production
General Area Character	Rural setting
Potential Land Use	Residential
Land Use Constraints	Costly extension of municipal utility system unless land use expansion precedes or occurs concurrently in areas OC-1, OC-2, or WC-02
Vehicular Access	CR 39 and CR G
Water Distribution	Potential connection to 8-inch main along CR 39
Wastewater Collection	Would require construction of collection system within subdivision and connection to existing collection lines south of BNSF main line
Electrical Distribution	Likely require extension of north underground circuit
Recreational Opportunities	Proposed community trail system will pass along Beatty Avenue and CR G. Yuma Golf Course in close proximity to property.

Area OC-4	
Property Description	86-acre property along U.S. Highway 34 between CR G and CR H.
Present Use	Agricultural production except for new asphalt plant on east side of property.
General Area Character	Generally rural, but immediately adjacent to U.S. Highway 34 along south side of property.
Potential Land Use	Retail commercial, e.g. truck stop, or other highway commercial uses.
Land Use Constraints	None
Vehicular Access	U.S. Highway 34, CR G, and CR H.
Water Distribution	Would require extension of 6 or 9-inch water main along U.S. Hwy. 34 that are located west of property.
Wastewater Collection	Would require extension of 8-inch collection lines along U.S. Hwy. 34 that are situated west of property.
Electrical Distribution	Would require extension of north underground circuit from CR G or U.S. Highway 34.
Recreational Opportunities	Close proximity to Jeff Armstrong Ball Park and proposed community trail system.

Area OC-5	
Property Description	Adjoining 155-acre and 64-acre properties south of U.S. Hwy 34 and west of CR G.
Present Use	Agricultural production
General Area Character	Adjacent to residential and commercial land uses north of U.S. Highway 34. Yuma Airport southwest of property.
Potential Land Use	Retail and other commercial land uses dependent upon vehicular traffic along U.S. Highway 34.
Land Use Constraints	None
Vehicular Access	U.S. Highway 34 and CR G.
Water Distribution	Would require extension of 6 or 9-inch water mains along U.S. Hwy. 34 that are located north of property.
Wastewater Collection	Would require extension of 8-inch collection lines along U.S. Hwy. 34 that are situated north of property.
Electrical Distribution	Would require extension of north underground circuit located north and west of property.
Recreational Opportunities	Close proximity to proposed community trail system and Jeff Armstrong Ball Park.

Area OC-6	
Property Description	120-acre property south of Yuma High School
Present Use	Agricultural production
General Area Character	Suburban setting. North side of property adjoins Yuma High School and residential land uses. Yuma Airport is situated on the east side of property. Neighboring agricultural uses are located south and west of the property.
Potential Land Use	Residential
Land Use Constraints	None

Area OC-6 continued from previous page	
Vehicular Access	South Albany and South Ash Streets, CR 37
Water Distribution	Would require connection to 8-inch line along east side of property
Wastewater Collection	Would require connection to 8-inch sewer main along South Ash Street
Electrical Distribution	Would require connection to south overhead circuit near Yuma High School
Recreational Opportunities	Adjacent to proposed community trail system and Yuma High School recreational facilities

Area OC-7	
Property Description	40-acre parcel southwest of Area OC-6
Present Use	Agricultural production
General Area Character	Rural setting
Potential Land Use	Residential
Land Use Constraints	Development of smaller size of property will likely require closer proximity to water, wastewater, and electrical systems. Development of this parcel more feasible in conjunction with, or following, potential development of OC-6.
Vehicular Access	CR 37 along southern boundary of property.
Water Distribution	Would require connection to 8-inch line along east side of property.
Wastewater Collection	Would require connection to 8-inch sewer main along South Ash Street.
Electrical Distribution	Would require connection to south overhead circuit near Yuma High School.
Recreational Opportunities	Close proximity to proposed community trail system and Yuma High School recreational facilities.

Area OC-8	
Property Description	280-acres south of City's existing southwest municipal boundary
Present Use	Agricultural production
General Area Character	Suburban setting. Residential land uses along north and northeast boundaries of property.
Potential Land Use	Residential
Land Use Constraints	13 acres of property contains unsuitable soil for homes without basements that may generate potential shrink-well conditions.
Vehicular Access	CR E and CR 37
Water Distribution	Municipal well located along south boundary of property. Would require connection to 16-inch water main along west boundary.
Wastewater Collection	Would require connection to 8-inch sewer main along 10th Avenue.
Electrical Distribution	Would require connection to underground south circuit along 10th Avenue.
Recreational Opportunities	Close proximity to proposed community trail system and Veteran's Park.

Area OC-9	
Property Description	301 acres northwest of CR E/CR 37 intersection.
Present Use	Agricultural production
General Area Character	Rural
Potential Land Use	Mixed land uses. Retail commercial along U.S. Hwy. 34; otherwise, residential
Land Use Constraints	Roughly 80 acres in east and south parts of property contain unsuitable soil for homes without basements that may generate potential shrink-well conditions.
Vehicular Access	CR E and CR 37
Water Distribution	Municipal well located adjacent to east boundary of property. Would require connection to 16-inch water main adjacent to east boundary.
Wastewater Collection	Possible connection to 8-inch sewer main on 10th Avenue via CR E
Electrical Distribution	Would require connection to underground south circuit along 10th Avenue via CR E.
Recreational Opportunities	Northern portion of property near proposed community trail system and fitness trail at Yuma Hospital on north side of U.S. Hwy. 34.

Area OC-10	
Property Description	Adjoining 152 and 33-acre properties, north of U.S. Hwy. 34 and south of BNSF main line, that are adjacent to the west boundary of the City.
Present Use	Agricultural production
General Area Character	Suburban setting. Yuma Hospital complex and residential land uses on east side of Kamala Street (CR E).
Potential Land Use	Residential
Land Use Constraints	None
Vehicular Access	CR E (Kamala Street) and U.S. Hwy. 34
Water Distribution	Would require connection to 10-inch water main along Kamala Street.
Wastewater Collection	Would require connection to 8-inch sewer main along Kamala Street.
Electrical Distribution	Would require connection to south overhead and/or underground circuits.
Recreational Opportunities	Adjacent to proposed community trail system and in close proximity to fitness trail at Yuma Hospital.

Area OC-11	
Property Description	24-acre property situated just north of BNSF main line and immediately west of Kamala Street (CR E).
Present Use	City of Yuma electrical substation, cellular facilities, and other public facilities.
General Area Character	Suburban setting adjacent to public facilities and residential land uses east of Kamala Street.
Potential Land Use	Public facilities
Land Use Constraints	None for public facility expansion.
Vehicular Access	Kamala Street (CR E)

Area OC-11 continued from previous page	
Water Distribution	May require connection to 10-inch water main along Kamala Street.
Wastewater Collection	May require connection to 8-inch sewer main east of Kamala Street, but likely unnecessary if properties support only future electrical and communication facility expansion.
Electrical Distribution	Would require connection to south underground circuit.
Recreational Opportunities	Adjacent to proposed community trail system.

Area OC-12	
Property Description	111-acre property north of Beatty Avenue and immediately east of Indian Hills Addition.
Present Use	Agricultural production
General Area Character	Suburban due to adjacency to residential land uses on south, east and west sides of property.
Potential Land Use	Residential
Land Use Constraints	Roughly 43 acres along west side of property are unsuitable for residential buildings without basements.
Vehicular Access	CO Highway 59 and West Grant Avenue
Water Distribution	Would require connection to 10-inch water main along West Grant Avenue.
Wastewater Collection	Would require connection to 8-inch sewer main along West Grant Avenue.
Electrical Distribution	Would require connection to north underground or overhead circuits.
Recreational Opportunities	Adjacent to North Park on West Grant Avenue. In close proximity to community trail system along Beatty Avenue.

Area OC-13	
Property Description	Village Park East Rural subdivision
Present Use	Residential
General Area Character	Suburban setting. Agricultural land uses north and west of the property. Adjacent to Village Park East Addition subdivision on south side of property.
Potential Land Use	Property already developed for residential land use.
Land Use Constraints	Soils with flooding potential on portions of north side of property.
Vehicular Access	CO Hwy. 59 and Old Post Road
Water Distribution	Would likely require extension of 10-inch water main along CO Hwy. 59.
Wastewater Collection	May require extension of 8-inch sewer main along West Beatty Avenue (CR 39) to property.
Electrical Distribution	Would require extension of overhead north circuit from U.S. Hwy. 59.
Recreational Opportunities	In close proximity to proposed community trail system. Near North Park and Yuma Golf Course.

Area OC-014	
Property Description	13-acre property between CO Hwy.59 and Village Park Subdivision
Present Use	Approximately 9 acres are used for agricultural production. About four acres represent residential land use.
General Area Character	Suburban setting
Potential Land Use	Residential
Land Use Constraints	None
Vehicular Access	Direct access available from East Beatty Avenue and Detroit Ave. (CO Highway 59).
Water Distribution	Would require connection to 8-inch water main along East Beatty Avenue.
Wastewater Collection	Would require connection to 8-inch sewer main along south side of property.
Electrical Distribution	Would require connection to north overhead circuit along CO Hwy. 59.
Recreational Opportunities	Adjacent to proposed community trail system. Close proximity to North Park and Yuma Golf Course.

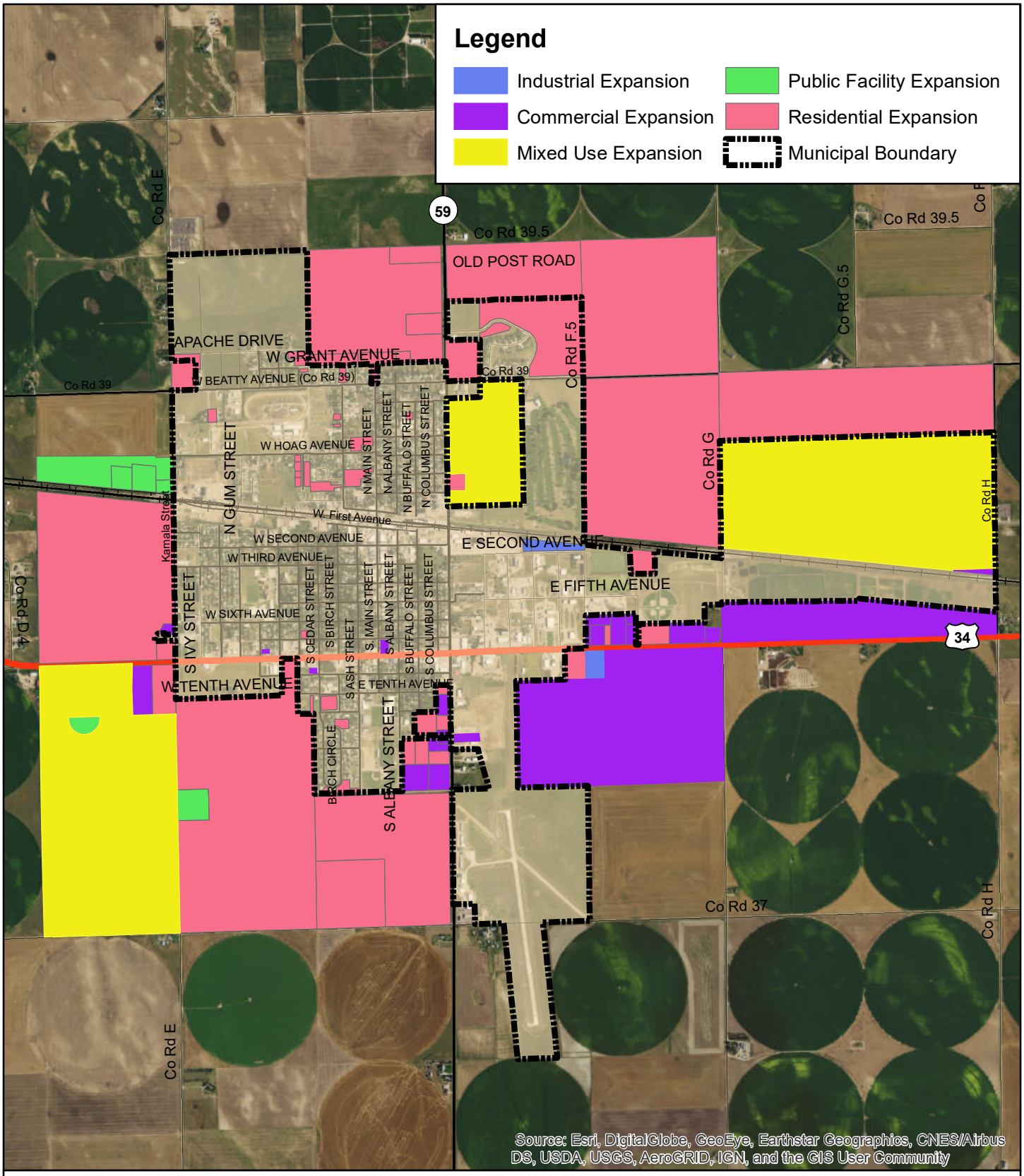
Area OC-015	
Property Description	Undeveloped 73-acre property situated immediately west of the municipal golf course.
Present Use	Agriculture
General Area Character	Scenic golf course adjoins east side of property. Single family residential uses are on north and west sides of the property. Smithfield Feed Mill, a light industrial use, is located southwest of the property. Local Gun Club carries out recreational use of firearms on municipal property on south side of property.
Potential Land Use	Community, public, and recreational facilities.
Land Use Constraints	Residential expansion possible, but constrained by nighttime sound levels from Smithfield Feed Mill. Gun Club activities would need to be relocated to accommodate development of residential, community and public facilities.
Vehicular Access	Direct access available from municipal streets along East Beatty Avenue and Detroit Ave. (CO Highway 59).
Water Distribution	Would require connection to 8-inch water main along East Beatty Avenue along north side of property.
Wastewater Collection	Possible connection to existing 8-inch line on south side of Village Park East subdivision and/or a replacement of an existing 4-inch collection line on south side of the subdivision. Installation of lift station may be required.
Electrical Distribution	Would require connection to north underground and/or overhead circuits available on north, east, south, and west sides of property.
Recreational Opportunities	Adjacent to Yuma Golf Course and proposed community trail system.

9.5 CONCLUSIONS CONCERNING FUTURE LAND USE EXPANSION

Employment centers for Yuma residents are presently situated within the municipal boundary, as well as feedlot and dairy operations and Yuma Ethanol that are located east of the community. Recommended land use expansion on the east side of Yuma could add a combination of opportunities for the development of a new employment center, expanded opportunities for commercial operations along U.S. Highway 34, new residential development, and mixed use development (Figure 9-5).

In general, opportunities for residential expansion are possible on various properties adjoining the north, east, south and west boundaries of the community. All properties are adjacent or, in close proximity, to the proposed community trail system, existing municipal parks, or the Yuma Golf Course. Soil characteristics pose limitations to future residential development northwest of the municipal boundary and, to a limited extent, on lands north and southwest of the present municipal boundary.

There are a variety of smaller, vacant land parcels, less than 10 acres in size, that are also available within, or immediately adjacent to the existing municipal boundary, that can accommodate the future development of senior housing facilities, commercial facilities, privately-owned community facilities that are generally available for public use, public facilities, as well as future recreational facilities. The potential annexation of smaller parcels adjacent to the municipal boundary would, again, provide better continuity for the delivery of municipal services.



City of Yuma
Comprehensive Plan Update

Recommended Land Use Expansion and Annexation City of Yuma

PPC
Planning with heart for communities
Pedersen Planning Consultants
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Figure 9-5

CHAPTER TEN
ACTION PLAN

10.1 INTRODUCTION

Chapter Ten outlines a series of recommended community development objectives and strategies for the coming decade. A preliminary set of objectives and strategies were derived from the previous analyses of community demographic characteristics and the Yuma County economy, land use trends and opportunities, municipal utility demands and system reliability issues, transportation needs and opportunities, land use management, and potential opportunities for future land use expansion. This evaluation also reflects substantive insights from the community that were gained from the initial public information meeting, individual stakeholder interviews, a community survey, and three community workshops.

In early September 2017, the City Council, City Planning Commission, and select municipal staff met with Pedersen Planning Consultants to review the preliminary set of objectives and strategies. Through these discussions, preliminary objectives were refined and revised to include the following recommended objectives and strategies. Each objective is followed by one or more strategies to establish a direction for future project implementation. Each recommended strategy includes a scope of work, or task, to address each objective, an assignment of responsibility for project implementation, and an order-of-magnitude cost.

The refined objectives and strategies represent an ambitious plan for making the City of Yuma a better place to live, work, play and invest. However, the availability of limited financial resources for future capital improvements, as well as long-term operation and maintenance, required the Planning Commission and select municipal staff to establish objectives. Twenty-nine objectives were identified and are presented in this chapter in no particular order of priority.

TABLE 10-1
COMMUNITY DEVELOPMENT OBJECTIVES
CITY OF YUMA COMPREHENSIVE PLAN UPDATE

Objective No.	*Community Development Objective Description*
1	Ensure adequacy of the municipal stormwater management system
2	Promote potential retail trade opportunities to existing and prospective entrepreneurs
3	Organize and develop a skill-based higher education facility
4	Develop a business park in the City of Yuma to help expand and diversify the City of Yuma's economic base
5	Encourage private investment in viable value-added business opportunities
6	Attract residential developers for development of fee simple and rental housing
7	Attract private development of senior living complex
8	Encourage private expansion of truck stop facilities to generate increased retail expenditures and sales tax revenues.
9	Further encourage development of a "walk and shop" environment in the downtown area to generate increased retail expenditures and sales tax revenues.
10	Ensure the future development of safe and attractive light industrial land uses
11	Ensure the availability of lands that can be used for future community facilities
12	Seek opportunities to accommodate multiple uses in municipal public facilities
13	Improve and extend the life of existing recreational facilities
14	Develop a new indoor recreational center
15	Establish a community trail system
16	Provide expanded opportunities for soccer play
17	Determine the adequacy of the municipal water system
18	Increase reliability of municipal water system
19	Extend water distribution system to accommodate future land use expansion
20	Increase the reliability of the wastewater collection system
21	Reuse wastewater sludge as a soil amendment on selected municipal owned lands to enhance the quality of surface soils on selected municipal properties
22	Extend wastewater collection system to accommodate future land use expansion
23	Increase reliability of the electrical distribution system
24	Revise municipal land use regulations
25	Pave and maintain more streets and roads
26	Attract greater use of the municipal airport
27	Remove barriers to future land use expansion
28	Expand rehabilitation facilities in conjunction with a new or existing assisted living or long-term care facility
29	Encourage development of new hotel

10.2 COMMUNITY DEVELOPMENT OBJECTIVES AND STRATEGIES

10.2.1 Environment and Natural Hazards

Objective 1: Ensure adequacy of the municipal stormwater management system

Implementation Strategies (Tasks 1A/1B/1C/1D):

Task 1A: Prepare a request for proposals (RFP) and related public notice for completion of a stormwater management plan. The scope of the plan will, at least, encompass the following:

1) coordinate plan preparation closely with City Manager and managers of Public Services and Utility Services Departments;
2) estimate the volume and model potential stormwater flow events in the City of Yuma for, at least, 10-year and 100-year storm events;
3) determine and map areas of the community that are likely to be impacted by 10-year and 100-year storm events;
4) evaluate the condition, adequacy and capacity of existing storm drains, stormwater detention ponds, street curbs, to transport and hold future stormwater flows;
5) recommend improvements to the existing stormwater system;
6) identify other feasible potential opportunities to infiltrate, capture, or reuse stormwater flows;
7) identify operation and maintenance requirements; and,
8) provide order-of-magnitude costs for recommended improvements.

Transmit the request for proposals to qualified engineering firms that have experienced civil engineers who are licensed in the State of Colorado. If desired, conduct interviews with up to three firms. Select most qualified engineering firm that offers the best project approach for a reasonable lump sum cost. Establish contractual agreement with selected engineering firm.

Responsibility for Implementation: City Manager, City Clerk, and City Council
Project Schedule: 2018
Estimated Cost: $500

Task 1B: Complete scope of work of stormwater management plan and publish stormwater management plan report. Present and discuss conclusions and recommendations with City Manager, managers of Departments of Public Services and Utility Services, and Town Council.

Responsibility for Implementation: Selected consulting engineering firm
Project Schedule: 2019
Estimated Cost: $80,000

Task 1C: Design, if necessary, recommended improvements to the municipal stormwater management system. Establish contractual agreement with engineering firm that completed stormwater management firm unless quality of prior work was unsatisfactory. If so, prepare a scope of work for the design and publicly advertise a request for proposals. Complete project design of recommended improvements and prepare preliminary construction cost estimates.

Responsibility for Implementation: City Manager, City Clerk/Treasurer, and selected engineering firm.

Project Schedule: 2020
Estimated Cost: To be determined during completion of Task 1B.

Task 1D: Prepare bid packages and solicit bids for the construction of improvements for the stormwater management system. Establish contractual agreement with firm that designed stormwater system improvements. Select construction contractor(s), establish separate contracts for construction management services and construction, and construct improvements. Manage and monitor construction activities and progress. Inspect and test all improvements to the stormwater system prior to final acceptance of work completed. Prepare as-built drawings of improvements.

Responsibility for Implementation: City Manager, City Clerk/Treasurer
Project Schedule: 2021
Estimated Cost: To be determined during Task 1C.

10.2.2 Economic Development

Objective 2: Promote potential retail trade opportunities to existing and prospective entrepreneurs

Implementation Strategies (Tasks 2A/2B):

Task 2A: Advise entrepreneurs of retail leakage trends in Yuma County via newsletters, newspaper articles, web pages, and other media. Establish a retail leakage model and periodically update available leakage information using population, income and retail sales data.

Responsibility for Implementation: Yuma County Economic Development Corporation
Project Schedule: 2019-2027
Estimated Cost: $500 per year

Task 2B: Maintain an inventory of available commercial properties In Yuma that are suitable for retail development. Develop the inventory using ArcGIS and spreadsheet software. Obtain property information from local real estate brokers and Yuma County Assessor's Office.

Responsibility for Implementation: Yuma County Economic Development Corporation
Project Schedule: 2018-2027
Estimated Cost: $1,500 (2018) $500 per year for subsequent years

Objective 3: Organize and develop a skill-based higher education facility

Implementation Strategies (Tasks 3A/3B/3C/3D):

Task 3A: Bring together concerned industry leaders and regional community college representatives to organize the development of a new skill-based higher education facility in Yuma. The facility would seek to address the technical skill needs of existing industries in Yuma County, as well as public service functions in the community.

The higher education facility in Yuma would include a combination of classroom and lab space that would be used to provide a combination of both academic and vocational, hands-on skill

training. Vocational training would be provided for persons desiring to become electricians, plumbers, welders, nurses, or other trades. Smithfield Hog Division, local feedlot operations, and other local employers might also use available classrooms to support some ongoing training functions. Courses in both English and Spanish would be provided to facilitate the assimilation of Hispanic/Latino residents into the community, as well as improve the communication between all residents of Yuma.

An early question that will need to be determined is whether or not the higher education facility should become part of the State of Colorado's community college system, or become a separate, non-profit entity. The City of Yuma would ideally kick-off the initial discussions of local industry leaders and regional community college representatives. A new steering committee would also be formed to guide subsequent organizational efforts.

Responsibility for Implementation: City Manager; representatives of local industries; regional community college representatives.
Project Schedule: 2019
Estimated Cost: $100

Task 3B: Outline a vocational educational program that would identify the scope of planned educational programs, instructional teaching staff resources, and administrative requirements. Determine budget for the delivery of educational programs. Determine potential revenues that could be obtained from student fees, financial and/or technical support from local industries, regional community colleges, and other potential sources of funding.

Responsibility for Implementation: Steering Committee established for new higher education facility
Project Schedule: 2019
Estimated Cost: $1,000 for reproduction and distribution of report. Work completed on volunteer basis.

Task 3C: Pursue and obtain grant funds for the preparation of a master plan for the higher education facility. The master plan would determine:

1) facility floor space needs for classrooms, labs and other areas needed to support each desired instructional program area, e.g., nursing, electrician, or welding;
2) functional relationships and design criteria for planned facility uses;
3) support facility requirements for administrative functions and child care;
4) site requirements for vehicular parking, as well as facilities and equipment supporting utility systems;
5) incremental facility development layout that would enable the higher education center facility to add new vocational programs as financial resources became available; and,
6) order-of-magnitude costs for site and incremental facility development.

Transmit request for proposals to qualified planning, architectural and engineering firms that have experience with the planning of vocational educational facilities.

Responsibility for Implementation: Steering Committee established for new higher education facility
Project Schedule: 2020
Estimated Cost: $3,000

Task 3D: Complete scope of work for facility master plan and publish plan report. Present and discuss conclusions and recommendations with, at least, the Steering Committee for new higher education facility, City Manager, City Council, and Yuma Economic Development Corporation.

Responsibility for Implementation: Selected consulting firm
Project Schedule: 2021
Estimated Cost: $25,000

Objective 4: Develop a business park in the City of Yuma to help expand and diversify the City of Yuma's economic base

Implementation Strategies (Tasks 4A/4B/4C/4D/4E/4F):

Task 4A: Seek and obtain grant funds for the completion of a master plan for the business park. The master plan would examine and determine, at least, the following:

1) Identification of competitive business and industrial parks within 100 miles of Yuma.
2) Target industries, lot sizes, and more specific site and facility criteria for selected industry targets.
3) Recommended lot sizes for targeted industries and number of lots for phased, incremental development.
4) Potential development sites and land acquisition costs.
5) Estimated site preparation and development costs.
6) Estimated cost of connections to municipal water, wastewater, and electrical power systems should be available for reasonable tap and appropriate connection fees.
7) Estimated cost of developing paved vehicular access and primary roadways within the business park.
8) How properties are purchased and what prices will be needed to support the City's initial site development and related utility improvement costs.
9) Site development costs and prospective sales prices to investors.
10) Management requirements to market the industrial/business park properties, oversee operation and maintenance of common space areas, and monitor the revenues and expenditures derived from property sales and City expenditures.

Responsibility for Implementation: City Manager; City Clerk/Treasurer
Project Schedule: 2022
Estimated Cost: $3,000

Task 4B: Prepare an RFP and related public notice for completion of a business park master plan. Transmit the request for proposals to planning and/or engineering firms that have experienced civil engineers who are licensed in the State of Colorado. Select the planning or engineering firm that offers the best project approach for a reasonable lump sum cost. Establish contractual agreement with selected engineering firm.

Responsibility for Implementation: City Manager, City Clerk, and City Council
Project Schedule: 2022

Estimated Cost: $500

Task 4C: Complete scope of work of business park master plan and publish plan report. Present and discuss conclusions and recommendations with City Manager, managers of Departments of Public Services and Utility Services, and Town Council.

Responsibility for Implementation: Selected planning or engineering firm
Project Schedule: 2023
Estimated Cost: $30,000

Task 4D: Meet with landowners of prospective properties considered to be viable locations for business park development. Seek potential opportunities and negotiate purchase prices for one or more sites.

Responsibility for Implementation: City Manager
Project Schedule: 2024
Estimated Cost: To be determined via discussions and negotiations with landowners.

Task 4E: Design site improvements for the business park. Establish contract with consulting firm that prepared the business park master plan unless the quality of prior work was unsatisfactory. If so, prepare a scope of work for the design and publicly advertise a request for proposals. Complete project design of recommended improvements and prepare preliminary construction cost estimates.

Responsibility for Implementation: City Manager, City Clerk/Treasurer, and selected consulting firm.
Project Schedule: 2025
Estimated Cost: $75,000

Task 4F: Prepare bid packages and solicit bids for the construction of site improvements for the business park. Establish contractual agreement with consulting firm that designed site improvements to prepare bid packages, solicit and review construction bids, and provide construction management services. Select construction contractor(s) and establish contract. Construct site improvements. Manage and monitor construction activities and progress. Inspect and test all utility improvements prior to final acceptance of work completed. Prepare as-built drawings of improvements.

Responsibility for Implementation: City Manager, City Clerk/Treasurer, construction management firm, general contractor
Project Schedule: 2025
Estimated Cost: To be determined during Task 4E.

Objective 5: Encourage private investment in viable value-added business opportunities

IMPLEMENTATION STRATEGIES (TASKS 5A/5B/5C):

Task 5A: Seek and obtain grant funds for the completion of a feasibility study for the use of local wheat and other grain production near Yuma and development of local grain mill to support a bakery in Yuma and select Front Range communities. Montana Wheat, represents an example of this type of business enterprise. The scope of the feasibility study would include, at least, the following tasks:

- examine potential consumer markets between Denver and Sterling.
- determine competitive bakery operations.
- identify site, facility, and transportation requirements and determine related costs.
- estimate management, operation and maintenance requirements and costs.
- determine capital investment requirements, estimate potential revenues and expenses, cashflow requirements, and potential return-on-investment.

Responsibility for Implementation: Yuma County Economic Development Corporation
Project Schedule: 2020
Estimated Cost: $1,000

Task 5B: Prepare a request for proposals and related public notice for completion of a feasibility study. Transmit the RFP to qualified consulting firms or sole proprietors with relevant business and economic development experience. Select most qualified firm or sole proprietor that offers the best project approach for a reasonable lump sum cost. Establish contractual agreement with selected consultant.

Responsibility for Implementation: Yuma County Economic Development Corporation
Project Schedule: 2020
Estimated Cost: $500

Task 5C: Complete feasibility study, publish report, and share results with potential investors. If results of the feasibility demonstrate the possibility of a viable bakery operation using local wheat and other grain production, local farmers and other local investors would initially be advised of study results. If no interest is expressed in Yuma County, further distribution of the potential business opportunity would be made statewide.

Responsibility for Implementation: Selected consultant; Yuma Economic Development Corporation
Project Schedule: 2021
Estimated Cost: $25,000

10.2.3 Housing

Objective 6: Attract residential developers for development of fee simple and rental housing

IMPLEMENTATION STRATEGIES (TASKS 6A/6B):

Task 6A: Continue discussions with one or more residential developers in Colorado. Share anticipated demands for both fee simple and rental housing. Discuss and determine possible incentives, e.g., land, tap fees, and design standards, that would prompt private investment for the development of fee simple and rental housing units. Identify preferred sites for future residential expansion. Share relevant spatial data that identifies general surface soil characteristics, municipal utility system locations, existing street and roads, and other relevant information that would facilitate site and facility planning.

Due diligence should also be made of prospective developers regarding their past experience with residential development projects. The ability of the developer to finance the proposed project should be demonstrated by the developer, as well as confirmed by participating lending institutions.

Responsibility for Implementation: City Manager; City Clerk/Treasurer, consultant
Project Schedule: 2018
Estimated Cost: $5,000

Task 6B: When one or more residential developers formally express the desire to develop fee simple or rental housing in Yuma, establish contracts that outline the commitments of the developer and the City of Yuma. The time of performance is an essential part of this agreement to ensure that housing units are developed within a reasonable time period.

Responsibility for Implementation: City Manager; City Clerk/Treasurer; City Legal Counsel
Project Schedule: 2018
Estimated Cost: $4,000

Objective 7: Attract private development of senior living complex

IMPLEMENTATION STRATEGY (TASK 7A):

Task 7A: Contact and meet with representatives of senior living communities that develop, operate and maintain small independent living complexes. Discuss potential business opportunity to develop a senior living complex for independent living that would be more oriented to providing a variety of social and recreational opportunities and related lifestyle amenities. Aside from one and two-bedroom housing units with kitchens, amenities of the complex would desirably include support facilities such as a fitness center, community garden, swimming pool, pickle ball court, woodworking shop, library, theatre, and billiard room.

Meet also with representatives of Yuma Life Care Center and the Parrish Care Center. Determine potential interest to expand their existing facilities and services to provide independent living opportunities. Share information from 2017 Community Survey regarding existing senior housing and anticipated senior housing demands.

Responsibility for Implementation: City Manager; City Clerk/Treasurer
Project Schedule: 2018
Estimated Cost: $1,000

10.2.4 Commercial Development

Objective 8: Encourage private expansion of truck stop facilities to generate increased retail expenditures and sales tax revenues

IMPLEMENTATION STRATEGIES (TASKS 8A/8B/8C):

Task 8A: Pursue and obtain grant funds for the completion of a feasibility study for the potential expansion of truck stop facilities and services along the U.S. Highway 34 corridor. The feasibility study would consider the potential expansion of existing facilities or the development of a new truck

stop facility in Yuma. This investigation would require completion of a more detailed assessment of trucker service needs and determination of potential market, related site and facility requirements, potential sites, as well as construction, operation and maintenance costs. Financial analyses would examine anticipated cash flows, potential profit-loss, and return-on-investment.

Responsibility for Implementation: Yuma County Economic Development Corporation
Project Schedule: 2019
Estimated Cost: $1,000

Task 8B: Prepare a request for proposals (RFP) and related public notice for completion of a feasibility study. Transmit the RFP to qualified consulting firms or sole proprietors with relevant business and economic development experience. Select most qualified firm or sole proprietor that offers the best project approach for a reasonable lump sum cost. Establish contractual agreement with selected consultant.

Responsibility for Implementation: Yuma County Economic Development Corporation
Project Schedule: 2019
Estimated Cost: $500

Task 8C: Complete feasibility study, publish report, and share results with potential investors. If results of the feasibility study demonstrate the feasibility of a truck stop expansion or new truck stop development, the owner of the existing truck stop operation in Yuma would initially be advised of study results. If potential interest is expressed for a potential business expansion, technical assistance will be offered to help support the project financing process. Otherwise, results of the study will be further distributed and discussed with other truck stop developers.

Responsibility for Implementation: Selected consultant; Yuma Economic Development Corporation
Project Schedule: 2020
Estimated Cost: $25,000

Objective 9: Further encourage development of a "walk and shop" environment in the downtown area to generate increased retail expenditures and sales tax revenues

IMPLEMENTATION STRATEGIES (TASKS 9A/9B/9C/9D/9E):

Task 9A: Examine available municipal properties in the downtown area that could be used for the development of a small pocket park. The park would include shaded seating areas, children's play equipment, possible art works, and other improvements that would encourage greater activity within the downtown area.

Prepare conceptual layouts of the pocket park and determine cost of park improvements.

Responsibility for Implementation: City Manager, Parks Department
Project Schedule: 2023
Estimated Cost: $5,000

Task 9B: Examine available properties in the downtown area that could be used to provide a centralized vehicular parking area. Prepare one or more conceptual site layouts to determine potential vehicular capacities, pedestrian access to Main Street, signage, as well as site preparation and paving costs. Consider use of City personnel to complete parking area improvements.

Responsibility for Implementation: City Manager; Public Services Department; and civil engineering consultant (if necessary)
Project Schedule: 2023
Estimated Cost: $5,000

Task 9C: Purchase asphalt, concrete, and other materials needed for site development. Construct improvements on selected site.

Responsibility for Implementation: City Manager; Public Services Department
Project Schedule: 2023
Estimated Cost: To be determined during completion of Task 10B.

Task 9D: Examine potential opportunities to incorporate landscaping along sidewalk areas fronting retail establishments along South Main Street. Consider placement of shrubs in small raised boxes on recently constructed paved sidewalks. Coordinate plant selection with Yuma Conservation District and citizen committee that previously made landscaping recommendations for the downtown improvement project. Determine cost estimates for construction of raised boxes and purchases of plant material.

Contact small business owners along North Main Street to determine their commitment to water and maintain plants during spring and summer seasons.

Responsibility for Implementation: City Manager; Public Services Department; Yuma County Conservation District
Project Schedule: 2023
Estimated Cost: $500

Task 9E: Obtain construction materials for raised boxes and purchase selected plant materials for planting. Consider purchase of plant materials from Yuma County Conservation District.

Responsibility for Implementation: City Manager; Public Services Department; Yuma County Conservation District
Project Schedule: 2024
Estimated Cost: To be determined during completion of Task 9D.

10.2.5 Light Industrial Development

Objective 10: Ensure the future development of safe and attractive light industrial land uses

IMPLEMENTATION STRATEGY (TASK 10A):

Task 10A: Revise zoning regulations to clarify industrial land use definitions and related land uses. Incorporate additional site and facility requirements for future light industrial activities. Consider separate criteria for proposed business park.

Retain technical assistance from planning consultant, with experience in the preparation and administration of land use regulations, for the revision of zoning regulations. Perform related legal review in the context of Colorado Revised Statutes and other land use law precedents.

Responsibility for Implementation: City Manager; planning consultant; City Legal Counsel
Project Schedule: 2019
Estimated Cost: See Objective 24. This strategy will be completed in conjunction with overall revision of land use regulations.

10.2.6 Community Facility Development

Objective 11: Ensure the availability of lands that can be used for future community facilities

IMPLEMENTATION STRATEGY (TASK 11A):

Task 11A: Consider the revision of zoning regulations to incorporate a community facilities zoning district. The scope of permitted uses for these land uses will be defined. Site and facility requirements will be determined to ensure that community facilities are compatible with adjoining land uses.

Retain technical assistance from planning consultant, with experience in the preparation and administration of land use regulations, for the revision of zoning regulations. Perform related legal review in the context of Colorado Revised Statutes and other land use law precedents.

Responsibility for Implementation: City Manager; planning consultant; City Legal Counsel
Project Schedule: 2019
Estimated Cost: See Objective 24. This strategy will be completed in conjunction with overall revision of land use regulations.

10.2.7 Public Facilities

Objective 12: Seek opportunities to accommodate multiple uses in municipal public facilities.

IMPLEMENTATION STRATEGIES (TASKS 12A/12B/12C/12D/12E):

Task 12A: Pursue and obtain grant funds for the preparation of a master plan for the Yuma Community Center. The master plan will encompass and address, at least, the following issues:

- physical repairs needed to sustain the "life" of the existing facility and the determination of related costs;
- future uses of the Yuma Community Center;
- building use policies and user fees;
- future management of the facility;
- anticipated costs for future operation and maintenance of the facility; and,
- strategies aimed at making the Community Center more self-sustaining.

Responsibility for Implementation: City Manager, City Clerk, and City Council
Project Schedule: 2021
Estimated Cost: $1,000

Task 12B: Prepare a request for proposals (RFP) and related public notice for completion of a master plan for the Yuma Community Center. Transmit the RFP to qualified planning, architectural, and engineering firms in the State of Colorado. If desired, conduct interviews with up to three firms.

Select most qualified consulting firm that offers the best project approach for a reasonable lump sum cost. Establish contractual agreement with selected firm.

Responsibility for Implementation: City Manager, City Clerk, and City Council
Project Schedule: 2021
Estimated Cost: $500

Task 12C: Complete scope of work of master plan for Yuma Community Center and publish master plan report. Present and discuss conclusions and recommendations with City Manager, managers of Departments of Public Services and Utility Services, and Town Council.

Responsibility for Implementation: Selected consulting firm
Project Schedule: 2022
Estimated Cost: $22,000

Task 12D: Design, if necessary, recommended improvements to the Yuma Community Center. Establish contractual agreement with the consulting firm that completed the master plan firm unless the quality of prior work was unsatisfactory. If so, prepare a scope of work for the design and publicly advertise a request for proposals. Complete project design of recommended improvements and prepare preliminary construction cost estimates.

However, if design work is not necessary, a scope of work and related request for services will be prepared and advertised for the completion of facility repairs. A second option is for the City Manager to assign the completion of facility repairs to one or more City departments.

Responsibility for Implementation: City Manager, City Clerk/Treasurer, selected consulting firm or general construction contractor.
Project Schedule: 2023
Estimated Cost: $25,000

Task 12E: If necessary, prepare bid packages and solicit bids for the construction of new improvements to the Yuma Community Center. Review and select construction contractor(s), establish construction contract, and construct improvements. Monitor construction activities and progress. Inspect all improvements to the Community Center prior to final acceptance of work completed. Prepare as-built drawings of improvements.

Responsibility for Implementation: City Manager, City Clerk/Treasurer, selected contractor
Project Schedule: 2023
Estimated Cost: To be determined during Task 13D.

10.2.8 Recreation

Objective 13: Improve and extend the life of existing recreational facilities

IMPLEMENTATION STRATEGY (13A):

Task 13A: Complete site and facility improvements planned by the City Parks Department (see Chapter Four: Table 4-10). Planned improvements will involve the purchase and installation of

materials and equipment by the City Parks Department, as well as the use of general contractors for some planned improvements. Bids will be solicited and advertised via public notice for work to be completed by private contractors. Bids will be reviewed and contracts established with selected contractors.

Responsibility for Implementation: City Manager, Parks Department, selected contractors
Project Schedule: 2019
Estimated Cost: See Table 4-10 in Chapter Four.

Objective 14: Develop a new indoor recreational center

IMPLEMENTATION STRATEGIES (TASK 14A/14B/14C/14D/14E):

Task 14A: Seek and obtain grant funds for the completion of a master plan for an indoor recreational center. The master plan will evaluate and recommend, at least, the following:

- facility uses and relationships;
- overall facility floor plan;
- vehicular parking and other site requirements;
- facility management, operation and maintenance requirements; as well as
- order-of-magnitude costs for site and facility development, fixed furniture, fixtures and equipment requirements, and long term facility operation and maintenance.

Responsibility for Implementation: City Manager, Parks Department, selected contractors
Project Schedule: 2021
Estimated Cost: $500

Task 14B: Prepare a request for proposals and related public notice for completion of a master plan for the indoor recreational center. Transmit the RFP to qualified planning, architectural, and engineering firms in the State of Colorado. If desired, conduct interviews with up to three firms. Select most qualified consulting firm that offers the best project approach for a reasonable lump sum cost. Establish contractual agreement with selected firm.

Responsibility for Implementation: City Manager, City Clerk, and City Council
Project Schedule: 2021
Estimated Cost: $1,000

Task 14C: Complete scope of work of master plan for the indoor recreational center and publish master plan report. Present and discuss conclusions and recommendations with City Manager, managers of Departments of Parks, Utility Services, and Town Council.

Responsibility for Implementation: Selected consulting firm
Project Schedule: 2022
Estimated Cost: $35,000

Task 14D: Design new indoor recreational center. Seek and obtain grant funds for the design and construction of the recreational facility. Establish contractual agreement with the consulting firm

that completed the master plan firm unless the quality of prior work was unsatisfactory. If so, prepare a scope of work for the design and publicly advertise a request for proposals. Complete project design of recommended improvements and prepare preliminary construction cost estimates. Coordinate design with City Parks Department and Utility Services Department.

Responsibility for Implementation: City Manager, City Clerk/Treasurer, selected consulting firm
Project Schedule: 2023
Estimated Cost: $45,000

Task 14E: Prepare bid packages and solicit bids for the construction of new indoor recreational center. Review and select construction contractor(s), establish construction contract, and construct improvements. Monitor construction activities and progress. Inspect all improvements to the Community Center prior to final acceptance of work completed. Prepare as-built drawings of improvements.

Responsibility for Implementation: City Manager, City Clerk/Treasurer, selected contractor
Project Schedule: 2024
Estimated Cost: To be determined during Task 14D.

Objective 15: Establish a community trail system

IMPLEMENTATION STRATEGIES (TASKS 15A/15B/15C):

Task 15A: Adopt and establish a route for the community trail system. A recommended route for the trail system is presented in Chapter Four: Figure 4-9. The community trail system will be established in two phases. The first phase should include all designated trail routes south of BNSF rail corridor. Procure and install steel fence posts with a small steel plate (which reads "*Yuma Community Trail*") at the beginning and end of each block along the proposed trail route. The trail sign should be located somewhere in the street right-of-way, but not within the graded road or paved street. The opening of the community trail should be publicized in the Yuma Pioneer along with an illustration of the trail route.

Responsibility for Implementation: City Manager, City Parks Department
Project Schedule: 2022
Estimated Cost: $8,000

Task 15B: Contact appropriate representatives of Burlington Northern Santa Fe Railway (BNSF) to obtain design and construction criteria for rail crossings at Kamala St and CR G. Once an agreement is accepted by BNSF, the City will need to construct necessary improvements and signage at both rail crossings. Rail crossings should also be constructed in conformance with design criteria for pedestrian and bicycle facilities that are included in Chapter 14 of the Colorado Department of Transportation's Roadway Design Manual. Subsequently, the City Parks Department will proceed with the installation of signage at the beginning and end of each block north of the BNSF rail corridor.

Responsibility for Implementation: City Manager, City Parks Department
Project Schedule: 2023
Estimated Cost: $10,000

Task 15C: If necessary, retain services of building contractor to design and construct required rail crossing improvements. Prepare scope of work and solicit bids via public notice. Establish contract and inspect all improvements.

Responsibility for Implementation: City Manager, City Parks Department
Project Schedule: 2024
Estimated Cost: To be determined by selected building contractor.

Objective 16: Provide expanded opportunities for soccer play

IMPLEMENTATION STRATEGY (TASK 16A):

Task 16A: Design and construct a new soccer field on vacant municipal property in the vicinity of Jeff Armstrong Ball Park. Retain services of building contractor to design and construct a grassed 100 x 130 yard soccer field that conforms to the standards recommended by U.S. Youth Soccer. Establish contract and inspect all improvements.

Responsibility for Implementation: City Manager, City Parks Department, selected building contractor
Project Schedule: 2023
Estimated Cost: To be determined by selected building contractor.

10.2.9 Water System

Objective 17: Determine the adequacy of the municipal water system

IMPLEMENTATION STRATEGY (TASK 17A):

Task 17A: Purchase copy of WaterCad, or other comparable software to enable the performance of an in-house hydraulic capacity analysis. Select software versions that can easily integrate with AutoCad or ArcGIS software. Input relevant system characteristics and related data into the WaterCad model to determine the adequacy of existing piping, valves, fire flow pressures, and other appurtenant facilities. Identify potential improvements that may be needed increase system reliability and accommodate future extensions of the water system.

Responsibility for Implementation: City Manager, City Clerk/Treasurer, Utility Services Department
Project Schedule: 2018
Estimated Cost: $3,500

Objective 18: Increase reliability of municipal water system

IMPLEMENTATION STRATEGIES (TASKS 18A/18B):

Task 18A: Replace older cast iron and ductile iron pipe that make up a portion of the existing distribution system. The location of this pipe in the water distribution system is depicted in Chapter

Five: Figure 5-2. Using this information, develop annual budgets for incremental replacement of the older cast iron and ductile iron pipe with polyvinyl (PVC) pipe. Purchase and install new PVC pipe.

Responsibility for Implementation: City Manager, City Clerk/Treasurer, Utility Services Department
Project Schedule: 2019-2027
Estimated Cost: $50,000 per year

Task 18B: Replace 20 older fire hydrants manufactured before 1967. The location of these hydrants is illustrated in Chapter Five: Figure 5-3. Using this information, determine specifications for future fire hydrants. Develop annual budgets for incremental replacement of all older fire hydrants. Purchase and install new fire hydrants.

Responsibility for Implementation: City Manager, City Clerk/Treasurer, Utility Services Department
Project Schedule: 2020-2025
Estimated Cost: $10,000 per year

Objective 19: Extend water distribution system to accommodate future land use expansion

IMPLEMENTATION STRATEGY (TASK 19A):

Task 19A: Plan for future extensions of the water distribution system as new residential, commercial, industrial, community facilities, and public facilities are envisioned by the City. The Comprehensive Plan provides a starting point concerning the likely locations of future land use expansion within the coming decade. Apply the use of WaterCad software to determine the appropriate sizes of water mains, valves, and other supporting facilities.

As the need for system extensions are eventually realized, determine preliminary construction costs of needed improvements. A process for the determination and collection of Impact fees and related municipal ordinance should also be developed to ensure that the City does not bear the entire financial burden for all future system extensions.

Responsibility for Implementation: City Manager, City Clerk/Treasurer, Utility Services Department
Project Schedule: 2018-2027
Estimated Cost: $1,000 per year

10.2.10 Wastewater System

Objective 20: Increase the reliability of the wastewater collection system

IMPLEMENTATION STRATEGIES (TASKS 20A/20B/20C):

Task 20A: Replace all clay tile pipe in the collection system. The pipe would be replaced with polyvinyl chloride (PVC) pipe which characterizes the remainder of the collection system. The location of this pipe in the wastewater collection system is depicted in Chapter Five: Figure 5-5. Using this information, develop annual budgets for incremental replacement of all clay tile pipe. Purchase and install new PVC pipe.

Responsibility for Implementation: City Manager, City Clerk/Treasurer, Utility Services Department

Project Schedule: 2020-2027
Estimated Cost: $50,000 per year

Task 20B: Install rails in two of the City's four lift stations to enable safe access to pumps inside the lift stations. Install SCADA systems in each of the four lift stations to enable offsite monitoring of lift station functions. Purchase and install rails and SCADA system equipment.

Responsibility for Implementation: City Manager, City Clerk/Treasurer, Utility Services Department
Project Schedule: 2019
Estimated Cost: To be determined

Task 20C: Prepare and adopt a Fats, Oil and Grease (FOG) ordinance to minimize potential blockages in the wastewater collection system. Supplement FOG ordinance with the preparation of a fats, oil, and grease best management practices manual that would be distributed to all existing and new food and beverage establishments. Such a manual would provide useful, practical information to food service managers and kitchen personnel that would enhance understanding of relevant issues, how to effectively manage fats, oil and grease wastes, and regulatory requirements associated with the fats, oil, and grease regulations.

Responsibility for Implementation: City Manager, City Clerk/Treasurer, Utility Services Department, City Legal Counsel
Project Schedule: 2018
Estimated Cost: $2,000

Objective 21: Reuse wastewater sludge as a soil amendment on selected municipal owned lands to enhance the quality of surface soils on selected municipal properties

IMPLEMENTATION STRATEGY (TASK 21A):

Task 21A: Continue to coordinate with representatives of the Colorado Department of Public Health and Environment, Water Quality Control Division, to gain the necessary authority for the reuse of biosolids. Such coordination will require the City Utility Services Department to provide various types of background information. The State of Colorado's Biosolids regulation number 64 establishes *"….requirements, prohibitions, standards and concentration limitations on the use of biosolids as a fertilizer and/or organic soil amendment in a manner so as to protect the public health and prevent the discharge of pollutants into state waters."*

Responsibility for Implementation: City Manager, Utility Services Department
Project Schedule: 2018-2019
Estimated Cost: $500 per year

Objective 22: Extend wastewater collection system to accommodate future land use expansion

IMPLEMENTATION STRATEGY (TASK 22A):

Task 22A: Plan for future extensions of the wastewater collection system as new residential, commercial, industrial, community facilities, and public facilities are envisioned by the City. The

Comprehensive Plan provides a starting point concerning the likely locations of future land use expansion within the coming decade. Apply the use of SewerCad, or other comparable software, to determine the appropriate size of wastewater collection lines and other support facilities.

As the need for system extensions is eventually realized, determine preliminary construction costs of needed improvements. A process for the determination and collection of Impact fees and related municipal ordinance should also be developed to ensure that the City does not bear the entire financial burden for all future system extensions.

Responsibility for Implementation: City Manager, City Clerk/Treasurer, Utility Services Department
Project Schedule: 2018-2027
Estimated Cost: $1,000 per year

10.2.11 Electrical Distribution System

Objective 23: Increase reliability of the electrical distribution system

IMPLEMENTATION STRATEGIES (TASKS 23A/23B):

Task 23A: Complete an upgrade to the center circuit of the underground distribution system. This improvement would generally include the replacement of some 1,800-feet of aging wire that characterizes the underground center circuit of the distribution system, as well as some transformers. Some of the materials needed for this improvement were previously obtained by the City and remain available for installation by the City. Purchase and install additional materials needed for this project.

Responsibility for Implementation: City Manager, City Clerk/Treasurer, Utility Services Department, Electrical Division
Project Schedule: 2019
Estimated Cost: $25,000 (supplemental materials only)

Task 23B: Design and construct a second municipal substation to: 1) ensure system reliability in the event that the existing substation becomes damaged or needs repair; and, 2) accommodate future demands generated from future land use expansion.

Locate the substation on the east side of the community closer to the source, i.e., the W-Y substation. The substation should have a capacity of about 17 megawatts (MW), or comparable to the existing substation on the west side of Yuma.

Prepare scope of work and solicit request for proposals for the turn-key design and construction of the substation. Transmit RFP to experienced electrical system contractors. Review and select the best technical proposal that is offered for a reasonable price. Establish contract. Review, inspect, and test all substation improvements before final acceptance of all improvements.

Responsibility for Implementation: City Manager, Utility Services Department, Electrical Division, City Clerk/Treasurer, selected contractor
Project Schedule: 2020
Estimated Cost: $1.5 million (design and construction)

10.2.12 Land Use Regulations

Objective 24: Revise municipal land use regulations

IMPLEMENTATION STRATEGY (TASK 24A):

24A: Re-organize zoning regulations and expand site and facility requirements for all residential districts. Update land use definitions. Examine and, if necessary, revise enforcement provisions. Review subdivision application and approval process. Provide expanded development standards.

Responsibility for Implementation: City Manager, City Clerk/Treasurer, Planning Consultant, City Legal Counsel
Project Schedule: 2019
Estimated Cost: $25,000 (new land development code)

10.2.13 Municipal Transportation

Objective 25: Pave and maintain more streets and roads

IMPLEMENTATION STRATEGIES (TASKS 25A/25B):

Task 25A: Chip seal street/road segments recommended by Public Services Department for 2018. The specific segments planned for completion in 2018 are identified in Chapter Six.

Responsibility for Implementation: City Manager, Public Services Department, Street Division
Project Schedule: 2018
Estimated Cost: To be determined

Task 25B: Establish a system for determining priorities for future road improvements. Establish criteria for the rating of paved streets and aggregate roads. Inventory of all roads and streets within municipal boundary on an annual basis via visual observations and the rating of all municipal roads and streets. Input data into attribute tables via the Yuma GIS. Scores will be used to determine priorities for future road and street improvements. Share annual scores with local residents.

Responsibility for Implementation: City Manager, Public Services Department, Street Division
Project Schedule: 2018-2027
Estimated Cost: To be determined

Objective 26: Attract greater use of the municipal airport

IMPLEMENTATION STRATEGIES (TASKS 26A/26B/26C/26D):

Task 26A: Complete instrument approach procedure for both ends of runway 16-34.

Responsibility for Implementation: City Manager, Armstrong Consultants
Project Schedule: 2018
Estimated Cost: To be determined in Yuma Airport master plan

Task 26B: Design and construct a fueling station.

Responsibility for Implementation: City Manager, Armstrong Consultants
Project Schedule: 2019
Estimated Cost: To be determined in Yuma Airport master plan

Task 26C: Establish a fixed based operator (FBO) to manage air traffic, sale of fuel, and provide support services, e.g., courtesy car transport.

Responsibility for Implementation: City Manager, Armstrong Consultants
Project Schedule: 2019
Estimated Cost: To be determined in Yuma Airport master plan

Task 26D: Provide more air hangar facilities.

Responsibility for Implementation: City Manager, Armstrong Consultants
Project Schedule: 2021
Estimated Cost: To be determined in Yuma Airport master plan

10.2.14 Land Use Expansion

Objective 27: Remove barriers to future land use expansion

IMPLEMENTATION STRATEGIES (TASKS 27A/27B):

Task 27A: Pursue acquisition and annexation of lands within and adjacent to the City of Yuma to facilitate future land use development.

Responsibility for Implementation: City Manager
Project Schedule: 2018-2027
Estimated Cost: $500 per year

Task 27B: Rezone selected land areas to other potential land uses.

Responsibility for Implementation: City Manager, Planning Consultant
Project Schedule: 2019
Estimated Cost: $2,000. To be completed in conjunction with revision of land use regulations and related land development code (See Objective 24).

Objective 28: Expand rehabilitation facilities with a new or existing assisted living or long-term care facility.

IMPLEMENTATION STRATEGY (TASK 28A):

Task 28A: Discuss potential opportunities to expand rehabilitation facilities with representatives of existing or potential assisted living and long term care facilities.

Responsibility for Implementation: City Manager
Project Schedule: 2019
Estimated Cost: $0

Objective 29: Encourage development of new hotel

IMPLEMENTATION STRATEGIES (TASKS 29A/29B/29C):

Task 29A: Seek and obtain grant funds for the completion of a feasibility study for the development of a new hotel in Yuma. The scope of the feasibility study would include, at least, the following tasks:

1) Examine potential visitor market and potential market share;
2) Identify site and facility development costs;
3) Estimate management, operation and maintenance requirements and costs;
4) Determine capital investment requirements, estimate potential revenues and expenses, cashflow requirements and potential return-on-investment.

Responsibility for Implementation: Yuma County Economic Development Corporation
Project Schedule: 2018
Estimated Cost: $1,000

Task 29B: Prepare a request for proposals and related public notice for completion of a feasibility study. Transmit the RFP to qualified consulting firms or sole proprietors with relevant business and economic development experience. Select most qualified firm or sole proprietor that offers the best project approach for a reasonable lump sum cost. Establish contractual agreement with selected consultant.

Responsibility for Implementation: Yuma County Economic Development Corporation
Project Schedule: 2018
Estimated Cost: $500

Task 29C: Complete feasibility study, publish report, and share results with potential investors.

Responsibility for Implementation: Yuma County Economic Development Corporation, consultant
Project Schedule: 2019
Estimated Cost: $25,000

10.3 IMPLEMENTATION OF THE COMPREHENSIVE PLAN

10.3.1 Adopt the Municipal Master Plan

Plan implementation should begin with the formal adoption of the Yuma Comprehensive Plan update pursuant to State Statute. This process begins with the review and adoption of the Comprehensive Plan by the Yuma Planning Commission. However, adoption of the Comprehensive Plan is also subject to approval by the Yuma City Council.

10.3.2 Support Recommended Community Development Strategies

It is essential that recommended community development strategies presented earlier in this chapter are supported, in part, through the allocation of future municipal resources. The future implementation of these strategies is primarily dependent upon the integration of these strategies into future municipal budgets, the preparation of grant and loan applications by municipal staff,

project management efforts by municipal staff and community volunteers, as well as the scheduling and monitoring of project implementation. Table 10-2 at the end of this chapter presents an implementation plan for the strategies associated with each of the recommended community development objectives. A basic process for accomplishing this objective is outlined in the following paragraphs.

10.3.2.1 Assign Responsibilities for Project Implementation

Following adoption of the Comprehensive Plan, the Yuma City Council will direct the City Manager to specifically assign project management responsibilities for the completion of tasks or projects associated with each community development objective. The City Manager will also need to coordinate with other governmental agencies, businesses from the private sector, non-profit organizations, and volunteer resident committees to solicit their participation in the completion of selected community development strategies.

The assignment of one person as the designated project manager will facilitate communications and coordination with the City Manager and Yuma Town Council, City Boards, and private City contractors that may be completing one or more project tasks.

In some cases, the responsibility for implementation may include significant involvement by a public agency that is located outside of the City of Yuma. For these projects, the Yuma City Council or City Manager will still assign a municipal project manager to carry out required inter-agency coordination, serve as a point-of-contact for the project, as well as communicate the progress toward project completion and any relevant project issues with the Yuma City Council.

10.3.2.2 Update Community Development Strategies

The completion of recommended community development strategies, changes in the composition of the Yuma City Council, new community development opportunities, and other factors will prompt future changes in the direction, scope and priority of community development strategies. For this reason, the need to periodically revise or delete existing strategies, or establish new ones, will become apparent. This reality should lead the City of Yuma to update its community development strategies on an annual basis. Such revisions could be incorporated into an annual Comprehensive Plan Implementation report.

The preparation of a Comprehensive Plan Implementation report would be updated by a member of the municipal staff such as the City Manager or City Clerk/Treasurer. The completion of this task will require close coordination and informal discussions with each of the City's project managers that were assigned the lead responsibility for completion of tasks associated with each community development objective. The type of information requested from each project managers would include, at least, the following:

a. progress made during the past year toward completion of tasks or projects associated with the community development objective;
b. needed revisions to the scope of project tasks for each community development strategy;
c. anticipated schedule for completion of each task or project; and,

d. recommended budget request for completion of each task or project under their responsibility.

This task would ideally be completed between July and August of any given year so that the City Manager and City Clerk-Treasurer would have adequate time to incorporate financial requests into the municipal budget process. The City Manager would seek clarification of revised project tasks, schedules and expenditures with the project manager assigned to each community development strategy.

10.4 REVISE AND UPDATE THE COMPREHENSIVE PLAN

Future changes in land use trends within the City of Yuma and surrounding lands in the unincorporated area will prompt the need for a periodic overall revision and update of the municipal master plan. The master plan should be updated about once every three years. Consequently, the next master plan update for the City of Yuma will ideally be completed in 2021.

The update should, at least, evaluate changes in demographic and land use trends, infrastructure, as well as community and public facilities. A portion of this analysis should include the completion of another land use inventory to ascertain the extent of future buildout within the City. The examination of demographic and economic trends, land use trends, and infrastructure should lead to a determination of land use and infrastructure needs for the coming decade.

Residents of the City should again participate in the planning process in order to gain their insights regarding community needs and opportunities. Substantive involvement can be achieved through a combination of facilitated discussions with elected and appointed community leaders, interviews of key municipal managers, stakeholders from the private sector, resident surveys, community workshops, and a required public hearing.

The preceding analyses will lead to the development of a revised set of community development objectives, related tasks for accomplishing the objectives, responsibilities for implementation, and a project schedule. Elected and appointed community leaders should have a significant role in the determination of the priorities associated with each community development objective.

A revised community land use plan map should also be included in the master plan to provide the City of Yuma with continued guidance in regard to the preferences of the community concerning future land use expansion within the City, as well as lands within three miles of the municipal boundary.

10.5 THREE-MILE PLAN

In order to sustain opportunities for future land use expansion outside of the municipal boundary, the City of Yuma will need to annually prepare a Three-Mile Plan. As described in Chapter Nine, the plan must address the elements outlined in C.R.S. 31-12-105(1)(e)(1) of the Municipal Annexation Act of 1965:

> *Prior to completion of any annexation within the three-mile area, the municipality shall have in place a plan for that area that generally describes the proposed location,*

character, and extent of streets, subways, bridges, waterways, waterfronts, parkways, playgrounds, squares, parks, aviation fields, other public ways, grounds, open spaces, public utilities, and terminals for water, light, sanitation, transportation, and power to be provided by the municipality and the proposed land uses for the area.

The first update will primarily involve a potential revision to the potential land use expansion and annexation areas described and illustrated in Chapter Nine concerning future land use expansion. Subsequent annual plans will update the most recent Three-Mile Plan.

TABLE 10-2
IMPLEMENTATION PLAN
(For complete details, please refer to narrative in Chapter 10 Action Plan of the 2017 Yuma Comprehensive Plan Update.)

Obj. No.	Community Development Objectives and Related Strategies Objective/Task/Estimated Cost	Responsibility for Implementation	Project Schedule: Implementation Year									
			2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
1	**Ensure adequacy of the municipal stormwater management system.**											
	Task 1A: Prepare a request for proposals (RFP) and related public notice for completion of a stormwater management plan. *$500*	City Manager/City Clerk/City Council	●									
	Task 1B: Complete scope of work of stormwater management plan and publish stormwater management plan report. *$80,000*	Selected consulting engineering firm		●								
	Task 1C: Design, if necessary, recommended improvements to the municipal storm-water management system. $ *To Be Determined during completion of Task 1B*	City Manager/City Clerk/ Selected engineering firm			●							
	Task 1D: Prepare bid packages and solicit bids for the construction of improvements for the stormwater management system. $ *TBD during Task 1D*	City Manager/City Clerk-Treasurer				●						
2	**Promote potential retail trade opportunities to existing and prospective entrepreneurs.**											
	Task 2A: Advise entrepreneurs of retail leakage trends in Yuma County via newsletters, newspaper articles, web pages, and other media. Establish a retail leakage model and periodically update available leakage information using population, income and retail sales data. *$500 per year*	Yuma County Economic Development Corporation		●	●	●	●	●	●	●	●	●
	Task 2B: Maintain an inventory of available commercial properties in Yuma that are suitable for retail development. *$1,500 for 2018; $500/year for subsequent years*	Yuma County Economic Development Corporation	●	●	●	●	●	●	●	●	●	●
3	**Organize and develop a skill-based higher education facility**											
	Task 3A: Bring together concerned industry leaders and regional community college reps to organize the development of a new-skill-based higher education facility in Yuma. *$100*	City Manager/Reps of local industries/Regional community college reps		●								
	Task 3B: Outline a vocational education program that would identify the scope of planned educational programs, instructional teaching staff resources, and administrative requirements. Determine budget for delivery of educational programs. *$1000 for reproduction and distribution of report. Work completed on volunteer basis.*	Steering committee established for new higher education facility		●								
	Task 3C:Pursue and obtain grant funds for the preparation of a master plan for the higher education facility. *$3,000*	Steering committee for new higher education facility			●							
	Task 3D: Complete scope of work for facility master plan and publish plan report. *$25,000*	Selected consulting firm				●						
4	**Develop a business park in the City of Yuma to help expand and diversify Yuma's economic base**											
	Task 4A: Seek and obtain grant funds for the completion of a master plan for the business park. *$3,000*	City Manager; City Clerk/Treasurer					●					
	Task 4B: Prepare an RFP and related public notice for completion of a business park master plan. *$500*	City Manager/Clerk-Treasurer/Council					●					
	Task 4C: Complete scope of work of business park master plan and publish plan report.. *$30,000*	Selected planning or engineering firm						●				

TABLE 10-2: IMPLEMENTATION PLAN (2nd of 6 Pages)

(For complete details, please refer to narrative in Chapter 10 Action Plan of the 2017 Yuma Comprehensive Plan Update)

Obj. No.	Community Development Objectives and Related Strategies Objective/Task/Estimated Cost	Responsibility for Implementation	Project Schedule: Implementation Year									
			2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
4	Continued from previous page **Develop a business park in the City of Yuma to help expand and diversify Yuma's economic base**											
	Task 4D: Meet with landowners of prospective properties considered to be viable locations for business park development. *$ TBD via negotiations w/landowners*	City Manager							●			
	Task 4E: Design site improvements for business park. Establish contract w/consulting firm that prepared business park master plan. *$ 75,000*	City Manager/Clerk-Treasurer/consulting firm								●		
	Task 4F: .Prepare bid packages and solicit bids for construction of site improvements for the business park. *$ TBD during Task 5E*	City Manager/Clerk-Treasurer/construction mgt firm/general contractor								●		
5	Encourage private investment in viable value-added business opportunities											
	Task 5A: Seek and obtain grant funds for completion of feasibility study for use of local wheat and other grain production near Yuma and development of local grain mill to support bakery in Yuma and select Front Range communities. *$1,000*	Yuma County Economic Development Corporation (EDC)			●							
	Task 5B: Prepare an RFP and related public notice for completion of feasibility study. *$500*	Yuma County Economic Development Corporation			●							
	Task 5C: Complete feasibility study, publish report, and share results w/potential investors. *$25,000*	Yuma County EDC/selected consultant				●						
6	Attract residential developers for development of fee simple and rental housing											
	Task 6A: Continue discussions w/one or more residential developers in Colorado. *$5,000*	City Manager/Clerk-Treasurer/consultant	●									
	Task 6B: Establish contracts that outline commitments of developer and City of Yuma. *$4,000*	City Manager/Clerk-Treasurer/Legal Counsel	●									
7	Attract private development of senior living complex											
	Task 7A: Contact and meet w/representatives of senior living communities that develop, operate and maintain small independent living complexes. *$1,000*	City Manager/Clerk-Treasurer	●									
8	Encourage private expansion of truck stop facilities to generate increased retail expenditures and sales tax revenues											
	Task 8A: Pursue and obtain grant funds for completion of feasibility study for potential expansion of truck stop facilities and services along US Hwy 34 corridor. *$1,000*	Yuma County (EDC)		●								
	Task 8B: Prepare an RFP and related public notice for completion of feasibility study. *$500*	Yuma County Economic Development Corporation		●								
	Task 8C: Complete feasibility study, publish report, and share results w/potential investors. *$25,000*	Yuma County EDC/selected consultant				●						

TABLE 10-2: IMPLEMENTATION PLAN (3rd of 6 Pages)

(For complete details, please refer to narrative in Chapter 10 Action Plan of the 2017 Yuma Comprehensive Plan Update)

Obj. No.	Community Development Objectives and Related Strategies Objective/Task/Estimated Cost	Responsibility for Implementation	Project Schedule: Implementation Year									
			2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
9	**Further encourage development of "walk and shop" environment in downtown area to generate increased retail expenditures & sales tax revenues**											
	Task 9A: Examine available municipal properties in the downtown area that could be used for the development of a small pocket park. *$5,000*	City Manager/Parks Dept.						●				
	Task 9B: Examine available properties in the downtown area that could be used to provide a centralized vehicular parking area. *$5,000*	City Manager/Clerk-Treasurer/Council						●				
	Task 9C: Purchase asphalt, concrete, and other materials needed for site development. *$TBD during Task 10B*	City Manager/Public Services Dept						●				
	Task 9D: Examine potential opportunities to incorporate landscaping along sidewalk areas fronting retail establishments along South Main Street. *$ 500*	City Manager/Public Services Dept/Yuma Ct\y Conservation						●				
	Task 9E: Obtain construction materials for raised boxes and purchase selected plant materials for planting. *$ TBD during Task 10D*	City Manager/Public Services Dept/Yuma Ct\y Conservation District							●			
10	**Ensure the future development of safe and attractive light industrial land uses**											
	Task 10A: Revise zoning regulations to clarify industrial land use definitions and related land uses. *$ Subject to Objective 27 revision of land use regulations*	City Manager/Legal Counsel/planning consultant		●								
11	**Ensure availability of lands that can be used for future community facilities**											
	Task 11A: Consider the revision of zoning regulations to incorporate a community facilities zoning district. *$ Subject to Objective 27 revision of land use regulations*	City Manager/Legal Counsel/planning consultant		●								
12	**Seek opportunities to accommodate multiple uses in municipal public facilities**											
	Task 12A: Pursue and obtain grant funds for the preparation of a master plan for the Yuma Community Center. *$1,000*	City Manager/Clerk/Council				●						
	Task 12B: Prepare an RFP and related public notice for completion of a master plan for the Yuma Community Center. *$500*	City Manager/Clerk-Treasurer/Council				●						
	Task 12C: Complete scope of work of master plan for Yuma Community Center & publish master plan report. *$22,000*	Selected consulting firm					●					
	Task 12D: Design, if necessary, recommended improvements to Yuma Community Center. *$ 25,000*	City Manager/Clerk-Treas/ consulting firm or general construction contractor						●				
	Task 12E: If necessary, prepare bid packages and solicit bids for construction of improvements to Yuma Community Center. *$ TBD during Task 13D*	City Manager/Clerk-Treas/ selected contractor						●				
13	**Improve and extend life of existing recreational facilities**											
	Task 13A: Complete site and facility improvements planned by City Parks Department (See Chapter 4, Table 4-11). *$ Presented in Table 4-10 of Chapter 4*	City Manager/Parks Dept/selected contractor		●								

TABLE 10-2: IMPLEMENTATION PLAN (4th of 6 Pages)

(For complete details, please refer to narrative in Chapter 10 Action Plan of the 2017 Yuma Comprehensive Plan Update)

Obj. No.	Community Development Objectives and Related Strategies Objective/Task/Estimated Cost	Responsibility for Implementation	Project Schedule: Implementation Year									
			2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
14	**Develop a new indoor recreational center**											
	Task 14A: Seek and obtain grant funds for the completion of a master plan for an indoor recreational center. *$500*	City Manager/Parks Dept/selected contractors				●						
	Task 14B: Prepare an RFP and related public notice for completion of a master plan for the indoor recreational center. *$1,000*	City Manager/Clerk-Treasurer/Council				●						
	Task 14C: Complete scope of work of master plan for indoor recreational center & publish master plan report. *$35,000*	Selected consulting firm					●					
	Task 14D: Design new indoor recreational center. *$ 45,000*	City Manager/Clerk-Treas/ selected consulting firm						●				
	Task 14E: Prepare bid packages and solicit bids for construction of new indoor recreational center. *$ TBD during Task 15D*	City Manager/Clerk-Treas/ selected contractor							●			
15	**Establish a community trail system**											
	Task 15A: Adopt and establish a route for the community trail system. *$8,000*	City Manager/Parks Dept.					●					
	Task 15B: Contact appropriate representatives of Burlington Northern Santa Fe Railway (BNSF) to obtain design and construction criteria for rail crossings at Kamala Street and CR G. *$10,000*	City Manager/Parks Dept.						●				
	Task 15\C: If necessary, retain services of building contractor to design and construct required rail crossing improvements. *$ TBD by selected building contractor*	City Manager/Parks Dept.							●			
16	**Provide expanded opportunities for soccer play**											
	Task 16A: Design and construct a new soccer field on vacant municipal property in the vicinity of Armstrong Park. *$ TBD by selected building contractor*	City Manager/Parks Dept/ Selected building contractor						●				
17	**Determine the adequacy of the municipal water system**											
	Task 17A: Purchase copy of WaterCad, or other comparable software to enable the performance of an in-house hydraulic capacity analysis. *$ 3,500*	City Manager/Clerk-Treasurer/Utility Svcs Dept	●									
18	**Increase reliability of municipal water system**											
	Task 18A: Replace older cast iron and ductile iron pipe that make up a portion of the existing distribution system. *$50,000 per year*	City Manager/Clerk-Treasurer/Utility Svcs Dept		●	●	●	●	●	●	●	●	●
	Task 18B: Replace 20 older fire hydrants manufactured before 1967. *$10,000 per year*	City Manager/Clerk-Treasurer/Utility Svcs Dept			●	●	●	●	●	●		
19	**Extend water distribution system to accommodate future land use expansion**											
	Task 19A: Plan for future extensions of the water distribution system. *$ 1,000 per year*	City Manager/Clerk-Treasurer/Utility Svcs Dept	●	●	●	●	●	●	●	●	●	●
20	**Increase the reliability of the wastewater collection system**											
	Task 20A: Replace all clay tile pipe in the collection system. *$50,000 per year*	City Manager/Clerk-Treasurer/Utility Svcs Dept			●	●	●	●	●	●	●	●

TABLE 10-2: IMPLEMENTATION PLAN (5th of 6 Pages)

(For complete details, please refer to narrative in Chapter 10 Action Plan of the 2017 Yuma Comprehensive Plan Update)

Obj. No.	Community Development Objectives and Related Strategies Objective/Task/Estimated Cost	Responsibility for Implementation	Project Schedule: Implementation Year									
			2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
20	Continued from previous page **Increase the reliability of the wastewater collection system**											
	Task 20B: Install rails in two of the City's four lift stations; install SCADA systems in each of the lift stations. *$TBD*	City Manager/Clerk-Treasurer/Utility Svcs Dept		●								
	Task 20C: Prepare and adopt a Fats, Oil and Grease (FOG) ordinance; Supplement FOG ordinance w/preparation of a fats, oil, and grease Best Management Practices manual. *$ 2,000*	City Manager/Clerk-Treasurer/Utility Svcs Dept	●									
21	**Reuse wastewater sludge as a soil amendment on selected municipal-owned lands to enhance quality of surface soils on selected municipal properties**											
	Task 21A: Continue to coordinate w/representatives of CO Dept of Public Health and Environment, Water Quality Control Division. *$ 500 per year*	City Manager/Utility Svcs Dept	●	●								
22	**Extend wastewater collection system to accommodate future land use expansion**											
	Task 22A: Plan for future extensions of the wastewater collection system. *$1,000 per year*	City Manager/Clerk-Treasurer/Utility Svcs Dept	●	●	●	●	●	●	●	●	●	●
23	**Increase reliability of the electrical distribution system**											
	Task 23A: Complete an upgrade to the center circuit of the underground distribution system. *$25,000 supplemental materials only*	City Manager/Clerk-Treasurer/Utility Svcs Dept, Electrical Division		●								
	Task 23B: Design and construct a second municipal substation. *$1.5 million (design and construction)*	City Manager/Clerk-Treas/ Utility Svcs Dept, Electrical Div/selected contractor			●							
24	**Revise municipal land use regulations**											
	Task 24A: Re-organize zoning regulations and expand site and facility requirements for all residential districts. *$25,000 (new land development code)*	City Manager/Clerk-Treas/Legal Counsel/ planning consultant		●								
25	**Pave and maintain more streets and roads**											
	Task 25A: Chip seal street/road segments recommended by Public Services Department for 2018. *$ TBD*	City Manager/Public Svcs Dept, Street Division	●									
	Task 25B: Establish a system for determining priorities for future road improvements. *$ TBD*	City Manager/Public Svcs Dept, Street Division	●	●	●	●	●	●	●	●	●	●
26	**Attract greater use of the municipal airport**											
	Task 26A: Complete instrument approach procedure for both ends of runway 16-34. *$ TBD in Yuma Airport Master Plan*	City Manager/Armstrong Consultants	●									
	Task 26B: Design and construct a fueling station. *$ TBD in Yuma Airport Master Plan*	City Manager/Armstrong Consultants		●								

TABLE 10-2: IMPLEMENTATION PLAN (6th of 6 Pages)

(For complete details, please refer to narrative in Chapter 10 Action Plan of the 2017 Yuma Comprehensive Plan Update)

Obj. No.	Community Development Objectives and Related Strategies Objective/Task/Estimated Cost	Responsibility for Implementation	Project Schedule: Implementation Year									
			2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
26	Continued from previous page **Attract greater use of the municipal airport**											
	Task 26C: Establish a fixed-based operator (FBO) to manage air traffic, sale of fuel, and provide support services, e.g., courtesy car transport. *$ TBD in Yuma Airport Master Plan*	City Manager/Armstrong Consultants		●								
	Task 26D: Provide more air hangar facilities. *$ TBD in Yuma Airport Master Plan*	City Manager/Armstrong Consultants				●						
27	**Remove barriers to future land use expansion**											
	Task 27A: Pursue acquisition and annexation of lands within and adjacent to the City of Yuma to facilitate future land use development. *$ 500 per year*	City Manager	●	●	●	●	●	●	●	●	●	●
	Task 27B: Rezone selected land areas to other potential land uses. *$ 2,000 To be completed in conjunction with Obj 27 re. revision of land use regulations*	City Manager/planning consultant		●								
28	**Expand rehabilitation facilities with a new or existing assisted living or long-term care facility**											
	Task 28A: Discuss potential opportunities to expand rehabilitation facilities w/representatives of existing or potential assisted living and long-term care facilities. *$ 0*	City Manager		●								
29	**Encourage development of new hotel**											
	Task 29A: Seek and obtain grant funds for the completion of a feasibility study for the development of a new hotel in Yuma. *$ 1,000*	Yuma County Economic Development Corporation	●									
	Task 29B: Prepare an RFP and related public notice for completion of a feasibility study. *$ 500*	Yuma County Economic Development Corporation	●									
	Task 29C: Complete feasibility study, publish report, and share results with potential investors. *$ 25,000*	Yuma County Economic Development Corporation/consultant		●								

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APPENDIX A
STAKEHOLDERS INTERVIEWED

No.	Name of Person Interviewed/Position/Company Name/Date Interviewed
1	Andrea Anderson, Human Resources and Safety Manager, Smithfield, July 13, 2017
2	Dan Baucke, Council Member, City of Yuma, March 20, 2017*
3	Rich Birnie, Land Administrator/GIS Manager, Yuma County, March 21, 2017 *
4	Don Brown, Commissioner of Agriculture, State of Colorado, March 24, 2017
5	Katerina Bukowski, Owner/Operator, Harvest Motel, March 20, 2017
6	Trent Bushner, Commissioner, Yuma County, March 23, 2017
7	Silvia Castillo, Program Director, Family and Community Health Advocate, March 27, 2017
8	Diana Chrisman, Superintendent, Yuma School District 1, March 27, 2017*
9	Beth Decker, Co-Owner, Paper Moon, March 24, 2017
10	John Deering, Agriculture Relationship Manager, Northstar Bank of Colorado, March 20, 2017
11	Allie Dhuy, Manager, ShopKo, April 19, 2017
12	Lucie Ebersole, Family and Community Advocate, Rural Communities Resource Center, March 27, 2017
13	Margo Ebersole, Rural Communities Resource Center, April 19, 2017
14	Vickie Gillett, RN/Emergency Management Coordinator/Chemotherapy Nurse-Oncology Resource Facilitator, Yuma District Hospital and Clinics, March 28, 2017
15	Fred Gonzalez, Manager, Public Services Department, City of Yuma, March 22 and July 13, 2017 *
16	James Haag, Council Member, City of Yuma, March 21, 2017 *
17	Arleen Harms, Director, Yuma Community Center, March 20, 2017 *
18	Tony Harms, Council Member (deceased), City of Yuma, March 22, 2017 *
19	Robert Harper, Mayor, City of Yuma, March 20, 2017 *
20	David Hoch, Owner, Hoch Enterprises, April 20, 2017
21	Ron Lehman, Manager, Tractor Supply Company (TSC), March 27, 2017
22	Joel Lemon, General Manager, Cargill Cattle Feeders LLC, March 23, April 19, 2017
23	Bethleen McCall, Council Member, City of Yuma, March 20, 2017 *
24	Tim McClung, Managing Agent/President, Farmers' Insurance, April 20, 2017
25	Alice Metzler, Economic Development Director (former), City of Yuma, March 21, 2017 *
26	Barbara Miller, Proprietor, Main Event, April 20, 2017
27	Marlene Miller, Lead Ombudsman, Northeastern Colorado Association of Local Governments (NECALG)/Area Agency on Aging (AAA) for Yuma County, March 20, 2017
28	Scott Moore, City Manager, City of Yuma, March 20, 2017 *
29	Luz Moreno, Proprietor, Dos Mundos, April 20, 2017
30	Richard Nelson, Proprietor, Nelson Inn, March 22, 2017
31	Bernice Pagel, Owner, Hoch Real Estate, March 23, 2017
32	Chip Powell, Kentec Communications, Inc., March 23, 2017
33	John Prettyman, Supervisor, Electrical Division, City of Yuma, March 20, 2017 *

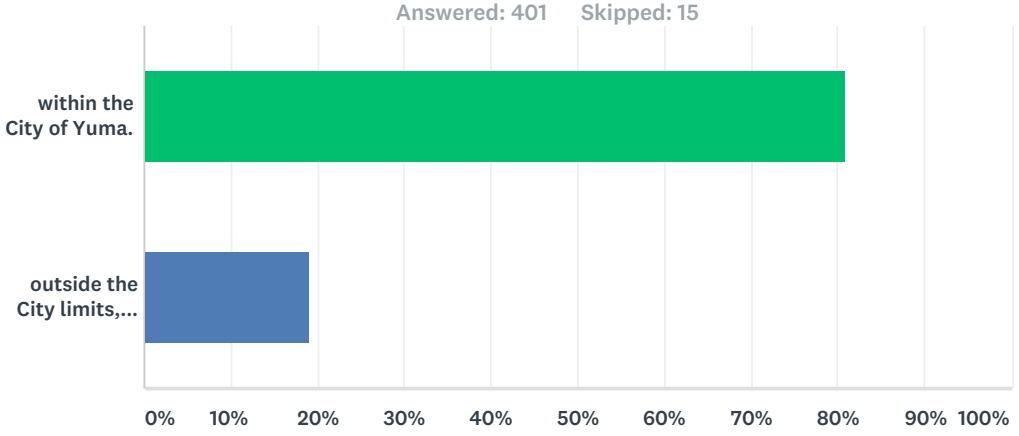
Continues…

34	John Ptacnik, General Manager, CHS, March 24, 2017
35	Matt Ross, Building Inspector, Public Services Department, City of Yuma, April 13, 2017 *
36	Roc Rutledge, Council Member (former), City of Yuma, March 24, 2017
37	Beth Saxton, RN, CEO/VP of Patient Care Services/CNO, Yuma District Hospital and Clinics, March 23, 2017 *
38	Dan Seedorf, Market President, Bank of Colorado, March 27, 2017
39	Claude Strait, Manager, Utility Services Department, City of Yuma, March 22, 2017 *
40	Charlene Svitak, Administrator, Parrish Care Center, March 24, 2017
41	Ron Swehla, Council Member, City of Yuma, March 21, 2017 *
42	Rodney Terrell, General Manager, Bartlett Grain, March 23, 2017
43	Patty Tribbett, Manager, Pizza, Hut, March 22, 2017
44	Ron Tribbett, Planning Commissioner, City of Yuma, March 21, 2017 *
45	Jeanne Triplett, Director, Yuma Public Library, March 20, 2017
46	Matt Vincent, Board of Director, Yuma Museum, August 11, 2017
47	Karma Wells, Clerk-Treasurer, City of Yuma, March 20, 2017 *
48	Anna Wenger, Co-Owner, Paper Moon, March 24, 2017
49	Ron Wills, Recreation Director, City of Yuma, March 22, 2017 *
50	Dean Yearous, Manager, On the Green Restaurant, July 14, 2017
* Indicates one or more follow-up discussions following the initial stakeholder interview	

APPENDIX B
COMMUNITY SURVEY RESULTS

Q1 I live:

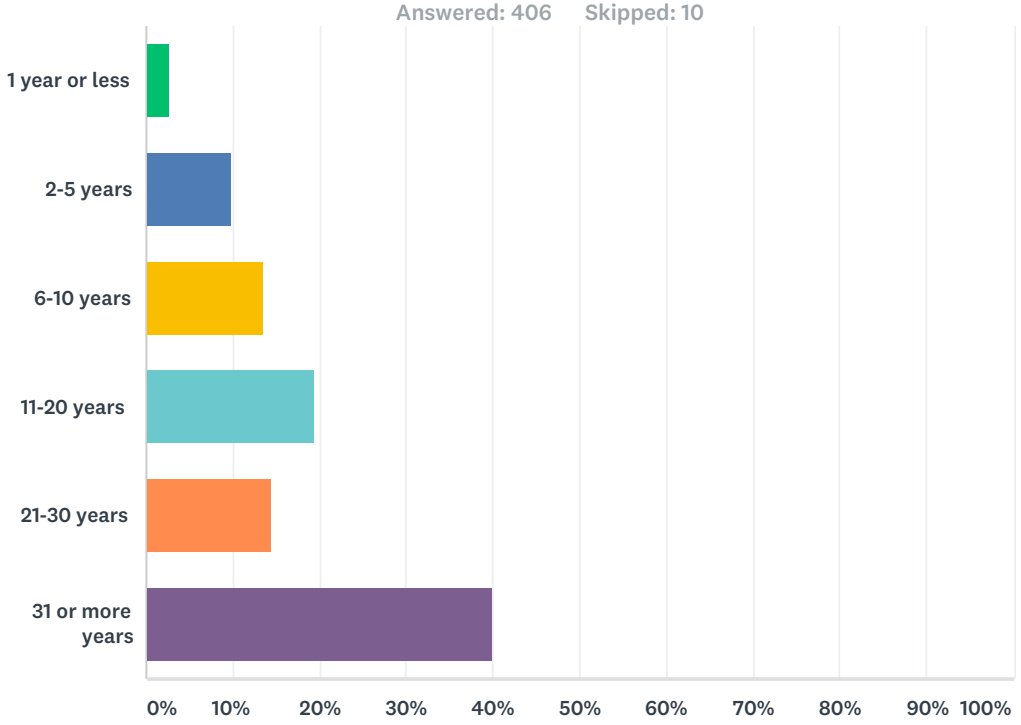
Answered: 401 Skipped: 15



Answer Choices	Responses	
within the City of Yuma.	81.05%	325
outside the City limits, but within a three-mile radius of the City of Yuma.	18.95%	76
Total		401

Q2 I have lived within the City of Yuma, and/or within a 3-mile radius of Yuma, for:

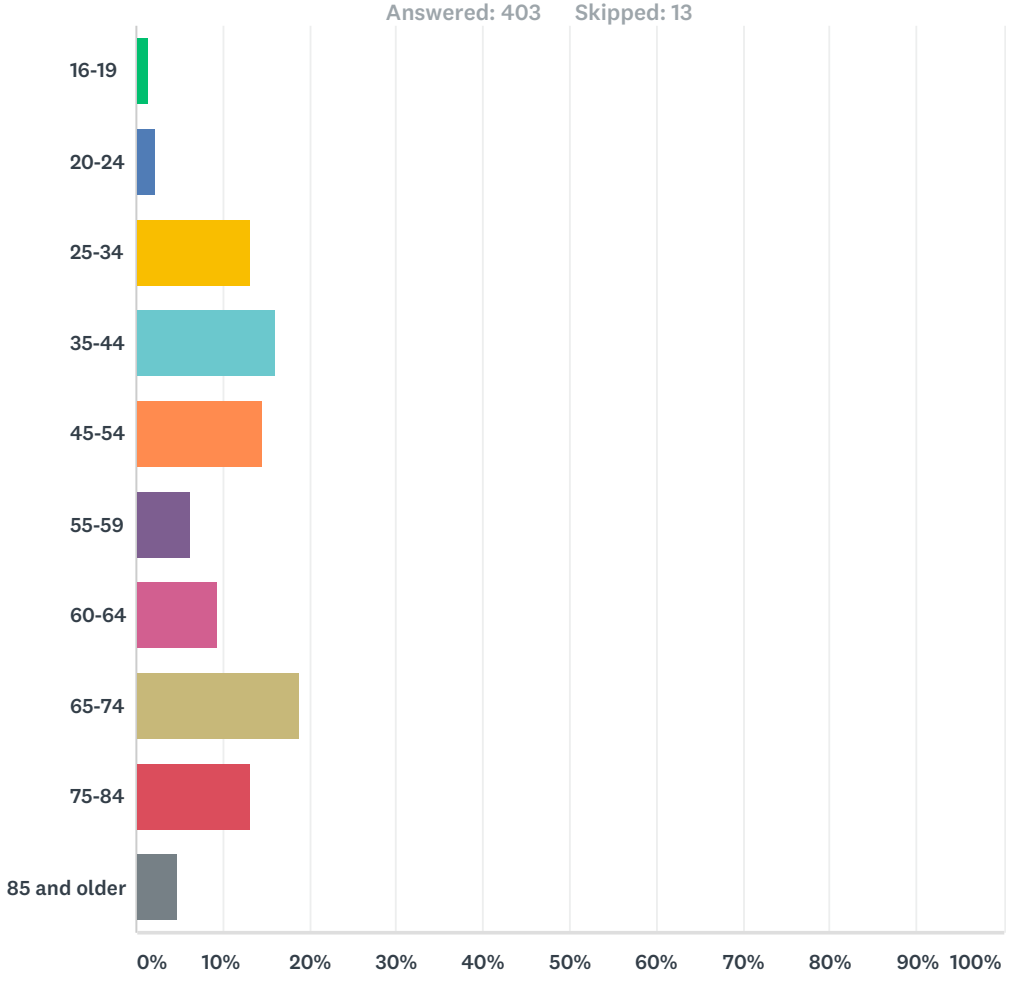
Answered: 406 Skipped: 10



Answer Choices	Responses	
1 year or less	2.71%	11
2-5 years	9.85%	40
6-10 years	13.55%	55
11-20 years	19.46%	79
21-30 years	14.53%	59
31 or more years	39.90%	162
Total		406

Q3 My age (in years) is:

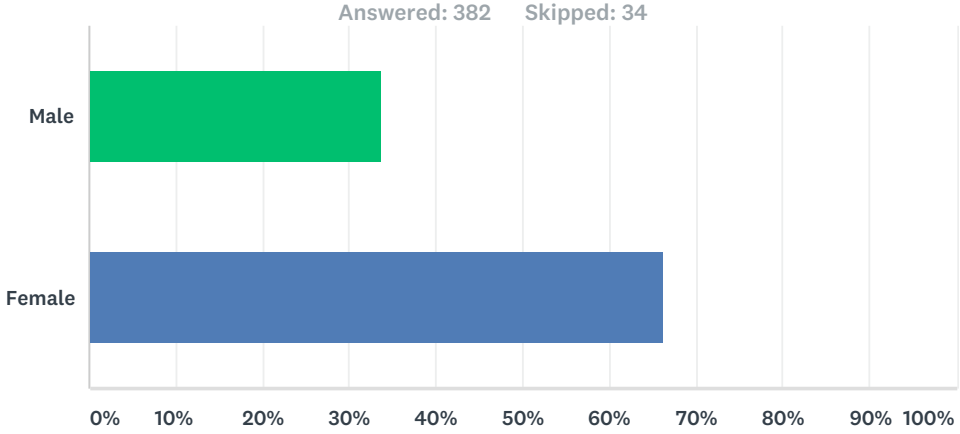
Answered: 403 Skipped: 13



Answer Choices	Responses	
16-19	1.49%	6
20-24	2.23%	9
25-34	13.15%	53
35-44	16.13%	65
45-54	14.64%	59
55-59	6.20%	25
60-64	9.43%	38
65-74	18.86%	76
75-84	13.15%	53
85 and older	4.71%	19
Total		403

Q4 What is your gender?

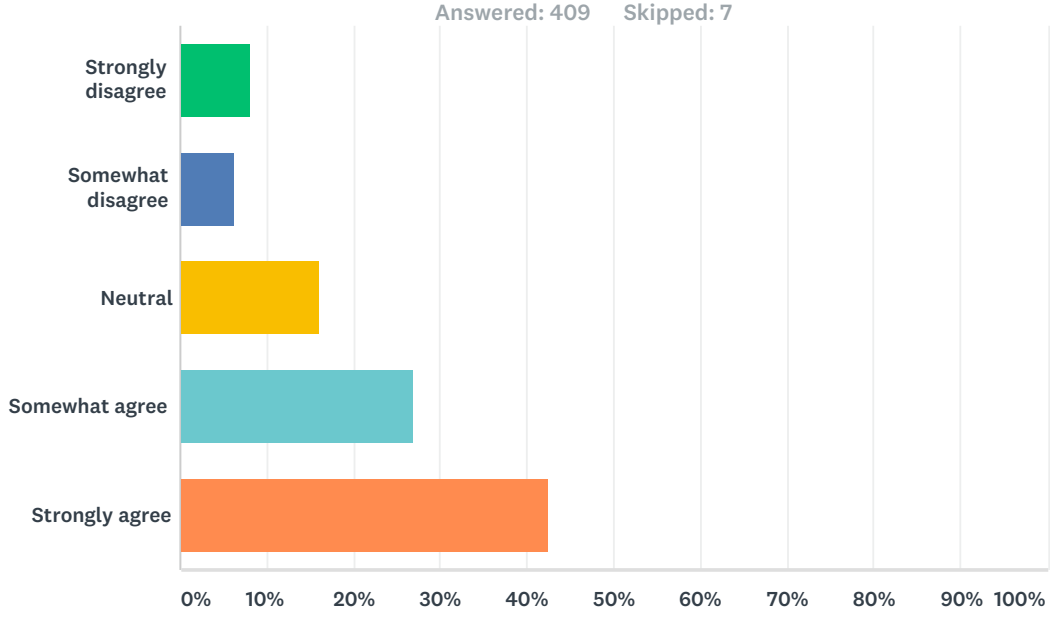
Answered: 382 Skipped: 34



Answer Choices	Responses	
Male	33.77%	129
Female	66.23%	253
Total		382

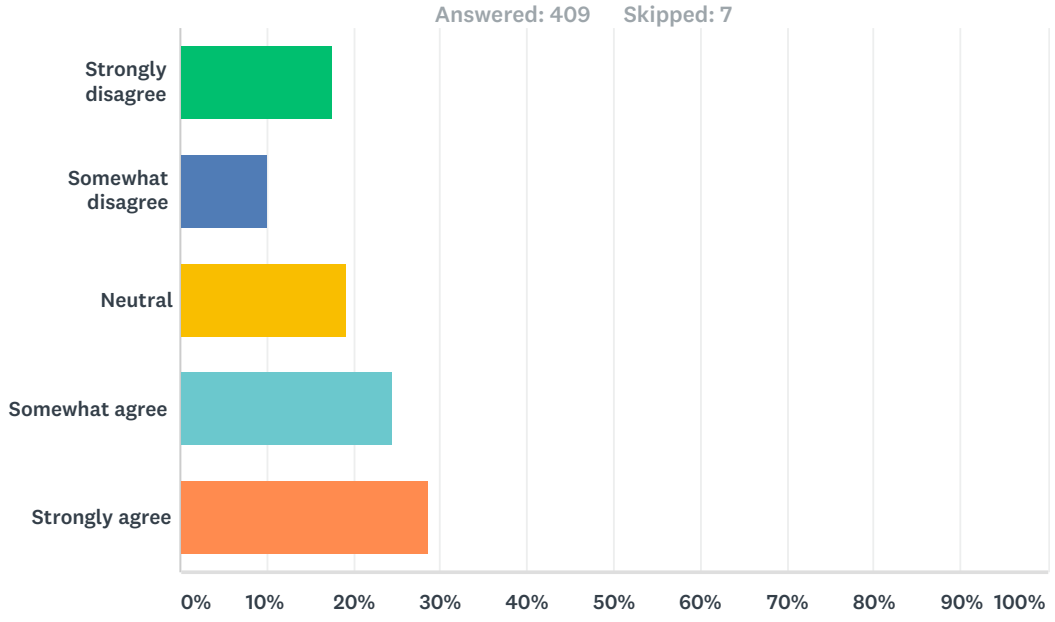
Q5 The City of Yuma needs a new public swimming pool.

Answered: 409 Skipped: 7



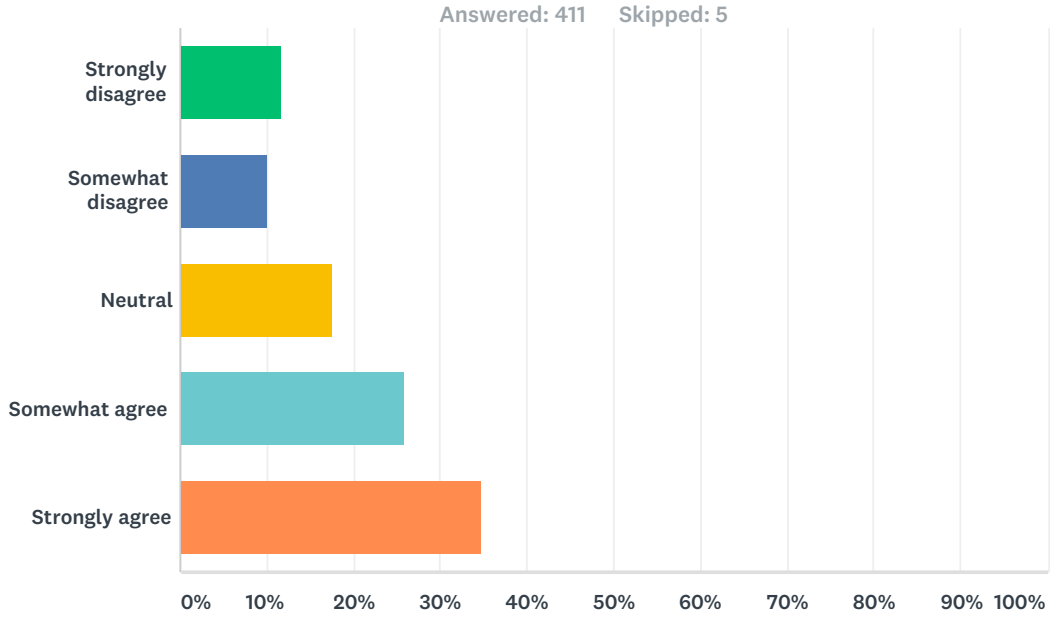
Answer Choices	Responses	
Strongly disagree	8.07%	33
Somewhat disagree	6.36%	26
Neutral	16.14%	66
Somewhat agree	26.89%	110
Strongly agree	42.54%	174
Total		409

Q6 The City needs a community pathway or trail system for walking, biking, and/or jogging.



Answer Choices	Responses	
Strongly disagree	17.60%	72
Somewhat disagree	10.02%	41
Neutral	19.32%	79
Somewhat agree	24.45%	100
Strongly agree	28.61%	117
Total		409

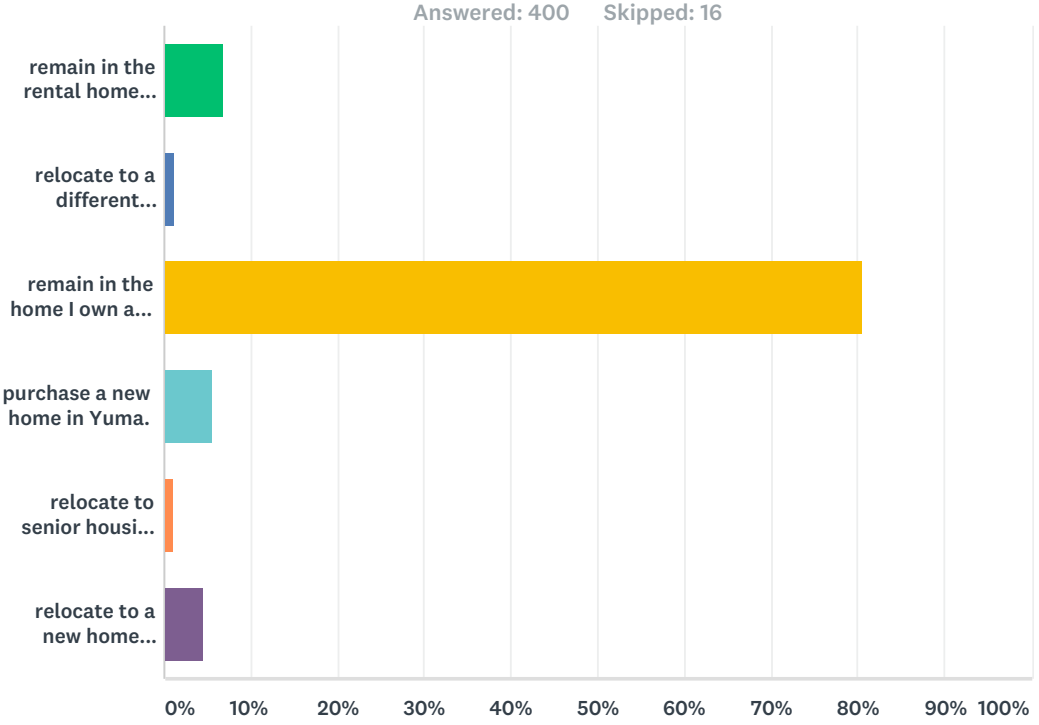
Q7 The City needs a new indoor recreation center that offers a variety of recreational opportunities.



Answer Choices	Responses	
Strongly disagree	11.68%	48
Somewhat disagree	9.98%	41
Neutral	17.52%	72
Somewhat agree	26.03%	107
Strongly agree	34.79%	143
Total		411

Q8 In the next three years, I plan to:

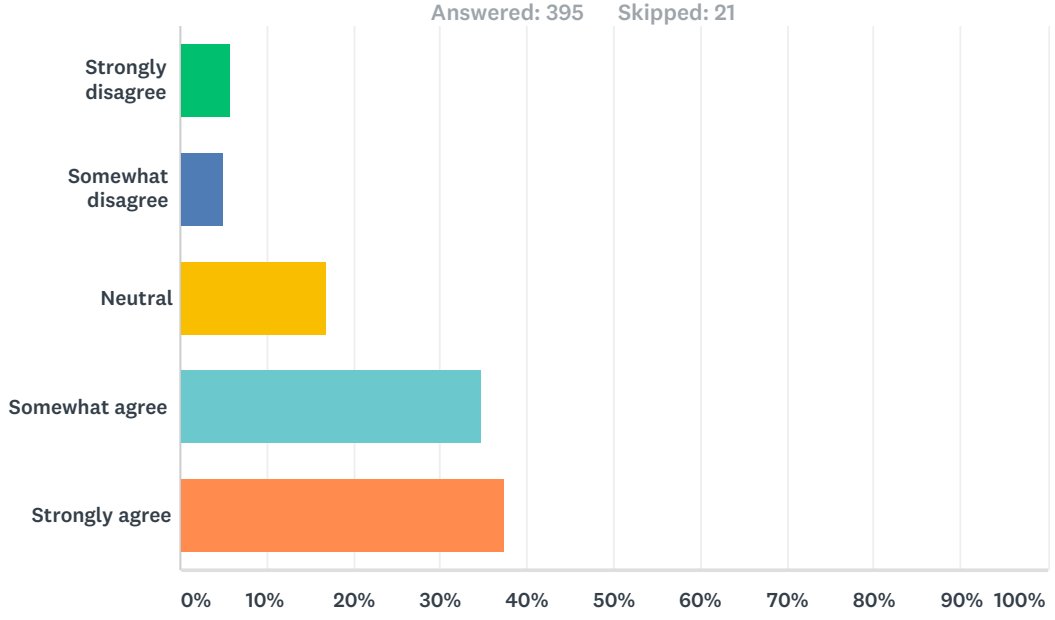
Answered: 400 Skipped: 16



Answer Choices	Responses	
remain in the rental home where I now live.	7.00%	28
relocate to a different rental home.	1.25%	5
remain in the home I own and currently live in.	80.50%	322
purchase a new home in Yuma.	5.75%	23
relocate to senior housing (e.g. assisted living or nursing home) in Yuma.	1.00%	4
relocate to a new home outside of Yuma.	4.50%	18
Total		400

Q9 The economy of Yuma and Yuma County needs to diversify to create new job opportunities.

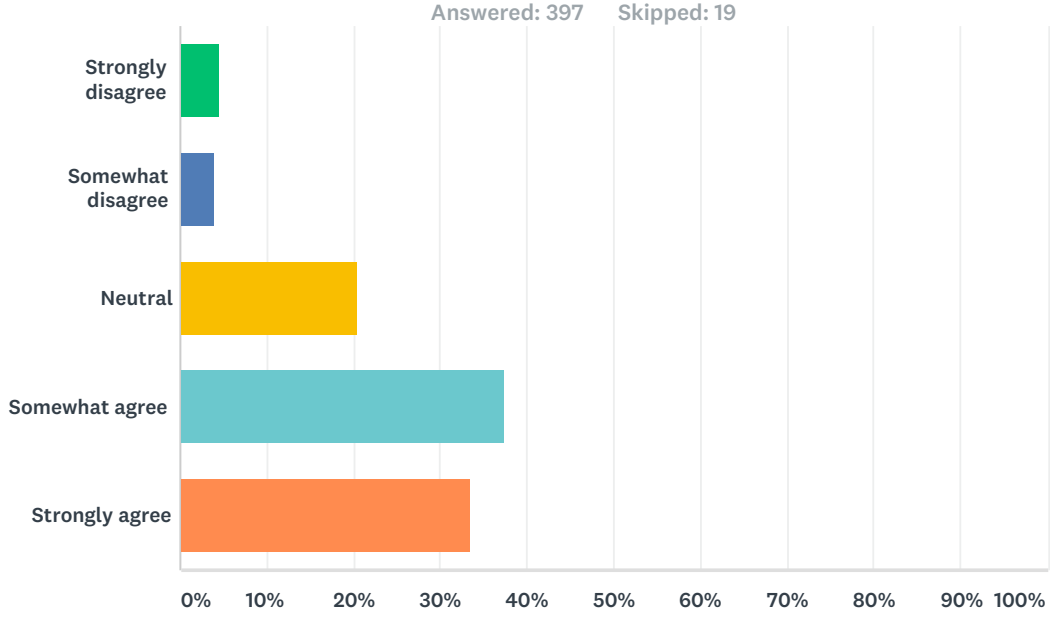
Answered: 395 Skipped: 21



Answer Choices	Responses	
Strongly disagree	5.82%	23
Somewhat disagree	5.06%	20
Neutral	16.96%	67
Somewhat agree	34.68%	137
Strongly agree	37.47%	148
Total		395

Q10 The economy of Yuma and Yuma County needs more higher paying jobs.

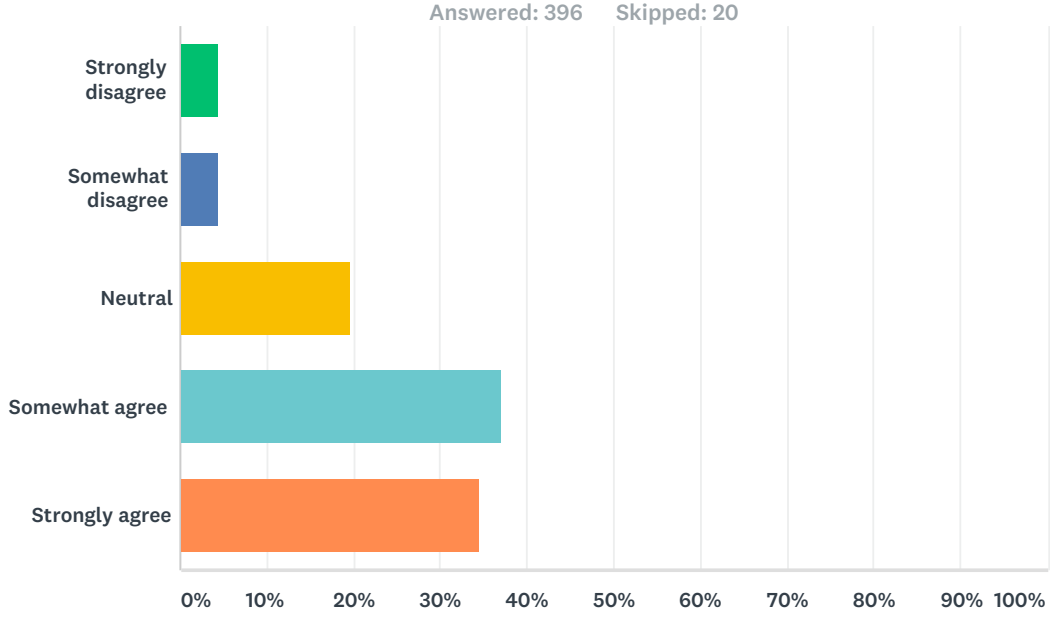
Answered: 397 Skipped: 19



Answer Choices	Responses	
Strongly disagree	4.53%	18
Somewhat disagree	4.03%	16
Neutral	20.40%	81
Somewhat agree	37.53%	149
Strongly agree	33.50%	133
Total		397

Q11 The City should take steps to attract new private sector investments (such as for profit businesses) into the community.

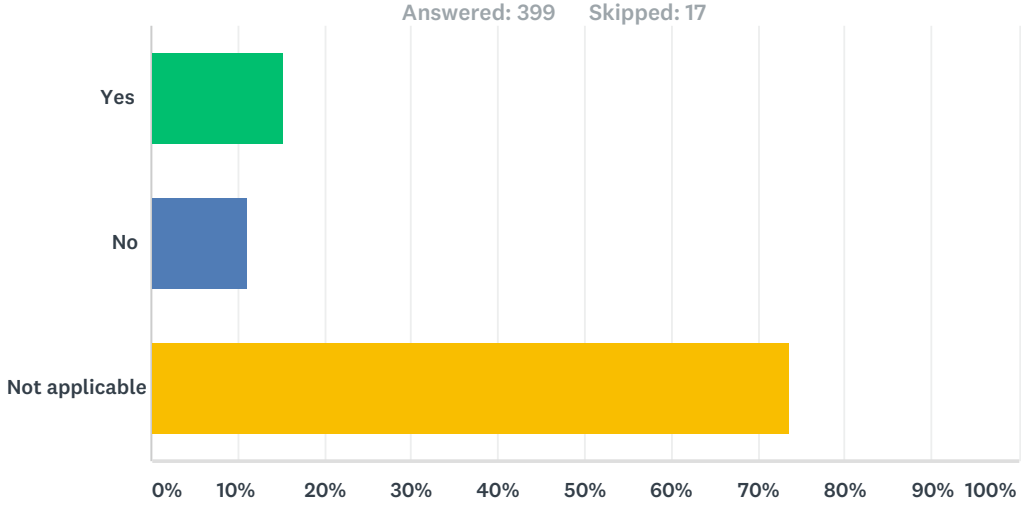
Answered: 396 Skipped: 20



Answer Choices	Responses	
Strongly disagree	4.29%	17
Somewhat disagree	4.29%	17
Neutral	19.70%	78
Somewhat agree	37.12%	147
Strongly agree	34.60%	137
Total		396

Q12 In order to work outside the home, I need reliable child care.

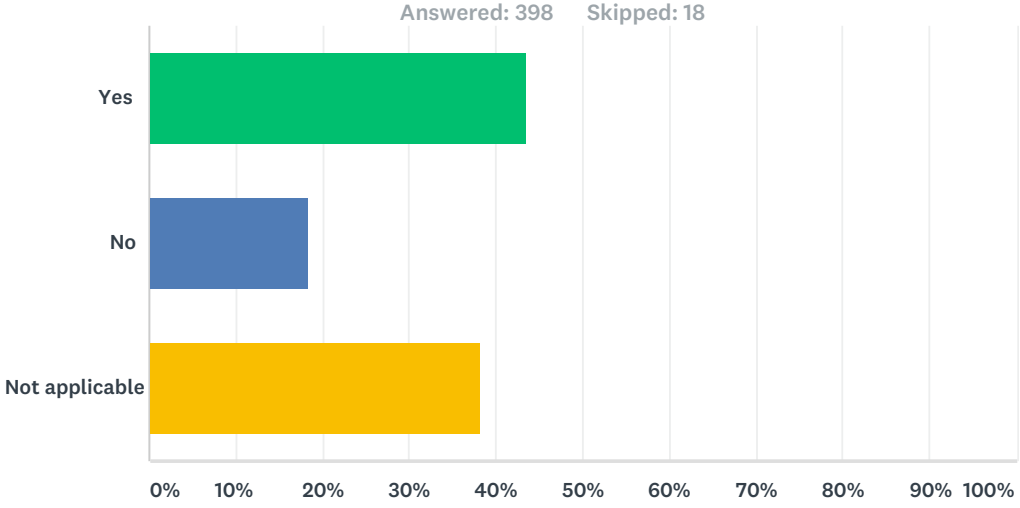
Answered: 399 Skipped: 17



Answer Choices	Responses	
Yes	15.29%	61
No	11.03%	44
Not applicable	73.68%	294
Total		399

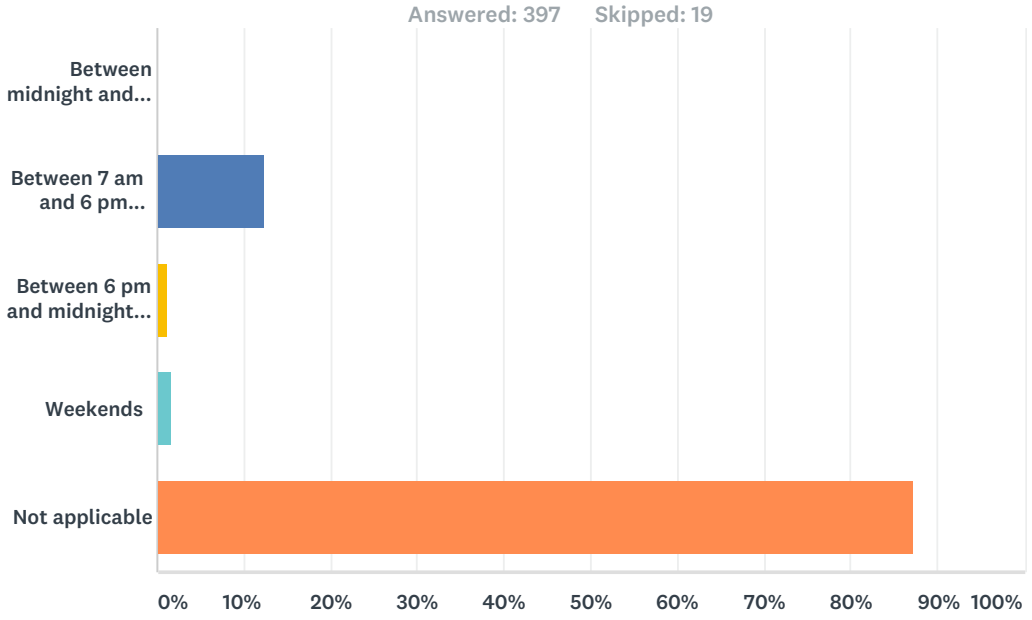
Q13 My spouse and I both work outside the home.

Answered: 398 Skipped: 18



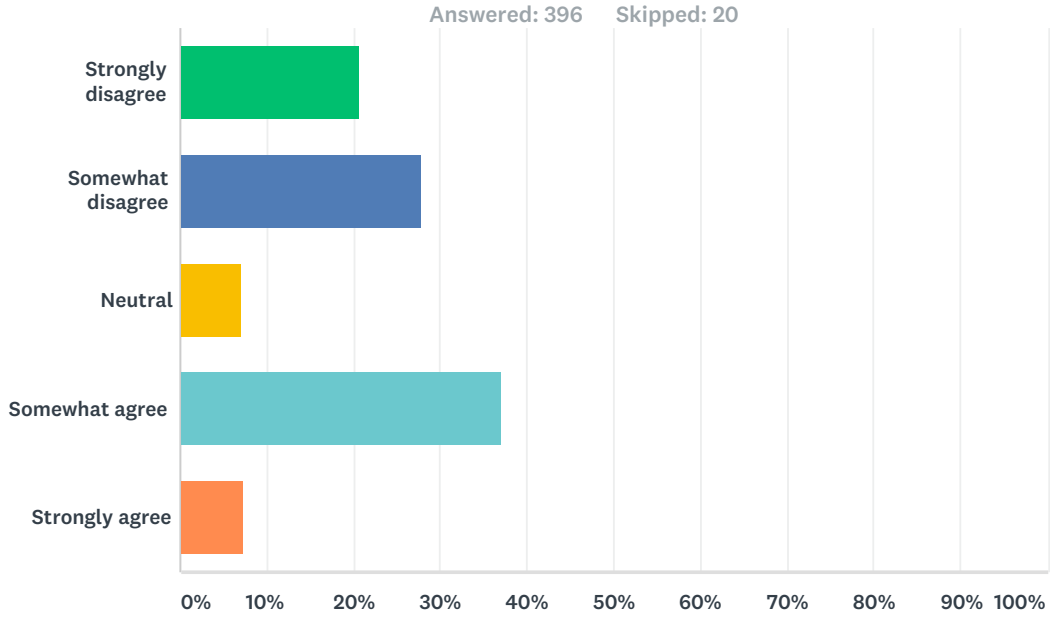
Answer Choices	Responses	
Yes	43.47%	173
No	18.34%	73
Not applicable	38.19%	152
Total		398

Q14 I need child care during the following times in order to work. Check all that apply.



Answer Choices	Responses	
Between midnight and 7 a.m. Mondays through Fridays	0.25%	1
Between 7 am and 6 pm Mondays through Fridays	12.34%	49
Between 6 pm and midnight Mondays through Fridays	1.26%	5
Weekends	1.76%	7
Not applicable	87.15%	346
Total Respondents: 397		

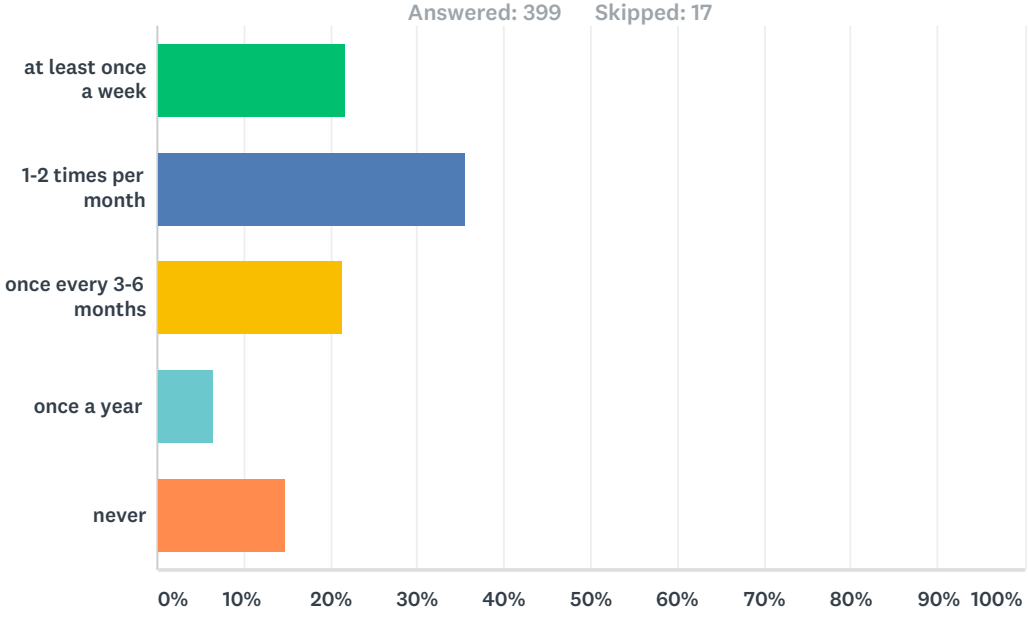
Q15 I am able to adequately complete my shopping needs within the City of Yuma.



Answer Choices	Responses	
Strongly disagree	20.71%	82
Somewhat disagree	27.78%	110
Neutral	7.07%	28
Somewhat agree	37.12%	147
Strongly agree	7.32%	29
Total		396

Q16 My family and I do online shopping:

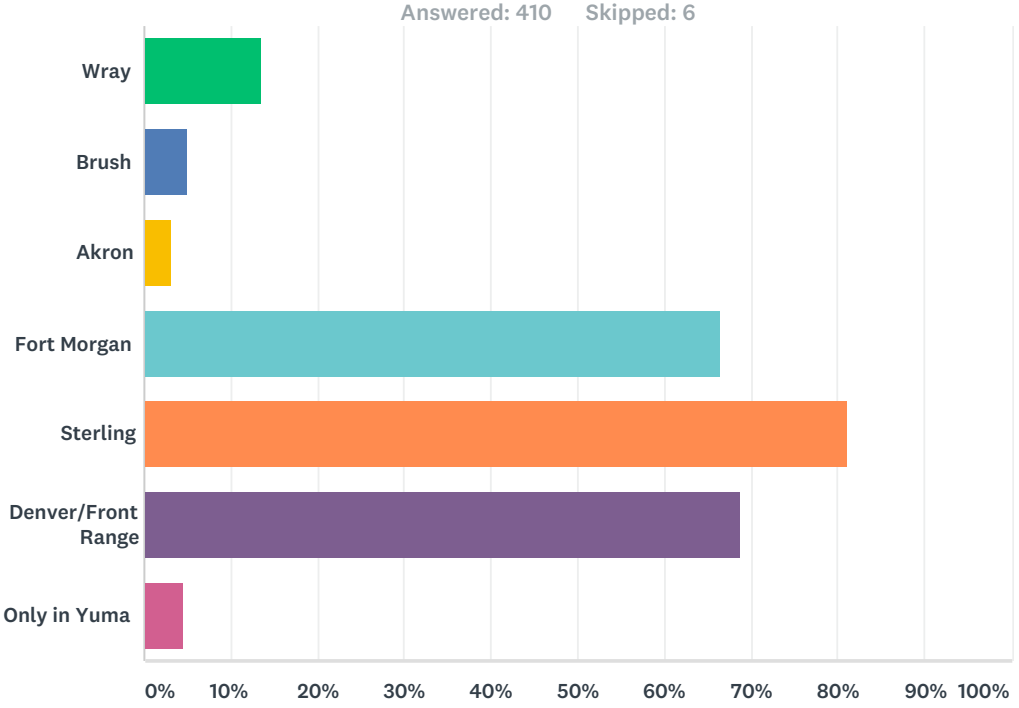
Answered: 399 Skipped: 17



Answer Choices	Responses	
at least once a week	21.80%	87
1-2 times per month	35.59%	142
once every 3-6 months	21.30%	85
once a year	6.52%	26
never	14.79%	59
Total		399

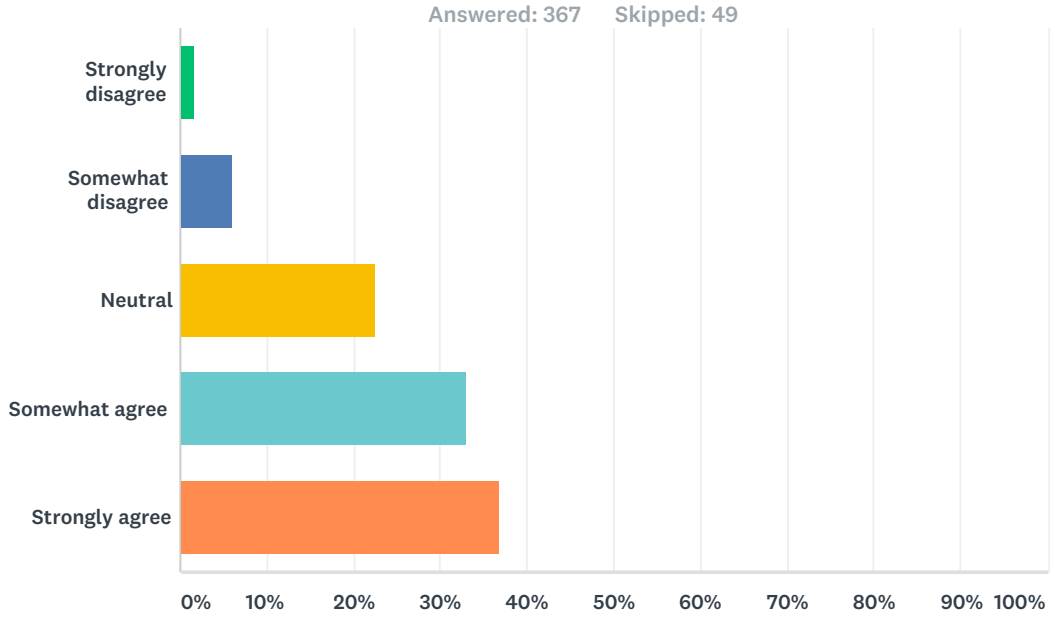
Q17 In order to meet some of my shopping needs, I will travel to shop in the following locations. Check all that apply.

Answered: 410 Skipped: 6



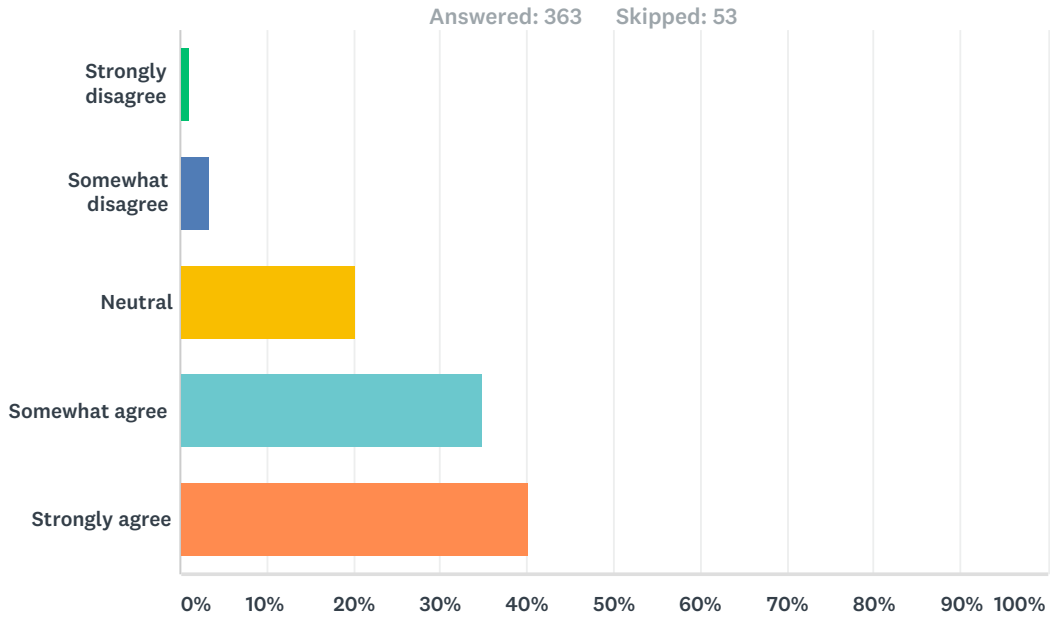
Answer Choices	Responses	
Wray	13.66%	56
Brush	5.12%	21
Akron	3.17%	13
Fort Morgan	66.59%	273
Sterling	81.22%	333
Denver/Front Range	68.78%	282
Only in Yuma	4.63%	19
Total Respondents: 410		

Q18 I am satisfied with the water and wastewater services provided by the City of Yuma.



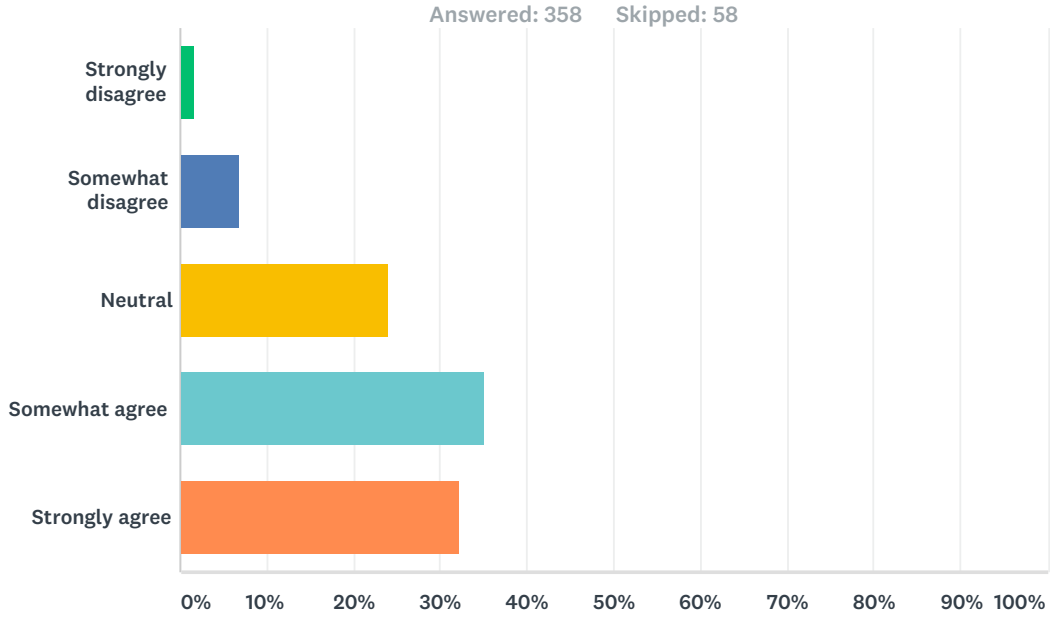
Answer Choices	Responses	
Strongly disagree	1.63%	6
Somewhat disagree	5.99%	22
Neutral	22.62%	83
Somewhat agree	32.97%	121
Strongly agree	36.78%	135
Total		367

Q19 I am satisfied with the electrical services provided by the City of Yuma.



Answer Choices	Responses	
Strongly disagree	1.10%	4
Somewhat disagree	3.31%	12
Neutral	20.39%	74
Somewhat agree	34.99%	127
Strongly agree	40.22%	146
Total		363

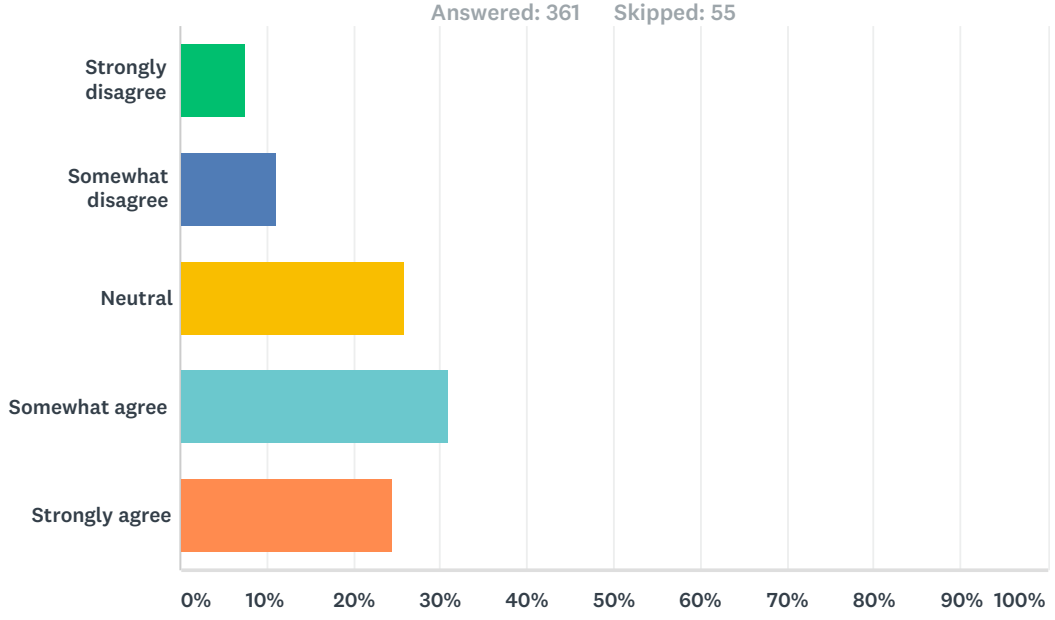
Q20 I am satisfied with the solid waste collection services provided by the City of Yuma.



Answer Choices	Responses	
Strongly disagree	1.68%	6
Somewhat disagree	6.98%	25
Neutral	24.02%	86
Somewhat agree	35.20%	126
Strongly agree	32.12%	115
Total		358

Q21 The Yuma Community Center needs to be improved to allow for more uses.

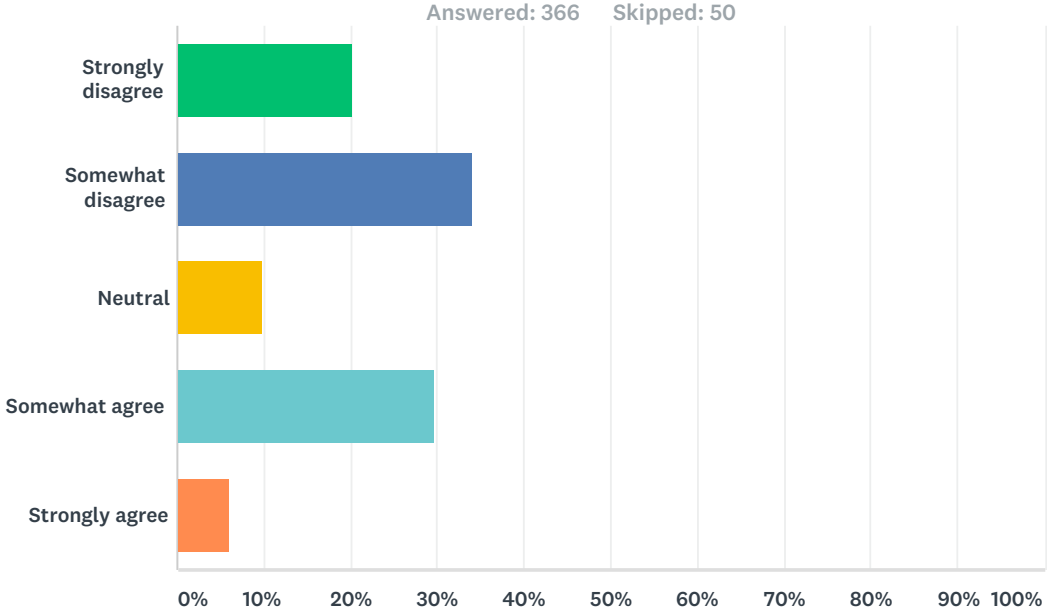
Answered: 361 Skipped: 55



Answer Choices	Responses	
Strongly disagree	7.48%	27
Somewhat disagree	11.08%	40
Neutral	26.04%	94
Somewhat agree	31.02%	112
Strongly agree	24.38%	88
Total		361

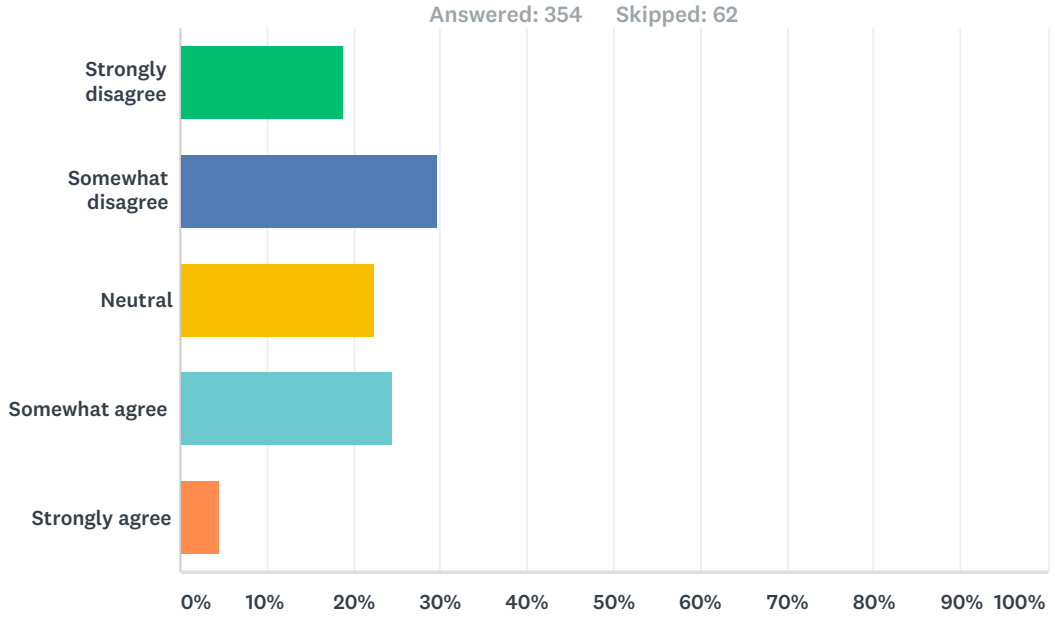
Q22 Municipal roads within the city limits are well-maintained.

Answered: 366 Skipped: 50



Answer Choices	Responses	
Strongly disagree	20.22%	74
Somewhat disagree	34.15%	125
Neutral	9.84%	36
Somewhat agree	29.78%	109
Strongly agree	6.01%	22
Total		366

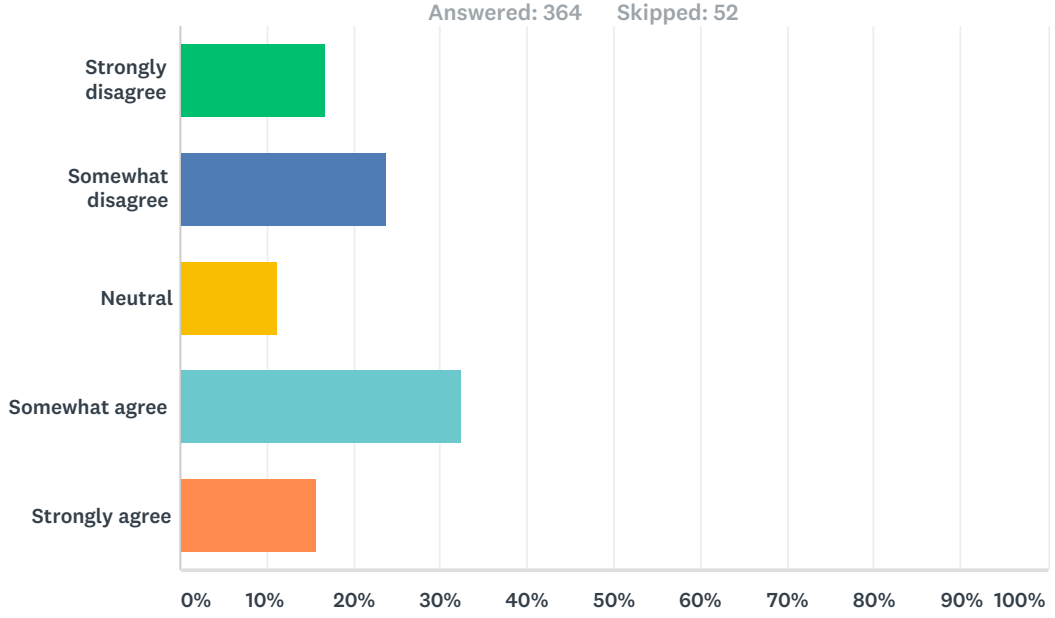
Q23 County roads within the 3-mile radius of the City of Yuma are well-maintained.



Answer Choices	Responses	
Strongly disagree	18.93%	67
Somewhat disagree	29.66%	105
Neutral	22.32%	79
Somewhat agree	24.58%	87
Strongly agree	4.52%	16
Total		354

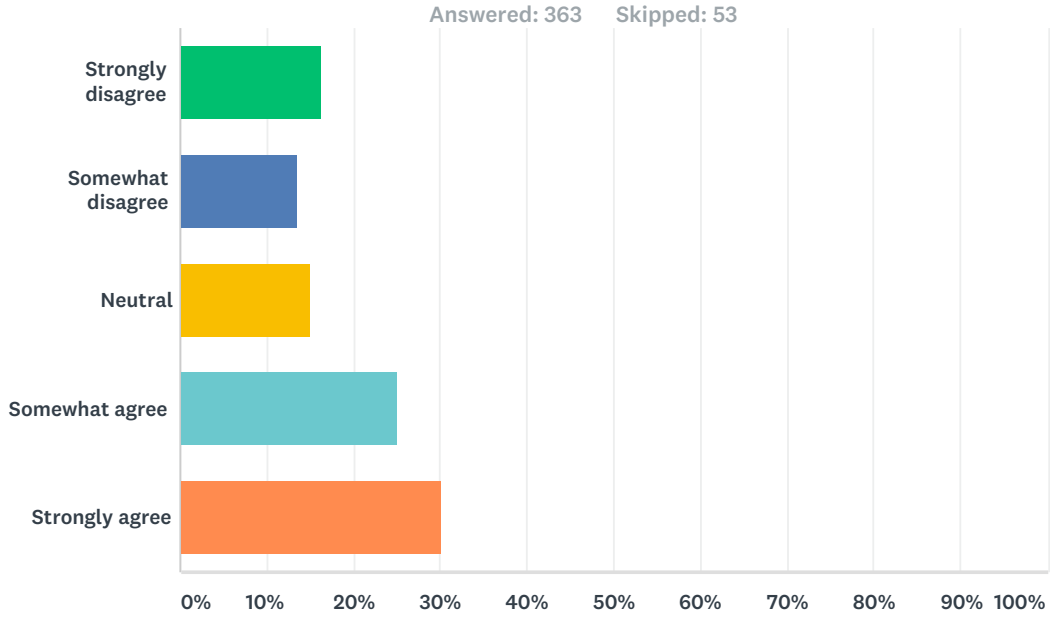
Q24 I am satisfied with the health services available within the City of Yuma.

Answered: 364 Skipped: 52



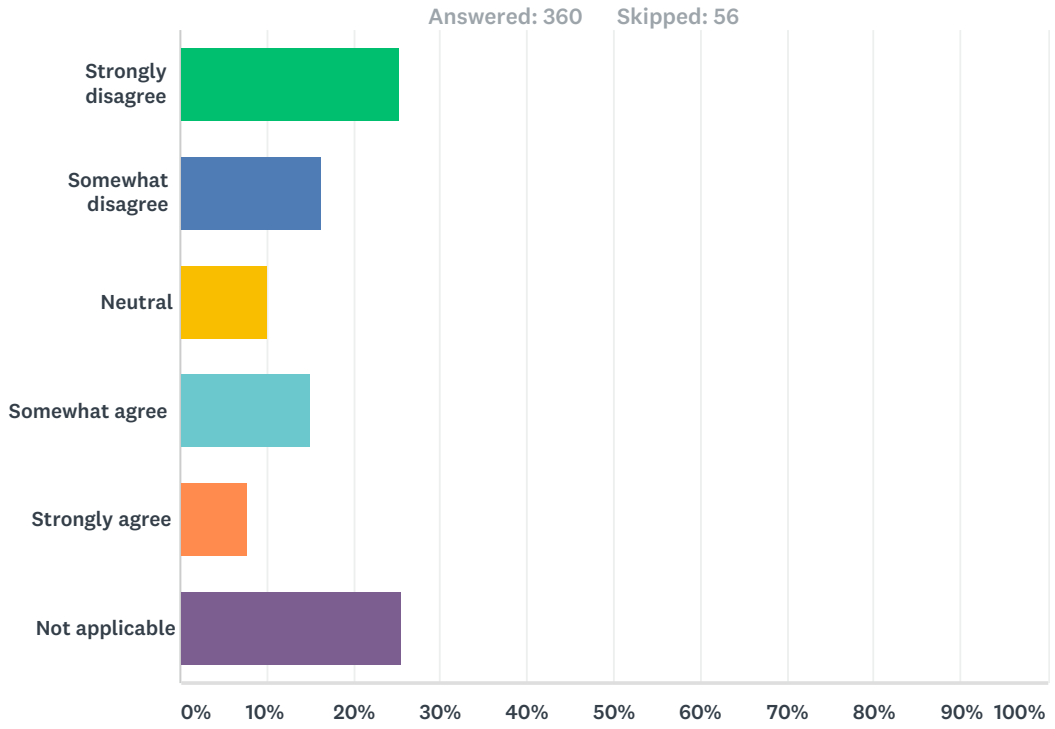
Answer Choices	Responses	
Strongly disagree	16.76%	61
Somewhat disagree	23.90%	87
Neutral	11.26%	41
Somewhat agree	32.42%	118
Strongly agree	15.66%	57
Total		364

Q25 I will travel over 30 miles to access health services even if that service is available within the City.



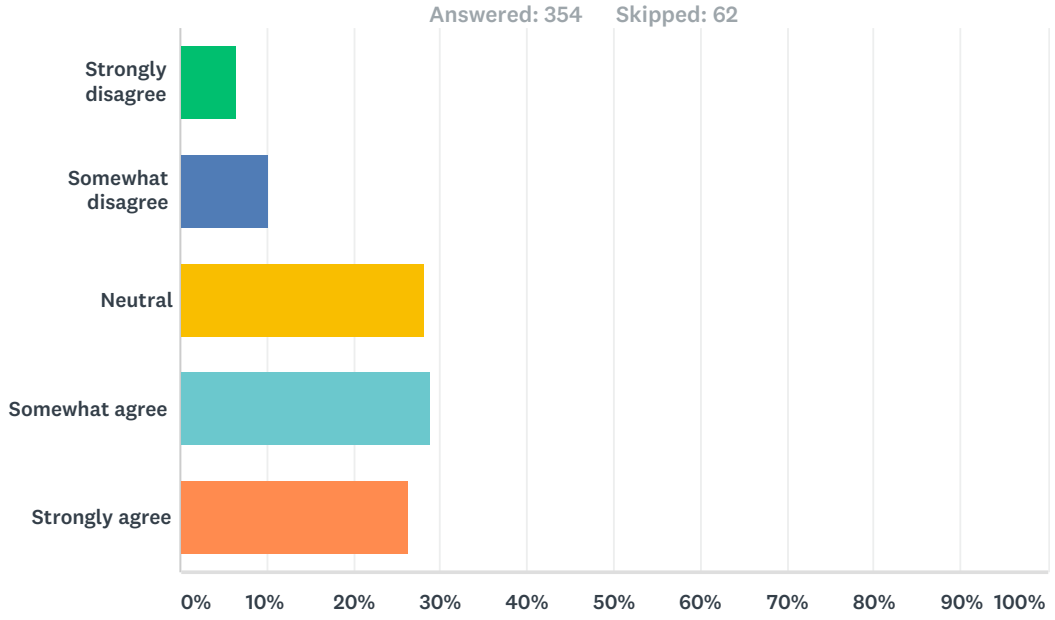
Answer Choices	Responses	
Strongly disagree	16.25%	59
Somewhat disagree	13.50%	49
Neutral	15.15%	55
Somewhat agree	25.07%	91
Strongly agree	30.03%	109
Total		363

Q26 I am able to locate an acceptable nursing home or long-term care facility for myself or an aging relative.



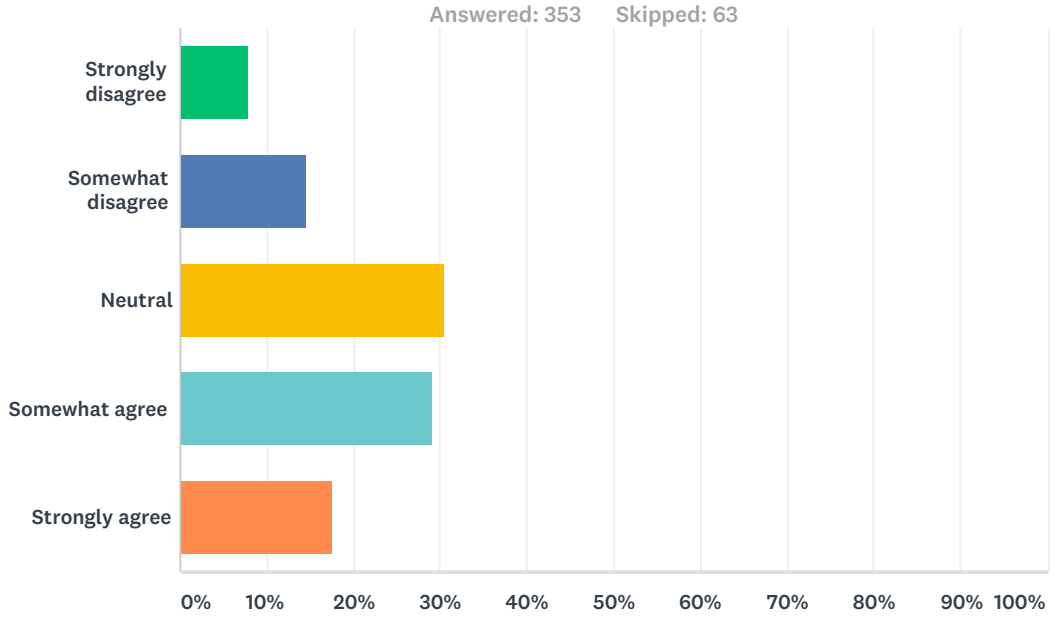
Answer Choices	Responses	
Strongly disagree	25.28%	91
Somewhat disagree	16.39%	59
Neutral	10.00%	36
Somewhat agree	15.00%	54
Strongly agree	7.78%	28
Not applicable	25.56%	92
Total		360

Q27 Yuma School District 1 offers a good elementary education and learning environment for children.



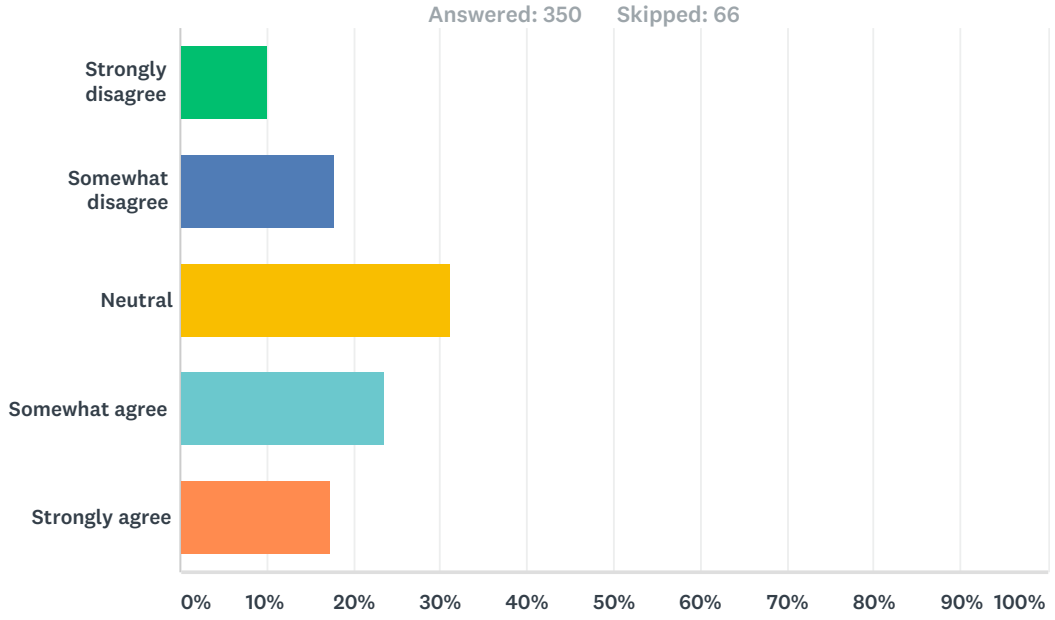
Answer Choices	Responses	
Strongly disagree	6.50%	23
Somewhat disagree	10.17%	36
Neutral	28.25%	100
Somewhat agree	28.81%	102
Strongly agree	26.27%	93
Total		354

Q28 Yuma School District 1 offers a good middle school education and learning environment for children.



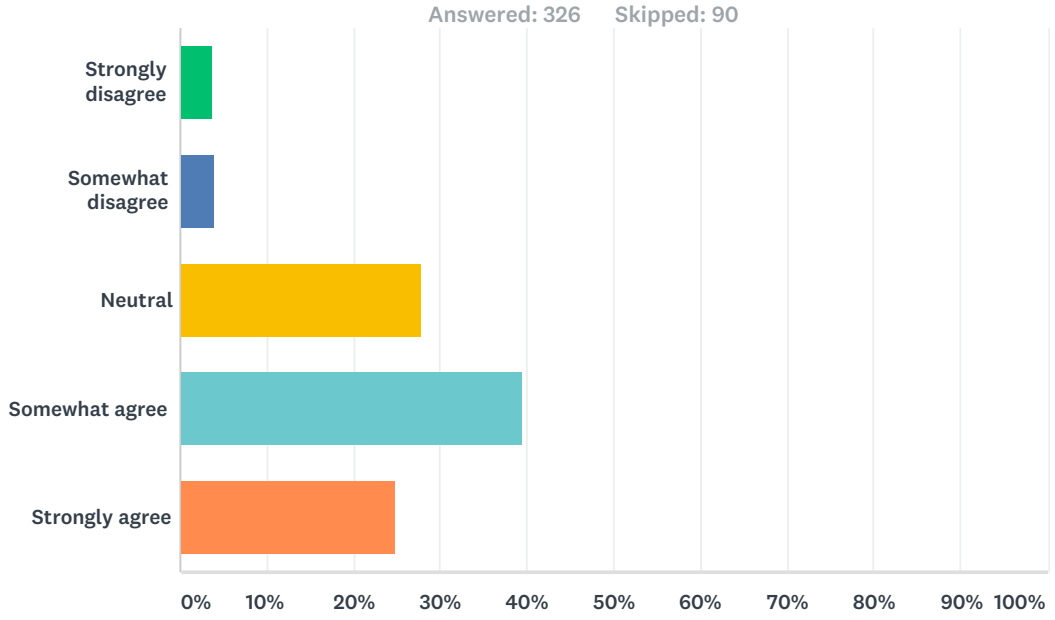
Answer Choices	Responses	
Strongly disagree	7.93%	28
Somewhat disagree	14.73%	52
Neutral	30.59%	108
Somewhat agree	29.18%	103
Strongly agree	17.56%	62
Total		353

Q29 Yuma School District 1 offers a good high school education and learning environment for children.



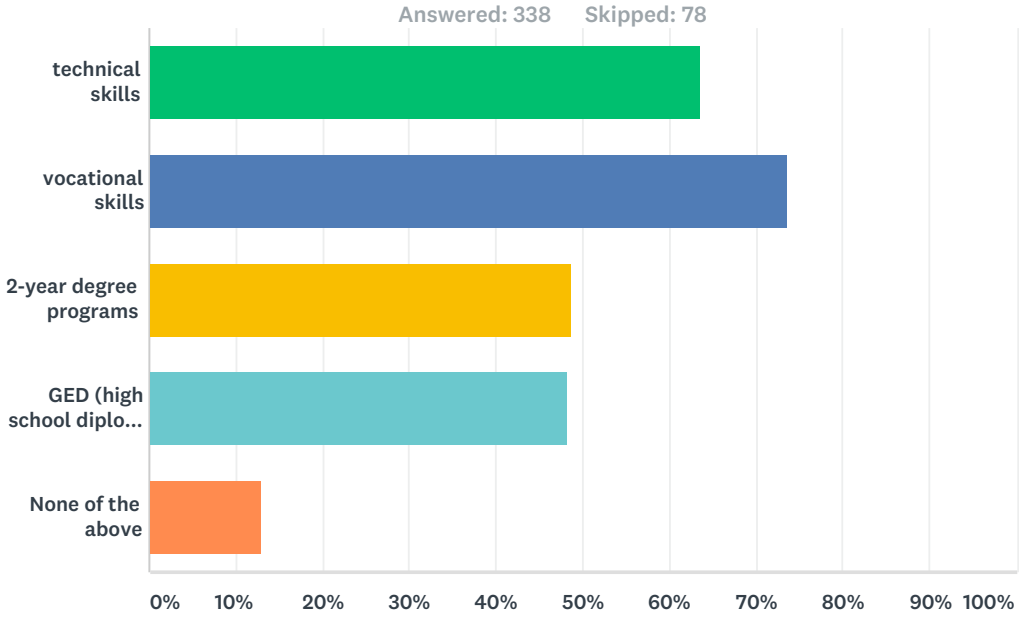
Answer Choices	Responses	
Strongly disagree	10.00%	35
Somewhat disagree	17.71%	62
Neutral	31.14%	109
Somewhat agree	23.71%	83
Strongly agree	17.43%	61
Total		350

Q30 Yuma needs a place where I, or other family members, can gain vocational job skills.



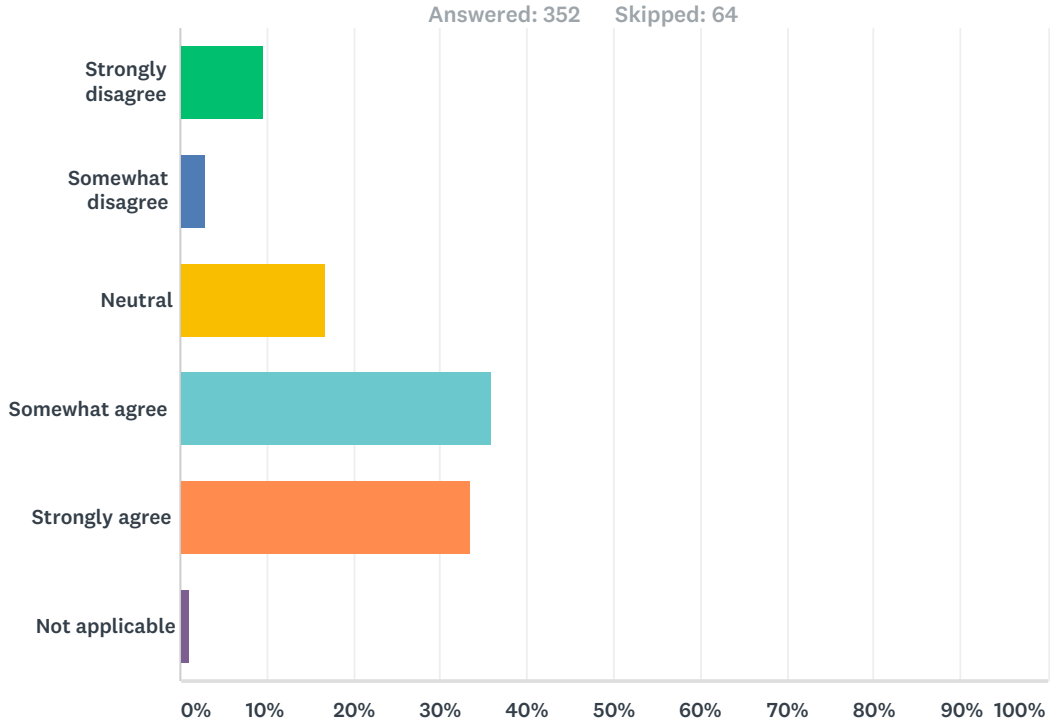
Answer Choices	Responses	
Strongly disagree	3.68%	12
Somewhat disagree	3.99%	13
Neutral	27.91%	91
Somewhat agree	39.57%	129
Strongly agree	24.85%	81
Total		326

Q31 The City should look for opportunities to provide post high school education in (select all that apply).



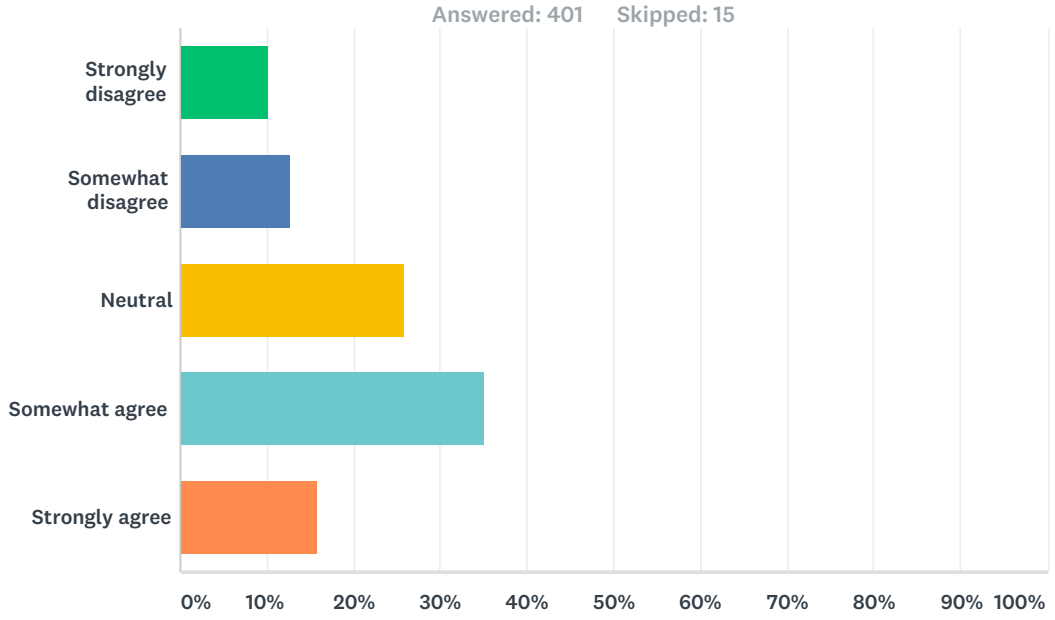
Answer Choices	Responses	
technical skills	63.61%	215
vocational skills	73.67%	249
2-year degree programs	48.82%	165
GED (high school diploma) assistance courses	48.22%	163
None of the above	13.02%	44
Total Respondents: 338		

Q32 Yuma needs a place where residents can gain or improve their English and Spanish language skills.



Answer Choices	Responses	
Strongly disagree	9.66%	34
Somewhat disagree	2.84%	10
Neutral	16.76%	59
Somewhat agree	36.08%	127
Strongly agree	33.52%	118
Not applicable	1.14%	4
Total		352

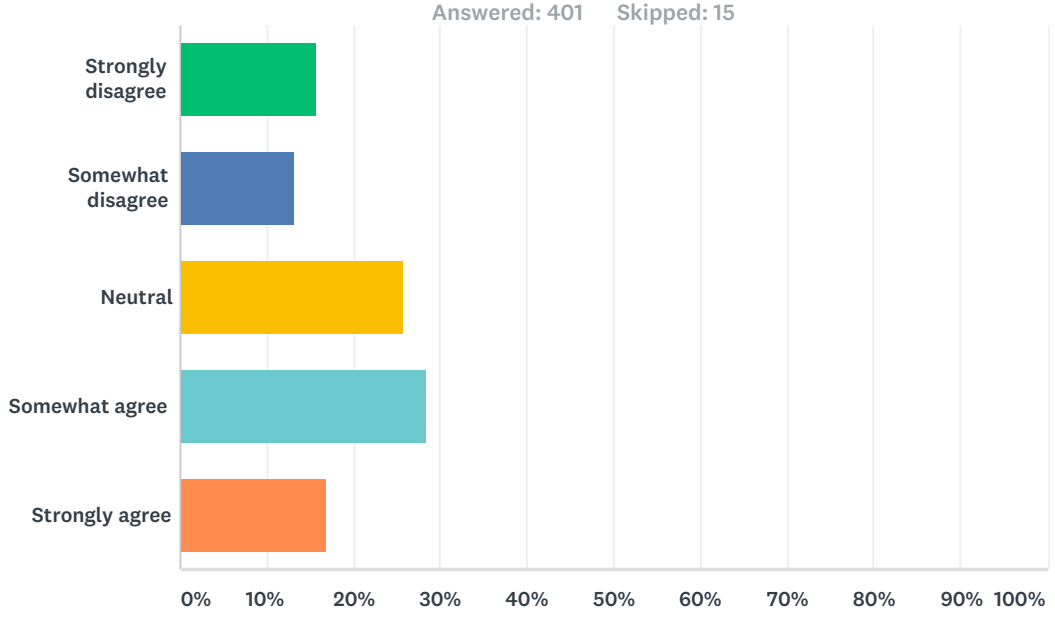
Q33 I would like to see the City of Yuma experience greater population growth and related land use expansion.



Answer Choices	Responses	
Strongly disagree	10.22%	41
Somewhat disagree	12.72%	51
Neutral	25.94%	104
Somewhat agree	35.16%	141
Strongly agree	15.96%	64
Total		401

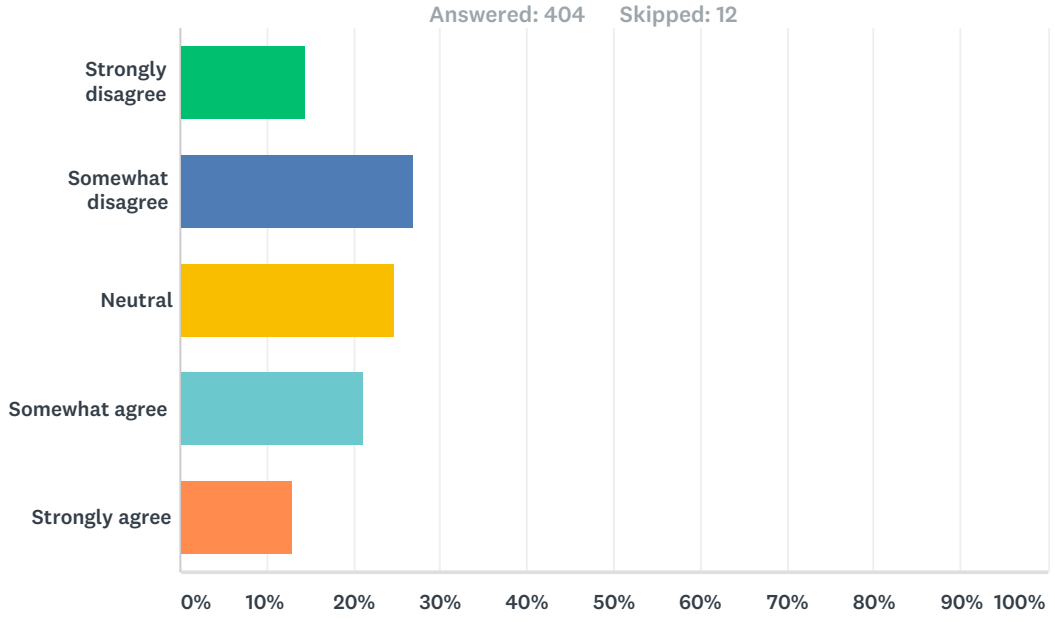
Q34 The City of Yuma should annex some lands adjacent to the community to attract and accommodate future land use expansion, such as housing and business development.

Answered: 401 Skipped: 15



Answer Choices	Responses	
Strongly disagree	15.71%	63
Somewhat disagree	13.22%	53
Neutral	25.69%	103
Somewhat agree	28.43%	114
Strongly agree	16.96%	68
Total		401

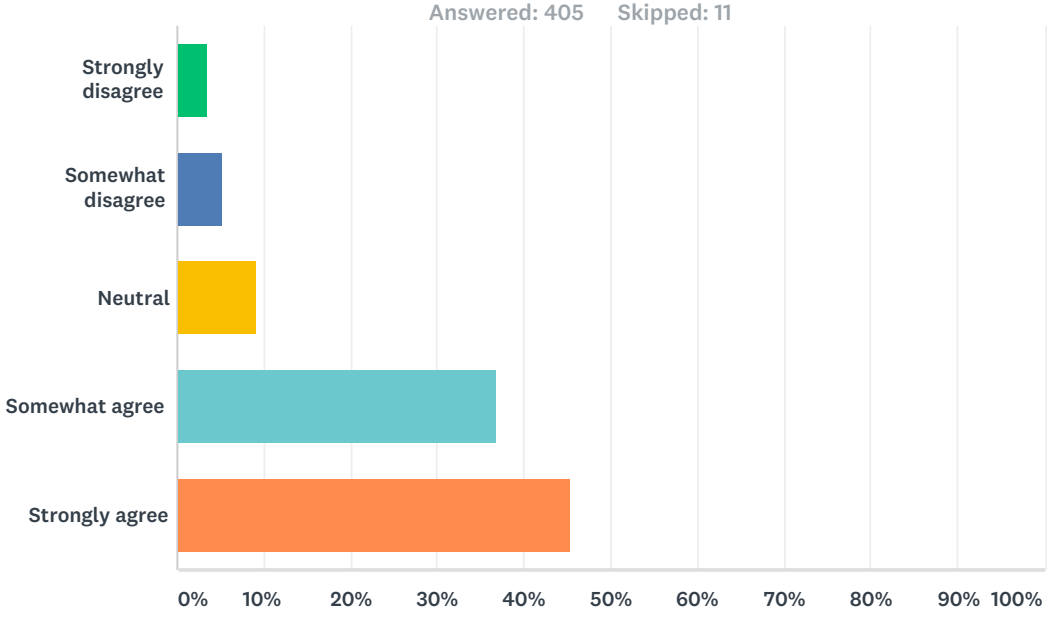
Q35 The size and population of the City of Yuma is perfect; no additional growth is needed.



Answer Choices	Responses	
Strongly disagree	14.36%	58
Somewhat disagree	26.98%	109
Neutral	24.75%	100
Somewhat agree	21.04%	85
Strongly agree	12.87%	52
Total		404

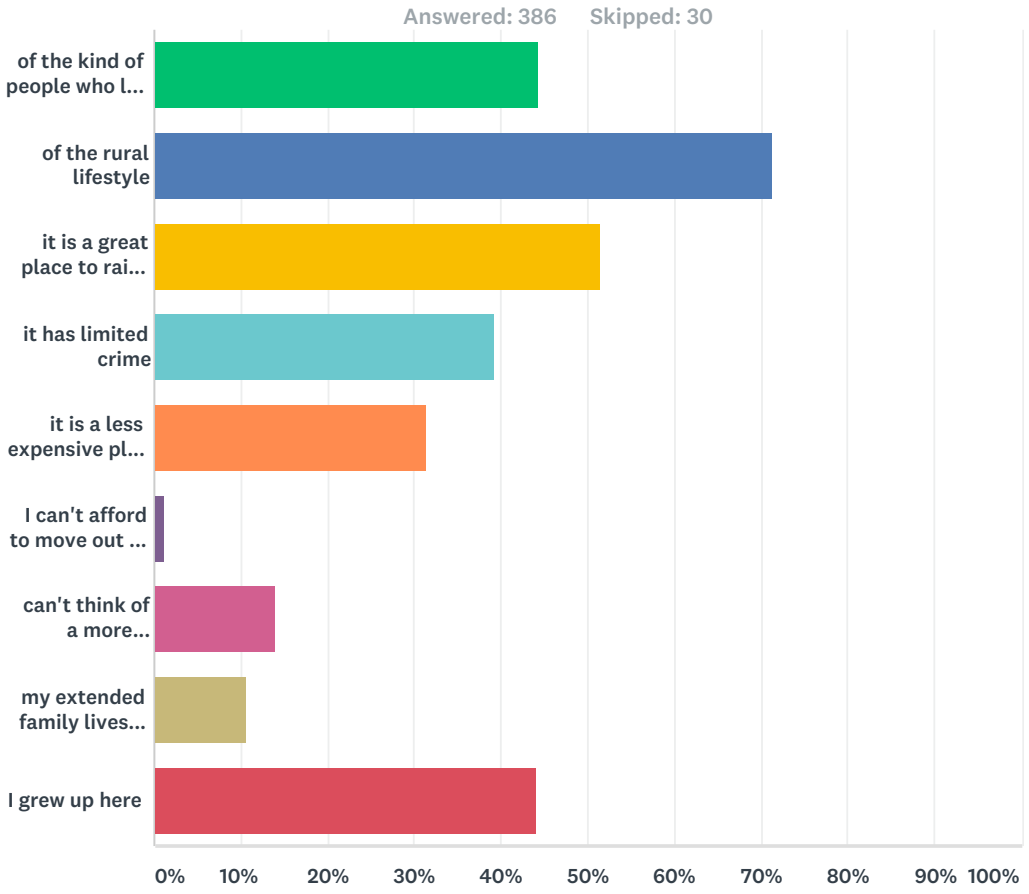
Q36 Yuma is a great place to live.

Answered: 405 Skipped: 11



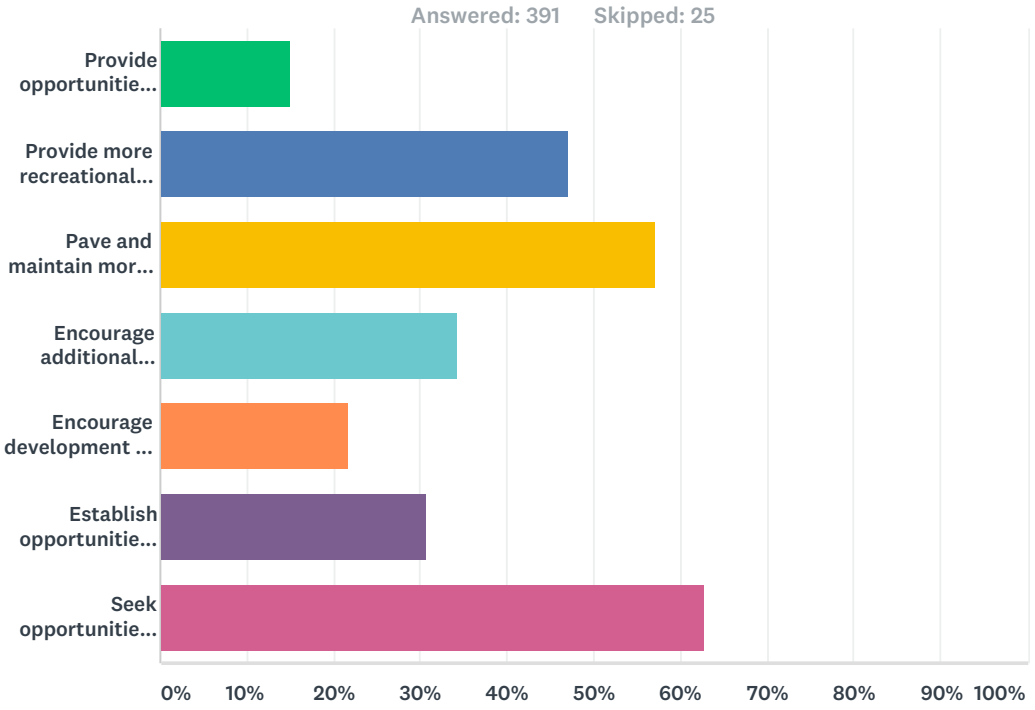
Answer Choices	Responses	
Strongly disagree	3.46%	14
Somewhat disagree	5.19%	21
Neutral	9.14%	37
Somewhat agree	36.79%	149
Strongly agree	45.43%	184
Total		405

Q37 I live in Yuma because (select all that apply):



Answer Choices	Responses	
of the kind of people who live here	44.30%	171
of the rural lifestyle	71.24%	275
it is a great place to raise children	51.55%	199
it has limited crime	39.38%	152
it is a less expensive place to live	31.35%	121
I can't afford to move out of Yuma	1.30%	5
can't think of a more desirable place to live	13.99%	54
my extended family lives here	10.62%	41
I grew up here	44.04%	170
Total Respondents: 386		

Q38 If there were only three things that the City of Yuma could do with limited funding, what would be your top three priorities? (Please select only 3 choices.)



Answer Choices	Responses	
Provide opportunities for adult education	15.09%	59
Provide more recreational opportunities	47.06%	184
Pave and maintain more streets	57.03%	223
Encourage additional housing development	34.27%	134
Encourage development of child care facilities/services	21.74%	85
Establish opportunities for job skills training	30.69%	120
Seek opportunities to grow and sustain the economy	62.66%	245
Total Respondents: 391		

APPENDIX C
SUMMARY OF COMMUNITY WORKSHOPS

PEDERSEN PLANNING CONSULTANTS
P.O. Box 2265
Granby, Colorado 80446 **pedersenplanning@gmail.com**
970-887-3759/307-760-6890 **www.pedersenplanning.com**

M e m o r a n d u m

Date: August 4, 2017
To: **Scott Moore, City Manager**
Karma Wells, City Clerk/Treasurer
From: Jim Pedersen, Principal Planner
Subject: **Yuma Comprehensive Plan**
Community Workshop #1: Recreational Opportunities

Workshop Location: Yuma Community Center
Date and Time: July 31, 2017 6:00-7:30 pm
Attendees: 30 residents of Yuma including, in part, three City Council members, one Planning Commissioner, City Manager, Clerk/Treasurer, and Parks Department Director

This memorandum provides a brief summary of what was learned from participants of the first Community Workshop concerning recreational opportunities in the City of Yuma.

Jim Pedersen opened the meeting that welcomed meeting attendees. In a brief MS PowerPoint presentation, Pedersen explained that the selection of Recreational Opportunities as a topic for one of three community workshops was a result of information gained from Stakeholder Interviews and residents responses to four questions in the recent Community Survey. Question 38 in the Community Survey queried: *If there were only three things that the City of Yuma could do with limited funding, what would be your top three priorities?* From a list of several possible choices, the top three choices selected by respondents included:

- *Seek opportunities to grow and sustain the economy.*
- *Pave and maintain more streets.*
- *Provide more recreational opportunities.*

Other survey responses regarding recreation included responses to questions 5, 6 and 7. Pedersen noted that:

- 69% of survey respondents expressed agreement with the proposition that the City of Yuma needs a new public swimming pool.
- 53% of survey respondents supported the need for a community pathway or trail system for walking, biking, and/or jogging.
- 61% of survey respondents believed that there is a need for a new indoor recreation center that offers a variety of recreational opportunities.

With this background information, Pedersen randomly divided the overall audience into six different groups that were asked to answer the following questions:

1. Where should a community trail be located? Participants marked routes on map provided.
2. What recreational activities should be included into an indoor recreational center?
3. What amenities should be incorporated in the development of a new swimming pool?
4. Are there other recreational needs that need to be addressed?

The responses to each question are summarized in the following tables that identify the range of recommendations, as well as recommendations that were supported by more than one group.

Mayor Joe Harper, who participated in the workshop, thanked all who attended the meeting and said he appreciated the substantive comments that were received from each group.

Following presentations given by one representative of each group, Jim Pedersen reported that forms were available for any person attending that might want to provide other recommendations. Two additional comments were received.

Comment 1 said that current parks, e.g., Hanson Park, Pioneer Park, and North Park, need to be updated with new equipment.

Comment 2: Once the City decides to pursue its development of new recreational facilities, the City should promote and advertise available opportunities.

In closing, Jim Pedersen thanked all persons who attended the meeting for their taking the time to share their insights and recommendations.

RESPONSES TO QUESTION 1: Where should a community trail be located?						
Recommendation	***Group 1***	***Group 2***	***Group 3***	***Group 4***	***Group 5***	***Group 6***
Wrap around golf course, cemetery, & Old Post Road	●		●			●
Pave E5th Avenue through Industrial Park	●			●		
Add pedestrian access to Kamala Street	●					
Pavements		●				
Baseball fields			●	●	●	●
Ponds			●			
Fairground			●			
Yuma Hospital			●		●	
City Parks			●			
Countryside			●			
Community Center to Pioneer Lake via 2nd Ave				●		
Evergreen Street				●		
High School						●
Connect to Veterans Park						●
Trail width to accommodate people and bikes						●

RESPONSES TO QUESTION 2: What recreational activities should be incorporated into an indoor recreational center?						
Recommendation	***Group 1***	***Group 2***	***Group 3***	***Group 4***	***Group 5***	***Group 6***
Basketball court	●		●	●	●	
Racquetball court	●	●	●	●	●	
Pickle ball court	●	●	●		●	
Indoor/Outdoor swimming pool	●	●		●	●	●
Weight room	●		●			
Rock climbing wall	●		●	●	●	
Locate rec center where existing pool is	●					
Gymnasium		●				●
Indoor walkways		●				
Community space		●				
Multi-purpose rooms			●			●
Cardio studio/Fitness room			●	●	●	●
Children rooms/Play area			●	●	●	
Community garden			●			
Classrooms			●		●	●
Child care room			●		●	
Indoor firing range				●		
Party area for rental					●	
Splash pad for seasonal use					●	
Kitchen leased to private café concessionaire						●

RESPONSES TO QUESTION 3: What amenities should be incorporated in the development of a new swimming pool?						
Recommendation	***Group 1***	***Group 2***	***Group 3***	***Group 4***	***Group 5***	***Group 6***
Splash pool		●	●	●	●	●
Zero entry		●	●		●	
Slides		●	●		●	
Lap Swim		●	●		●	●
Physical therapy		●				
Indoor pool			●			●
Indoor /Outdoor Pool				●	●	
Multiple smaller pools			●			
Grassy area outside of sun			●	●		
Locker rooms			●			
Steam sauna			●			
Diving boards			●			
Conveniently accessible location			●			
Child play area				●		
Lily pads					●	
Fountains					●	
Shade around pool						●

RESPONSES TO QUESTION 4: Are there other recreational needs that need to be addressed?						
Recommendation	***Group 1***	***Group 2***	***Group 3***	***Group 4***	***Group 5***	***Group 6***
Splash park					●	
Dog park					●	
Soccer fields				●	●	
Rock wall					●	
Parks/activities for 0-5 year old children					●	
Gymnastics					●	
More fencing around parks					●	
More picnic seating in shaded areas					●	
Indoor activities, e.g., art, music					●	
Pump track for bikes				●		
Ice skating				●		
Open bowling alley	●		●			
Handicap accessible sidewalks			●			
Stroller friendly sidewalks			●			
Youth programs	●					
Billiards area	●					
Update slides at parks						●
More shade at parks						●
More benches at parks						●
Restrooms at parks						●
Garden area in older part of City park						●

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M e m o r a n d u m

Date: August 4, 2017
To: **Scott Moore, City Manager**
Karma Wells, City Clerk/Treasurer
From: Jim Pedersen, Principal Planner
Subject: **Yuma Comprehensive Plan**
Community Workshop #2: Pave and Maintain More Streets

Workshop Location: Yuma Community Center
Date and Time: August 2, 2017 6:00-7:30 pm
Attendees: 17 residents of Yuma including, in part, two City Council members, City Manager, Clerk/Treasurer, and Public Services Department Director

This memorandum provides a brief summary of what was learned from participants of the second Community Workshop concerning the paving and maintaining of more streets in the City of Yuma.

Jim Pedersen opened the meeting that welcomed meeting attendees. In a brief MS PowerPoint presentation, Pedersen explained that the selection of Municipal Streets and Roads as a topic for one of three community workshops was a result of information gained from Stakeholder Interviews and residents responses to two questions in the recent Community Survey.

Some stakeholders expressed interest or need for the establishment of a gradual development program of new paved streets that would replace chip & seal treatments with new sub-grades and new paved surfaces. Others recommended some specific street or road segments for new paved surfaces.

Question 38 in the Community Survey queried: *If there were only three things that the City of Yuma could do with limited funding, what would be your top three priorities?* From a list of several possible choices, the top three choices selected by respondents included:

- *Seek opportunities to grow and sustain the economy.*
- *Pave and maintain more streets.*
- *Provide more recreational opportunities.*

Other survey responses regarding recreation included responses to question 22. Pedersen noted that 54 percent of survey respondents expressed that municipal roads were not well-maintained, while 36 percent believed they were well-maintained. The remaining respondents were neutral.

With this background information, Pedersen randomly divided the overall audience into three different groups that were asked to answer the following questions:

With this background information, Pedersen randomly divided the overall audience into three different groups that were asked to answer the following questions:

1. What gravel roads, if any, need to be paved?
2. What paved streets need improvements?
3. Are there other street and road issues that need to be addressed?

Each group was asked to rate each recommended street/road improvement as urgent, important, or desirable. These rating were further defined as follows:

URGENT – Needs to be addressed as soon as possible.
IMPORTANT – Needs to be addressed within the next two years.
DESIRABLE – Should be addressed in next 10 years.

The responses to each question are summarized in the following tables that identify the range of recommendations, as well as recommendations that were supported by more than one group.

Following presentations given by one representative of each group, Jim Pedersen reported that forms were available for any person attending that might want to provide other recommendations. Two additional comments were received.

Comment 1: Ivy Street was the highest priority to be paved. Meeting was good.

Comment 2: Felt it was good that people were concerned about having good streets and safer access for the older citizens, perhaps in wheel chairs.

In closing, Jim Pedersen thanked all persons who attended the meeting for their taking the time to share their insights and recommendations.

RESPONSES TO QUESTION 1: What gravel roads need to be paved?				
Priority	***Recommendation***	***Group 1***	***Group 2***	***Group 3***
Urgent	S. Ivy: Hwy 34 to 2nd Ave.	•	•	
Urgent	E. 5th Ave.: Ballfields S to Hwy 34.	•		
Urgent	W. 10th Ave. to Parrish Care Center: N to Hwy 34	•	•	•
Urgent	Ivy St.: W. 6th Ave. Hickory to Ivy			•
Urgent	Ivy St. to Kamala St. on 2nd Ave.		•	•
Urgent	Homestead Trail		•	
Urgent	E. 2nd Ave. to Idlewild		•	
Important	Industrial Park and area by ballfields		•	
Important	Railway Ave. W of N. Birch		•	
Important	Ford Circle		•	•
Important	S. Columbus (E. side of Hanson Park)		•	
Important	E. 12th Ave.		•	
Important	S. Albany (by High School ballfields)		•	
Important	W. Railway Ave.			•
Important	W. Grant Ave.			•
Important	Homestead Trail	•		•
Desirable	S. Albany St.	•		
Desirable	Ford Circle	•		•
Desirable	Ballfield Road			•
Desirable	Idlewild St.			•

RESPONSES TO QUESTION 2: What paved streets need improvements?				
Priority	***Recommendation***	***Group 1***	***Group 2***	***Group 3***
Urgent	3rd Ave.: E of Main St. to Buffalo	•	•	•
Urgent	Alley behind Post Office	•		
Urgent	4th Ave.: E of Main to Buffalo		•	
Urgent	2nd Ave: Main to Hwy 59		•	
Urgent	Double yellow line on N. Main		•	
Important	East Railway between Main and Albany			•
Important	One block S of Beatty Ave. from Main St. to N. Albany	•		
Important	W. 3rd Ave.: Between Elm St. and Gum St.			•
Important	South Ash St.: Between 5th Ave. and 6th Ave.			•
Desirable	Apache Drive	•		

RESPONSES TO QUESTION 3: Are there other street and road issues that need to be addressed?				
Priority	***Recommendation***	***Group 1***	***Group 2***	***Group 3***
Urgent	Evergreen to Idlewild on N. side of Hwy 34		•	
Urgent	Detroit from railroad track to Hwy 34.		•	
Important	Re-pave streets that have dips, e.g., Albany, Cedar, Birch	•		
Important	Fix dip on N. Main St. and Railway intersection			•
Important	Lower speed limit on Ash St.			•
Desirable	Intersections at 5th Ave. and Birch and 5th Ave. and Cedar			•
Desirable	Surface drainage issue on Cedar St. between 4th and 5th Ave.			•

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M e m o r a n d u m

Date: August 4, 2017
To: **Scott Moore, City Manager**
Karma Wells, City Clerk/Treasurer
From: Jim Pedersen, Principal Planner
Subject: **Yuma Comprehensive Plan**
Community Workshop #3: Grow and Sustain the Economy

Workshop Location: Yuma Community Center
Date and Time: August 2, 2017 7:30-9:00 pm
Attendees: 21 residents of Yuma including, in part, two City Council members, City Manager, Clerk/Treasurer, Yuma County Economic Development Director, and Director of West Yuma Chamber of Commerce.

This memorandum provides a brief summary of what was learned from participants of the third Community Workshop concerning growing and sustaining the economy of the City of Yuma.

Jim Pedersen opened the meeting that welcomed meeting attendees. In a brief MS PowerPoint presentation, Pedersen explained that the selection of Growing and Sustaining the Economy as a topic for one of three community workshops was a result of information gained from Stakeholder Interviews and resident responses to several questions in the recent Community Survey.

Some stakeholders expressed interest or need for the community to:

- Take steps to improve the local business climate, e.g., improve infrastructure, housing and recreation opportunities; and,
- Annex lands to accommodate future land use expansion.

Question 38 in the Community Survey queried: *If there were only three things that the City of Yuma could do with limited funding, what would be your top three priorities?* From a list of several possible choices, the top three choices selected by respondents included:

- *Seek opportunities to grow and sustain the economy.*
- *Pave and maintain more streets.*
- *Provide more recreational opportunities.*

In preparation for separate smaller group discussions concerning the economy, Jim Pedersen provided an overview of the economy of Yuma County and the City of Yuma. This overview highlighted larger corporate employers, average annual employment and unemployment, per capita

income and average annual wage and salary levels, the significance of the agricultural industry and wholesale trade, as well as trends associated with retail trade and retail leakage.

Jim Pedersen also presented responses to several other questions in the Community Survey that related to economic development and potential land use expansion.

With this background information, Pedersen randomly divided the overall audience into three different groups that were asked to answer one general question:

1. What should the community do to encourage economic expansion within or near the City of Yuma?

   Each group was asked to rate each recommendation as urgent, important, or desirable. These rating were further defined as follows:

   URGENT – Needs to be addressed as soon as possible.
   IMPORTANT – Needs to be addressed within the next two years.
   DESIRABLE - Should be addressed in next 10 years.

The responses to each question are summarized in the following table that identifies the range of recommendations, as well as recommendations that were supported by more than one group.

Following presentations given by one representative of each group, Jim Pedersen reported that forms were available for any person attending that might want to provide other recommendations. One additional comment was received by one person who attended workshop 2, but unable to participate in workshop 3.

Comment 1 said annexing to square up the town is OK, but the City has a hard time taking care of what they have, e.g., bindweed, streets, etc. No need to get carried away.

In closing, Jim Pedersen thanked all persons who attended the meeting for their taking the time to share their insights and recommendations.

RESPONSES TO QUESTION 1: What should the community do to encourage economic expansion within or near the City of Yuma?				
Priority	**Recommendation**	**Group 1**	**Group 2**	**Group 3**
Urgent	Develop new affordable housing	•		•
Urgent	Establish a rehabilitation facility	•		
Urgent	Develop new nursing home	•		
Urgent	Annex property to have property ready for companies to locate in		•	
Urgent	Make sure adequate support facilities are in Yuma, e.g., schools, hospital, child care, recreation, etc.		•	•
Urgent	More communication/advertising on financing options for businesses and individuals		•	
Urgent	Attract business			•
Important	Make Yuma a more desirable place to live		•	
Important	Add businesses that residents desire, e.g., fresh produce		•	
Important	Help new entrepreneurs create business plans.		•	
Important	Provide training for small business owners			•
Desirable	Hold events during the week and on weekends			•
Desirable	Branding Yuma		•	