Washington, Iowa
Comprehensive Plan

Prepared by
RDG Planning & Design
July 2012

Acknowledgements

The authors gratefully acknowledge the friendship, support, and cooperation of the residents of the City of Washington. It is to them that we dedicate this plan. We would like to express special gratitude to city staff and the Washington Comprehensive Plan Steering Committee whose leadership was a critical part of a successful planning process.

MAYOR
Sandra Johnson

CITY COUNCIL MEMBERS
Merlin Hagie
Mark Kendall
Robert Shellmyer
Robert Shepherd
Fred Stark
Russ Zieglowsky

CITY STAFF
Brent Hinson, City Administrator
Steve Donnolly, Building and Zoning Administrator

PLANNING COMMISSION
William Frederick
Rick Hofer
Dave Mueller
Jim Hanshaw
Connie Larsen
Deran DeLong
Bob Bonar
Kathy Salazar

STEERING COMMITTEE
Sue Basten
J.J. Bell
Deran DeLong
Erin Drahota
Mike Driscoll
Karen Gorham
Merlin Hagie
Jim Hanshaw
Marianne Hanshaw
Brent Hinson
Sandra Johnson
Michael Kramme
Connie Larsen
Adam Mangold
Mike Maxted
David Mitchell
Edie Nebel
Donald Pfeiffer
Ed Raber
Kathy Salazar
Robert Shepherd
Troy Suchan
Dale Torpey
Amy Vetter
Wilfrid Vittetoe
Jean Wehr
Jim Zieglowsky

RDG PLANNING & DESIGN
Marty Shukert, FAICP
Gary Lozano, AICP
Lorin Ditzler, MS
Cory Scott, AICP
Scott Crawford, ASLA
Sonja Carter, Graphic Design

SPECIAL THANKS TO:
Laurie Wittmayer-O'Neill of the Washington County Historical Society.

All who participated in the public meetings and stakeholder interviews.

Table of Contents

Washington Comprehensive Plan

Introduction

This plan lays out a vision for the future of Washington, Iowa, a community of more than 7,000 residents, and the county seat of Washington County, Iowa. The plan identifies issues and opportunities for Washington's land use, infrastructure, public facilities, and natural resources. These findings are paired with community input to provide a vision for the city's future and a set of concrete action steps to improve quality of life and make the city more attractive for potential growth.

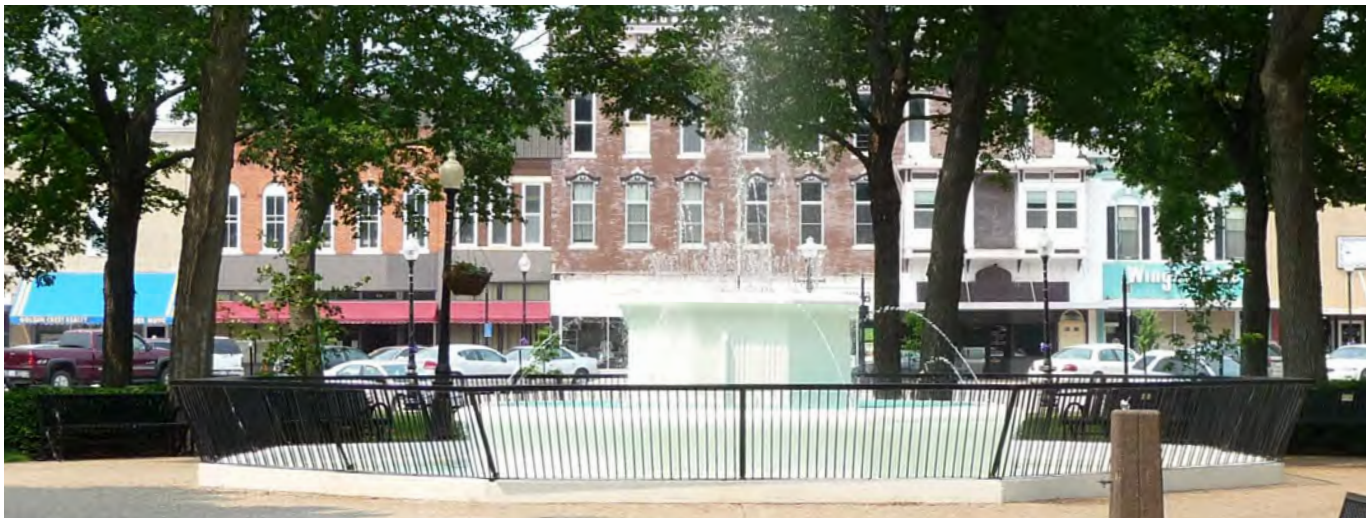
A BRIEF HISTORY OF WASHINGTON

Washington was originally inhabited by the Sac and Fox tribes until they were displaced by pioneer settlers in the 1800s. Settlers of European descent came to the area to farm, and businesses and other support systems soon sprang up alongside the farmsteads. After Washington County was established in 1838, settlers began the search for the county seat. The land that is now the city of Washington was chosen as the seat due to its central location, and the sale of property lots began in August 1839. Joseph "Quincy" Adams erected the first recorded buildings in the village – his home and his blacksmith shop – both at the corner of what is now Iowa and Jefferson. A public square was established northwest of these first structures, and most business transactions took place there – today's public square is in roughly the same location as the original. By 1840, twelve families resided in Washington, and by 1857, the population was nearly 2,000. Washington attempted to incorporate four times in the 1850s before it was successfully incorporated in September 1864.

A number of historic buildings from this era remain in Washington, including the 1840 DAR log house in Sunset Park, the Blair House (1880) which at one time served as city hall, and Conger House (1847). In the late 1800s, many of Washington's oldest homes were constructed along the Boulevard (W Washington Street). Portions of the boulevard's original brick street remain today. Also in the late 19th century, the Washington County courthouse was constructed, and the Washington Public Library was established by volunteers using private donations and a small public tax.

In the early 20th century, many of Washington's important community institutions were established. Washington became home to the first rural county public hospital in Iowa in 1912, which would eventually become today's Washington County Hospitals and Clinics. The Washington Community Y was constructed in its current location in 1924, the Washington municipal band played its first season in 1932, and the Washington County fair began in 1951. In celebration of the Washington centennial 1939, a Fountain was constructed in Central Park, where it remains today as a focal point of Washington.

Throughout the 20th century, Washington continued to grow in population. Even as the number of farms declined statewide in the second half of the century, Washington population has grown or remained steady, due to its diverse business base, attractive quality of life offerings, growing Hispanic community, and a strong relationship with nearby employment centers such as Iowa City/Coralville. Washington residents have demonstrated their investment in the community over the past several decades through the revitalization of the downtown, and support of community institutions such as the new public library and new high school.



THE ROLES OF A COMPREHENSIVE PLAN

Comprehensive planning is a transparent public process in which residents create a shared vision to promote the health, safety and prosperity of the community. A comprehensive plan has two fundamental purposes, explained below:

LEGAL ROLE

The plan provides a legal basis for land use regulations. Section 414 of the Code of Iowa enables cities to adopt land use regulations such as zoning and subdivision ordinances, to promote the "health, safety, morals or general welfare of the community." These regulations govern how land is developed within a municipality and its extra-territorial jurisdiction. Land use regulations recognize that people in a community live cooperatively and have certain responsibilities to coordinate and harmonize the uses of private property. The Iowa Code requires these regulations to be in conformance with a comprehensive plan and its corresponding vision for the community's physical development. The Washington Comprehensive Plan therefore provides the legal basis for the city's authority to regulate land use and development.

COMMUNITY BUILDING ROLE

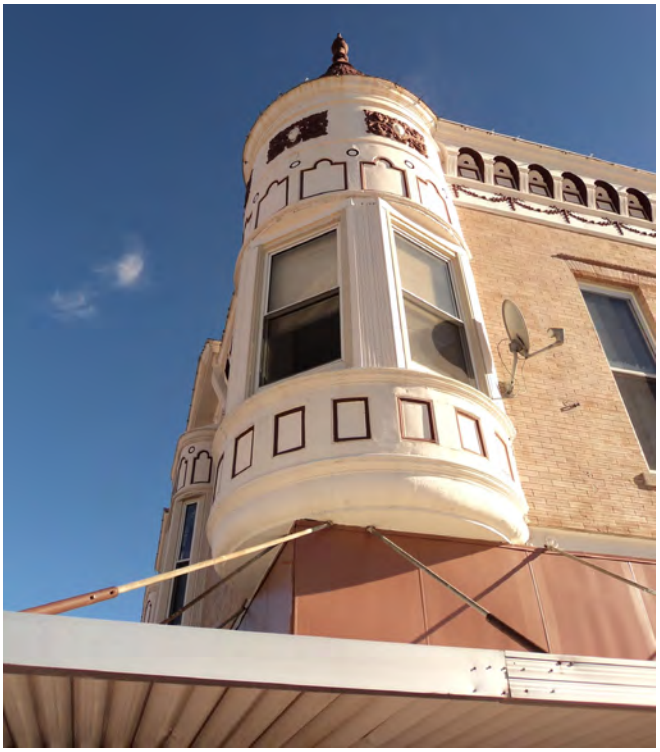
The plan presents a unified and compelling vision for a community and establishes the specific actions necessary to fulfill that vision. A comprehensive development plan defines a shared vision and presents a unified action program that will implement the city's goals. The plan is designed as a working document that both defines future goals and provides a flexible implementation program that can respond as demographic and economic environments change over time.

IOWA'S SMART PLANNING LEGISLATION

In the spring of 2010, the Iowa State Legislature passed the "Iowa Smart Planning Act" as a way to guide and encourage the development of local comprehensive plans. The legislation outlines 10 Smart Planning Principles and 13 comprehensive plan elements that Iowa cities should use to develop their comprehensive plans. These guidelines are intended to improve economic opportunities, preserve the natural environment, protect quality of life, and ensure equitable decision-making processes.

The smart planning principles and comprehensive plan elements as defined in the legislation are listed on the following page. Though the sets of elements and principles may look similar, they differ in that the 10 smart planning principles are meant to be the overarching values that inform each of the 13 elements of the plan.

The Washington comprehensive plan was created in compliance with the guidelines of the Iowa Smart Planning Act. The Appendix provides an overview of this compliance. The plan addresses all thirteen elements of a Comprehensive Plan required by the Iowa Smart Planning Principles, but is organized in a format that fits Washington's planning needs. The Washington comprehensive plan received an Iowa smart planning grant that partially funded the creation of this plan.



IOWA'S SMART PLANNING LEGISLATION PRINCIPLES AND ELEMENTS

10 SMART PLANNING PRINCIPLES

Broad Guiding Values For Comprehensive Plans

1. Collaboration
2. Efficiency, Transparency and Consistency
3. Clean, Renewable and Efficient Energy
4. Occupational Diversity
5. Revitalization
6. Housing Diversity
7. Community Character
8. Natural Resources & Agricultural Protection
9. Sustainable Design
10. Transportation Diversity

13 COMPREHENSIVE PLAN ELEMENTS

Sections to Include in All Comprehensive Plans

1. Public Participation
2. Issues and Opportunities
3. Land Use
4. Housing
5. Public Infrastructure and Utilities
6. Transportation
7. Economic Development
8. Agricultural and Natural Resources
9. Community Facilities
10. Community Character
11. Hazards
12. Intergovernmental Collaboration
13. Implementation

WHERE TO FIND IT IN THE PLAN

PART 1: COMMUNITY PROFILE

This section of the plan reviews the city's existing conditions and opportunities for growth.

Chapter 1: Demographics and Economic Profile.
Population trends and projections; demographics; economic conditions; housing.

Chapter 2: Land Use and Environmental Profile.

Existing land use; natural resources and hazards; housing and land need projections.

Chapter 3: Parks and Community Facilities Profile.
Parks and recreation; community facilities serving public safety, culture, education, etc.

Chapter 4: Transportation and Infrastructure Profile.
Multi-modal transportation; Water, Sanitary Sewer and Stormwater Systems; Misc. Public Services; Hazard Mitigation Infrastructure

PART 2: COMMUNITY PLAN

This section considers how Washington will grow, and provides a strategy to guide that growth.

Chapter 5: Community Vision.
Establishes the plan's goals and guiding principles, based on community input and needs established in part one.

Chapter 6: Land Use Development Framework.
Land Development Principles; New Growth Areas; Infill Development and Housing; Future Land Use

Chapter 7: Future Parks and Community Facilities.
Future Parks and Recreation System; Community Facility Improvements/Additions

Chapter 8: Future Transportation and Infrastructure.
Future Transportation System; Infrastructure and Hazard Mitigation Improvements

Chapter 9: Economic Development.
Quality of Life Investments; Business and Retail Support; Revitalization Efforts

Chapter 10: Implementation, Collaboration and Governance.
Implementation Schedule; Maintenance and Funding; Transparency, Collaboration and Efficiency in Governance

KEY FINDINGS AND RECOMMENDATIONS: PLAN AT-A-GLANCE

COMMUNITY PROFILE (SECTION 1)

KEY FIGURES

2.1 - Existing Land Use (p. 25)

2.2 - Hydric soils; natural drainage patterns (p. 28)

3.2 - Geographic Service Coverage of Parks (p. 43)

4.1 - Existing Street System (p. 51)

4.2 - Existing Sidewalks and Trails (p. 53)

POPULATION (CH. 1)

Population Growing Overall

- Losing young adult residents
- Gaining families and older adult residents

Projected Population for 2030: **8,028** (0.5% growth rate)

ECONOMY (CH. 1)

Job growth: slow but positive at 1.5%

Median Income: average but growing quickly

- High number of households in lowest income brackets, likely due to large retiree population

40% of workers commute out of Washington for work

Capture of regional retail spending has been inconsistent

- May be opportunity to fill niche retail gaps such as clothing

HOUSING (CH. 1)

Growing rental market, good balance of owner-occupied and rental units.

Home value increased greatly in past decade

Housing stock mostly single family (80%); half are pre-1950s.

Shortage of affordable housing for lowest income individuals. Majority of renters are "housing burdened." (Ch. 9)

2030 LAND NEED PROJECTION (CH. 2)

- Residential: 236 acres; Commercial: 26 acres; Industrial: 101 acres

2030 HOUSING PROJECTION (CH. 2)

427 New Units Needed

- 75% Single Family Detached Homes; 7% Single Family Attached (townhomes); 18% Multi-Family (apartments)

Planning for more multi-family and single family attached units to accommodate housing trends.

PARKS (CH. 3)

Amount of parkland per person is lower than national standard for neighborhood parks and total parkland.

Parkland need: 7-15 acres

Park service gaps exist on the north side, south side, and east central neighborhood.

COMMUNITY FACILITIES (CH. 3)

Staff recommend exploring possibilities for expansions of municipal building, police and fire expansions.

TRANSPORTATION (CH. 4)

Existing streets have a higher capacity than demand. Capacity expansions to existing roads are unlikely to be needed.

Among comparable Iowa towns, Washington has:

- Above average commute time: 18.4 minutes
- Below average % of commuters who walk to work: 5.6%

WATER, SEWER, STORMWATER (CH. 4)

Pipes for all systems in poor condition and need upgrades Sanitary/storm sewer separation needed in many areas.

New water plant needed soon.

City is mapping systems to determine upgrade priorities.

COMMUNITY PLAN (SECTION 2)

KEY FIGURES

6.3 / 6.4 - Development Concepts A and B (p. 68-69)

6.5 - Future Land Use (p. 75)

7.1a / 7.1b - Future Parks, Greenways and Trails (p.86-87)

8.1a / 8.1b - Future Transportation System (p. 93-94)

8.3 - Proposed Sidewalks (p. 97)

9.1 - Deteriorated Residential Properties (p.105)

LAND USE AND ENVIRONMENT (CH. 6)

- Encourage targeted growth in priority development areas, as shown in development concept, and infill areas (partnership with private sector).
- Preserve a system of greenways to naturally manage stormwater and provide a community amenity.
- Reserve land for neighborhood parks as new residential areas develop.
- Locate the proposed Wellness Park so as to encourage private development and connect to the existing town and park system.
- Make land use decisions in accordance with the land use principles and future land use criteria established in chapter 6 (partnership with private sector).
- Plan for an expected increase in demand for medium and high density housing.
- Allow a variety of residential lot sizes
- Center residential development around focal points such as greenways, parks, or schools (partnership with private sector).
- Reserve land for expansion of Elm Grove Cemetery
- Annex land strategically, as needed, on a voluntary basis in areas that can be logically served by city infrastructure.
- Review zoning ordinance and make necessary modifications in order to better implement the recommendations of this plan (separate zoning review was provided to city staff). Consider complete rewrite of code to bring up in line with modern code style.

PARKS AND COMMUNITY FACILITIES (CH. 7)

- Develop a community-wide park, trail and open space plan that prioritizes improvements to the existing system.
- Add trails to connect new and existing greenways and parks.
- Add new neighborhood parks as needed so that all residential areas fall within 1/4 - 1/2 mile service area.
- Create partnership between city and private interests to raise funds for the Wellness Park.
- Implement a standard mechanism for park acquisition.
- Extend the Kewash trail/Sunset Park link south to new development area and high school.
- Create a link from the Kewash trail to the proposed north side park.
- Create trail that links Main Street to the proposed Airport Road extension.
- Create a trail in the southwest greenway.
- Review community facility needs on an annual basis to determine CIP priorities.
- Explore expansion possibilities for the municipal building, police station and fire station
- Add a community safe room to protect against tornadoes and other natural threats (Washington County HMP)

TRANSPORTATION AND INFRASTRUCTURE (CH. 8)

- Practice multi-modal street design, to accommodate sidewalks, trails and bike lanes as appropriate.
- Provide multiple links between new and existing development. Avoid developments with single access points whenever possible.
- Provide curb and gutter for all arterial and collector streets. Retrofit sections of 2nd avenue and 14th avenue that currently lack curb and gutter.
- Transfer a portion of Van Buren collector status to E Adams to create a more direct east/west collector route.
- Add new east/west connection to link Polk to Fillmore
- Extend Van Buren Street to Highway 1

- Extend Tyler Street west
- Improve Buchanan Street for higher intensity use.
- Create a new boulevard by extending H Ave south form Sunset Park to Buchanan.
- Extend E Adams Street east to Highway 92/Palm Ave.
- Extend 11th Street west and east
- Extend Airport Road North to 11th St
- Extend 15th street to the west (concept A only)
- Remove diagonal segment of Old Highway 1
- Reserve right of way for new local streets that provide logical and continuous connections with existing streets.
- Create bicycle boulevards on Main Street and North D Avenue
- Provide trail connections that link residential areas with existing neighborhood, parks, and other community facilities.
- Build sidewalks on all new streets
- Retrofit existing streets, where necessary, to provide sidewalk on at least one side of street
- Add sidewalk connections shown in chapter 8
- Consider amending stormwater regulations to require or incentivize best management practices
- Consider modifications to zoning and addition of city policies that would allow better stormwater management, such as conservation development design and conservation easements.
- Upgrade water plant
- Use the results of the infrastructure mapping and analysis (currently in progress) to prioritize repairs, repacements and separations for sewer, stormwater and water systems.

HOUSING AND ECONOMIC DEVELOPMENT (CH. 9)

- Support a variety of housing options for a range of incomes and ages.
- Focus rehabilitation efforts on concentrated pockets of problematic housing shown in housing survey.
- Improve buffering between residential and industrial areas to mitigate negative impacts on housing values.
- Investigate options to identify and demolish unsound accessory buildings such as garages.
- Increase participation in ECICOG assistance programs.
- Consider adoption of proposed tax abatement program.
- Form a committee/group to investigate options for neighborhood rehabilitation outlined in chapter 9.
- Encourage Industrial infill development in northeast.
- Create a new office/research park in the southwest
- Focus efforts on target industries as identified in the Washington Economic Development Road Map
- Create a plan for continued downtown development, including a downtown housing analysis.

IMPLEMENTATION, COLLABORATION AND GOVERNANCE (CH. 10)

- Enhance collaboration with Washington County, School District and Neighboring Towns
- Improve efficiency and consistency of development review process.
- Increase communication with public on city issues.
- Define an annual action and capital improvement program that implements the recommendations of this plan
- Table 10.1 - Recommendations Summary and Implementation Schedule
- Table 10.2 - Potential Funding Sources

Community Profile

SECTION 1

Chapter 1: Demographic and Economic Profile

Chapter 2: Land Use and Environmental Profile

Chapter 3: Parks and Community Facilities Profile

Chapter 4: Transportation and Infrastructure Profile

1

As Washington plans for its future, the first step in the process is to understand past demographic and economic trends. This chapter examines these trends and makes projections for the future, thereby providing a solid foundation for subsequent components of this Plan.

POPULATION TRENDS AND DEMOGRAPHICS

This discussion presents important changes in the characteristics and dynamics of Washington's population. Figure 1.1 summarizes the historical population change in Washington. Table 1.1 includes comparisons with Manchester, Mt. Pleasant, Anamosa, Grinnell, Independence and Pella. Washington's population trends include the following:

- Washington population has been growing fairly consistently. The only decade since 1900 to experience population decrease was 1990 to 2000. The average annual growth rate was 0.37% for 1960-2010, 0.13% for 1990-2010, and 0.31% for 2000-2010.
- Washington's 2000-2010 population increase was one of the highest for that decade among the comparison communities, second only to Pella's 10-year growth of 5.3%. While many Iowa towns of comparable size have been struggling to retain and attract residents in recent years, Washington is doing relatively well, likely due to its high quality of life and proximity to employment centers such as Iowa City.

Population dynamics are also assessed by comparing **expected** population, based on birth and death rates, to **actual** census population numbers. Average birth and death rates are applied to the 2000 population to determine the 2010 expected population. The comparison between actual and expected population provides an indication of whether the population experienced growth (or decline) beyond natural population change (births and deaths). If actual growth is higher than predicted, then the city is experiencing a net in-migration of residents. If actual growth is lower than predicted, the city is experiencing net out-migration. Table 1.2 summarizes the findings of this analysis for Washington:

- The actual 2010 population is 8.5% higher than predicted, indicating a net in-migration of residents.
- There was a gender difference among the in-migration of residents. The 2010 male population was 11.8% higher than predicted, while the female population was only 5.7% higher than predicted. However, the total number of females in 2010 was still higher than males.

Figure 1.1 – Historical Population Change in City of Washington, 1900-2010. See also Appendix, A1.

Table 1.1 Population Change for Washington and other Iowa cities

City	2010 Population	% Change 1960-2010	% Change 2000-2010
Washington	7,266	20.4%	3.1%
Manchester	5,179	17.7%	-1.5%
Mt Pleasant	8,668	18.1%	-0.9%
Anamosa	5,533	19.9%	0.7%
Grinnell	9,218	25.1%	1.2%
Independence	5,966	8.5%	-0.8%
Pella	10,352	99.2%	5.3%

Source: U.S. Census Bureau 2010

Table 1.2 Expected and Actual Population Change, 2000-2010

	2010 Expected	2010 Actual	Difference (actual-expected)	% Variation
Total Population	6,695	7,266	571	8.5%
Male Population	3,129	3,497	368	11.8%
Female Population	3,565	3,769	204	5.7%

Source: U.S. Census Bureau, 2010

Population Analysis Cheat Sheet

Actual Population - Expected = Migration

Positive result: new residents moving to town
Negative result: residents are leaving town

AGE

In addition to changes in total number of citizens, Washington has experienced a shift in the age distribution of its population. These changes can have important socio-economic implications, including new demands for jobs, housing, social economic support, healthcare, and other goods and services.

Figure 1.2 shows the Washington population divided into 5 year age increments, or cohorts, for 2000 and 2010 (See Appendix: for detailed table). Examining population change by age can help inform policy recommendations regarding age-specific services, such as recreation or employment. Age distribution characteristics and trends are:

- Adults aged **35-44 and 80-84 experienced a population decrease** of more than 20%, the most of all age groups. For the 35-44 grouping, this is likely the result of Baby Boomers aging out of these cohorts.
- Adults **50-64 saw the highest population increase** of all age groups. This is due to the aging of the Baby Boomers and reflects a state-wide and national trend.
- Washington has a **higher median age** than the state of Iowa and it is rising. The median age in 2010 was 42.4, an increase from the 2000 median age of 41.8. The 2010 median age for the state of Iowa was 38.1.

Table 1.3 compares the expected and actual 2010 population by age cohort (see previous page for explanation of this terminology). Expected vs. actual analysis reveals what age groups are migrating into Washington, and which age groups are leaving. Several interesting variations emerge, including:

- Population for ages 20 to 29 was lower than expected, possibly due to young people moving to other communities for colleges and careers. This trend could indicate that Washington needs growth in employment or cultural/social opportunities for this age group. This trend is typical of small Iowa towns.
- Corresponding positive variations in the 0 to 14 age groups and 30-44 age groups likely indicate in-migration of families with children. This reflects the community's appeal as a desirable environment for families.
- Positive variation among residents 60 and older reflects Washington's appeal as a retirement destination.

Figure 1.2: Washington Population By Age, 2000 and 2010

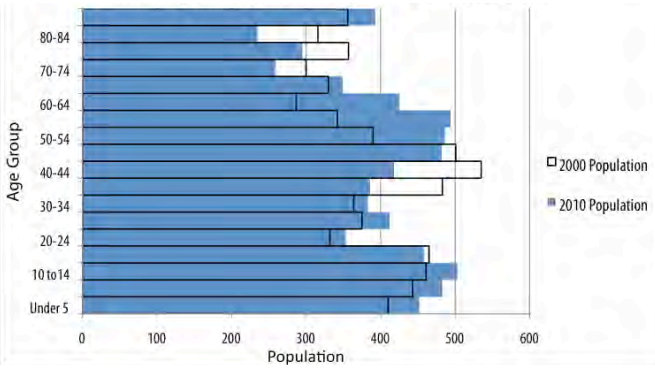


Table 1.3: Expected and Actual Population, 2000-2010

Age Cohorts	2010 Expected	2010 Actual	% Variation
Under 5	342	452	32.2%
5 to 9	332	483	45.5%
10 to 14	409	503	23.0%
15-19	442	458	3.7%
20-24	458	353	-23.0%
25-29	461	412	-10.7%
30-34	329	383	16.4%
35-39	371	386	3.9%
40-44	359	418	16.3%
45-49	474	482	1.6%
50-54	520	486	-6.5%
55-59	477	494	3.6%
60-64	360	425	18.2%
65-69	301	349	16.1%
70-74	235	259	10.1%
75-79	244	295	21.1%
80-84	192	235	22.6%
85+	389	393	0.9%
Total	**6,695**	**7,266**	**8.5%**

Source: U.S. Census Bureau 2010

RACE AND ETHNICITY

- Washington residents are predominately white, but the percent of white residents decreased from 2000 to 2010 (95.2% to 92.5%) while the percent of minority residents increased. The State of Iowa experienced a similar trend (See Appendix).
- Washington has slightly lower percentage of the population in minority (non-white) categories than the State as a whole (7.5% and 8.7%, respectively) (See Appendix).
- The Hispanic/Latino population has grown tremendously since 1990 in Washington and the State of Iowa (Table 1.4). **If not for growth among the Hispanic population, Washington would have lost total population from 2000-2010.**

Table 1.4 Ethnic Makeup of Population for Washington and State of Iowa, 1990-2010

	Washington	Iowa
Hispanic/Latino		
1990	123	32,647
2000	332	82,473
2010	779	151,544
Change 1990-2010 (%)	533%	364%
Non Hispanic/Latino		
1990	6,951	2,776,755
2000	6,715	2,843,851
2010	6,487	2,894,811
Change 1990-2010 (%)	-7%	5%

Source: U.S. Census Bureau 2010

POPULATION PROJECTIONS

Population projections help Washington plan efficiently for future land use and community services. Projections are formed by evaluating historic population and construction trends, and projecting these trends out to 2030. Table 1.5 presents various growth scenarios, and compares them with natural population change and recent construction activity.

This plan recommends using an average annual growth rate of 0.5%. This optimistic rate reflects Washington's opportunity to "grab" some of the regional population growth occurring in the Iowa City metro region. Additionally, statewide trends indicate that Hispanic populations will continue to grow, reinforcing Washington's existing upward trend in that segment of the population (Table 1.4). For planning purposes, it is helpful to plan for a slightly optimistic growth rate. Even if this population is not achieved in 2030, is will likely eventually reach the projected level, perhaps in 2035 or 2040.

POPULATION GROWTH SCENARIOS

- Natural population change: The expected population based solely on births to deaths (does not include migration in or out of Washington). This is not a realistic scenario, but is shown for comparison purposes only.
- 0.15% Growth Rate: Average annual growth rate 1990-2010.
- 0.35% Growth Rate: Average annual growth rate 1960-2010 (0.37%). Slightly higher than 2000-2010 growth rate of 0.31%
- **0.5% Growth Rate: Preferred Rate. Optimistic rate based on potential to attract new residents.**
- Construction Rate: The construction rate scenario shows the population that can be accommodated if past rates of residential construction continue. The average annual residential construction rate from 1999-2011, 12.5 dwelling units per year, is used for this scenario.

Table 1.5 Projected Population for Washington through the year 2030

	2010	2015	2020	2025	2030
Natural Population Change (Zero Migration)	7,266	7,058	6,923	6,844	6,779
0.15% Annual Growth Rate (1990-2010 average)	7,266	7,321	7,376	7,431	7,487
0.35% Annual Growth Rate (1960-2010 average)	7,266	7,394	7,524	7,657	7,792
0.5% Annual Growth Rate (Preferred Rate)	**7,266**	**7,449**	**7,638**	**7,830**	**8,028**
Construction Growth Rate (Net Avg 12.5 dwelling units/yr)	7,266	7,410	7,555	7,699	7,844

Source: U.S. Census Bureau 2010; RDG Planning & Design 2012

ECONOMIC CONDITIONS

EMPLOYMENT

Washington is economically independent, but strongly connected to the Iowa City/Coralville (Johnson County) job market, approximately 30 miles away. Washington's employment trends were analyzed and compared to trends in 1). The State of Iowa and 2.) Combined Washington and Johnson Counties. Employment was assessed in terms of both occupation and industry. Occupation describes the work a person does on the job, while industry reflects the business conducted by a person's employer. For example, an individual might be an accountant (their occupation) for a major manufacturer (the industry).

- **Top Occupations**: Management, business, science and arts; Sales and office were the most common occupations in Washington, the State and the bi-county region.
- **Top Industry**: Educational services, health care and social assistance was the most common industry category in Washington, Iowa, and the bi-county region (28% of Washington workers).
  - Manufacturing was the second most common industry for workers in Washington (14%) and the State (15%), but was less prevalent in the bi-county area.
- **Job Growth**: The City of Washington lagged behind the State and bi-county region in percentage of jobs added from 2000 to 2010. The city added only 1.5% to total employment, while the state added 4.3% and the bi-county area added 11.9%.
- **Growing Industries**: Professional, scientific, management, administrative and waste management services; Educational services, health care and social assistance; Public Administration
- **Declining Industries**: Other Services; Manufacturing; Retail Trade

INCOME

Household income levels are an indicator of local prosperity and growth potential. Table 1.6 shows the change in annual median income from 2000 to 2010 for Washington, the State of Iowa, and comparison communities. Table 1.7 describes the 2010 income distribution for Washington and the State. The income data reveal the following:

- Washington's median income is average compared to similar Iowa towns, but income in Washington grew at a faster rate than all but one of these comparison towns.
- Washington has a relatively high number of households in the lowest income brackets, as compared to the state as a whole.

Table 1.6 Change in Annual Median Household Income, 2000 to 2010

	2000	2010	% Change
Washington	$36,067	$46,566	29.1%
State of Iowa	$39,469	$48,872	23.8%
Anamosa	$33,284	$41,017	23.2%
Grinnell	$35,625	$45,291	27.1%
Independence	$36,554	$46,589	27.5%
Manchester	$31,099	$42,036	35.2%
Mt. Pleasant	$35,558	$40,265	13.2%
Pella	$45,496	$58,486	28.6%

Table 1.7 Income Distribution for Household by Percentage, Washington and State of Iowa 2010

Income Category	Washington	Iowa	Anamosa	Manchester	Independence
Less than $10,000	8.8%	3.5%	4.1%	8.7%	5.5%
$10,000 to $14,999	4.2%	2.8%	7.2%	8.0%	13.2%
$15,000 to $24,999	16.8%	7.7%	19.6%	15.7%	7.3%
$25,000 to $34,999	11.2%	9.6%	11.1%	12.9%	14.0%
$35,000 to $49,999	12.9%	15.5%	14.3%	15.6%	13.3%
$50,000 to $74,999	23.2%	23.8%	14.1%	22.4%	20.0%
$75,000 to $99,999	11.7%	16.2%	15.0%	9.5%	13.1%
$100,000 or more	11.2%	20.9%	14.6%	7.2%	13.4%

EDUCATION

The education levels of persons 25 years and older in the city of Washington are similar to those in the state of Iowa. Residents with a high school degree or some college (no college degree) comprise the majority of the Washington population (58.6%), 17% of residents hold Bachelor's degrees and 8.1% have an Associate's degree (See Appendix for details).

COMMUTING PATTERNS

Commuting patterns provide one indication of whether the city is fulfilling its citizens' employment needs. Figure 1.3 shows that while Washington is providing work for the majority of its residents, there is proven potential for towns of similar size to provide a higher percentage of jobs for residents. Washington's relatively low ranking here likely reflects the presence of the Iowa City/Coralville employment center 30 miles to the north.

The high outflow of workers can affect retail sales if employees shop near where they work. Yet at the same time, commuting residents bring income from other cities back to Washington.

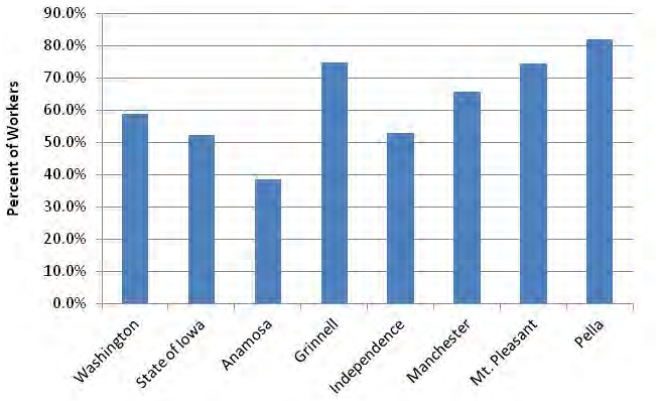
RETAIL SALES

Iowa State University Retail Trade Analysis Report

Iowa State University provides reports on retail trade for all Iowa communities based on reported sales of goods and services. The report shows that **while sales in the state of Iowa have stayed relatively constant since 2000, Washington retail sales have dropped to about 90% of 2000 sales.**

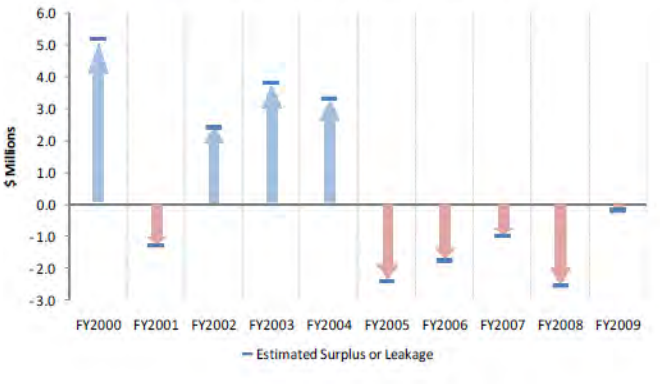
The report analyzes Trade Surplus/Trade Leakage, which measures the difference between a city's actual retail sales and the total retail sales that would be generated if residents met all their retail needs within the city. Figure 1.5 shows that from 2000 to 2009 Washington had 4 years of trade surplus, where the city was attracting spending from non-residents. However, in 2001 and 2005-2009, Washington experienced trade leakage, where the city was losing resident retail spending to other communities. While Washington appears to have the potential to capture regional spending, that potential is not being consistently realized.

Figure 1.3 Workers Employed in Place of Residence, Washington and Comparison Cities



Source: U.S. Census Bureau, 2010 American Community Survey 5-year Estimates

Figure 1.5 Estimated Sales Surplus and Leakage for Washington from 2000-2009.



Source: Iowa State University Retail Trade Analysis Report, 2010

Figure 1.6, also from the ISU report, illustrates per capita retail sales for Washington and selected neighboring communities, providing an indication of the regional magnets for trade activity. Washington ranks third in per capita average retail sales. The large advantage shown in Riverside is likely due to the Riverside Casino, while the Kalona advantage reflects their popular tourist attractions.

Retail Spending by Category

Table 1.9 (following page) compares the expenditures of Washington residents (consumer demand) with Washington's retail sales (retail supply) for various good/service categories. When consumer demand exceeds retail supply there is a retail "gap," indicating that Washington is losing resident consumer spending. Conversely, a retail "surplus" indicates that Washington is attracting spending from outside of the community.

Washington attracted outside retail spending in most areas in 2010, including:

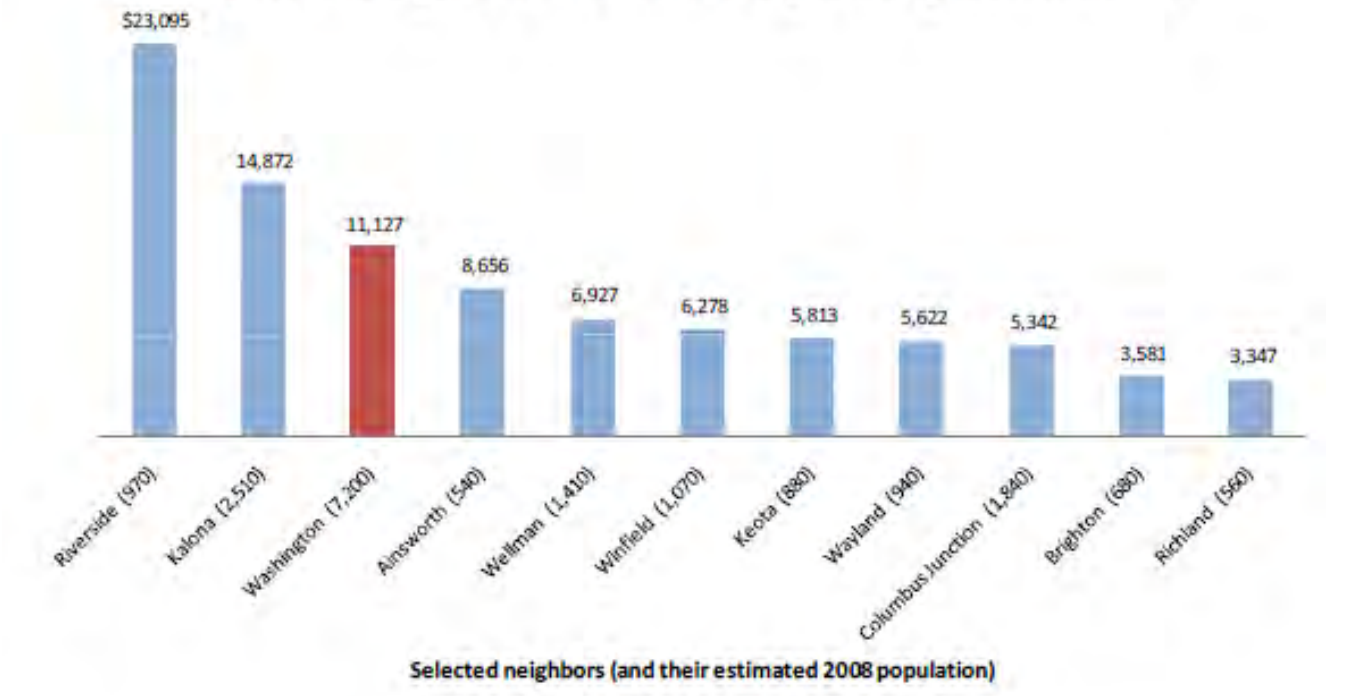
- Building Material, Garden Equipment Stores
- Food and Beverage Stores
- Gasoline Stations

Washington lost consumer spending in 2010 in:

- Clothing and Clothing Accessories Stores
- Sporting Goods, Hobby, Book, Music Stores
- Food service and Drinking Places

This analysis reveals opportunities for Washington to build on existing surpluses in retail capacity and to tap into local consumer dollars by filling retail gaps. For example, the Washington business community may find that their strength in food and beverage stores is an indication of a niche market that could be expanded. At the same time, there could also be opportunities to fill in the retail gaps in areas such as clothing, or food service and drinking places, in order to reduce the loss of Washington consumer dollars to surrounding cities.

Figure 1.6 - Per Capita Average Retail Sales in Washington and neighboring communities.



Source: Iowa State University Retail Trade Analysis Report, 2009

Table 1.9 - Washington Retail Analysis, 2010 (In Millions of Dollars)

Category	Consumer Demand (Expenditures)	Retail Supply (Sales)	Gap / (Surplus)
All Categories	107.1	203.9	(96.7)
Motor Vehicle and Parts Dealers	18.7	26.5	(7.8)
Furniture and Home Furnishings	1.9	2.2	(0.2)
Electronics and Appliance Stores	2.1	3.6	(1.4)
Building Material, Garden Equip Stores	9.6	45.2	(35.7)
Food and Beverage Stores	15.0	42.7	(27.7)
Health and Personal Care Stores	7.4	7.9	(0.5)
Gasoline Stations	10.8	32.0	(21.2)
Clothing and Clothing Accessories Stores	4.2	1.3	**2.9**
Sporting Goods, Hobby, Book, Music Stores	1.9	0.2	**1.7**
General Merchandise Stores	14.0	32.2	(18.2)
Miscellaneous Store Retailers (e.g. – Florists, Office Supplies, Used Merchandise)	2.9	5.5	(2.6)
Food service and Drinking Places	10.6	4.6	**6.0**
Department Stores	25.3	43.3	(18.0)

Source: Claritas 2010

ECONOMIC DEVELOPMENT ACTIVITIES

Washington has several organizations devoted to economic development. The Washington Economic Development Group (WEDG), a non-profit corporation, has worked for more than 25 years to create and promote Economic Development in Washington. WEDG activities include: building relationships with existing business and industry, assisting entrepreneurs, helping the community access financial and other resources, acting as a liaison between business and local governments, encouraging education for the local workforce, and serving as a voice for Washington's economic interests throughout the region.

Main Street Washington works to "create a culturally diverse, economically vibrant downtown district." They provide design assistance for downtown buildings, coordinate activities and events that promote the downtown, analyze market opportunities, recruit targeted retail, provide advice for businesses and promote historic preservation.

The Washington County Riverboat Foundation provides funding for non-profit organizations and local governments throughout the county. 75% of funding is awarded through a competitive grant process, and 25% is automatically split between all county municipalities (according to population).

HOUSING CHARACTERISTICS

The quality and occupancy of a community's housing stock are key indicators of economic prosperity. Tables 1.10 and 1.11 show key housing indicators. Housing analysis findings include:

- The rental market in Washington is growing, with an increase of 15% from 2000 to 2010.
- 67% of occupied units in 2010 were owner-occupied, and the remainder were renter-occupied. This ratio falls close to the range that is considered a "balanced market" between owner and renter units (65-70% owner-occupied to 30-35% renter occupied).
- The Vacancy rate (7.7% in 2010) is slightly above what is considered optimal (5-6%), but is still in a reasonable range.
- The median value of owner-occupied housing in Washington rose by approximately 31% from 2000 to 2010. This is particularly notable when compared to housing value trends in Iowa and the country as a whole during this decade. The median owner-occupied housing value in Iowa stayed relatively constant from 2000 to 2010, while the median value for the U.S. decreased by almost 8%.
- Nearly Half of Washington Housing was constructed before 1949. 9% of the housing stock was constructed between 2000 and 2010 (See Appendix: A9).
- Approximately 80% of Washington housing units are single family detached homes (including mobile homes). Though it is typical for single family homes to be the most prominent housing type, 80% is higher than many communities. This reveals a potential opportunity for Washington to increase its housing diversity by adding more single family attached (such as townhomes) or multi-family units in the coming years.

Table 1.11 - Character of Housing Stock (2011)

Housing Units by # of Units in Structure	% of Units
1 Unit Attached	1.1%
1 Unit Detached	78.3%
2 Units	3.2%
3 to 19 Units	10.1%
20 to 49 Units	4.2%
50 or More Units	0.8%
Mobile Home or Trailer	2.3%

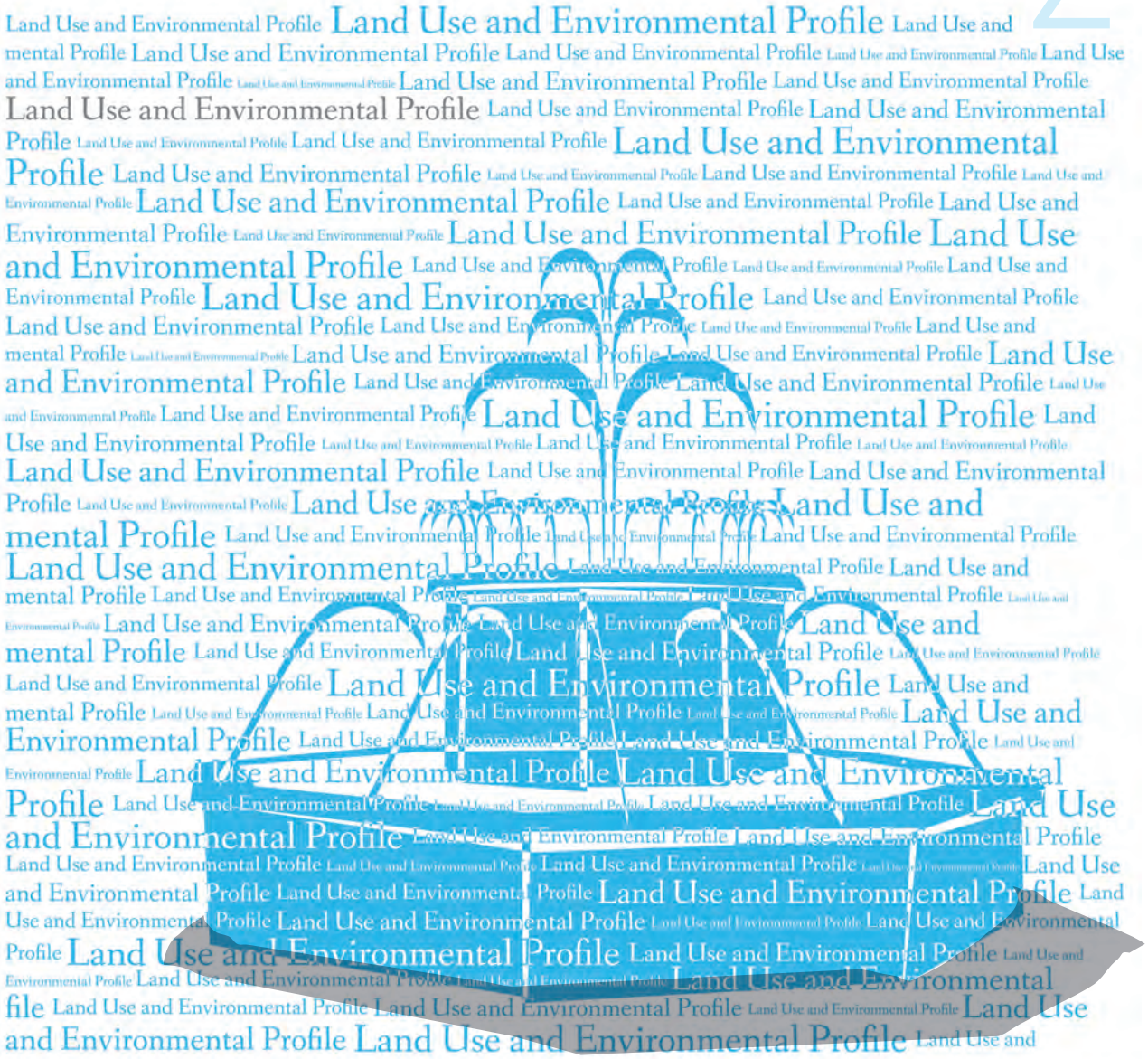
Source: Nielsen Claritas SiteReports 2011

Table 1.10: Change in Key Housing Indicators, 2000 to 2010

	2000	2010	Change 2000-2010	% Change 2000-2010
Total Housing Units	3,132	3,301	169	5.4%
Total Occupied Units	2,928	3,048	120	4.1%
Owner Occupied Units	2,066	2,054	-12	-0.6%
% Owner Occupied	70.6%	67.4%	-3.2%	-
Renter Occupied Units	862	994	132	15.3%
% Renter Occupied	29.4%	32.6%	3.2%	-
Vacant Units	204	253	49	24.0%
Vacancy Rate (%)	6.5%	7.7%	1.2%	-
Median Value (Owner-Occupied Housing)	$78,004	$102,099	$24,095	30.9%
Persons Per Household	2.31	2.31	0	0%

Sources: Nielsen Claritas SiteReports; Census 2010

2



Land use is the central element of a comprehensive plan because it establishes the overall physical configuration of the city, including the mix and location of uses and community systems. This chapter reviews existing land use in Washington, followed by projected needs for future land and housing. Section 2 of this document will present a land use plan based on the projected land needs established in this chapter.

EXISTING LAND USE PATTERNS

This section presents a land use inventory, which classifies parcels of land according to their use. Figure 2.1 and Table 2.1 show the land use composition of the Washington in 2012. About 66% of Washington's total land area is developed, with an average density of approximately 3.3 persons per developed acre. Each land use category is described below.

RESIDENTIAL LAND USES

Largest land use category, covering 43% of developed land.

- Low density (single family and duplex) residential is by far the most prevalent residential use in Washington.
- Multi-family housing accounts for only 1.8% of residential land use.
- Average residential density in Washington is approximately 7.6 persons per developed residential acre.

COMMERCIAL USES

Covers 6.3% of developed land and includes offices, restaurants, and retail/service stores. Primary commercial nodes:

- Downtown
- East Washington Street/Highway 92
- Highway 1 at Madison Street and Monroe Street

INDUSTRIAL USES

Covers approximately 12.3% of total developed area and includes warehousing and general industrial (e.g. - manufacturing). Major industrial regions:

- Along the Railroad, North of Downtown between 3rd and 5th Streets
- Northeast portion of town, north of 3rd Street
- Highway 1/92, north of Main Street

CIVIC USES

Civic uses cover approximately 15.6% of developed land area, and include public buildings and lands, public school property, health facilities (hospital), and civic uses such as cemeteries and churches.

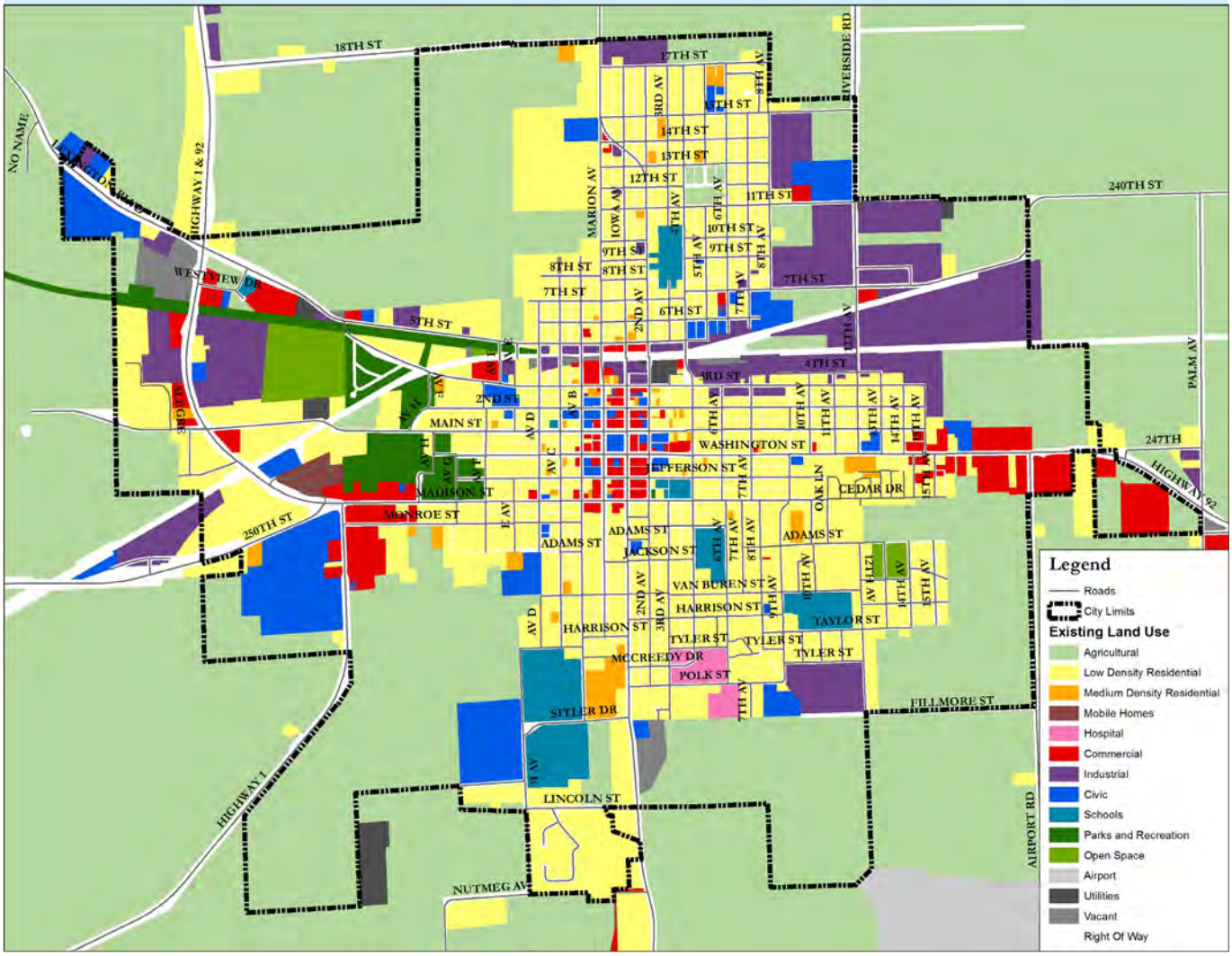
PARKS AND RECREATION USES

Parks and Recreation uses cover 3.8% of developed land area in Washington. Parks and recreation facilities are important factors for community quality of life and will be further analyzed in chapter 3.

AGRICULTURAL AND NATURAL AREAS

As of 2012, agricultural and open spaces constituted approximately 33% of total land area in Washington. This land is primarily spread around the periphery of the developed area, with the largest segments in the northwest, southwest and southeast portions of the city. As Washington grows, new development will likely encroach on these areas. The land use plan in section three of this plan addresses how Washington can grow in a way that minimizes the impacts of development on agricultural and natural areas.

Figure 2.1 - Existing Land Use



Source: Washington County GIS data; Washington County Assessor; RDG Planning and Design 2012

Table 2.1: Land Use in Washington, 2012

Land Use Category	Acres	% of Developed Land	Acres per 100 people
DEVELOPED LAND	2,208.0	100.0%	30.39
Residential	953.0	43.2%	13.12
Low Density	904.8	41.0%	12.45
Medium Density	38.7	1.8%	0.53
Mobile Homes	9.5	0.4%	0.13
Commercial	138.4	6.3%	1.90
Industrial	270.6	12.3%	3.72
General Industrial	172.7	7.8%	2.38
Warehousing	97.9	4.4%	1.35
Civic/Public	260.2	11.8%	3.58
Public	55.5	2.5%	0.76
School	77.4	3.5%	1.06
Health Facilities	14.9	0.7%	0.21
Civic (Cemeteries and Churches)	112.4	5.1%	1.55
Parks and Recreation	84.4	3.8%	1.16
Transportation/Utilities	501.5	22.7%	6.90
Utilities	6.76	0.3%	0.09
Roads/Right-Of-Way (ROW)	494.7	22.4%	6.81
UNDEVELOPED LAND	1,137.5	-	15.65
Agriculture and Open Space	1,117.3	-	15.38
Vacant Urban Land	20.1	-	0.28
TOTAL LAND (Within City Limits)	3,345.5	-	46.04

Source: Washington County GIS data; Washington County Assessor; RDG Planning and Design 2012

LAND USE DISTRIBUTION ANALYSIS

Tables 2.2 and 2.3 show how Washington's land use distribution compares to other Midwestern towns of roughly similar population and geographic size. In compiling the list of comparison communities, the planning team is limited by the number of communities for which comparable existing land use data is readily available. These comparison communities are therefore meant to give a rough idea of trends in land use distribution, and are not meant to imply a standard.

The comparison reveals the following:

- As compared to similar Iowa towns, Washington devotes the highest percentage of its land to residential purposes.
- The percentage of commercial land in Washington is fairly low among the comparison communities, while industrial is relatively high in comparison.

Table 2.2: Comparative Land Use by Percentage of Developed Area

	Washington (2012)	Kalona (2006)	Pella (2006)	Manchester (2010)	Grimes (2009)
Residential	43.2%	41.5%	31.3%	42.7%	32.1%
Commercial	6.3%	13.9%	3.6%	8.5%	10.7%
Industrial	12.3%	5.1%	8.5%	10.8%	18.9%
Civic and Parks/Recreation	15.6%	9.4%	31.7%	16.8%	12.1%
Transportation/Utilities	26.5%	26.1%	25.0%	21.1%	26.2%

Table 2.3: Comparative Land Use by Number of Acres per 100 residents

	Washington	Kalona	Pella	Manchester	Grimes
Residential	13.12	12.87	9.24	15.74	9.67
Commercial	1.90	4.31	1.06	3.15	3.22
Industrial	3.72	1.58	2.50	4.00	5.69
Civic and Parks/Recreation	4.74	4.15	26.67	6.21	3.63
Transportation/Utilities	8.06	8.07	7.38	7.80	7.87
Total Developed Area	30.39	30.98	39.56	36.89	30.09
Population (As estimated at time of analysis)	7,266	2,410	10,291	5,179	8,419

NATURAL ENVIRONMENT

Each community has natural assets and features that affect how it can develop and grow. Before determining a future land use plan, a comprehensive plan should consider how to preserve natural resources and work with, rather than against, natural systems. A town's environmental structure helps define a sense of place and has a tremendous impact on quality of life. This plan will encourage sustainable use of Washington's natural resources.

WETLANDS, SOILS AND WATERSHEDS

Washington does not have any significant waterways or floodplains. There are two small pockets of wetlands in the western part of Washington, on undeveloped land (Figure 2.2). Wetlands are areas of poorly drained soils characterized by permanent or temporary soil saturation and occasionally standing water. Wetlands perform an important ecological function by absorbing and slowing floodwaters, and providing a unique habitat for plants and animals. These wetlands are protected by state and federal law and are preserved as part of the chapter 6 development concept.

Figure 2.2 - Washington Wetlands and Hydric Soils

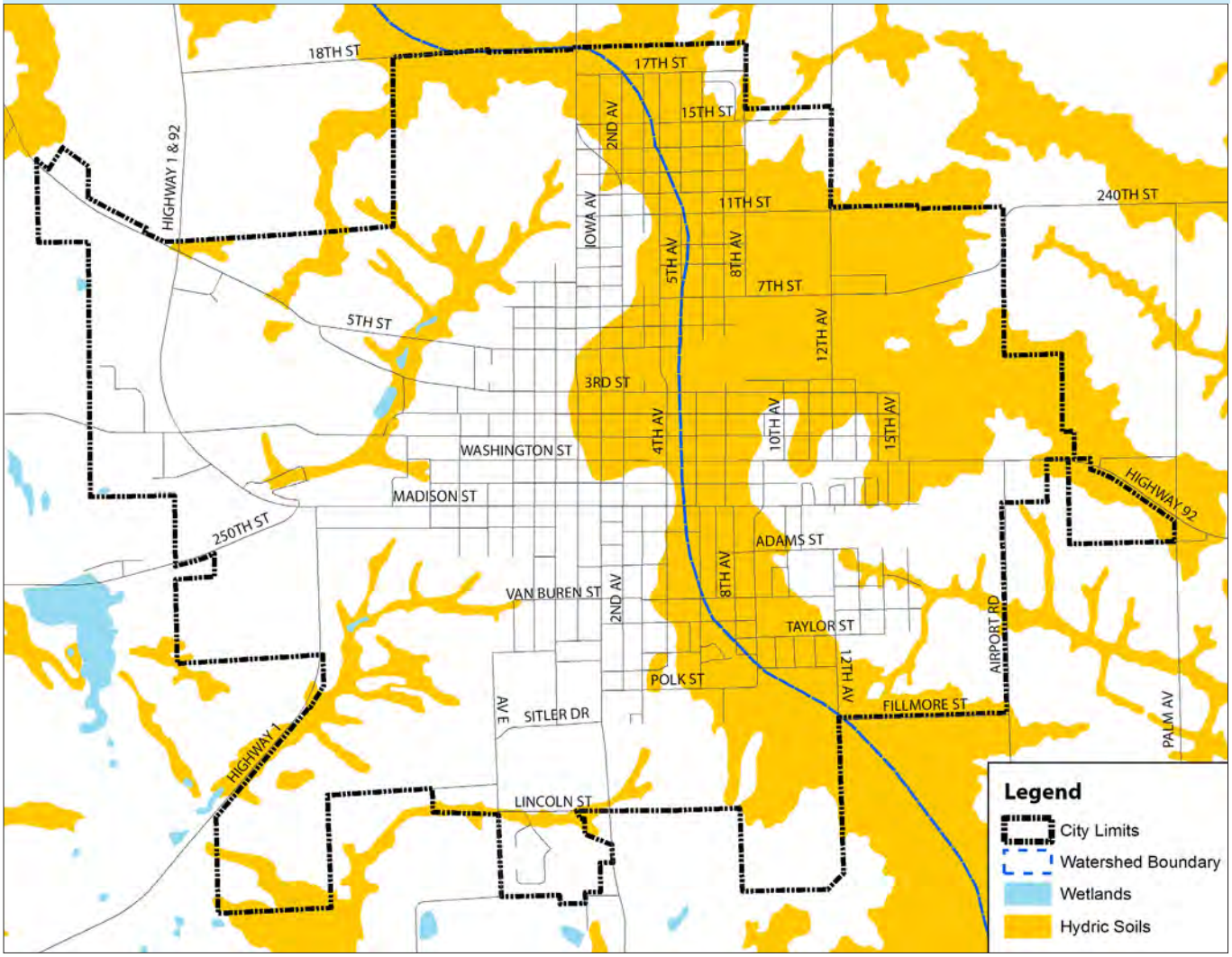


Figure 2.2 shows Washington's hydric soils, which are soils that have a high capacity to detain water. Hydric soils capture and detain rainwater, releasing it gradually into Washington's minor drainage-ways, which mitigates stream bank erosion and flash flooding. Allowing hydric soils to perform this function is an important part of a stormwater management plan. The development plan in chapter 6 of this document protects many areas with hydric soils as greenways (i.e. natural areas), to preserve their natural stormwater management function, provide natural habitat, enhance the parks system, and mitigate flooding.

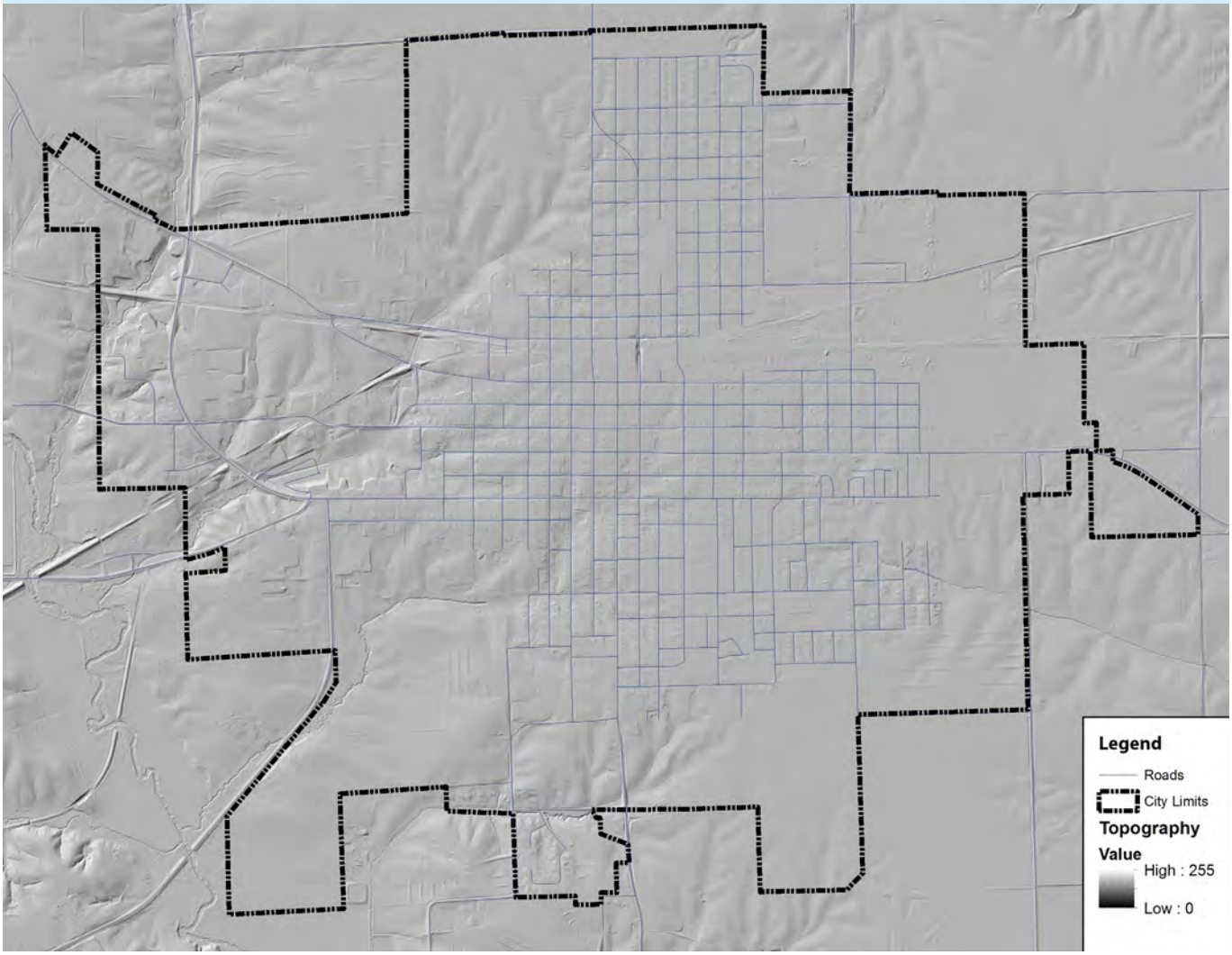
Washington is part of two different watersheds, the Skunk on the west side of town, and the Lower Iowa on the east side of town. A watershed is an area of land in which all water drains to the same place.

TOPOGRAPHY

Topography is the form of the earth's surface, including changes in elevation of the surface. Topographic analysis helps determine areas where development should be avoided or where potential constraints may exist. It is important to protect steep or otherwise erodible slopes because their disturbance will result in soil erosion and other environmental problems.

Although Washington's topography is relatively level, minor topographical changes should be considered when anticipating infrastructure costs for new development. Figure 2.3 illustrates Washington topography. The development concept in section 2 of this document favors developing in areas where topographical barriers to infrastructure provision are minimized.

Figure 2.3 - Washington Topography



NATURAL AREAS

Natural Areas include resources such as rural forest lands, native forest communities, woodlands, conservation areas, areas of biological diversity, plantations, and urban forests. One of the most prominent natural areas, clearly visible in Figure 2.4, is the plot of forested land in the northwest of Washington, known as Hayes Timber. A small prairie preserve sits immediately to the east. Any land use proposed surrounding natural areas will have an impact, and such impacts should be minimized as much as possible. Because natural areas are present in small areas throughout the city, impacts will need to be considered on a case by case basis, as properties are developed.

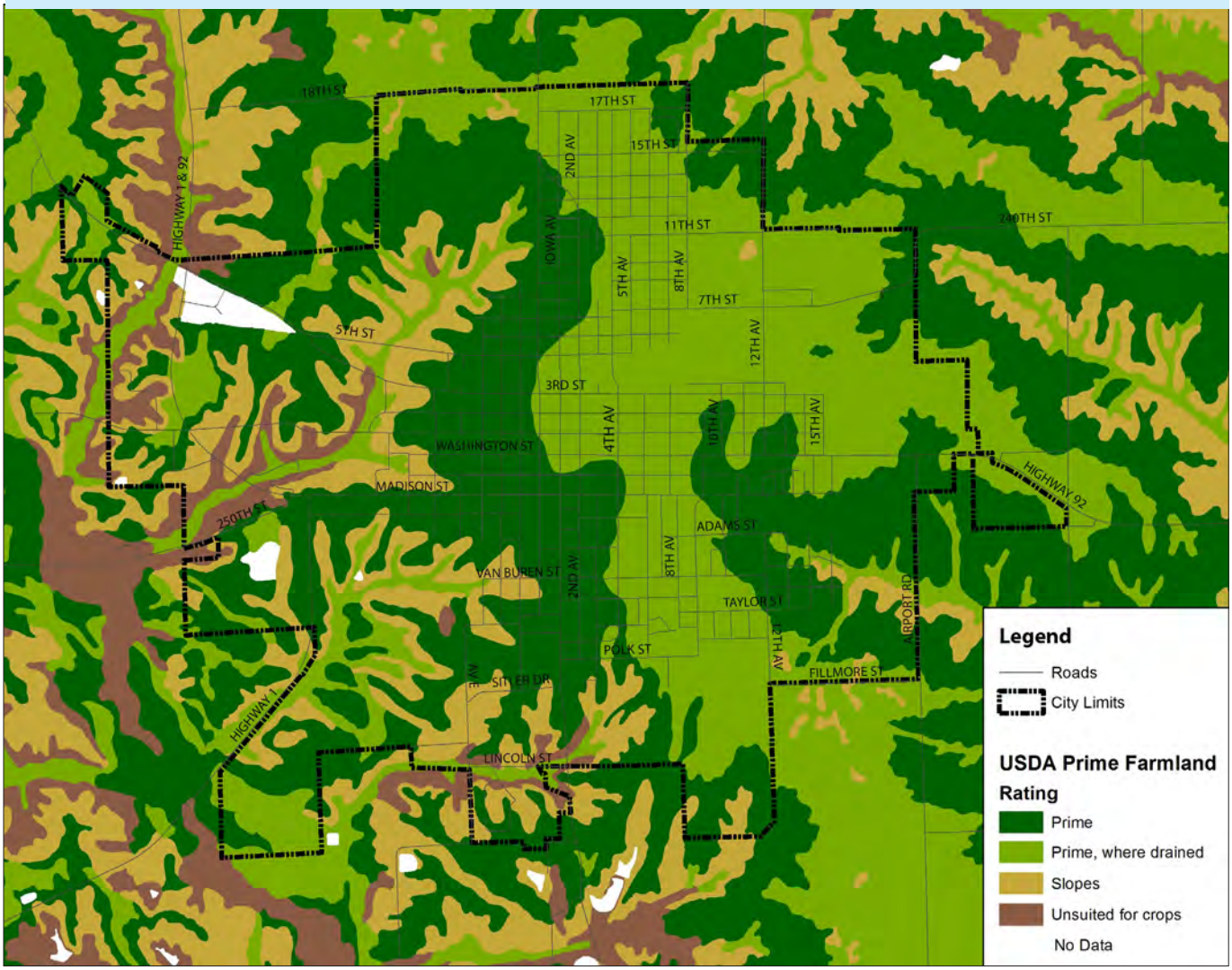
Figure 2.4 - This Aerial of Washington shows forested, prairie and other natural areas

PRIME AGRICULTURAL LANDS

Agriculture is an important part of Washington's landscape and character, but prime agricultural lands can be threatened by development pressure as a city grows. The USDA analyzes soils to identify "prime" agricultural land that is well suited for crops.

Figure 2.5 shows Washington's prime farmland. Some prime farmland remains undeveloped inside city limits, with the largest portions in the northwest and southeast. Due to the high volume of prime farmland in the Washington area, it is inevitable that many new developments will include some good farmland. However, section 2 of this plan presents a concept for contiguous development that uses land efficiently, thereby reducing the amount of prime farmland taken out of production.

Figure 2.5 - USDA Prime Farmland Ratings in Washington area



NATURAL HAZARDS

The Washington County Hazard Mitigation plan (2012) identified natural hazards that are most relevant to the Washington area. The following natural hazards were identified as either high risk (defined as "significant risk or major damage potential or frequent hazard occurrence") or medium risk ("moderate damage potential or infrequent occurrence") for the City of Washington.

- High: Extreme Heat, Severe Winter Storm, Thunderstorm and Lightning, Windstorm
- Medium: Drought, Flood – Flash, Flood – River, Hailstorm, Tornado, Wildfire

Of these, the plan prioritized several for immediate mitigation strategies in the City of Washington:

- Priority Natural Hazards for Mitigation: Windstorm, Hailstorm, Severe Winter Storm, Thunderstorm and Lightning, Wildfire, Flash Flood, and Tornado

The HMP priority mitigation actions related to natural hazards in the city of Washington are as follows:

- System Improvements – Water (Ch. 8)
- Community Safe Room (Ch. 3)
- Interoperability of Communications (Ch. 4)
- System Improvements – Sewer/Wastewater (Ch. 8)
- Property Maintenance/Rehabilitation (Ch. 9)
- System Improvements - Stormwater (Ch. 8)
- Emergency Assistance Registration

Recommendations for the first 6 of these actions are included as part of the recommendations of the comprehensive plan.

LAND NEED ANALYSIS AND PROJECTIONS

The population projections in the previous chapter and the current land use conditions described above guide forecasts for land needs through the year 2030. Chapter 1 presented a population growth scenario that would create a 2030 population of 8,028, an increase of 762 over the 2010 population. This population growth will increase the need for residential, commercial and industrial land.

In order to project the land need, the following analysis first projects the number of housing units that will be needed in the coming decades. This projection will be used to estimate the amount of residential land needed, which will in turn be used to estimate the amounts of commercial and industrial land required for the planning period. Projections are made using a 0.5% growth rate, as introduced in chapter 1 of this document.

HOUSING PROJECTION

Methodology

Table 2.4 presents a 20 year housing demand projection based on the population projection of 8,028 in 2030. Housing unit demand is calculated through the following process:

- Household population is calculated by excluding the percentage of the population living in institutions, such as nursing homes.
- Household demand (number of housing units demanded) is calculated by dividing household population by the number of people per household.
- Household demand is added to the projected number of vacant units to determine the housing unit need.
- Replacement need is estimated based on the number of housing units expected to be demolished or converted to other uses.
- Replacement need is added to the 5-year increase in housing need to determine the cumulative need, which indicates the total number of housing units that must be built during the planning period.

These calculations are recorded below by 5-year periods. In each column, the written year indicates the final year of the 5-year period.

Table 2.4: Projected Housing Development Demand (0.5% growth rate)

	2010 (actual)	2015	2020	2025	2030	Total
Population	7,266	7,449	7,638	7,830	8,028	
Household population (non institutional)	7,048	7,226	7,408	7,596	7,787	
Average people/household	2.31	2.31	2.31	2.31	2.31	
Household demand	3,051	3,128	3,207	3,288	3,371	
Projected vacancy rate	7.70%	7.70%	7.70%	7.70%	7.70%	
Total Unit Need	3,306	3,389	3,475	3,562	3,652	
Replacement Need		20	20	20	20	
Cumulative Need (New Construction)		103	106	108	110	**427**
Average Annual Construction		21	21	22	22	21

Source: RDG Planning & Design, 2012

The model makes the following assumptions:

- Average people per household will remain constant at 2.31 (Average people per household did not change from 2000 to 2010).
- The vacancy rate will remain at 2010 rate of 7.7%.
- Demolition will be approximately 4 units per year, based on average of past 10 years (2001-2011 demolition average = 4.1 units per year)

Findings

The growth projections in Table 2.4 indicate a cumulative need for 427 new housing units in Washington between 2010 and 2030. Fulfilling this need would require an average annual construction of 21 housing units. The 2000-2010 average annual construction rate (gross) was 17 housing units. This discrepancy reflects the somewhat optimistic nature of the population projection, as established in chapter 1.

RESIDENTIAL LAND PROJECTION

The housing projection in the previous section is used to estimate the amount of land needed to accommodate residential growth. Single family detached units will likely remain the predominant housing form in Washington throughout the planning period. However, approximately 19% of Washington's housing units are currently single family attached or multi-family housing (2011), and that percentage may grow. Multi-family and attached single-family options such as townhomes, attached units, condominiums and apartments are growing in popularity nation-wide as the Millennial generation looks for affordable options and Baby Boomers look to retire to smaller homes or condos. Given Washington's high growth among the Baby Boomer generation, and its expressed desire to attract the younger Millennials, it is practical to plan for more multi-family and single-family attached options.

Table 2.5 displays the new land that will be required for residential development. The projections are based on the housing demand projection and the following assumptions:

- Approximately 75% of the new units will be single family detached, 7% will be single family attached (townhomes, duplexes), and 18% will be multi-family (apartments/condos). This distribution represents a moderate increase in single family attached and multi-family housing from current levels (2012).
- Gross Densities will equal approximately 3 units per acre for single family homes, 6 units per acre for single family attached homes, and 12 units per acre for multi-family homes.
- Land designated for residential development during the planning period will be twice the area needed for actual construction to provide market choice and prevent artificial inflation of land cost.

Table 2.5: Required Residential Land 2010-2030 (0.5% Growth Rate)

	% of Demand	Units	Gross Density (du/Ac)	Land Needs	Designated Land (x2)
2010-2020					
Single Family Detached	75%	157	3	52.3	105
Single Family Attached	7%	15	6	2.4	5
Multi Family	18%	38	12	3.1	6
Total 2010-2020	100%	209		57.8	116
2020-2030					
Single Family Detached	75%	163	3	54.4	109
Single Family Attached	7%	15	6	2.5	5
Multi Family	18%	39	12	3.3	7
Total 2020-2030	100%	218		60.2	120
Total 2010-2030		427		118.1	236

Source: RDG Planning & Design, 2012

Under these assumptions, total residential land need is calculated through the following method:

- The cumulative housing unit need (see previous section) is split up by housing unit type (single family, multi-family, etc.).
- The housing unit need for each housing type is divided by the gross density for that housing type to determine the number of acres needed.
- The number of acres needed is multiplied by 2 to allow for optimal market function (see above assumption).
- Land need for each housing type is combined to determine the total land need.

To accommodate the projected population for 2030, the City would need to reserve approximately 236 acres of land for new residential development. The total developable area currently in city limits is approximately 1,100 acres. Developable area includes agricultural land (~1,080 acres) and vacant urban land (~20 acres), but excludes public open space and high importance natural areas (approximately 40 acres that are otherwise developable). The development concept outlined in section 2 of this document identifies how this potential development could occur.

COMMERCIAL AND INDUSTRIAL LAND PROJECTIONS

PROJECTION METHODS

- **Population Proportion Method**: Assumes a constant relationship between population and commercial/industrial land. As the population grows, the proportion of commercial/industrial land per 100 residents will remain the same.
- **Residential Use Proportion**: Assumes a constant relationship between the amount of residential land and the amount of commercial/industrial land. New commercial/industrial development will grow in proportion to residential growth.

COMMERCIAL LAND PROJECTIONS

Population growth and new residential development spur demand for additional commercial services. Commercial growth is an important part of the city's overall economic development strategy, and it is important to correctly anticipate land needs for commercial and retail activities. While too little commercial land can limit growth, designating too much commercial land can produce inefficient land patterns, scatter development, restrict other land uses, and require customers to travel excessive distances. Sustainable land development patterns locate commercial development close to customers and are designed to encourage active transportation modes such as walking and biking.

The demand for new commercial land is estimated at 14-17 acres (Table 2.6). To provide alternative site options and allow the market to function freely, the land use plan should designate 1.5 times the actual demand, approximately 22-26 acres.

This analysis considers primarily neighborhood and community-oriented commercial development and does not fully consider regional retail facilities. Because regional commercial development is not closely related to changes in a community's population, it is difficult to accurately estimate future demand for this type of development. Some commercial land designation for regional retail, services and office uses may be considered above these projections at key regional highway intersections and along major corridors. However, the presence of significant commercial opportunities 30 miles to the north (Iowa City/Coralville) makes regional commercial development less likely for Washington. Appropriate scale and location for commercial development of all kinds will be addressed in the land use development concept in section 2 of this document.

INDUSTRIAL LAND PROJECTIONS

In contrast to residential or commercial uses, the demand for industrial development is linked to factors such as infrastructure capacity and labor force, rather than exclusively to population growth. A single major corporate decision can dramatically change the industrial demand in a community. Active recruitment of industrial development or expansions of existing facilities can also affect land needs beyond those dictated by population growth. Though these factors make it difficult to predict industrial land need, an estimate is shown below.

Table 2.7 calculates additional industrial land needs within the city. The designated land for industrial is estimated at between 1.5 to 3 times the "hard demand," since industrial needs tend to be less flexible regarding the size or location of the site. Based on the projection methods described above, this table shows that Washington should plan for up to 85-101 acres for industrial and business park uses.

Table 2.6: Required Commercial Land 2010-2030 (0.5% Growth Rate)

	2010	2020	2030	Conversion Need (Acres)	Designated Land (Acres, x 1.5)
Population Proportion Method					
Projected Population	7,266	7,638	8,028		
Commercial Use/100 Residents	1.90	1.90	1.90		
Projected Commercial Use (acres)	138.4	145.4	152.9	14.5	21.8
Residential Use Proportion Method					
Residential Land (acres)	953.0	1,010.8	1,071.0		
Commercial/Residential Ratio	0.15	0.15	0.15		
Projected Commercial Use (Acres)	138.4	146.7	155.5	17.1	25.7

Source: RDG Planning & Design, 2012

Table 2.7: Required Industrial Land 2010-2030 (0.5% Growth Rate)

	2010	2020	2030	Conversion Need	Designated Land (x1.5)	Designated Land (x3)
Population Proportion Method						
Projected Population	7,266	7,638	8,028			
Industrial Use/100 Residents	3.72	3.72	3.72			
Projected Industrial Use (acres)	270.6	284.5	299.0	28.4	42.6	85.2
Residential Use Proportion Method						
Residential Land (acres)	953.0	1,010.8	1,071.0			
Industrial/Residential Ratio	0.28	0.28	0.28			
Projected Industrial Use (Acres)	270.6	287.0	304.1	33.5	50.3	100.6

Source: RDG Planning & Design, 2012

3

Washington's parks and recreation system is a vital component of community life. This chapter examines Washington's existing park and recreation system, including all city-owned and operated recreation areas and other parks with public access. The following topics are covered:

- **Park Inventory**: Listing and classification of existing parks.
- **Level of Service (LOS) Analysis**: Amount of park land per resident today and needs for the future.
- **Geographic Distribution**: Analysis of park service coverage and identification of gaps.
- **Park Conditions and Needs**: Condition and needs of facilities as identified by parks and recreation staff.

PARK INVENTORY

OVERVIEW

- 66 acres of parkland in the Washington city limits
- Approximately 9.0 acres per 1,000 residents
- Traditional park area standards set by the National Recreation and Park Association (NRPA) suggest 10 acres of parkland per 1,000 residents. Washington does not meet this standard.
- 33 acres of open space (Hayes Timber)
- 19.3 Acres Kewash Trail Right-of-Way

PARK CLASSIFICATIONS

Washington's recreation and park areas are classified according to the National Recreation and Park Association (NRPA) classification system, as described in Table 3.1. Table 3.2 lists Washington's park facilities by category and Figure 3.1 shows the location of these park facilities.

The NRPA suggests that a community provide 5-8 acres of community parks per 1,000 residents and 1-2 acres of neighborhood parks per 1,000 residents. Washington does not meet that minimum for neighborhood parks.

Table 3.1 NRPA Park Classification Descriptions

Park Classification	Function	Size	Service Radius	Washington Example
Mini*	Fulfill open space needs or provide niche recreation opportunities	< 1 acre	<1/4 mile	--
Neighborhood	Basic unit of a community's park system, providing a recreational and social focus for residential areas; Accommodate informal recreational activities	5-10 acres	¼ - ½ mile (walking distance)	Water Tower Park
Community	Meet diverse community-based recreation needs, preserve significant natural areas and provide space for larger recreation facilities. May include special attraction such as pool, trails, or sports complex.	30-50 acres	½ - 3 miles	Sunset Park
School	Help meet neighborhood park needs, particularly in areas not served by a neighborhood park	Varies	Varies	Stewart Elementary
Special Use	Serve a specific use, such as a sports complex or cultural facility	Varies	Varies	Proposed Wellness Park (see chapter 9)

*Mini Parks are discouraged by many cities, due to their relatively high maintenance costs and limited use.

Figure 3.1 - Existing Park and Recreation Facilities in Washington

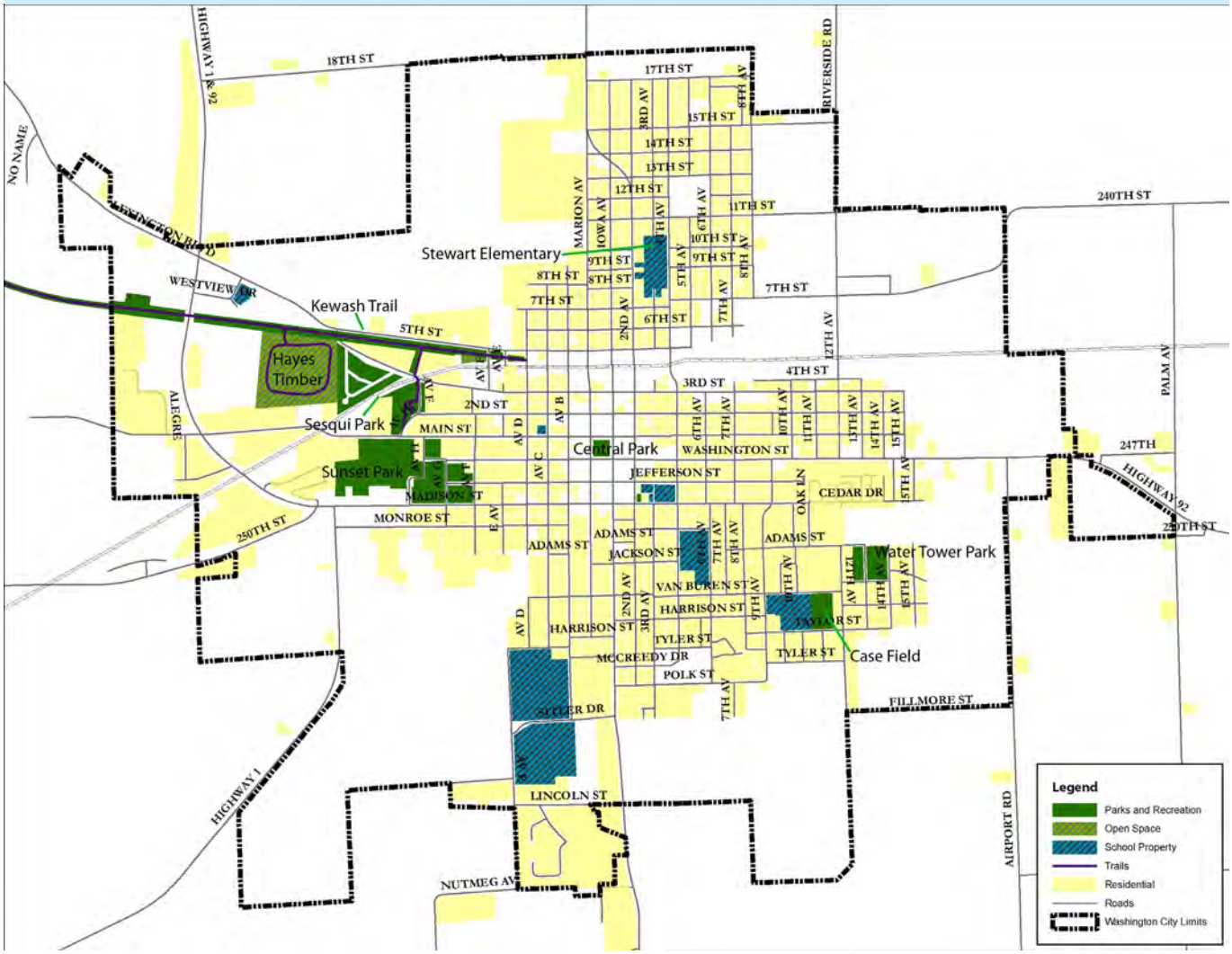


Table 3.2: Park Inventory, Washington 2012

Facility	Location	Acres	Amenities
COMMUNITY PARKS			
Sunset Park	W. Madison	34.5	Aquatic Center, Playgrounds, Pavilions, Basketball Court, Skate Park, Dog Park
Sesqui Park	W. 3rd St	17.2	Prairie Grass, Walking Trail, Connection to Kewash Trail
Total Community Parks		51.7 (7.1 acres/1,000 people)	
Meets NRPA Standard?	Yes		
NEIGHBORHOOD PARKS			
Water Tower Park	Van Buren and 14th Ave	6.1	Open field used for pick-up soccer
Total Neighborhood Parks		6.1 (0.8 acres/1,000 people)	
Meets NRPA Standard?	No		
SPECIALTY PARKS			
Central Park	Washington and Iowa	1.6	Bandstand, Restrooms, Fountain
Sub-Total City-Owned Parks		59.4	
SCHOOL PARKS serving a neighborhood park function			
Stewart Elementary (North Playground)	N 4th Ave at 10th St	1.5	Playground, Open Field
Case Field (East End)	Taylor St and 12th Ave	4.6	Ball Fields, Playground
Total School Parks		6.1	
Total Parks (including school parks)		**65.5**	

Table 3.3: Future Parkland Needs (In Acres)

		Existing Level of Service			Elevated Level of Service		
Park Type	Existing	Acres per 1,000 Residents	2030 Need	Additional Acres Needed	Acres per 1,000 Residents	2030 Need	Additional Acres Needed
Neighborhood	6.1	.8	6.7	.6	2	16.1	10.0
Community	51.7	7.1	57.1	5.4	8	64.2	12.5
Other	7.7	1.1	NA	NA			
Total Parks	65.5	9.0	72.4	6.9	10	80.3	14.8

Source: RDG Planning & Design, 2012, *Based on 2030 Population of 8,028

PARK LEVEL OF SERVICE ANALYSIS

ACREAGE

Recreational opportunities help make a community and attractive place to live, work and invest. As outlined earlier in the Plan, Washington's projected population for 2030 is 8,028. Table 3.3 identifies the additional neighborhood and community park needs associated with this population increase, based on local and national standards.

This analysis assesses park needs for the year 2030 based on both existing service levels (6.9 acre need) and and an elevated level of service (LOS) that increases the acreage of neighborhood, community and total parks to match the top of the range suggested by the NRPA (14.8 acre need). Enhancing parks and recreation opportunity was one of the top priorities expressed during public participation efforts.

PARK FACILITIES AND AMENITIES

Table 3.4 evaluates the existing level of service (LOS) of Washington's park facilities and provides projections for future demand at this LOS based on a 2030 population of 8,028. Standards from the National Recreation and Park Association (NRPA) are also included in this table for reference. Although NRPA standards can serve as a useful point of comparison, they are less important than Washington's established standard, based on its existing facilities. Significant findings of this analysis include the following:

- Washington meets NRPA guidelines for most recreation amenities listed below, with the exception of tennis courts.
- To maintain Washington's existing level of service as the population grows, 2 more playgrounds and an additional picnic shelter will be needed by 2030 (assuming population of 8,028).

Although the table shows that few additional facilities would be needed to maintain the existing level of service, the community may still want to increase the level of service of recreation amenities and add more facilities based on local interest.

For example, the community survey and the comprehensive plan committee indicated that a soccer field is wanted. The community has also made extensive plans for a Wellness Park, described later in this chapter, which would greatly increase Washington's facility service.

Table 3.4: Recreation Amenities in Relation to Population (includes school facilities)

Facility Type	NRPA guidelines	Present Need - NRPA	Existing Quantity (Level of Service)	Location of Existing Facilities	2030 Need (Existing LOS)	Additional Facilities by 2030 (Existing LOS)
Baseball Fields	1 per 3,000	2	2	Case Field, Junior High	2	-
Softball Fields	1 per 3,000	2	3	Case Field, Junior High, Lincoln	3	-
Basketball Courts	1 per 5,000	2	2	Sunset Park, High School	2	-
Football Fields	1 per 20,000	<1	1	Case Field	1	-
Soccer Fields	1 per 10,000	1	1	South of Junior High	1	-
Golf Courses	1 9-hole per 25,000 1 18-hole per 50,000	<1 <1	1 0	Washington Country Club	1	-
Picnic Shelters	1 per 2,000	4	6	Sunset Park, North Park	7	1
Playgrounds	1 per 2,000	4	5	Sunset, Stewart, Case Field	6	2
Running Track	1 per 20,000	<1	1	Case Field	1	-
Swimming Pools	1 per 20,000	<1	2	Aquatic Center	2	-
Tennis Courts	1 per 2,000	4	2	Case Field	2	-

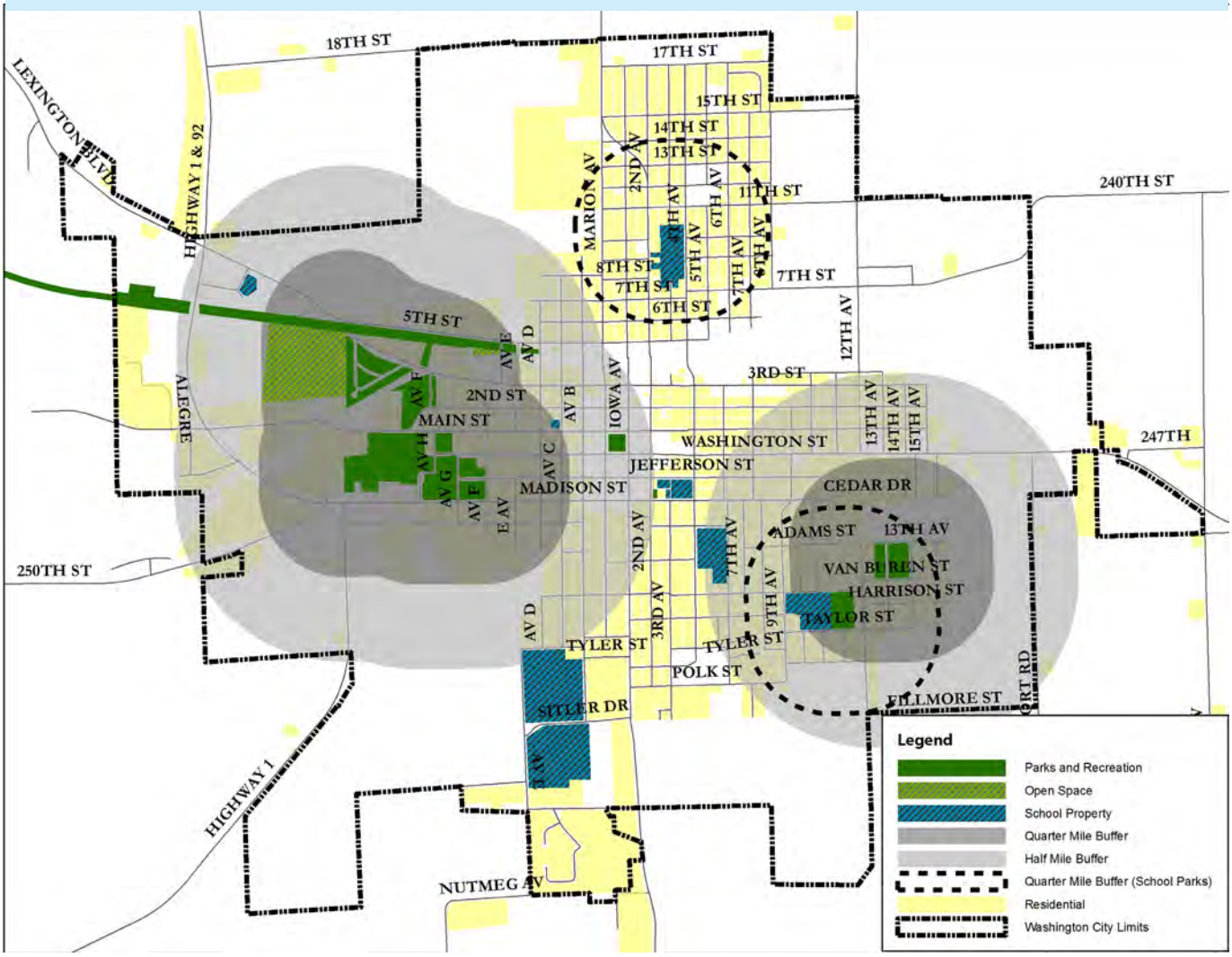
Source: RDG Planning & Design, 2012 *2030 Need Based on population projection of 8,028

GEOGRAPHIC DISTRIBUTION

In order to provide equitable park service for all citizens, it is not enough to know the amount of acreage needed. Park facilities must also be well distributed throughout all geographic areas. Figure 3.2 illustrates the location of Washington's parks and the service radius for neighborhood and community parks, the core of the park system.

Although there is a relatively high provision of park acreage in Washington, the map shows that park land is primarily concentrated in the area around Sunset Park. As a result, there are several gaps in the geographic distribution of parks, particularly on the north side, where the only park offering is on the Stewart Elementary grounds. A gap also exists on the south side, although this area has access to the new high school campus, which includes open space. A strip in the east-central area of town is outside the service areas of both Sunset and Water Tower Park. The central part of Washington has good access to the popular Central Park, however, this park lacks a number of important neighborhood park features, such as a playground or open play space. Washington needs a more even distribution of park land and park amenities, particular as new residential areas develop. Chapters 6 and 7 of this document will discuss proposed locations for new neighborhood and community parks, and enhancements to existing parks.

Figure 3.2 - Geographic service coverage of Washington's existing neighborhood, community and school parks.



WASHINGTON WELLNESS PARK

In 2007, the City of Washington commissioned a plan for a "wellness park" that would provide space for organized recreation such as playing fields. Figure 3.3 shows the proposed plan for the park – which was originally planned for an 80-acre parcel north of W 5th St. Funding and a definite location for the park are yet to be determined. Part 2 of this document will discuss possible sites for the wellness park, and how it could fit in with the overall growth of the city. The construction of this park would fulfill the future park needs projected in Table 3.3 and much more.

Figure 3.3 - Master Plan for Washington Area Wellness Park (not built)

PUBLIC SAFETY, CULTURAL AND GOVERNMENT FACILITIES

Washington offers a wide variety of services, from police protection to the new library. The following section presents an inventory and evaluation of these facilities, and proposes changes that may improve their service to the community. The evaluations are based on survey results from facility operators and/or city staff. Additional research and public participation will be needed to determine Washington's priority recommendations.

CEMETERIES

The City of Washington maintains two cemeteries, Woodlawn and Elm Grove. Woodlawn is at the corner of W Adams and S Avenue D. Elm Grove Cemetery, the larger of the two, is on S E Ave. Elm Grove is expected to need some room for growth in the coming decades. The development concept in section three of this document reserves approximately 20 acres for expansion.

SCHOOLS/EDUCATIONAL FACILITIES

Washington High School

As of fall 2012, grades 9-12 will attend the new high school on South B Ave. Enrollment is approximately 550, with a total staff of 40. The building is handicap accessible and has 470 parking spaces.

Needs: The building needs an auditorium and there are long term plans to convert the heating & cooling system to Geothermal.

Junior High School

Starting in fall 2012, the junior high school (grades 6-8) will be housed in the former high school, a 94 year old building on 313 S. 4th avenue. Enrollment is approximately 450 with 37 staff. The building is handicap accessible and has limited parking.

Needs: The building has many remodeling needs. In the long-term, the building will either be remodeled, or the potential for building a new middle school could be explored.

Lincoln Elementary School

Lincoln Elementary has approximately 425 students in grades 3-5 and has a staff of 30. The building is 77 years old, has adequate parking and is handicap accessible.

Needs: Conversion to geothermal and other energy saving updates are planned for the short term.

Stewart Elementary School

Stewart Elementary has Pre-K through 2nd grade. Enrollment is approximately 400 and total teaching staff is 35. The building is 77 years old, handicap accessible and was recently renovated to Geothermal.

ASSURE Center Alternative High School

The alternative high school is at 105 Westview Drive and provides an alternative learning environment for 9th-12th grade students. The school serves academic needs as well as addressing social, emotional and family issues. ASSURE is a partnership with Kirkwood Community College.

Kirkwood Community College

Kirkwood has a Washington County center at 111 Westview that features the full-range of classes for 5 degrees, GED self-study and online classes, and non-degree continuing education courses. Kirkwood partners with the local business community to determine new course and degree offerings. Kirkwood plans to begin construction on a new facility northwest of Washington in 2012.

MEDICAL FACILITIES AND NURSING HOMES

Washington County Hospital and Clinics is a 25-bed Critical Access hospital with a 43-bed nursing home, providing inpatient, outpatient, long-term care and emergency services for Washington County and surrounding areas. The hospital was founded in 1912 and was recently able to invest in new facilities in 2006 and 2007.

United Presbyterian Home, founded in 1947, provides residential services, activities, and health services for senior adults and their families. The 30-acre UP campus offers a variety of living arrangements including cottages, apartments and a 52-bed nursing facility. The Halcyon House features independent and assisted living for seniors, including townhomes, apartments, and assisted living apartments. The facility offers short and long term health care and memory care.

CHILD CARE FACILITIES

Washington has several children development homes and centers recognized by Iowa's Quality Rating System (QRS) (administered by the Department of Human Services). They include First Baptist Preschool, Washington Community Y Preschool & Child Care Center, and Red Bear Daycare and Preschool. For rating details visit: http://www.dhs.state.ia.us/iqrs/qrs_providers/index.html.

Approximately 30 other day care providers are available and are listed at: http://www.washingtoniowachamber.com/day-care%20list.htm.

Washington has six preschools: Head Start at HACAP, First Baptist Pre School, Kingdom Kids, St. James Pre School, Washington Community Y Child Care/Preschool and Washington Pre School.

HAZARD MITIGATION PLAN

The Washington County Hazard Mitigation Plan recommends the addition of a community safe room to protect against tornadoes. This can be part of a new building or a retrofit.

PUBLIC FACILITY PRIORITIES

The following pages present an inventory and set of recommendations for public facilities based on surveys and interviews with facility staff. The planning and zoning commission and/or the city council should annually review these recommendations to identify priority recommendations.

Public Works Building	
Location	East of Water Treatment Plant
Age / Condition	12 years / Good
Assets	All functions combined in one place
Challenges	Crowded
Recommendations	Construct a covered area/building for rock/sand storage during winter

Washington Municipal Building	
Location	215 East Washington Street
Age	Approximately 40 years old
Functions	City offices, fire department
Features	Partial handicap accessibility (doors not handicap equipped); adequate parking for daily use
Condition	Fair to good
Assets	Close to downtown and highway; quick access to police and fire personnel; public access good
Challenges	Not enough storage or office space; HVAC not efficient; under-insulated
Recommendations	Study use and rearrange space to maximize benefit; Add drive-up water bill drop off; Improve telephone system; Expand building on adjoining property; Optimize public access/customer service area

Police Station	
Location	215 E Washington
Functions	All Police Work: Patrol, Investigation, Administration
Features	7 vehicles, 1 SWAT crisis truck, 1 under-cover vehicle
Staff	Officers: 11 FT, 1 PT. Admin: 1 FT, 1PT
Condition	Facility was formerly part of city hall, remodeled in 2005.
Challenges	Police Calls are up 52% in last 2 years. Not enough space for work load. Facility not laid out well for needs.
Recommendations	Find more space for all police functions. There has been discussion of moving police to current fire station.

Fire Station	
Location	215 East Washington
Age; Size	40 years; 5600 sq ft
Functions	Fire fighting and prevention service for the City of Washington and portions of unincorporated Washington County: 130 square mile area.
Features	8 garage bays, 1 ladder, 1 tanker, 2 pumpers, 2 glass trucks. Confined space equipment and trailer. Limited Parking, *Not* handicap accessible.
Staff	4 full time plus volunteer
Condition	Fair to Poor
Positive Assets	Vehicles in good condition, well equipped, updated
Challenges	Station not large enough for truck and equipment; No meeting or training rooms; Not energy efficient
Recommendations	Need a station that meets today's standards: both NFPA and OSHA guidelines

911 Communications Center	
Location	221 West 2nd St
Functions	Answer Emergency 911 calls and service calls; Dispatch Washington police and fire department, county sheriff, county ambulance, and fire and first responder for other cities in the county.
Staff	9 FT, 2 PT. Governed by Communications Commission. Jointly run by city and county.
Challenges	The City of Washington and the County are currently discussing a potential relocation for the center.
Recommendations	The Hazard Mitigation Plan for Washington County states a need to improve the Interoperability of Communications for public safety reasons. Various local government departments and partner agencies should have ability to communicate through means other than the cell-phone system.

Public Library	
Location	115 West Washington Street
Year Built, Size	2009; 30,000 square feet
Functions	Educational and Recreational programs; Loans of books, games, music, software, DVDs, magazines and art; Public access to computers, printer, copier; Information services (reference, readers advisory), Access to e-books/audio-books
Parking	Street Parking
Features	Handicap Accessible; Wi-fi
Collection/Circulation	40,793 loan items; 2011 circulation: 88,966 items 12 public desktop computers, 10 public laptop computers, 6 patron catalog computers, copy machines, printers, scanner, fax
Staff	4 full time, 8 part time (FTE 6.475)
Facility Condition	Excellent. New building, updated technology
Assets	Energy-efficient building, room for growth
Challenges	Lack of training for staff on mechanical technology.
Recommendations	Integrated IT services that cover all building technology; Plan for uses of older hardware; Finish lower level meeting room; Modify Children's area to create Early Literacy/Parenting section.

4

This section presents an inventory and evaluation of Washington's infrastructure systems, including multi-modal transportation, water distribution and storage, sanitary sewer collection and treatment, storm water conveyance, and solid waste management. Proposed changes to these systems are covered in chapter 8.

TRANSPORTATION

STREETS

Figure 4.1 classifies Washington's Streets according to the US Department of Transportation Federal Functional Classification System. The classification system divides roadways into five categories, which are detailed in table 4.1. The City periodically recommends these designations to the Iowa Department of Transportation, who must review and accept the designations.

Current Street Issues

The Iowa Department of Transportation (DOT) is funding a **"road diet" for Madison Street/Highway 92** from Highway 1 to 2nd Avenue. The street will be changed from 4 lanes to 3 lanes. Road Diets are typically performed on streets with excess capacity to increase traffic safety. The level of service analysis in the following section addresses the lane reduction's likely effect on traffic flow on Madison.

The **intersection of 12th avenue and Highway 92** was noted as a problem area by the comprehensive plan steering committee. Industrial traffic uses this intersection to reach the industrial area in the northeast of Washington. Chapter 8 of this document provides alternate industrial routes to address this problem.

Level of Service (LOS) Analysis

A capacity analysis compares the actual traffic volumes on a street segment with the design capacity of that segment. The ratio of volume over capacity corresponds to a "level of service" (LOS) rating, which provides a rough qualitative measure of speed and smoothness of traffic flow. Streets approaching their capacity may become unstable, while streets over their capacity may experience system breakdown. The Washington Level of Service (LOS) analysis was derived using 2010 traffic counts from the Iowa Department of Transportation, and capacity estimates from HDR, Inc., a national consulting firm that specializes in transportation.

This section presents transportation issues and opportunities. Turn to Chapter 8 for the future transportation plan, including street extensions and sidewalk additions.

Table 4.1 - Description of Street Categories in Federal Functional Classification System

Street Classification	Description
Interstates	Washington does not have any interstates
Principal Arterials	Principal Arterials serve regional needs and connect major activity centers. These roads provide long distance connections and relatively high travel speeds with minimum interference to through movement.
Minor Arterials	Minor Arterials connect with and complement the principal arterial system by linking activity centers and connecting various parts of the city together. As a general rule, these streets are spaced at 0.5 to 1.0 mile intervals in developed urban areas.
Collectors	Collector streets link neighborhoods together and connect them to arterials and activity centers. Collectors are designed for relatively low speeds (35 miles per hour and below), and provide unlimited local access.
Local	Local Streets serve individual properties within residential or commercial areas. These streets provide direct, low-speed access for relatively short trips, have the least stringent design standards, and are typically narrower than collectors or arterials.

Figure 4.1 - Existing Street System with Federal Functional Classifications

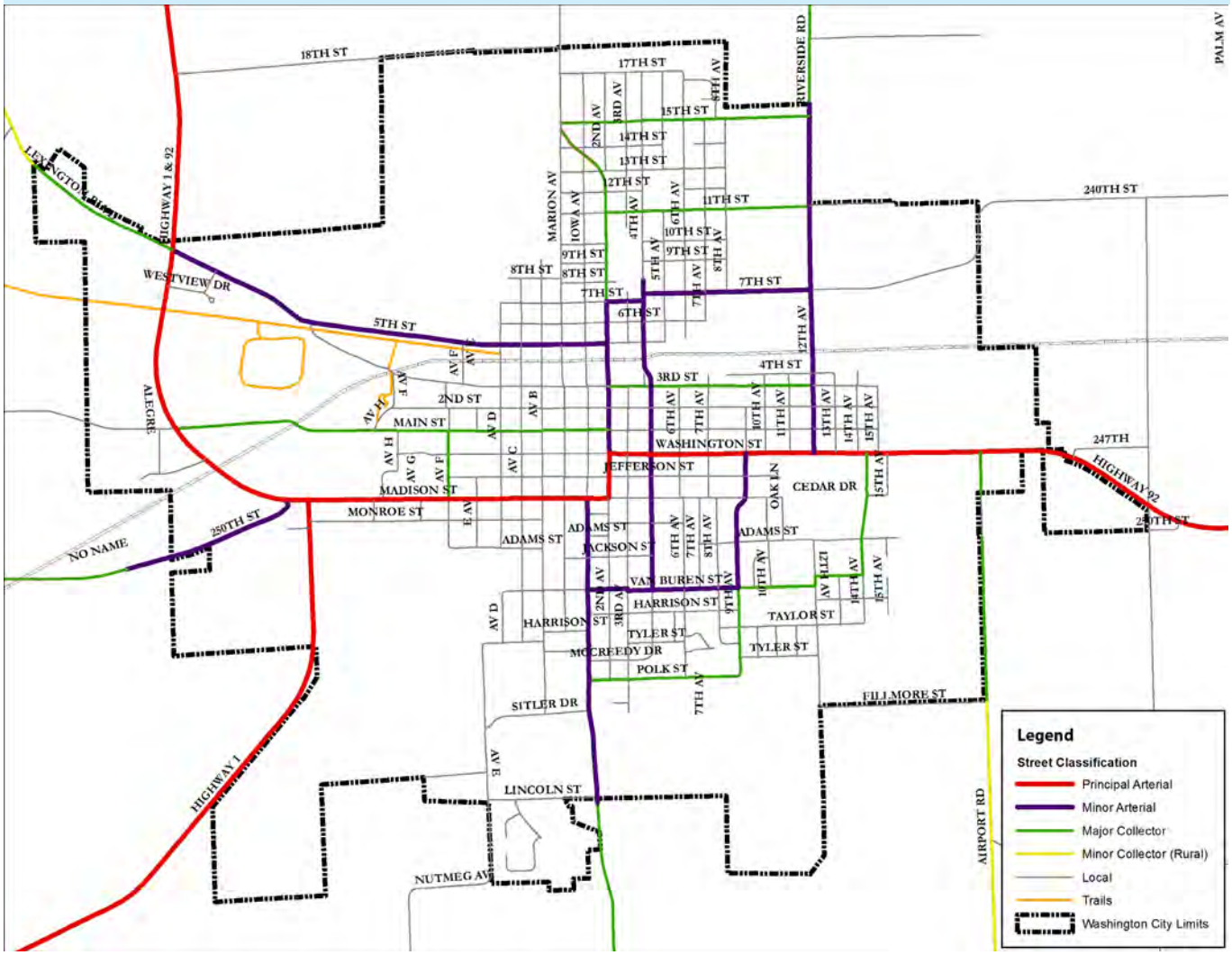


Table 4.2 - Description of Level of Service (LOS) Categories

LOS	Description
A	Free-flowing operation. Vehicles face few impediments to maneuvering. The driver has a high level of physical and psychological comfort. Minor accidents or breakdowns cause little interruption in the traffic stream.
B	A reasonably free-flowing operation. Maneuvering ability is slightly restricted, but ease of movement remains high.
C	Stable operation. Traffic flows approach the range in which traffic increases will degrade service. Minor incidents can be absorbed, but a local slow-down will result.
D	Borders on unstable traffic flow. Small traffic increases produce substantial service deterioration. Maneuverability is limited and comfort reduced.
E	Traffic is at full design capacity of street. Operations are extremely unstable because there is little margin of error in the traffic stream.
F	A breakdown in the system. Such conditions exist when queues form behind a breakdown or congestion point. This condition occurs when traffic exceeds the design capacity of the street.

Note: With this ranking system, Level of Service 'C' can be considered optimal, while a level of service A may indicate that the road is overbuilt.

Cautions about the LOS System

This rating system can be somewhat misleading, as the reader may assume that LOS A is the goal for all roads. This is not the case. A LOS A may actually indicate that a road is overbuilt, and the city is investing in the construction and maintenance of more lanes of traffic than is necessary. LOS C can often be considered optimal, as it allows good traffic flow while avoiding overspending on excess road capacity.

Additionally, although the LOS system gives a rough measure of key street elements such as speed and traffic flow, **LOS does not measure other important values** including:

- Neighborhood preservation; Environmental quality; Economic vitality and access; Energy conservation; Efficient development patterns; Transit and bicycle accommodation; Pedestrian environment

Efforts to improve LOS at the exclusion of these other values has the potential to negatively affect the community and the overall travel experience. For example, low density land development patterns meant to improve traffic flow may simply spread traffic over a larger area, resulting in longer driving distances and greater dependence on automobile travel. Widening roadways and adding lanes may improve the flow of traffic, but increased traffic speeds may diminish pedestrian safety. While LOS is a useful tool, it should not be used to the exclusion of other values. The transportation system should serve the overall environment, not dominate it.

LOS Conclusions

The operational analysis found that **all streets in Washington operate at level of service A.** This result indicates that Washington will not likely need to expand its transportation capacity in existing developed areas of town unless there are extreme increases in traffic. If anything, there may be more capacity than necessary in some areas.

With the planned "road diet" for Madison Street (4 lane to 3 lane transition), Madison would still operate at level of service A, assuming current traffic levels. Traffic levels on this section of Madison St would need to rise by approximately 70% for any portion of the street to reach a level of service D, the point at which traffic problems begin to occur. Given projected population and expected development patterns, such a traffic increase is very unlikely. Detailed LOS tables are included in the Appendix.

SIDEWALKS AND TRAILS

Figure 4.2 shows the existing sidewalks in Washington. The core of the city is well served by sidewalks, but newer neighborhoods on the edges of town are lacking. Some streets have low car traffic levels, and pedestrians may be comfortable sharing the road. However, sidewalks serve a necessary function for busier streets and provide safe routes to school for Washington's children. Section 2 of this plan proposes additions to the sidewalk network that focus on connectivity and links between residential areas and schools.

The Kewash trail, which runs from Washington to Keota, is a significant amenity for the parks and recreation system, but does not serve a basic transportation function for most users.

TRANSIT

Washington County mini-bus provides on-demand service Monday-Friday, 7 a.m. – 5 p.m. As of early 2012, fares start at $5.00 round trip within city limits (half price for school children), with increases for longer distances. Shuttles to Iowa City and other neighboring towns are also available. Washington does not have a fixed-route bus system.

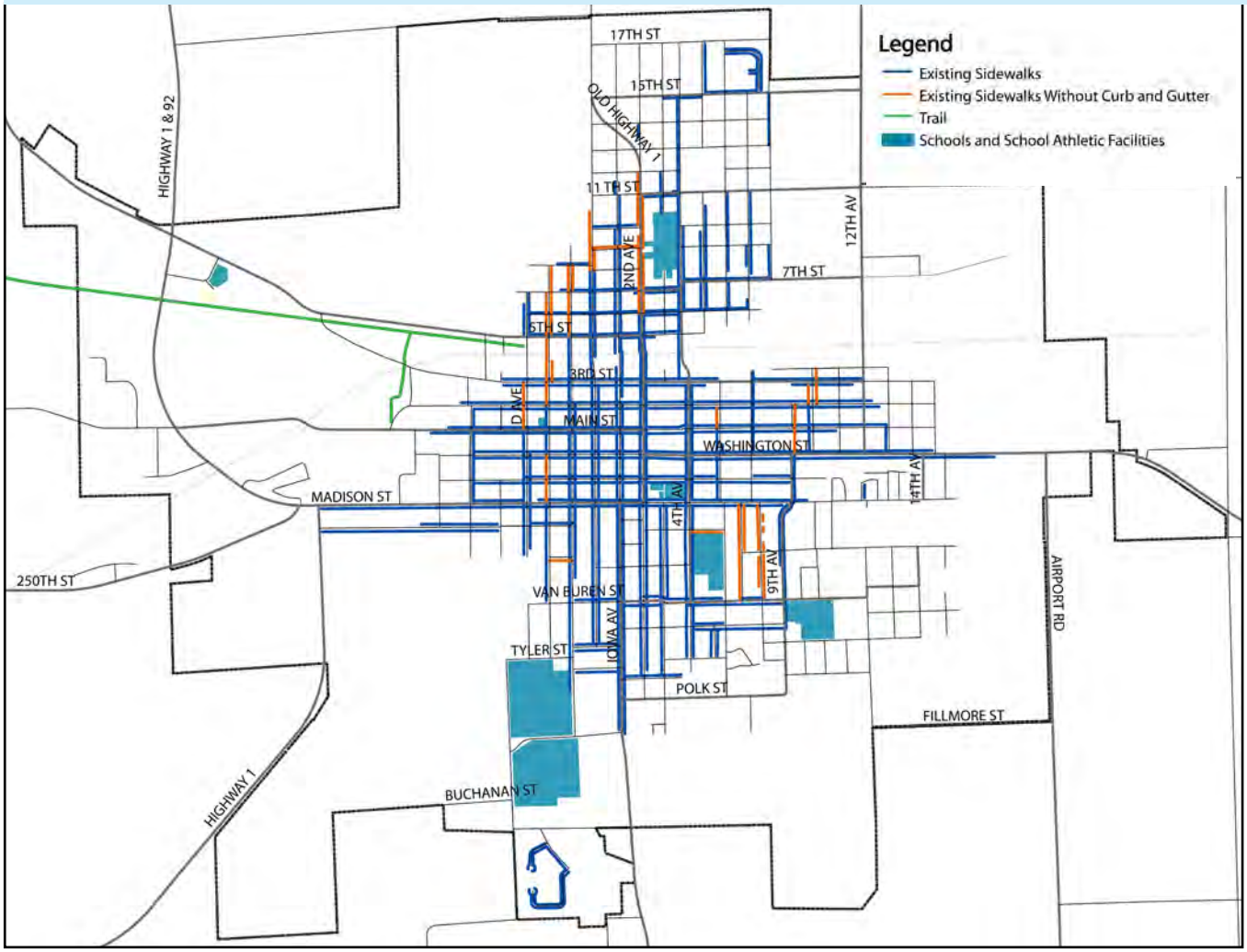
RAIL AND AIR

The I & M Rail Link (IMRL) provides railroad service for Washington. IMRL is a mid-sized, freight-hauling service (Class 2) connecting to Chicago, Kansas City, Minneapolis and the Quad Cities. Freight rail access is critical for many industries.

The Washington Municipal Airport is a general aviation airport owned by the City of Washington and managed by an appointed volunteer commission of five Washington residents. The airport is southeast of Washington city limits and provides fuel and oxygen service, hanger space for 32 planes, a passenger terminal/lounge, flight training, and aircraft rental and maintenance. The airport does not provide scheduled service.

The 2011 5-year airport CIP includes land acquisition for the expansion of runway 18/36. It is the airport's long-term plan to extend and widen this runway. The city recently annexed 40 acres of land in the southeast corner of town to accommodate runway expansion.

Figure 4.1 - Existing Sidewalks and Trails



COMMUTING PATTERNS

The average commute for a Washington resident is 18.4 minutes (2010). Table 4.3 compares average travel time to work and percentage of residents who walk to work in Washington and other communities. Among comparison communities and the state, Washington ranks 5 of 8 for lowest travel time and 4 of 8 for highest percentage of commuters who walk.

Development patterns and pedestrian facilities influence the opportunity for residents to walk to work. About 6% of residents in Washington walk to work, in contrast to 17% of Grinnell residents and 9% of Pella residents. Grinnell and Pella's higher pedestrian commute ratios are likely the result of more concentrated employment centers, also reflected in the fact that those two communities have the highest percentage of residents working within the city (Table 1.14). Tighter development patterns, continuity of the street network, and accessible pedestrian amenities such as continuous, safe sidewalks and an attractive walking environment also influence the number of commuters who choose to walk.

Table 4.3 Commuting Patterns, 2010

	Average Travel time to Work (min)	% Who walked to work
Washington	18.4	5.6%
State of Iowa	18.5	3.8%
Anamosa	21.0	4.8%
Grinnell	13.5	16.6%
Independence	19.1	1.7%
Manchester	16.0	7.0%
Mt. Pleasant	15.7	4.5%
Pella	11.4	8.8%

Source: U.S. Census Bureau, 2010 American Community Survey 5-year Estimates

WATER, SEWER, AND STORMWATER INFRASTRUCTURE

WATER SYSTEM

Wells

Washington's water supply comes from groundwater. There are 3 water wells located at 500 E 6th, 800 N 5th and 400 N. D. The wells are constructed with steel casing at a depth of 1800 feet and have a capacity of 600-700 gallons per minute. Wells are serviced regularly but are in fair to poor condition, due in part to their age - the newest of the wells was drilled in the 1960s. The wells still serve their function to provide the city with water, but **a new well and rehabilitation of existing wells are needed.** The wells have some issues with iron bacteria, which can result in unpleasant taste or odor of water, corrosion of plumbing equipment, or reduced well yields (iron bacteria are **not** associated with health problems).

Treatment

The water treatment plant at 522 N 4th Ave has a 1.2 million gallon capacity and an average daily demand of 700,000 gallons (Max Daily Demand = 1 million gallons). The plant is in poor condition. Treatment units and the older facility building are in poor shape, though the newer building is in good condition. The system can continue running in the short term, but in the long term the plant needs new treatment units and an upgrade. City officials have discussed needing a **plant upgrade** in the next couple years, but ability to finance will determine the actual timeline.

Distribution

Many of Washington's water mains will require replacement or repair in the near future. Breaks are common in several areas, such as East Adams and S 12th. Most mains are cast iron, though in many areas, large portions of mains are now plastic, due to extensive repairs. **The City is currently working with Fox Engineering to map the system and determine priorities for replacement and repair.**

Storage

Washington has 3 storage reservoirs, two at 500 N. 4th and one at 1300 East Adams. The total capacity of the three reservoirs is 1.7 million gallons. Two of the reservoirs are elevated steel tanks and the third is a cement ground tank.

Both the ground storage and the small elevated reservoirs are in poor condition and should be replaced. The large elevated tank is in good condition. All three tanks still hold safe drinking water that fulfills the city's needs, but in the long term new tanks are needed. The water department is currently looking for a **new water tower location.**

SANITARY SEWER SYSTEM

Wastewater Treatment Plant

The wastewater treatment plant is at 1065 W Buchanan Street. It was built in 1956 and most recently expanded in the mid 1990s. The design capacity is 2 million gallons per day and average daily flow is 1.2 million gallons. The facility features screening, grit removal, primary clarifier, bio-solids holding tank, anaerobic digester, final clarifiers, and a 2.2 million gallon equalization (EQ) basin. Anaerobic digestion is applied to surrounding farm fields in the spring and fall.

The plant is in poor condition and has been out of compliance with Environmental Protection Agency (EPA) standards for several years. The plant's National Pollutant Discharge Elimination System (NPDES) permit expired in 2006, meaning that the plant has not been adequately regulating pollutant discharge according to nation-wide standards. A new 6.8 million gallon treatment plant, expected to come on line in the fall of 2012, is being constructed immediately west of the current plant. The new plant will use a Sequencing Batch Reactor process (SBR) and feature a 15 million gallon equalization (EQ) basin to store excess wastewater flow during rainfall events. **The plant upgrade is expected to bring the plant in line with EPA requirements.**

Lift Stations

- **Parkside Estates (Hwy 1 & 92).** Fair condition - will be replaced with a new station with backup power (part of CIP).
- **Lexington Boulevard (499 Hwy 1 N).** Good condition - will be upgraded in the next 5 years with backup power generator (part of CIP).
- **Sunset Park (911 West Main St).** Bad condition – Will be eliminated when new west side interceptor is complete (expected 2012).

Wastewater Collection

Many of the **city's sewer lines are in poor condition**. Sinkholes are common as older clay pipes crumble. There are still many unseparated sewer/stormwater lines in Washington, which can create problems when high rainfall events cause the system to overflow. Some separation has been done and new mains have been added in various spots around town, but the lack of a reliable sewer system map has made prioritization difficult. The City is working with a consultant to map the sewer system and set priorities for replacement, repair and separation. A **new interceptor sewer** is planned for the west side of town, running from the west end of Van Buren, up to highway 92. This extension will open up new areas for development (covered in chapter 6).

STORMWATER COLLECTION SYSTEM

The Washington stormwater system directs rainwater that falls on city streets and properties into the natural creek system (mapped in chapter 2.) Stormwater systems are an important part of city infrastructure, as they mitigate flash flooding and erosion from rain events. Approximately half of Washington's stormwater lines are combined with sanitary sewer lines. Although the system can handle small rain events, larger rains (2 inches or more) cause flash flooding and backup into the sanitary sewer system. Portions of the system have very small lines and tend to overflow on a more frequent basis. **Some separation of sanitary and storm sewer lines has been done, but more is needed.**

Washington does not have a reliable map of its stormwater system, and has therefore not been able to strategically set priorities for system improvements. Most work on the system has consisted of routine maintenance on intakes and response to issues such as sink holes as they arise. The public works department is currently working with a consultant to map the sewer and stormwater systems, with the goal of determining priorities for repair, replacement and separation. Stormwater lines will likely be lower priority than the sewer and water lines, which are also in need of repairs.

There is a lift station that pumps storm water in an area prone to flash flooding at North 2nd street and the railroad tracks. The station is in need of updates.

The Washington code of ordinances requires that new subdivisions provide storm sewers and intakes that are sized to handle peak flow for a rain event of 2.5 inches per hour and must make provisions to convey and/or store the 100 year rainfall through overland waterways and retention ponds.

OTHER INFRASTRUCTURE

Solid Waste and Recycling

Washington's solid waste collection is provided under contract with Luke's sanitation. Residents can elect to use a daily tag system for bags, or a yearly tag for a 33 gallon container. Curbside recycling is available for glass, newspaper, metal, cardboard and plastic. Yard waste is collected seasonally (March –September) and bulk items are collected for an additional fee. The system is in good condition but the lacks a staging area. Waste is transported by a private hauler to SEMCO landfill in Richland, Iowa.

Telecommunications

A robust telecommunications system is important for everyday communication, economic growth, and public safety during events such as severe storms or other hazards. Major service providers are as follows: Telephone Service – Iowa Telecom; Gas & Electric Service – Alliant Energy; Internet Service – Iowa Telecom, Lisco, Mediacom and Cloud Burst 9; Radio – KCII Radio, 106.1 FM and 1380 AM; Television – Mediacom, Kurtz Kraft, Archers. Washington County offers 911 and other emergency response services through the Washington County Communications Center (described above). The Washington County Hazard Mitigation Plan states a need to improve the Interoperability of Communications. **Various local government departments and partner agencies should discuss how to establish a means to communicate other than the cell-phone system.**

Community Plan

SECTION 2

5

Community Vision

PUBLIC PARTICIPATION

Participation and input from Washington residents was central to the 9-month planning process. The Washington comprehensive plan was created under the guidance of a comprehensive plan steering committee, comprised of Washington citizens, staff and elected officials. The committee was a key contributor to the plan, helping to identify issues, develop goals, oversee the community participation process and review the plan's progress. To guide the committee in identifying shared community goals, RDG Planning & Design facilitated the following public input efforts:

- 8 steering committee meetings
    - The 26 committee members included representatives from multiple private organizations, city council and commission members, city staff, the Washington Economic Development Group, Main Street Washington, and the school district.
    - Each meeting included presentation by the plan consultants (RDG Planning and Design) and discussion and input from the steering committee.
    - All committee meetings were open to the public
- A series of small group meetings with local stakeholders, including representatives from the following groups:
    - City and County Staff
    - Business and Industry Leaders
    - Developers and Bankers
    - Teenagers (High School Students)
    - School District Officials
    - Senior Citizens
    - Service Agencies
- A participatory 2-day design studio to create the development concept
- 2 public meetings – February and June
    - Both meetings attended by approximately 50 residents
- A "Community Report Card " survey
    - Approximately 200 responses
    - Included multiple choice and short answer questions that measure perceptions about the City and ask participants to rank potential policy priorities.
    - Survey results for the committee and for the community at large were very similar, indicating that the committee is roughly representative of the larger community.
    - Selected responses in Table 5.1

EMERGING THEMES AND ISSUES

Several themes and important issues emerged from the public participation efforts listed previously. These include:

Economics

Economic growth in jobs, retail and business growth was a top priority in the community survey. Individuals in interviews and on the committee expressed concern that the cost of doing business in Washington is higher than in neighboring communities, due to higher taxes and lower incentives. Interviewees felt that Washington needs to market itself, particularly to the Iowa City/Coralville area to attract new residents and visitors. Many felt that Washington was strong in terms of having low unemployment and positive momentum for the downtown. Members of the steering committee noted a need for assistance of business start-ups.

Parks and Recreation

Parks and Recreation Improvements and Expansions were listed among the top priorities in the community survey, in steering committee meetings, and at the public meeting in February. There was a great deal of discussion regarding the planned Wellness Park and its location. Trails and other park connections were seen as important, as well as maintenance of existing parks and enhanced signage. Recreation improvements were the topic of highest interest among the teenager focus group participants.

Education

Maintaining a good education system was one of the top priorities of the community survey. The school district was brought into conversations throughout the comprehensive planning process.

Housing/Neighborhoods

Housing revitalization was the most discussed issue at the February public meeting and one of the top priorities in the community survey. Residents were concerned about deteriorating housing throughout Washington and felt that revitalization was needed. Members of the committee and others interviewed felt that the plan should encourage housing diversity, including housing of varying densities/types and affordable options for those with lower incomes. The retirement communities were seen as one of the greatest strengths of the Washington.

Infrastructure

Aging Infrastructure was named as a top concern in the community survey and interviews with residents and city staff confirmed this. Staff members were particularly concerned about deterioration in the sewer, water and stormwater systems. Business and industry leaders commented that strong infrastructure is crucial for economic growth. The new wastewater treatment plant, the new west-side interceptor sewer, and the mapping of the water, sewer and stormwater systems were seen as positive signs for the future of infrastructure.

Transportation

The committee and members of the public commented on the need to improve the sidewalk system, particularly safe routes to school. The committee and stakeholder interviewees felt that truck traffic for industrial areas needed better routes through town, and that more east/west connections were needed in the southern half of the city, particularly toward highway 1. Several interviewed were concerned about the lane-diet for Madison and what that would mean for safety and traffic patterns.

Human Capital

Employers said that finding employees can be difficult, while others mentioned that community leadership positions are sometimes hard to fill, or are frequently filled by the same people over and over. Community survey respondents felt that retaining youth/talent was one of the top issues Washington would face in the coming years.

Governance

Members of the committee and the public felt that the degree of trust between the public and the local government could be improved. Transparency, Efficiency, and Collaboration in government was ranked as one of the most important smart planning principles in the community survey.

Development

Developers and committee members felt that there is a lack of developable lots in city limits and a lot of residential development has been happening outside city limits as a result (recent changes in county zoning have slowed down development in unincorporated areas). There was a perception among several interviewed that city regulations for development were more expensive and time intensive than other cities of similar size. Development quality was ranked as a high priority in the community survey.

Community Character

The Washington downtown/town square was seen as a focal point of community character, and was the top "favorite place" of survey respondents. Interviewees liked activities in the downtown and many expressed that they enjoyed living in Washington. Safety was frequently listed as one of the top strengths of Washington in the community survey, committee meetings and interviews.

COMPREHENSIVE PLAN GOALS

The goals of the Washington comprehensive plan were created based on the public input described above, the Iowa smart planning principles, best practices for planning, and findings of the community profile in section 1. These goals were approved by the steering committee and presented in draft form to the public at the February public meeting. The goals are listed in order according to their corresponding chapter in the plan (does not reflect order of importance).

Land Use, Urban Design and Environment (Ch. 6)

Land use and urban design policies should encourage the development and revitalization of neighborhoods, support contiguous development and preserve sensitive environmental features.

Housing (Ch. 6 and 9)

Through partnerships with the private sector, the city should encourage diverse housing choices and support reinvestment in the existing market.

Hazard Mitigation and Public Safety (Ch. 6-8, Appendix: Hazards)

Growth and development policies should minimize the risk of injury or property damage due to natural hazards, such as snow storms or flash-flooding.

Parks, Recreation & Community Amenities (Ch. 7)

The city's quality of life should be maintained and supported by providing attractive community amenities, such as parks, to residents and visitors.

Community Facilities (Ch. 7)

The city's public facilities should continue providing a high level of service to the public.

Infrastructure (Ch. 8)

The city should encourage economical, efficient expansion and rehabilitation of infrastructure.

Transportation (Ch. 8)

The City will develop and support an efficient system of complete streets to serve future vehicular, bicycle, and pedestrian circulation and access needs.

The Economy and Economic Development (Ch. 9)

Planning efforts should encourage the retention and attraction of businesses and talented professionals, and build a diverse economic base rooted in entrepreneurship and expanding markets.

Governance and Collaboration (Ch. 10)

Government decision-making processes will be efficient, transparent, coordinated and collaborative.

Table 5.1 – Selected Community Report Card Survey Responses

Question/Category	Top Responses
What 3 specific actions or projects would you like to see Washington accomplish during the next 10 years?	Promote New Business and Industry (40%) Better School System/Educational Environment (36%) Fix Aging Infrastructure (29%) Increase local businesses (28%) Lower Taxes (28%) Develop Parks, Recreation and Sport Facilities (26%)
What do you believe should be Washington's most important goals for the next 10 years?	Attract more business and industries (58%) / Attract good businesses (36%) Commercial and Industrial Development (23%) Manage Infrastructure (22%) Quality development and positive future growth (21%) Additional recreational facilities/amenities (19%) / Improve amenities and recreational facilities (17%) Neighborhood Revitalization (18%)
Top Rated Community Features	Public Safety Systems – Fire; Public Safety System - Police Services/Housing for Seniors Medical Resources Safety Overall Quality of Life
Lowest Rated Community Features	Ability to Retain Young People Job Creation and Growth / Wage Levels & Job Quality Retail Growth; Retail Retention

6

Future Land Use and Environmental Framework

Washington's Land Use Plan should establish a development vision, identify directions for future growth, maintain and enhance the quality of existing development, and provide a sound basis for public and private decisions. This section of the document outlines the principles of Washington's future land use and environmental preservation, provides an overall development concept for new growth areas, recommends future land uses, identifies areas for infill development and discusses annexation options. This land use framework is guided by the goals of the comprehensive plan (Chapter 5) and the Iowa Comprehensive Planning guidelines (Introduction). Additionally, ten core principles of land use development are outlined in detail on the following page. These principles carry through the remainder of the plan, including the following chapters on parks (chapter 7), transportation (chapter 8) and housing (chapter 9).

WASHINGTON'S DEVELOPMENT CONCEPT

A development concept shows priority locations and configurations of new residential, commercial, industrial, park/natural areas, and transportation expansions. The planning team worked with local developers, city staff, and residents to determine the most likely and desirable areas for new land uses and transportation connections, both in infill areas and on undeveloped land adjacent to existing development.

The need for a strategic development concept arises from several factors:

- A land need projection for the year 2030 (chapter 2), estimated a need for 240 acres of residential land, 20-25 acres of commercial land, and 85-100 acres of industrial land.
- The recent adoption of county zoning laws has made residential growth within city limits more likely as compared to recent decades.
- Local developers expressed that there has been a lack of developable lots in city limits.
- Setting priority growth areas helps the city plan for public investments such as infrastructure, and provides property owners with a potential future scenario that can help them make buying and selling decisions.

PRIORITY GROWTH AREAS

Four priority growth areas (Figure 6.1) were targeted based on:

- Availability of existing infrastructure or ability to provide extensions
- Market demand for certain areas of town, continuity with existing development
- The land use principles defined on the following page

Development Suitability for Priority Growth Areas

Southwest Growth Area

- New sewer interceptor under construction will make development economically practical and attractive.
- Discussions underway regarding improvement of existing access road, an extension of Buchanan Street, to open up new land for office/commercial development.
- New high school will encourage growth.

Northeast Growth Area

- Logical area for Industrial growth due to existing industrial infrastructure, particularly in infill areas.

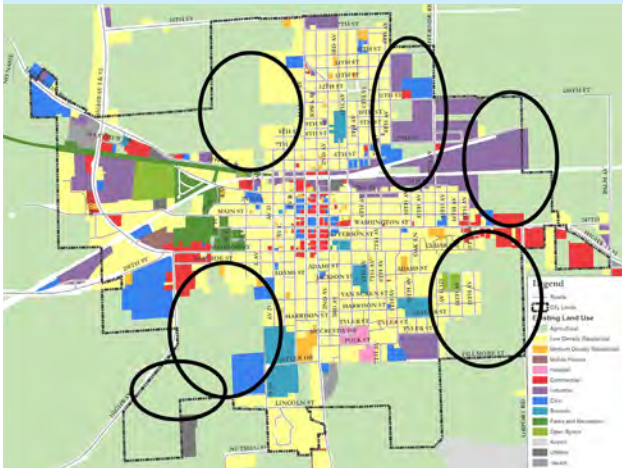
Southeast Growth Area

- This area has experienced recent development with homes on South 12th Ave and local developers expect continued demand.

Northwest Growth Area

- Easy access for Iowa City/Coralville commuters
- Potential challenges with stormwater management

Figure 6.1 - Priority Growth Areas



10 PRINCIPLES OF FUTURE LAND USE AND DEVELOPMENT

Encourage compact, contiguous, and fiscally responsible development

Washington can reduce costly infrastructure extensions such as water, sewer and roads by developing on infill properties or in strategic areas adjacent to existing development. Compact and contiguous development can enhance quality of life by reducing travel distances, preserving more open and public spaces, and encouraging development that is "human-scale" rather than designed solely for the car. By reducing the physical footprint of the city, Washington can minimize its intrusion on the valuable farm land that surrounds it.

Support and revitalize existing neighborhoods

Infill development supports the economic and social value of Washington's existing neighborhoods by promoting investment in established areas, rather than solely at the fringe. Balancing new growth with support for established neighborhoods will help preserve community character, respect all residents, and make full use of existing infrastructure.

Preserve sensitive environmental features

As Washington grows, preserving natural areas can protect plant and animal habitats, increase value for adjacent properties, enhance the park system, and reduce flooding by providing natural stormwater management. A network of natural "greenways," enhances character and makes Washington a more attractive place to live and invest. Greenways protect wetlands, hydric soils, drainageways, and wooded areas.

Plan for community amenities such as parks

Parks, open spaces, schools, and other public places can serve as neighborhood focal points that promote community activity, personal interaction, and a sense of place. Parks and greenways can attract potential residents and encourage development around their perimeter.

Provide a multi-modal and continuous transportation network

A network of streets, bikeways, and sidewalks should provide connectivity and accommodate diverse mobility needs and preferences. Street networks can promote safe, livable neighborhoods by channelling traffic onto main avenues, while providing well-connected routes that make private travel and public service provision more efficient. Walking and bicycling options encourage wellness, independence, energy conservation, and Washington's valued "small town feel."

Enhance public safety and minimize hazard risk

Preserving natural drainage-ways to manage storm-water minimizes the risk of injury and property damage due to flash flooding. A well-connected and multi-modal transportation network promotes better emergency service provision and evacuation routes in case of large-scale hazards. A mixture of land uses within neighborhoods enhances security by creating activity and "eyes on the street" throughout the day.

Promote diverse housing choices

Housing needs and preferences are changing. The mortgage crisis and economic downturn have increased demand for affordable and rental options. The Baby Boomer and Millennial generations are demonstrating a growing preference for smaller lot homes and multi-family housing. Providing diverse housing options can help attract and retain residents.

Develop balanced neighborhoods that enhance community character

Balanced neighborhoods provide residents with easy access to a variety of places to live, shop, work, play and engage in community life. Mixing compatible uses, such as a corner store or school in a residential neighborhood, creates dynamic and resilient communities that promote efficiency in infrastructure and travel times. Balanced neighborhoods provide diverse housing options, open space, and activity centers such as parks, schools, civic centers, or commercial areas that are well connected to surrounding neighborhoods. Appropriate transitions should be made between higher intensity uses, such as industry, to lower intensity uses, such as homes.

Leverage public projects to promote private investments

Public investments in streets, water and sewer infrastructure, parks and schools can be leveraged to promote private investments. When strategically located, new parks or schools can inspire private residential development, while targeted infrastructure improvements can attract industry.

Make decisions transparently and corroboratively

Land use and environmental decisions should be made through a transparent process, with opportunity for input from all citizens and affected entities, such as the county, neighboring towns or the school district. Creation and implementation of land use decisions should be a shared responsibility that promotes the equitable distribution of development benefits and costs.

Non-Priority Areas

Several areas were not targeted for priority growth as part of this plan. These areas include:

- Far north and northeast: The area is wet and would be more difficult to serve with infrastructure than other areas.
- South of city limits: Although developers have expressed interest here, and there is at least one development in discussion for the area, it is not the highest priority from the standpoint of the contiguous growth principle expressed earlier in this chapter. Private development may still occur here, but it is not a public priority according to the principles of this plan.
- Northwest of the airport: A buffer area should remain undeveloped north of the airport and planned runway expansion.

Infill Areas

There are a number of large infill areas, including agricultural lands in the north and northeast that are surrounded by developed uses such as industrial and residential. At such time that the owners of this land are willing to sell or change the use, these areas should be developed in a manner compatible with the surrounding uses (future land use and compatibility issues are covered later in the "future land use" section of this chapter). There are also a number of vacant and deteriorated properties scattered throughout the developed area of Washington. Possibilities for redevelopment of these properties will be discussed in chapter 9.

DEVELOPMENT CONCEPT ELEMENTS

The development concept examines Washington's potential growth by addressing the following elements:

- Greenways and Parks
- Transportation
- Residential Development
- Commercial/Industrial Development

The remainder of this chapter will discuss specific proposals in each of these categories. The first two topics will also receive additional attention in chapters 7 and 8.

GREENWAYS AND PARKS

Parks and greenways (preserved natural areas) are proposed for all major development areas, and are positioned to maximize their potential as a catalyst for private development.

Wellness Park Site

The City of Washington and its citizens are in discussion regarding a proposed "Wellness Park" that would provide space for organized recreation, such as playing fields. A concept for an 80-acre park was created in 2007 (see chapter 3) but a site has not yet been determined.

At the writing of this plan, there are three potential sites for the Wellness Park, shown in Figure 6.2. This chapter presents two location options for the development concept:

- Concept A (Figure 6.3): Southwest Location Option
- Concept B (Figure 6.4): Northwest Location Option

The placement of this once-in-a-lifetime investment has a tremendous impact on the future land use of Washington. The park will not only take up a large amount of land, but also has the capacity to drive the land uses that surround it. If this major amenity is placed in an area with capacity for additional growth, the public investment in the park could have a magnifying effect, by encouraging the private sector to invest in residential and/or commercial development around the perimeter. The Wellness Park is an important investment that can attract residents and help Washington market its high quality of life.

RETURN ON INVESTMENT

Major public investments, such as parks, often encourage private investment in nearby areas.

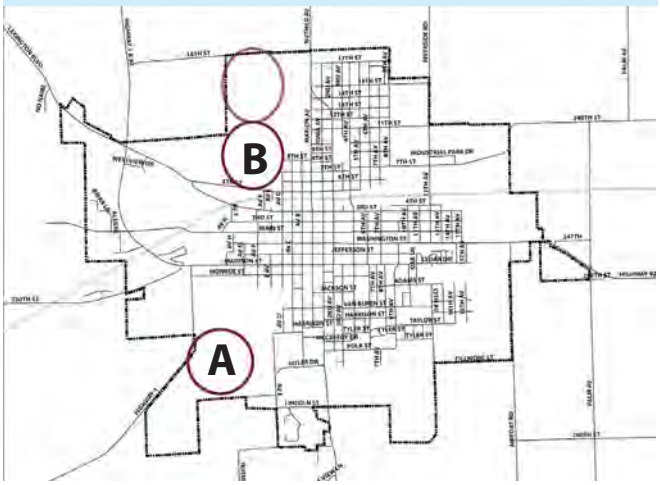
Southwest Site Merits (Concept A)

- Connection with the new high school and its athletic fields
- Accessibility and visibility from the highway
- Long-term potential to serve as a focal point and catalyst for new neighborhoods and commercial growth in southwest
- North panhandle connects park to high school campus and retirement center
- Creates residential development opportunity to the north
- 65 acres

Northwest Site Merits (Concept B)

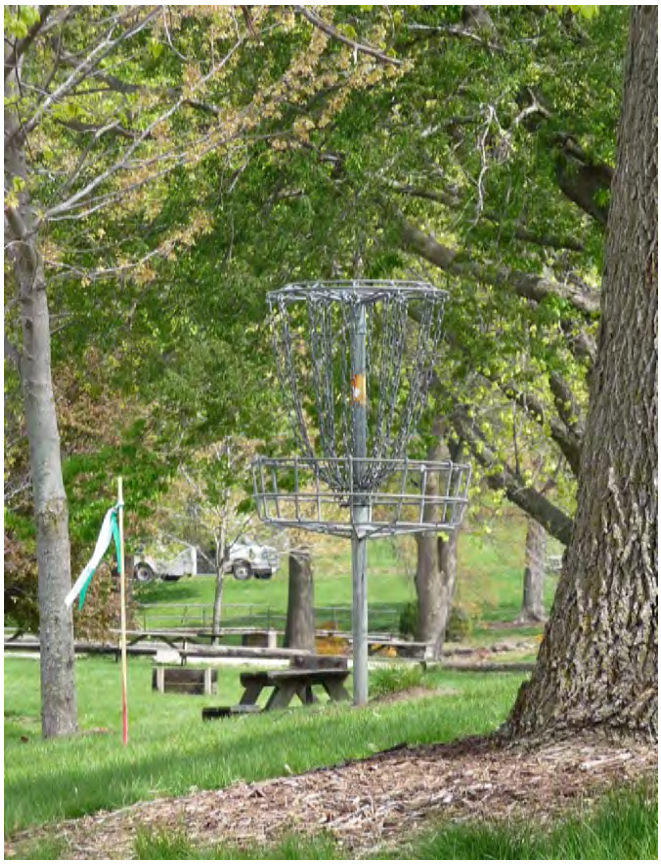
- Potential to serve as catalyst for new residential development
- Connects well to the existing park system and Kewash trail
- Provides park for the underserved north side. - Includes 5-acre tail in southeast that could serve as neighborhood park
- Synergy with the natural stormwater system - The pond shown at the center of the park is at the confluence of several drainage-ways, and will store stormwater to avoid negative downstream impacts such as flash flooding.
- 68 acres

Figure 6.2 - Possible sites for the proposed Wellness Park. Sites A and B are explored in the development concepts.



The park in either location could include softball and baseball fields, soccer fields, a multi-use open space, tennis courts, sand volleyball and ample parking. In both concepts, the wellness park is placed such that proposed streets can serve both the park and profitable development such as commercial and residential. This strategy reduces the cost of the park by limiting the need for major roads that serve only a park purpose. Chapter 7 will discuss the development of the Wellness Park in more detail, including funding.

Turn to Chapter 7 for more Wellness Park recommendations and discussion.



TWO OPTIONS

Two development concepts were developed for this plan, each showing a different location for the proposed Wellness Park.

Figure 6.3 - Development Concept A, showing wellness park in southwest location

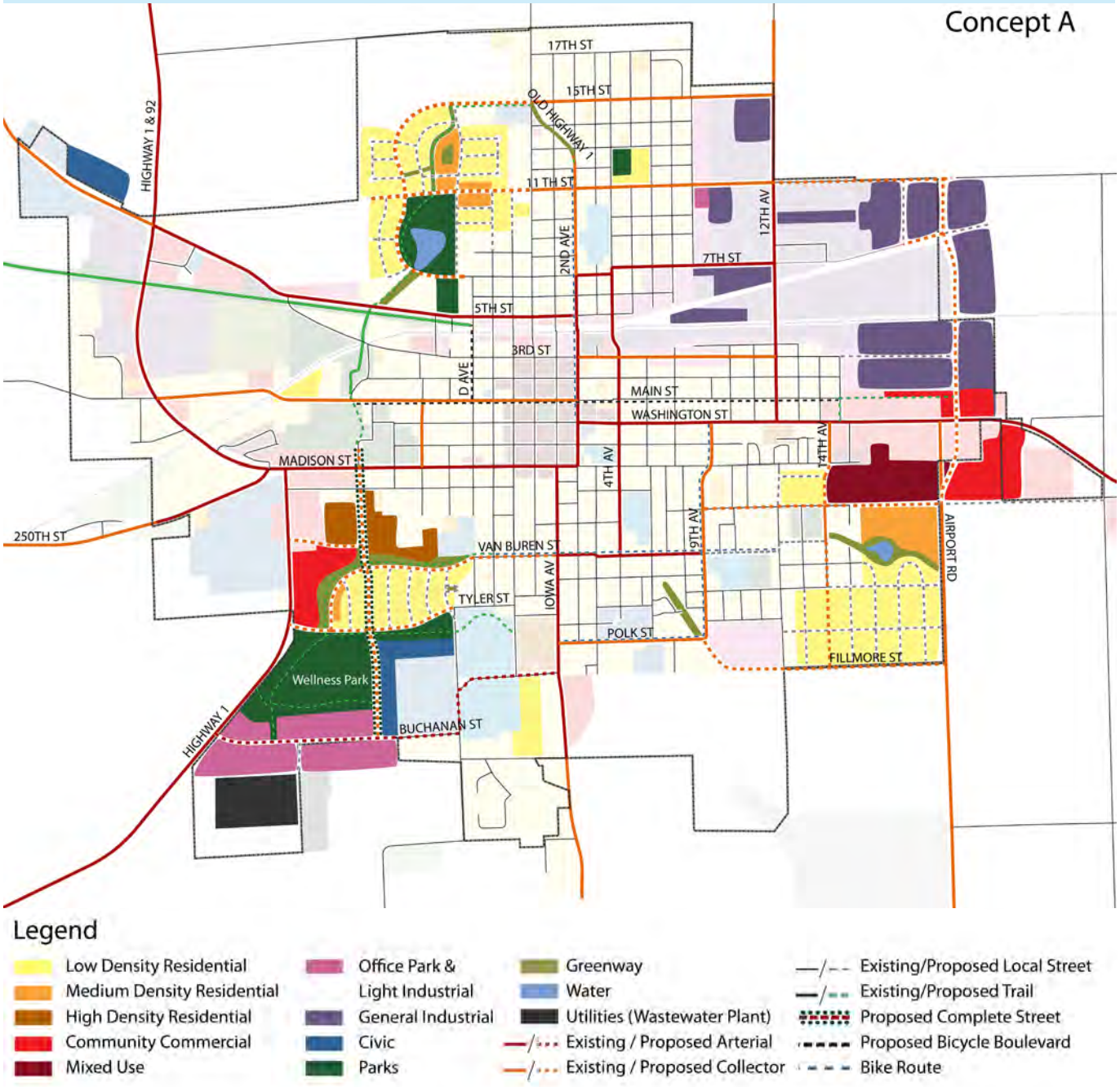
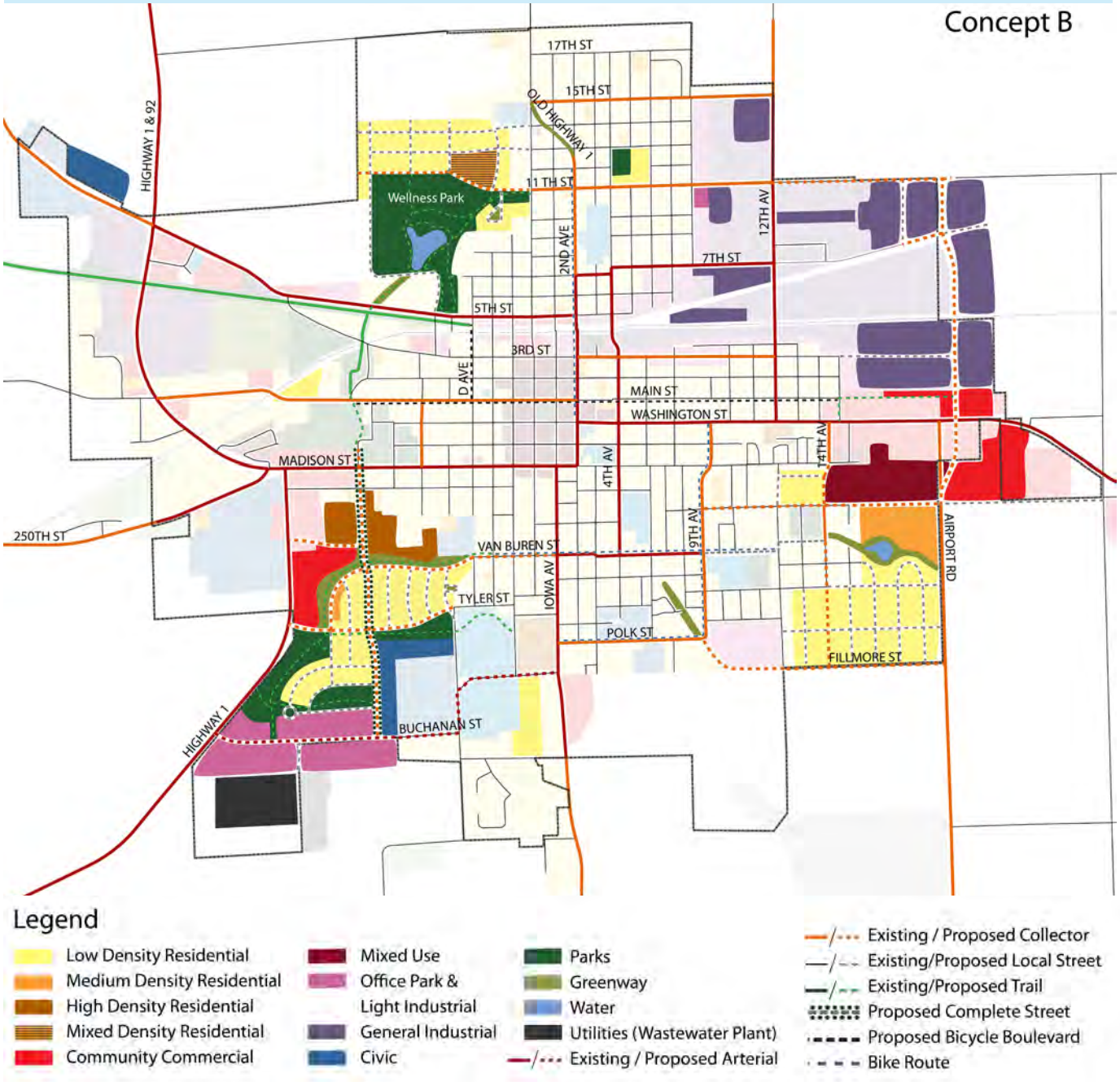


Figure 6.4 - Development Concept B, showing wellness park in northwest location



Greenways

Benefits: The development concept is built around the natural environment. As stated in the "principles" section, the preservation of key natural areas, or greenways, has a positive effect on property values, plant and animal habitats, the park system, community/neighborhood identity, and stormwater management. When preserved, natural drainage-ways and wetlands within developed areas can reduce the risk of flash flooding by giving stormwater somewhere to go, and reduce water pollution by filtering contaminants out of rainwater runoff before it re-enters the water supply. Figure 3.1 set up the framework for this greenway system by mapping Washington's wetlands and hydric soils, and the development concepts show many of these areas as greenways. The greenways are connected to parks when possible, and provide a logical place for trails and stormwater detention ponds.

Southwest Greenways: In both concepts, a greenway connects the proposed southwest park with nearby residential areas, with a trail running the length of it up to Van Buren. It protects hydric soils and a small sliver of wetlands, while providing a natural buffer between proposed residential areas and proposed commercial growth along Highway 1.

Northwest Greenways: A narrow strip of greenway protects a natural wetland and hydric soils, and provides a trail connection up to a proposed park. On the north side of the park, a greenway continues north through a residential area, though the exact placement is different for each concept. An unnecessary and unsafe segment old Highway 1 could be removed and transformed into a greenway.

Southeast Greenways: A greenway with stormwater detention provides a focal point for proposed residential development and a connection to Water Tower Park. On Polk Street, an old railroad right-of-way could be turned into a greenway, through negotiated easements, to create a community amenity that helps link the southeast part of town to the middle school and south side fields.

Turn to chapter 7 for more discussion of the parks system, including improvements for existing parks and funding options.

Neighborhood Parks

Concept A: A neighborhood park is drawn north of 5th, providing 3 distinct advantages:

- The park placement is based on the confluence of several drainage ways, creating a logical place for a detention pond that serves as both a stormwater tool and park focal point.
- The water feature adds something new to this park that doesn't exist elsewhere in Washington.
- This park would provide a neighborhood park for both the underserved north side, and encourage new residential growth to its west and north.

As with the Wellness Park, a road surrounds the edge of the park, serving both the park and proposed residential. This reduces the need for internal roads that serve only the park, and instead provides infrastructure that can also serve tax-paying property.

Concept B: The proposed neighborhood parkland in the southwest would serve three main purposes:

- Provides a total of 39.4 acres of parkland in the southwest growth area.
- Buffers residential growth from the proposed office park and Highway 1
- In the western portion of the park, along Highway 1, the park preserves green space around a creek, thereby both protecting the creek and allowing it to help manage stormwater runoff from nearby development.

Much like the Wellness Park, both of these neighborhood parks can serve as a catalyst for development around them. This can be particularly important for the north side of town, which does not have the draw of the new high school in the southwest.

The development concept also shows trail connections and complete streets, which are discussed in chapters 7 and 8. Taken together, greenways, parks, trails, and complete streets form a continuous recreation system throughout Washington. Chapter 7 will provide additional discussion on this system, including discussion of improvements for existing parks and funding options for park development.

TRANSPORTATION

Transportation investments play an influential role in where new growth will occur and how successful it will be. At the same time, goals for land use growth should drive Washington's choices for transportation investments. One of the primary transportation concerns expressed during the planning process was that Washington has a number of street connection gaps. Residents expressed that it was difficult to get from east to west, particularly on the south side. The street system seems "incomplete" in places where logical connections are missing. The development concept proposes transportation expansions that maximize connectivity, but minimize financial investment by taking advantage of existing infrastructure whenever possible. The proposed transportation connections are discussed in detail in chapter 8. Transportation connections that are key to opening up strategic growth areas, as shown in the development concept, include:

- A north/south boulevard extending to the southwest growth area
- The extensions of Tyler and Van Buren to the Highway
- The improvement of Buchanan Street to open up land for a business park
- The northern extension of Airport Road to open up additional industrial land
- The eastern extension of Adams to open up land for mixed use, commercial and residential
- Extension of east/west streets to open up residential potential in the northwest growth area. 15th and 11th street in concept A; 14th and 13th streets in concept B.

The transportation chapter provides detail on these and other transportation proposals, and discusses capital project prioritization and recommendations for existing street improvements, the pedestrian network, bike routes, and street design.

RESIDENTIAL DEVELOPMENT

Washington should guide its new residential growth to create quality neighborhoods that are well connected to each other and the rest of the town. The development concept guides residential growth to areas immediately northwest, southwest and southeast of the existing town, for the reasons stated previously in the "growth areas" section. A network of local streets, trails and greenways connects residential areas to the larger city. In addition to these new growth areas, a portion of new housing can and should go in infill areas within the city (see discussion in chapter 9). Key factors of the proposed residential development include:

Diversity of Housing Options: The concepts propose a variety of residential densities throughout these new growth areas. Low density areas would feature single family detached homes or duplexes (3 dwelling units (du) per acre), medium density areas would have townhomes (6 du/acre), while the high density areas would accommodate apartments (12 du/acre). Washington's current mix of housing is relatively heavy on single family detached homes, with 81% of homes in this category, 4% single family attached or townhomes, and 15% apartments. However, changing housing trends (described previously in the "principles" section) suggest that Washington will want to provide more medium and higher density homes in the future than it currently does. The development concept reflects this reality by proposing a different housing mix: approximately 191 acres of low density, 13 acres of medium density, and 22 acres higher density (development concept A). When translated to housing units, these acreages would produce a mix of new units that is 62.5% low density, 8.5% medium and 29% high (new units only). This proposed change does not substantially affect the character of Washington. It still provides for majority single-family development while accommodating more diversity in an environmentally sensitive manner. The concept is designed to respect the city's character, while allowing Washington to reach its full potential by recognizing changing market demands.

Turn to chapter 8 for more discussion of the transportation system, including recommendations for streets, bikeways and sidewalks.

Strategic Placement of Higher Density Housing: Medium and higher density residential units can include both housing for the general population and housing targeted to seniors, like the Halcyon house. The concept places higher density residential areas in the southwest growth area, in the area closest to the center of town. This location provides great access to services that apartment-dwellers often seek, such as the grocery store, the downtown, and the park system. The mixed use area proposed in the southeast could also include some higher density, upper level residential uses, but this type of development is more likely in the downtown area.

Variety of Lot Sizes: A variety of lot sizes should be permitted in new neighborhoods, ranging from 60 ft. wide lots to 80-90 ft. lots. Subareas should be developed with consistent lot sizes but these subareas can transition in lot size from one subarea to another. Transitions in lot size should be made at the rear lot lines, rather than across the street. That is, lots on both sides of a street should have consistent lot widths.

Planned Unit Development (PUD): While traditional zoning separates different densities of housing, a planned unit development is a master-planned area that mixes varied but compatible land uses together in one development or subdivision. The proposed PUD could include a mix of residential densities such as bi-attached, townhomes and multi-family. Some PUDs also incorporate schools, churches, or other civic uses. PUDs can specify guidelines for other features of the neighborhood, including the placement of houses in relation to the street, shared open spaces, and street design patterns.

Enhanced Connectivity: Residential areas in the concept are well connected to a variety of amenities and services, such as parks, commercial and civic spaces. Isolated pods of residential development are avoided. Residential growth in all three growth areas is centered around greenways (undeveloped natural areas) or parks, since these areas typically increase the value of the land surrounding them, and can serve as both a neighborhood center and a driver of residential growth. In the southwest area, the proposed residences have easy access to the proposed Wellness Park (concept A), the new high school, and commercial shopping opportunities along the highway. A greenway runs along the proposed extension of Van Buren Street, which could create a number of valuable residential lots on the opposing side of the street. In the northwest a proposed new park would form a catalyst for residential growth.

COMMERCIAL/INDUSTRIAL DEVELOPMENT

The development concepts propose expansions to existing commercial and residential areas, and a new business park. Chapter 9 discusses economic development in greater detail. Primary commercial/industrial recommendations include:

- **Expand the northeast industrial area, focusing on infill sites with existing infrastructure and rail access.** The industrial area can expand to the east as needed, using the proposed extension of Airport road.
- **Create a gateway to the Washington industrial area at the north intersection of Highway 92 and the Airport road northern extension.** A gateway feature could create a higher profile entrance to the Industrial portion of Washington with features such as monuments, nice lighting, or signage.
- **Create an office/research park in the southwest on land owned by the City of Washington.** Developing this site as a business park provides space for office, research and limited industrial uses and provides a good buffer between the wastewater treatment plant and the rest of town. These sites are readily developable sites with sewer access, and cannot be used for residential development due to the treatment plant to the south. The office park could also be used to leverage state funding to improve Buchanan Street, which would add a needed east/west connection for the south side of Washington.
- **Create a mixed use area along the north side of the proposed E Adams extension.** A mixed use area incorporates a mix of residential, office, and limited commercial uses in one place, as opposed to separating each use in its own area, as traditional zoning does. A mixture of uses tends to encourage more pedestrian activity, so mixed use areas are often designed to be pedestrian-friendly, by placing buildings at the street (with parking in rear or on the street) and maintaining a connected sidewalk network.
- **Expand the Elm Grove Cemetery by approximately 15 acres.** This expansion will serve Washington's needs for decades to come.
- **Expand the Hy-Vee and Wal-Mart commercial areas.** These two sites have been successful as commercial uses and have good access to Highways 1 and 92, respectively. Proposed multi-family housing to the east of the Hy-Vee could provide a good market for new and existing commercial uses.

DEVELOPMENT CONCEPT YIELD

Although this comprehensive plan is for a 20-year planning horizon, the development concept in some cases shows more land than will likely be needed in that horizon (Table 6.1). Because land use and development decisions can have implications that extend for decades into the future, it is useful to consider needs that are ahead of the decision-making time frame. This is particularly true for the transportation system, as one poorly placed building can block a logical transportation connection that would benefit the entire community. It is also helpful for residents and business-owners to have a vision far into the future as they purchase property that could stay in their possession for decades.

The projection of 7 acres for parks and recreation, as shown in Table 6.1, is the necessary acreage to maintain current level of park service. However, many residents in Washington have expressed a desire to significantly increase the level of park service, specifically through the development of a 60-80 acre Wellness Park. In response to that desire, the development concept shows more park land than was projected.

Table 6.1 - Land Use acreage in the development concepts as compared to projected need

Land Use	Projected Need (Acres)	Shown in development concept A (Acres)	Shown in development concept B (Acres)
Residential	236	226	238
Commercial	22-26	41	41
Industrial	85-101	129	129
Office/Business Park	Not projected	56	56
Mixed Use	Not projected	30	30
Parks and Recreation	7 acres (at current Level of Service); 15 acres of neighborhood and community park at elevated level of service	94 (29 Neighborhood/ Community + 65 Wellness Park)	108 (40 Neighborhood/ Community + 68 Wellness Park)

FUTURE LAND USE: LOCATION CRITERIA AND GUIDANCE

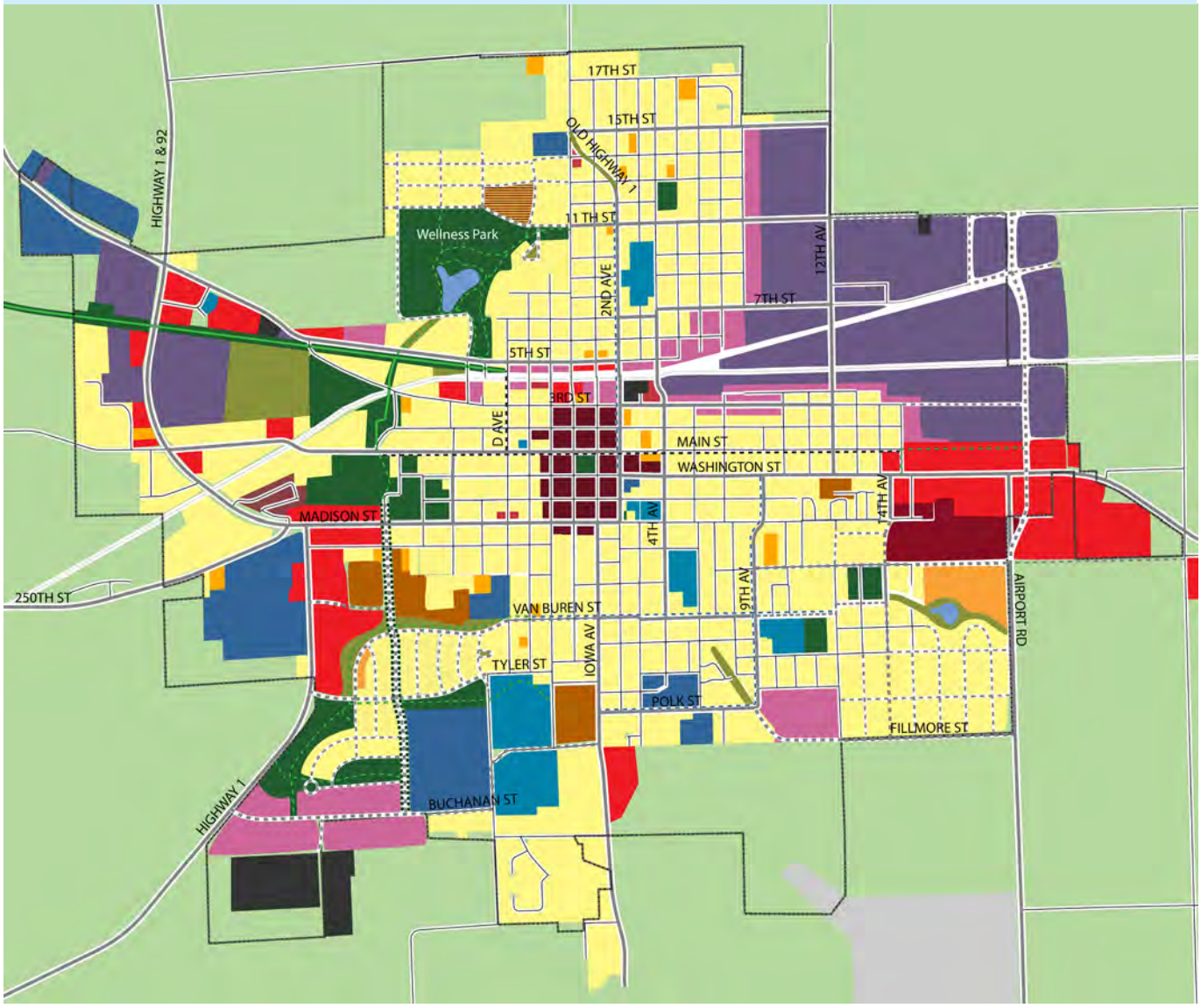
Figure 6.5 shows the future land use of Washington, which includes current land use and the proposed uses from the development concept outlined in Figure 6.4 (Concept B). Existing uses that do not currently conform to the zoning code are shown as a new, conforming use. However, the change from current land use to new uses for non-conforming properties is expected to happen slowly as those properties naturally turnover, and may not reach the point depicted on the map for years.

The Future Land Use Map is not a zoning map, and boundaries are meant to be approximate, rather than exact delineations. The map serves as a guide on land use decisions for the planning and zoning commission and the city council. Table 6.2 defines the characteristics of the land use categories specified in the Future Land Use Map.

Table 6.2 – Land Use Category Characteristics and Location Criteria

Land Use Category	Use Characteristics	Features and Location Criteria
Agriculture	○ Generally in agricultural use ○ Agriculture uses will remain the principal use during the planning period. ○ Extension of urban services is unlikely during the foreseeable future, and may not be feasible. ○ Extremely low residential densities, typically below 1 unit per 20 acres, may be permitted.	○ These areas should remain in primary agricultural use. Urban encroachment, including large lot subdivisions, should be discouraged. ○ Areas may be designated for conservation, including floodplains and steep topography ○ Primary uses through the planning period will remain agricultural.
Parks and Greenways/Open Space	○ Traditional park and recreation areas including both passive and active recreation uses. ○ Environmentally sensitive areas and crucial scenic corridors that should be preserved and possibly incorporated into the city's trail system.	○ Parks should be centrally located with easy access for both pedestrian and auto users. ○ Residents should be within approximately a half mile of a neighborhood park. ○ All parks should be connected through the city's trail and greenway system. ○ Environmentally sensitive areas, including wetlands, native prairies and drainage channels should be protected and incorporated into the city's greenway network.
Low Density (Single Family) Residential	○ Restrictive land uses, emphasizing single-family detached development, although innovative single-family forms may be permitted with special review. ○ Civic uses are generally allowed, with special permission for higher intensity uses. ○ Developments will be provided with full municipal services.	○ Densities range from 1 to 4 units per acre, although individual attached projects may include densities up to 6 units per acre in small areas ○ Primary uses within residential growth centers. ○ Should be insulated from adverse environmental effects, including noise, smell, air pollution, and light pollution. ○ Should provide a framework of streets and open spaces.

Figure 6.5 - Future Land Use



Legend

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mixed Density Residential
- Mobile Home Residential
- Neighborhood Commercial
- Community Commercial
- Downtown Mixed Use
- Mixed Use
- Business Park/Light Industrial
- General Industrial
- Civic
- Parks and Recreation
- Greenways/Open Space
- Water
- Utilities (Wastewater Plant)
- Agriculture
- Existing/Proposed Arterial/Collector
- Existing/Proposed Local Street
- Existing/Proposed Trail
- Proposed Complete Street
- Proposed Bicycle Boulevard
- Bike Route

Table 6.2 – Land Use Category Characteristics and Location Criteria

Land Use Category	Use Characteristics	Features and Location Criteria
Medium Density Residential	○ Restrictive land uses, emphasizing housing. ○ May incorporate a mix of housing types, including single-family detached, single-family attached, and townhouse uses. ○ Limited multi-family development may be permitted with special review and criteria ○ Civic uses are generally allowed, with special permission for higher intensity uses.	○ Density is 4 to 12 units per acre. ○ Applies to established neighborhoods of the city which have diverse housing types, and in developing areas that incorporate a mix of development. ○ Developments should generally have articulated scale and maintain identity of individual units. ○ Tend to locate in clusters, but should include linkages to other aspects of the community. ○ Innovative design should be encouraged in new projects. ○ Projects at this density may be incorporated in a limited way into single-family neighborhoods. ○ May be incorporated into mixed use projects and planned areas.
High Density Residential	○ Allows multi-family and compatible civic uses ○ Allows integration of limited office and convenience commercial within primarily residential areas	○ Density is in excess of 12 units per acre ○ Locate at sites with access to major amenities or activity centers ○ Should be integrated into fabric of nearby residential areas, while avoiding adverse traffic and visual impacts on low-density uses ○ Traffic should have direct access to collector or arterial streets to avoid overloading local streets ○ Requires Planned Unit Development designation when developed near lower intensity uses or in mixed use developments ○ Developments should avoid creation of compounds ○ Attractive landscape standards should be applied ○ May be incorporated into mixed use projects and planned areas
Mixed Density Residential (Planned Unit Development)	○ Incorporates a mix of housing styles including single-family attached and townhomes.	○ Density is 8-12 units per acre ○ These sites should be master planned using a PUD. ○ Developments should generally have articulated scale and maintain identity of individual units. ○ Innovative design should be encouraged. ○ Landscaping and traffic circulation should provide for a good transition to lower density residential areas. ○ Pedestrian and bicycle links should be provided.

Table 6.2 – Land Use Category Characteristics and Location Criteria

Land Use Category	Use Characteristics	Features and Location Criteria
Mobile Home Residential (MHR)	○ Accommodates mobile homes that are not classified under State law as "manufactured housing." ○ May include single-family, small lot settings within planned mobile home parks. ○ Manufactured units with HUD certification that comply with other criteria in State statute may be treated as conventional construction.	○ Develop in projects with adequate size to provide full services. ○ Generally locate in complexes, but should include linkages to other aspects of the community. ○ Typical maximum density is 8 units per acre.
Civic	○ Includes schools, churches, libraries, and other public facilities that act as centers of community activity.	○ May be permitted in a number of different areas, including residential areas. ○ Individual review of proposals requires an assessment of operating characteristics, project design, and traffic management.
Neighborhood Commercial	○ Includes a range of low impact commercial uses, providing a variety of neighborhood services. ○ Accommodates service-related commercial uses. ○ Allows residential units above commercial development, and may incorporate planned residential uses, typically at medium densities ○ Includes low to moderate building and impervious coverage	○ Should be located along major streets and in areas close to residential growth centers.. ○ Should emphasize pedestrian scale and relationships among businesses, and accommodate automobile access without being dominated by automotive scale. ○ Traffic systems should provide good internal traffic flow and safe pedestrian/bicycle access to businesses. ○ Negative effects on surrounding residential areas should be limited by location and buffering. ○ Good landscaping and restrictive signage standards should be maintained. ○ Good pedestrian/bicycle connections should be provided into surrounding areas.
Community Commercial	○ Includes a variety of commercial, office and high density residential uses ○ Establishes larger buildings and parking facilities and than neighborhood commercial ○ Serve as local foci of retail activity and are distributed across the city ○ Includes freestanding commercial uses and shopping centers on larger lots.	○ Typically located on arterials at major intersections (nodes) or in established commercial areas along arterial. ○ Should be fairly accessible to transit and should supply an adjacent amount of off street parking. ○ Traffic systems should provide alternative routes and good internal traffic flow. ○ Negative effects on surrounding residential areas should be limited by location and buffering ○ Good landscaping and restrictive signage standards should be maintained. ○ Good pedestrian/bicycle connections should be provided into surrounding residential service areas.

Table 6.2 – Land Use Category Characteristics and Location Criteria

Land Use Category	Use Characteristics	Features and Location Criteria
Downtown Mixed Use	○ Traditional downtown district of Washington. ○ Includes mix of uses, primarily commercial, office, and limited upper level residential. ○ Should be the primary focus of major civic uses, including government, cultural services, and other civic facilities. ○ Developments outside the center of the city should be encouraged to have "downtown" characteristics, including mixed use buildings and an emphasis on pedestrian scale.	○ Establishes mixed use pattern in the traditional city center. May also apply to planned mixed use areas. ○ Recognizes downtown development patterns without permitting undesirable land uses. ○ District may expand with development of appropriately designed adjacent projects. ○ New projects should respect pedestrian scale and design patterns and setbacks within the overall district. ○ Historic preservation is a significant value. ○ Good pedestrian and bicycle links should be provided, including non-motorized access to surrounding residential areas.
Mixed Use	○ Incorporates a mix of residential, office, and limited commercial uses.	○ Developments should emphasize relationships among parts. ○ Pedestrian traffic should be encouraged and neighborhood scale retained when applicable ○ Projects should avoid large expanses of parking visible from major streets. ○ Signage and site features should respect neighborhood scale in appropriate areas. ○ Commercial and office development in mixed-use areas should minimize impact on housing by locating at intersections of major streets.
Business Park/ Light Industrial	○ Business parks may combine office and light industrial/research uses. Business parks may also include supporting commercial activity. ○ Provides for users that do not generate noticeable external effects.	○ Signage, landscaping, and design standards should be established, with more restrictive controls for locations nearer to low intensity uses. ○ Uses that involve substantial peak traffic should locate near major arterials and regional highways. ○ Site design should encourage multiple access points,
General Industrial	○ Provides for a range of industrial enterprises, including those with significant external effects.	○ General industrial sites should be well-buffered from less intensive use. ○ Sites should have direct access to major regional transportation facilities, without passing through residential or commercial areas. ○ Developments with major external effects should be subject to review.
Public Facilities/ Utilities	○ Includes facilities with industrial operating characteristics, including public utilities, maintenance facilities, and public works yards.	○ Industrial operating characteristics should be controlled according to same standards as industrial uses. ○ When possible, should generally be located in industrial areas. ○ Facilities like the wastewater treatment plant should be well buffered from residential uses.

Land Use Compatibility

Some of the most difficult issues in plan implementation arise when more intensive uses are proposed adjacent to less intensive uses. Table 6.3 provides a land use compatibility guide that indicates which land uses are compatible, and which land use combinations will create significant conflict. This chart can be used to assess the relationship between land uses and provide a basis for development proposal review. The compatibility of each pairing is rated 1 to 5, based on the following key:

- **5**: Uses are completely compatible. Development should be designed consistent with good planning practice.
- **4**: The uses are basically compatible. Traffic from higher intensity uses should be directed away from lower intensity uses. Building elements and scale should be consistent with surrounding development.
- **3**: The uses may have potential conflicts that may be resolved or minimized through project design. Traffic and other external effects should be directed away from lower-intensity uses. Landscaping, buffering, and screening should be employed to minimize negative effects. A Planned Unit Development may be advisable.
- **2**: The uses have significant conflict. Major effects must be strongly mitigated to prevent impact on adjacent uses. A Planned Unit Development is required in all cases to assess project impact and define development design.
- **1**: The uses are incompatible. Any development proposal requires a Planned Unit Development and extensive documentation to prove that external effects are fully mitigated. In general, proposed uses with this level of conflict will not be permitted.

Table 6.3 – Land Use Compatibility Matrix

	Agriculture	Parks, Greenways, Open Space	Low Density Residential	Medium Density Residential	High Density Residential	Mobile Home	Neighborhood Commercial	Community Commercial	Downtown Mixed Use	Mixed Use	Business Park/Light Industrial	General Industry	Civic
Agriculture	-	3	3	3	2	3	3	3	3	3	3	3	3
Parks, Greenways, Open Space		-	4	4	4	3	4	3	4	4	3	2	5
Low Density Residential			-	4	3	3	2	2	3	3	1	1	4
Medium Density Residential				-	5	4	4	2	4	5	2	1	4
High Density Residential						5	4	2	5	5	2	1	4
Mobile Home						-	4	3	3	4	2	2	4
Neighborhood Commercial								5	5	5	4	3	4
Community Commercial								-	4	4	4	3	3
Downtown Mixed Use									-	5	2	2	4
Mixed Use										-	3	2	4
Business Park/Light Industrial											-	4	3
General Industry												-	1

ANNEXATION

In chapter 2, the land needs analysis concluded that the 2030 land need was approximately 350 acres to accommodate new residential, commercial and industrial development. The total undeveloped area currently in city limits is approximately 1,140 acres, which includes approximately 1,120 acres of agricultural land and open space and 20 acres of vacant urban land. (Portions of this land may be undevelopable due to slopes, soils or other environmental factors.)

Although there is technically enough land for Washington to grow over the next 20 years without annexation, factors such as market demand and infrastructure capabilities can drive growth in certain areas, which may lead to requests for annexation.

The city and the county currently have an agreement that designates an "urban reserve" area around Washington's municipal limits (Figure 6.6). The purpose of the urban reserve area is to allow room for Washington to grow by preventing any intensive development within the urban reserve until it is annexed by the city. This system allows collaboration between the City and the County and signals the city's growth intent for current and future property owners. If the county ever revokes its current zoning regulations, the city should consider extending Agriculture zoning, with a 10 acre minimum lot size, to the area that is currently designated as the county urban reserve zoning district. This will continue to prevent acreage residential development until such time that the city extends infrastructure to the area.

There are several areas in the urban reserve that are under consideration for short-term annexation, or have been indicated as development areas in the development concept earlier in this chapter. Figure 6.7 shows the approximate location of these areas. The northwest and southern areas are already under discussion, at the request of property owners/developers. The two eastern areas are shown as part of the development concept. If and when these properties are developed as shown in the development concept, they should be annexed.

Annexations should be guided by the feasibility of serving land with infrastructure, as well as market demands. This plan recommends that Washington pursue only voluntary annexations, as defined by state law. Washington should weigh the costs and benefits of all annexation requests, by calculating the costs of service provision against the benefits to the community, including tax revenue and economic development benefits.

Figure 6.7 - Urban reserve and agricultural residential areas surrounding Washington city limits

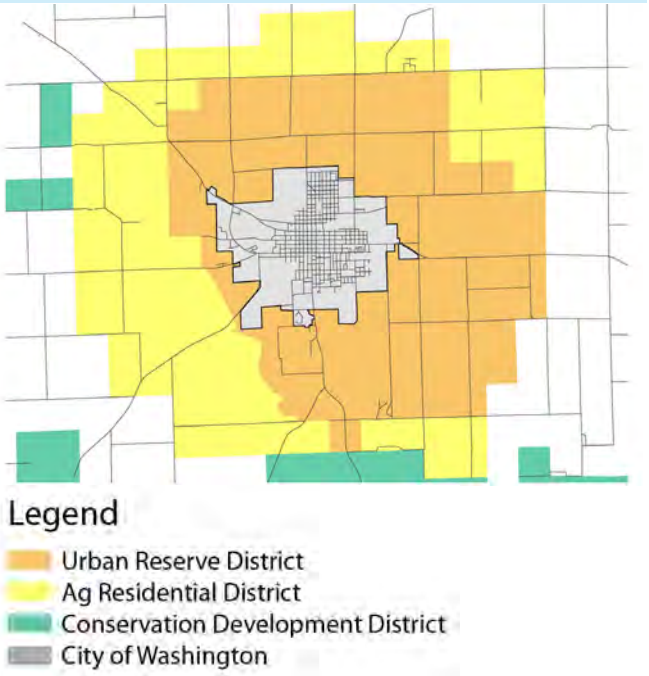
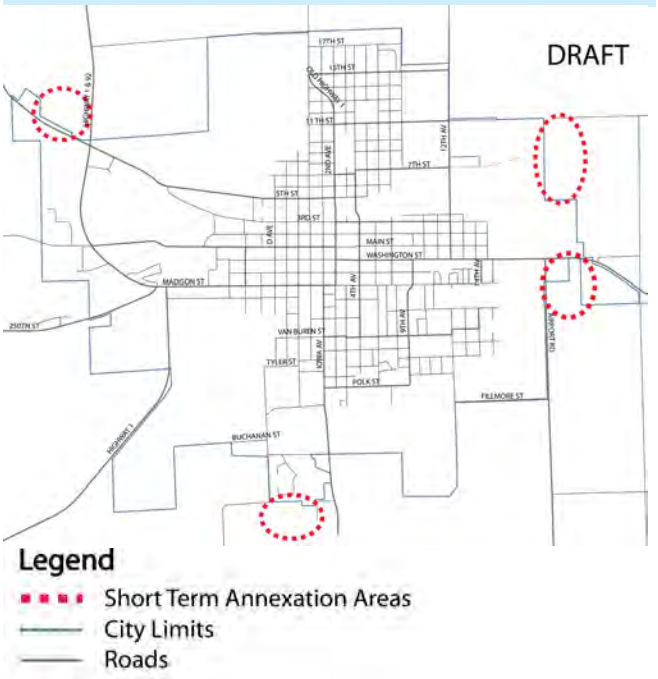
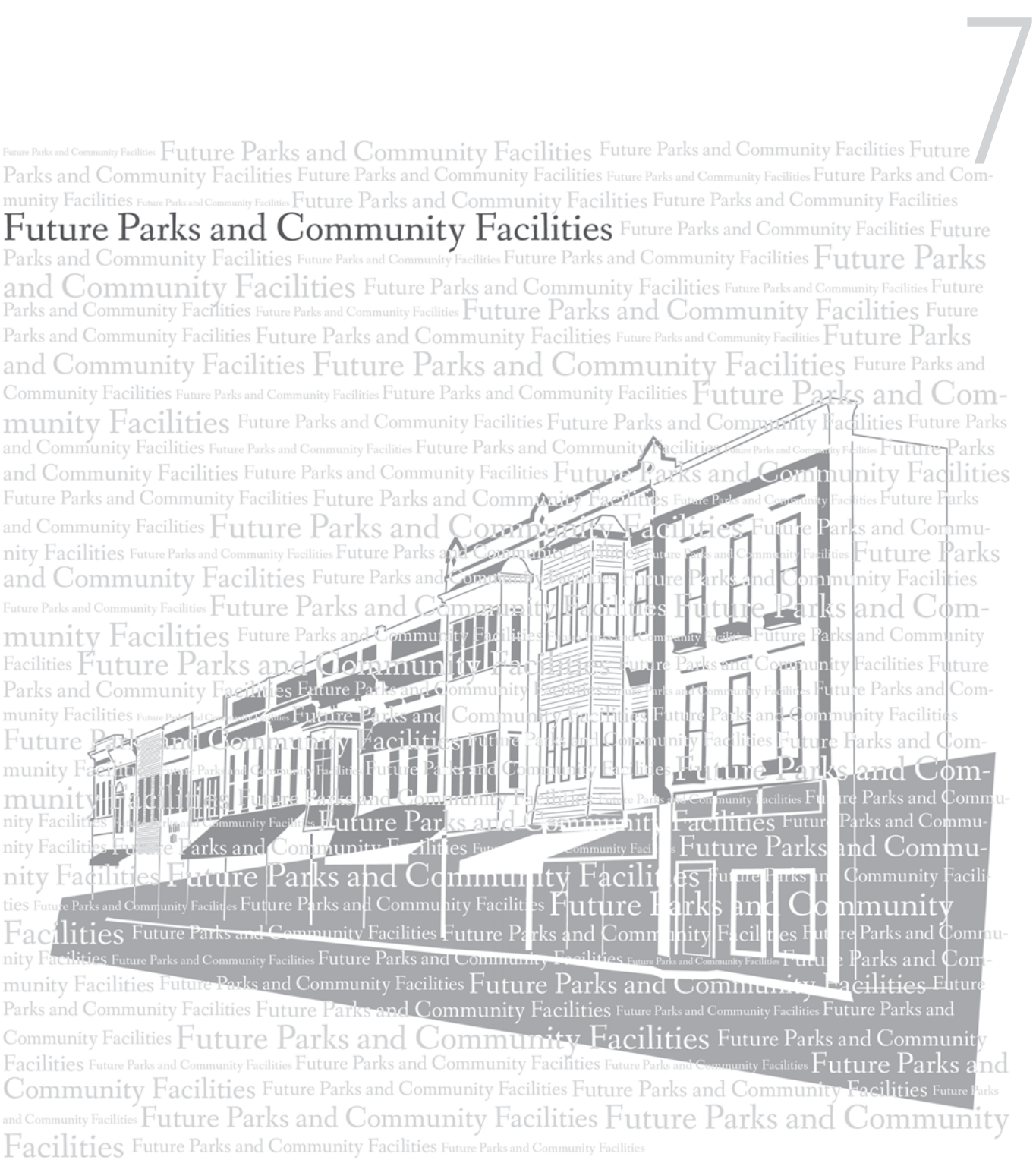


Figure 6.7 - Expected and potential short term annexation areas



7

Future Parks and Community Facilities



FUTURE PARKS AND RECREATION

An essential component of Washington's future quality of life will be a strong parks and trails system. Through the community survey, public meetings, and committee meetings, parks and recreation improvements emerged as one of the top priorities for Washington. Analysis in chapter 3 showed that while Washington has quality parks such as Sunset Park and Central Park, it is lacking in quantity (acreage), particularly for neighborhood parks. There are several areas of the community that are underserved by parkland, such as the north side. Additional parkland and enhancements to existing parks are needed to serve the needs of the growing population.

This section will present recommendations for improvements to existing parks and recreation facilities, propose a system of greenways and new parks, and discuss strategies for park financing.

EXISTING PARK IMPROVEMENTS

While a detailed park analysis is beyond the scope of the Washington Comprehensive Plan, this section identifies a number of potential park improvements for consideration. To implement these recommendations, the City of Washington should develop a community-wide park, trail, and open space plan, which will validate, prioritize, and budget for future park improvements through a participatory public process. For a map of the existing parks system and list of amenities and acreage, refer to chapter 3, Figure 3.1 and Table 3.2.

Below and Right: Internal paved trail loops in Sunset Park could serve walkers, joggers, and bicyclists

Sunset Park

Develop internal paved trail loops. Internal paved trail loops throughout Sunset Park would provide walkers, joggers, rollerbladers, bicyclists, and other trail users with enhanced opportunities to utilize the Park. These internal trail loops should be provided with or located adjacent to existing comfort stations consisting of a drinking fountain, bench, trash receptacle, dog waste bag station, and direction signage. Trail distance markers should also be provided on these internal loops and the connection to the regional Kewash Nature Trail should be celebrated by development of a trail head consisting of an informational kiosk, drinking fountain, benches, bicycle rack, trash receptacle and ADA compliant parking.

Consider Enhancements to the Aquatic Center. The Washington Steele Family Aquatic Center at Sunset Park provides residents and nonresidents with affordable access to outdoor aquatic facilities. While the current amenities provided to users at this facility meet the current needs, future modifications of amenities and/or expansion of the facility should be considered to maintain user interest and keep up with aquatic trends. It is generally good practice to make updates every 5-10 years. Updates could include additions like a new slide or spray feature that will attract new people and give previous users a reason to come back in.

Establish consistency in signage, furnishings, and amenities. While Sunset Park offers a wide variety of recreational opportunities to multiple generations of users, the Park lacks a consistent vocabulary of signage, furnishings, and amenities. Recommendations for improvements include development of a comprehensive wayfinding and identification signage system for the entire Park to enhance Park user's ability to navigate throughout the Park and create a sense of place and identity of each major element. This wayfinding and identification signage system could be developed in conjunction with the recommended community-wide park, trail, and open space plan and provide consistent messaging throughout the entire Washington park system. Another option would be for this wayfinding and identification signage system to be developed on a community-wide level and apply to all public facilities and wayfinding, including parks.

Below and Right: Consistent signage and identity markers, like these in Windsor Heights Iowa, help tie the park system together.

Water Tower Park

Water Tower Park is not currently connected to city sidewalks or regional trails. The majority of the park is open space in turf grass and is used for field sports practices and other pick-up games.

Add Neighborhood Park Amenities. While Water Tower Park provides open space for the southeast quadrant of the Washington community, several improvements could be made to make this a true neighborhood park. These improvements could include connections to city sidewalks and the regional Kewash Nature Trail, off-street parking, playground, internal trail loop, benches, trash receptacles, and signage.

Sesqui Park

Preserve passive recreation. Preservation of non-programmed and natural open spaces within a community is critical to maintain a healthy and balanced park system. Sesqui Park should be maintained as a passive recreation amenity for the Washington community.

Add Educational Signage. Improvements to educational and interpretive signage should be pursued to better the public understanding and appreciation of native ecosystems and the vital role these natural systems have in the overall health of our environment.

Add Passive Recreation Amenities. Passive recreation amenities such as bird watching blinds, benches, picnic shelters, and expanded soft and hard trails should be considered to provide a diversity of recreation opportunities to users.

Kiosks like this one could educate park users on the native ecosystems in Sesqui Park.

Case Field

Case Field is School property (maintained by the city) serving as a neighborhood park for the southern part of the community.

Improve pedestrian and trail connections to adjacent uses. The baseball and softball fences at Case Field limit the flexibility of the Park as well as future improvements unless the fences are removed. If removal of the fences is not feasible due to program requirements, the Park could still benefit from improved pedestrian and trail connections to the adjacent school campus and neighborhoods.

Add identity signage and wayfinding signage. This would help link Case Field to other City Parks and desirable destinations to encourage users to utilize alternative transportation and visit other parks in the community.

Directional signage helps orient parks users, and can direct them to other parts of the park system.

Central Park

Central Park is a popular gathering place for the community and serves the community well. A few improvements could be pursued to better engage families, children, and seniors at the Park.

Add a Children's Play Feature. An area for a children's play space should be considered, which could range from a traditional playground amenity to a zero depth, user controlled water spray feature that might serve as a visual feature as well as an activated water feature for children.

Add signage. Identity and wayfinding signage at the Park would provide users with an easily understandable system of how to navigate to other City parks and destinations from Central Park.

Provide loose outdoor furniture, such as tables and chairs, to encourage more diverse use of the Park.

Natural playscapes like these can provide an alternative or complement to traditional play structures.

A zero depth water fountain creates an informal play space for children.

North Park/Stewart Elementary School

North Park is a school property serving a neighborhood park function for the northern part of Washington.

Add neighborhood park features. If North Park is to continue serving as a neighborhood park, several future improvements should be considered including restrooms, signage, drinking fountains, and an internal trail loop that links the Park with the School and the adjacent neighborhoods via existing sidewalks.

Kewash Trail

Kewash Nature Trail is a regional trail that extends west 13 miles from the City of Washington to the City of Keota.

Improve the Trailhead. Visitors entering Washington on the Kewash trail get their first impression of Washington as they pass through the trailhead onto city streets. Improvements to the trailhead at D Avenue such as paving, restrooms, shade canopy, signage, bicycle racks, benches, and a signage kiosk will enhance the image of the City to visitors and create a more enjoyable experience for trail users.

Connect to local trail system. Future connections of this regional trailhead to a local trail system should be pursued to provide residents and visitors with safe routes for alternative transportation and recreation.

FUTURE GREENWAYS, PARKS AND TRAILS

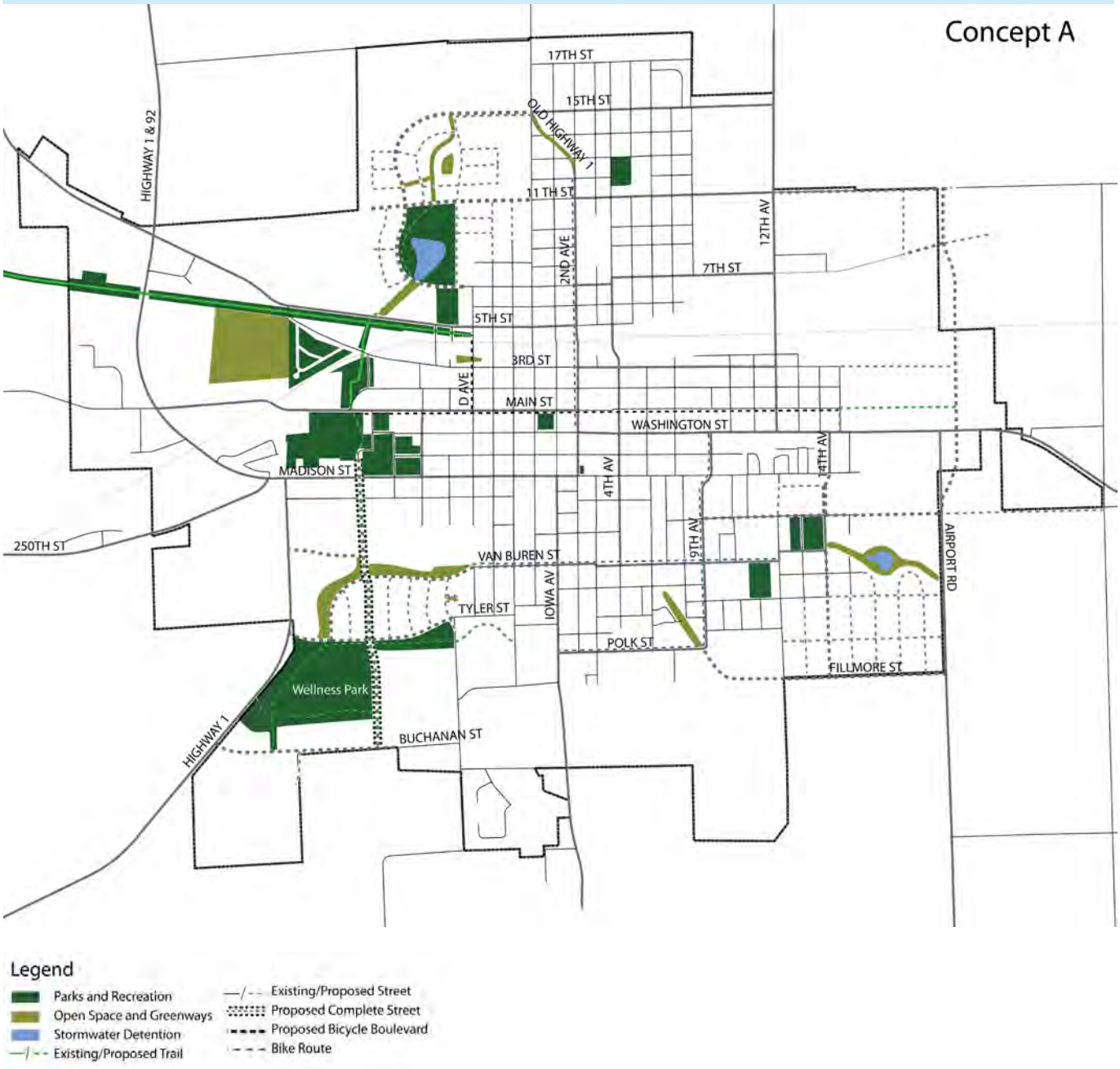
Figure 7.1 presents the proposed future greenway, park and trail system for Washington. Details about the location choices for these elements are included in chapter 6, while details on trails recommendations are included as part of the transportation section in chapter 8. Recommendations regarding their use and creation are detailed below.

TWO OPTIONS

Two concepts were developed for this plan, each showing a different location for the proposed Wellness Park.

Note the differences in the southwest and northwest quadrants.

Figure 7.1a - Proposed Greenways, Parks and Trails (Concept A)



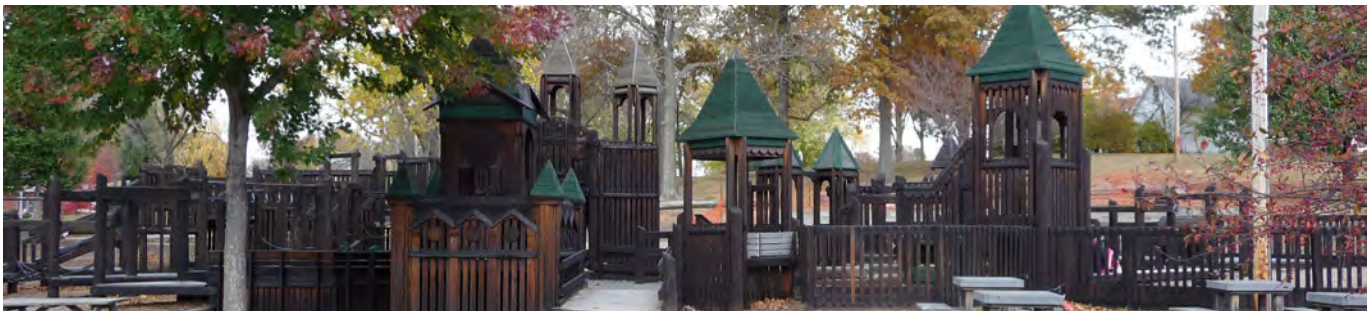
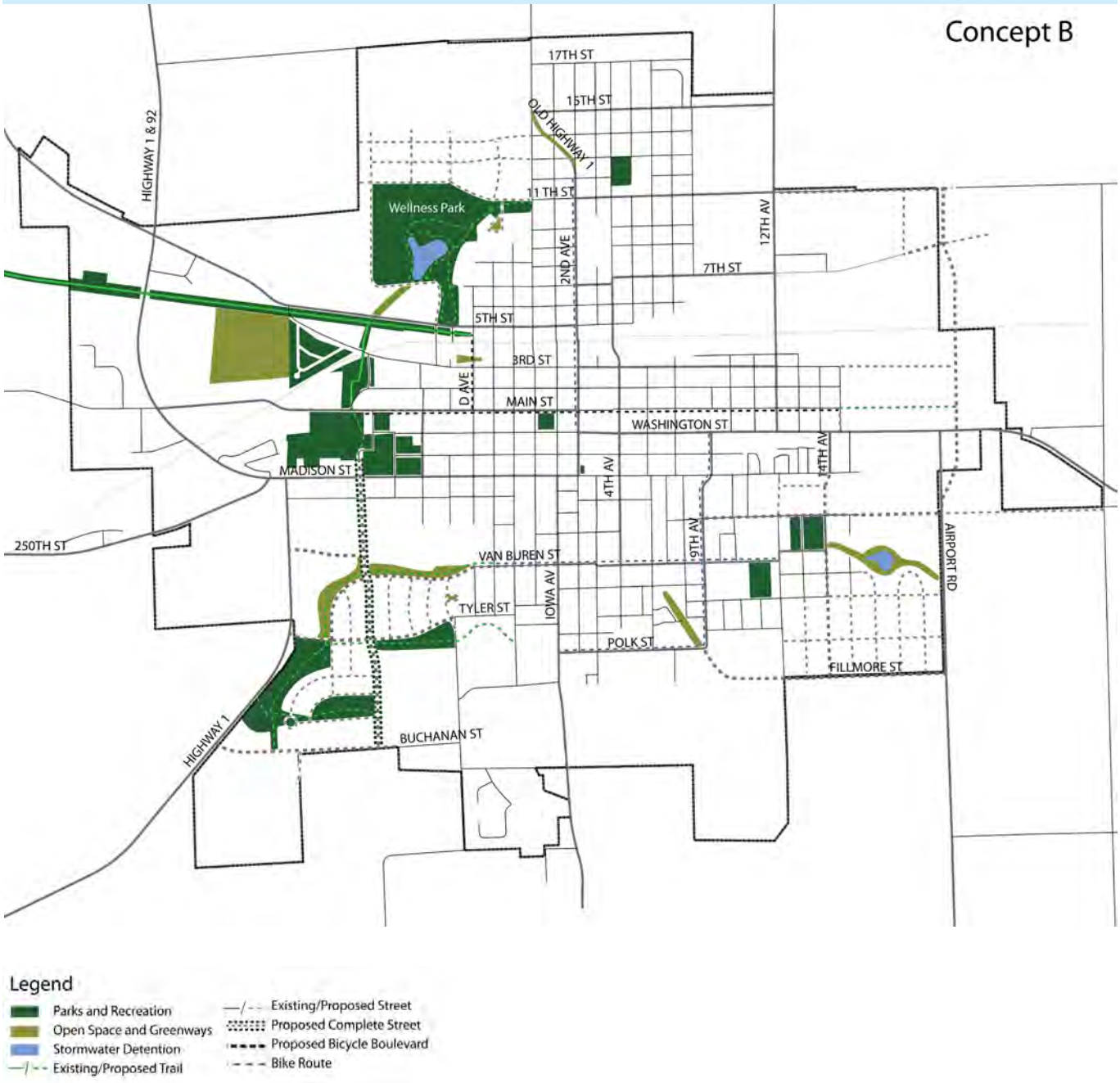


Figure 7.1b - Proposed Greenways, Parks and Trails (Concept B)



Greenways

The Washington development concept (chapter 6) is based around a system of greenways that protect important natural land. Greenways are natural areas that provide open space within developed areas, separate incompatible uses, buffer busy roadways and accommodate natural drainage. Residential neighborhoods, activity centers, commercial areas, schools, parks and open spaces should be linked by a comprehensive and continuous greenway system. These greenways play an important role in the parks system, by linking the parks system together. Adding trails to these greenways can provide important non-motorized linkages between neighborhoods, schools, and parks, thus creating a safe pedestrian environment.

Neighborhood Parks

Washington should offer neighborhood parks within a comfortable walking distance of approximately one-quarter to one-half mile for all residents. Neighborhood parks should offer informal open play space as well as more structured facilities such as playground equipment.

A neighborhood park is needed for the north side of Washington. The most logical location for a future park would be a portion of the undeveloped land that is currently in agriculture at 4th Ave and 11th St. If and when this site is developed for non-agricultural uses in the future, it could easily house a 2-4 acre neighborhood park, along with residential uses.

New parks are proposed to accommodate new residential neighborhoods in growth areas in the northwest and southwest. Details about the location choices for parks in growth areas are covered in chapter 6. Neighborhood parks can serve as a catalyst for residential development, and provide a focal point for neighborhoods.

Creating A Wellness Park

A proposed Wellness Park could provide community-wide recreation opportunities that will significantly enhance the parks system. The park in either location could include softball and baseball fields, soccer fields, a multi-use open space, tennis courts, sand volleyball and ample parking. As a result, many interest groups (baseball league, soccer league, etc.) will benefit from the wellness park. These groups will all need to partner with the city and take an active role in fund raising in order to raise enough capital to build the Wellness Park. The city can provide the infrastructure such as roads, parking lots and walking trails, with the help of grants or enhancement funds. However, there are great many more expenses, including ongoing maintenance, which will likely require an addition parks staff person (even if only part time or seasonally). This funding must be raised by the community, for the community. Possible grant funding sources for parks and trails are listed in chapter 10. The Wellness Park project is a once in a lifetime investment and is vital to the attractiveness of the community and its future growth. This is a long term project for Washington – once funds are raised and construction begins, it will likely take many years before the park is completed.

Trails

The Development Concept map shows an expanded trail network that connects schools, parks, downtown, commercial centers and residential areas. New trails should feature signage and trail markers (see previous section on existing park enhancements for more discussion on signage and markers). Proposed trails include:

- **Extend the Kewash trail/Sunset Park link south toward Madison to connect to the proposed complete street.** A complete street is a street that accommodates cars, bikes and pedestrians. This proposed street links the pedestrian and trail network in the central city to the southwestern growth area.
- **Create a link from the Kewash trail to the proposed north side park.** In Concept A, this trail would extend north through the park, continue through the greenway in the residential neighborhood north of the park, and connect to the Old Highway 1 greenway via 15th street. The trail would end on the south side of the greenway, where it connects to the bike route on 2nd and Stewart Elementary school. In Concept B, the trail would provide several loops throughout and around the Wellness Park and connect to 11th Street to provide access to existing residential areas.
- **Create trail that links Main Street to the proposed Airport Road extension.**
- **Create a trail in the southwest greenway.** In concept A, this trail continues through the proposed Wellness Park site, while in concept B it continues through the proposed neighborhood park.

PARK FINANCING

The City Parks and Recreation Department should identify available funding sources for facilities, operations and recreational opportunities to supplement traditional funding sources. The Department should seek available grant funding from local, state and federal agencies and from non-profit foundations.

Washington should **implement a mechanism for park acquisition** and ensure reservation of well-located and appropriately sized open spaces. Park acquisition may take place through dedication of appropriate parcels by developers. Some Iowa cities also allow payment of cash in lieu of dedication of land by developers. While the law is clear that a city cannot mandate a payment in lieu of dedication, cities such as Ankeny, Johnson and Iowa City have provisions in their dedication ordinance that allow payment of cash in lieu of dedication, only at the request of the developer. Other cities, such as West Des Moines and Clive, prohibit such dedication. The payment in lieu of dedication approach to park financing requires local processes to track expenditures to the direct benefit of those areas that pay the fee. Washington park officials should consult with the Washington city attorney to determine their approach on this issue.

To require dedication of land by developers, Washington should establish a park land dedication policy for all new developments. This policy should be implemented through the City's land development ordinances. The obligation for land dedication (or the option for payment in lieu of dedication) are typically a function of:

- Acres in the development
- Development density established by the development's zoning
- Number of people per housing unit, differentiating between single and multi-family residences
- The City's desirable level of service standard for acres of neighborhood parkland per 1,000 residents (based on data presented in chapter 3 of this plan)

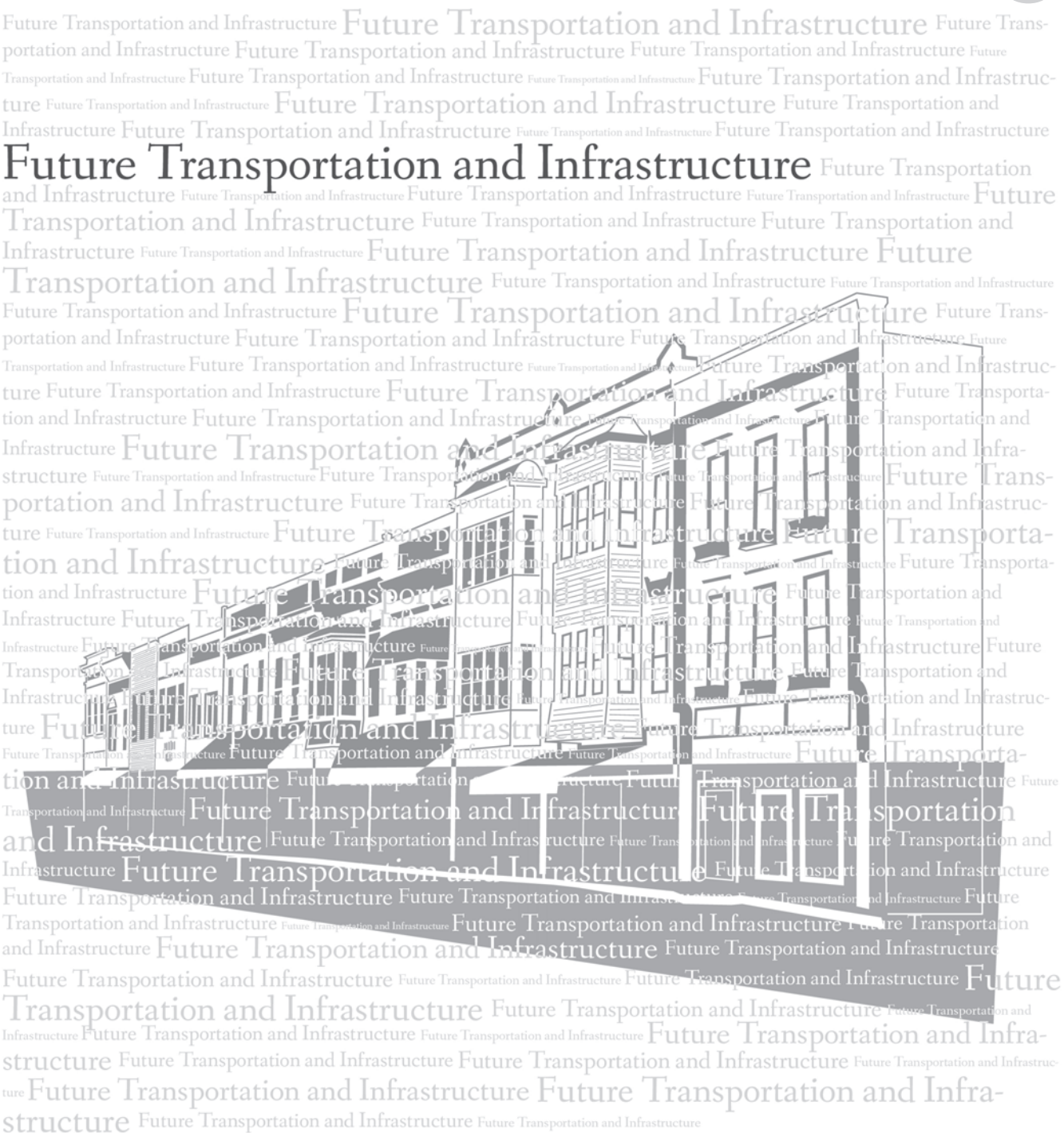
Due to the piecemeal nature of development, the required amount of land dedication for any single development may be smaller than the ideal neighborhood park size. One strategy to assemble larger pieces of land is to request that developers locate dedicated land at the edges and corners of the development, so that adjacent developments can combine several small parcels of dedicated land to form one larger parcel.

COMMUNITY FACILITIES

Please refer to chapter 3 (p. 42-45) for community facilities needs and recommendations. Primary needs referenced in this plan include:

- Fire station update or relocation
- Police Station expansion or relocation
- Municipal Building expansion
- Need for community safe room

8



TRANSPORTATION

The Washington transportation system provides a basic structure on which the city grows. Proper street development should move traffic efficiently, provide multiple routes to destinations and accommodate multiple modes of transportation, including cars, bikes and walking. The proposed street extensions will prevent overloading the existing streets and will provide multiple access routes to all areas.

Figure 8.1 shows the proposed transportation network. Streets, trails and sidewalks are proposed to maintain overall connectivity and accessibility between existing development and proposed growth centers. Details on the proposed transportation additions and enhancements to the existing transportation network are covered in the following sections.

STREETS

Proposed Streets

In addition to accommodating cars and trucks, future streets should have multi-modal features including sidewalks, trails, and bike lanes, as appropriate to the street design. This method of multi-modal street design is known as "complete streets." Figure 8.1 designates one particular proposed street as a complete street, indicating that it is of particular importance for inclusion of features such as street-side landscaping and trails, side paths or bike lanes. However, all new streets should consider these features, with sidewalks as a basic requirement.

To address current transportation challenges and open up new strategic areas for growth, the following transportation changes are recommended:

Recommendations South of Highway 92

- **Extend Van Buren Street to Highway 1.** As the only east-west arterial street on the south side of town, Van Buren is a logical choice for extension out to Highway 1. The extension would have a parkway character, as it runs along a greenway on the north. New residential areas are opened up to the north and south of extended Van Buren.
- **Extend Tyler Street.** The extension of Tyler Street connects the new high school to the Highway and opens up development opportunities to the north and south.
- **Add new east/west connection to link Polk Street to Fillmore Street.** Many residents expressed a need for more east/west connections on the south side of town. This connection addresses that need, but minimizes the financial cost by taking advantage of existing streets Polk and Fillmore. An old railroad right-of-way could provide most of the space for the short extension, though an existing garage would potentially need to be removed. The connection is intended to serve the surrounding neighborhood and the hospital, but is not predicted to increase traffic dramatically since it does not provide a direct route across the full length of town (Airport Road to Highway 1). A decision to create this connection would need to involve public input by residents on Polk and Fillmore. This connection would open up residential growth options in the southeast.
- **Create a new boulevard by extending H Ave south from Sunset Park to Buchanan.** This connection opens up new development opportunities and provides an alternate route from the north side to the new high school. This extension is proposed as a "complete street," a street that accommodates cars, bikes and pedestrians. The complete street designation is significant as a connection between the existing city core and the growth area, and as a route to school. It serves an important role in the park system by linking the proposed new park in the southwest to Sunset Park and ultimately to the Kewash trail and the proposed park in the northwest. The intersection with Madison Street would be designed to increase safety for pedestrians and bicyclists. This new boulevard could mimic the tradition set by the Washington Boulevard design - a divided, tree-lined street that creates an attractive environment and increases the value of the adjacent properties. The proposed right-of-way would require agreement/sale from multiple property owners.

TWO OPTIONS

Two concepts were developed for this plan, each reflecting a different location for the proposed Wellness Park (see chapter 6 for details). Note the differences in the southwest and northwest quadrants.

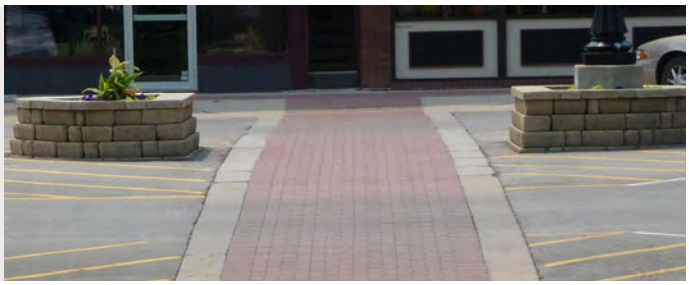


Figure 8.1a - Proposed Transportation System (Concept A)

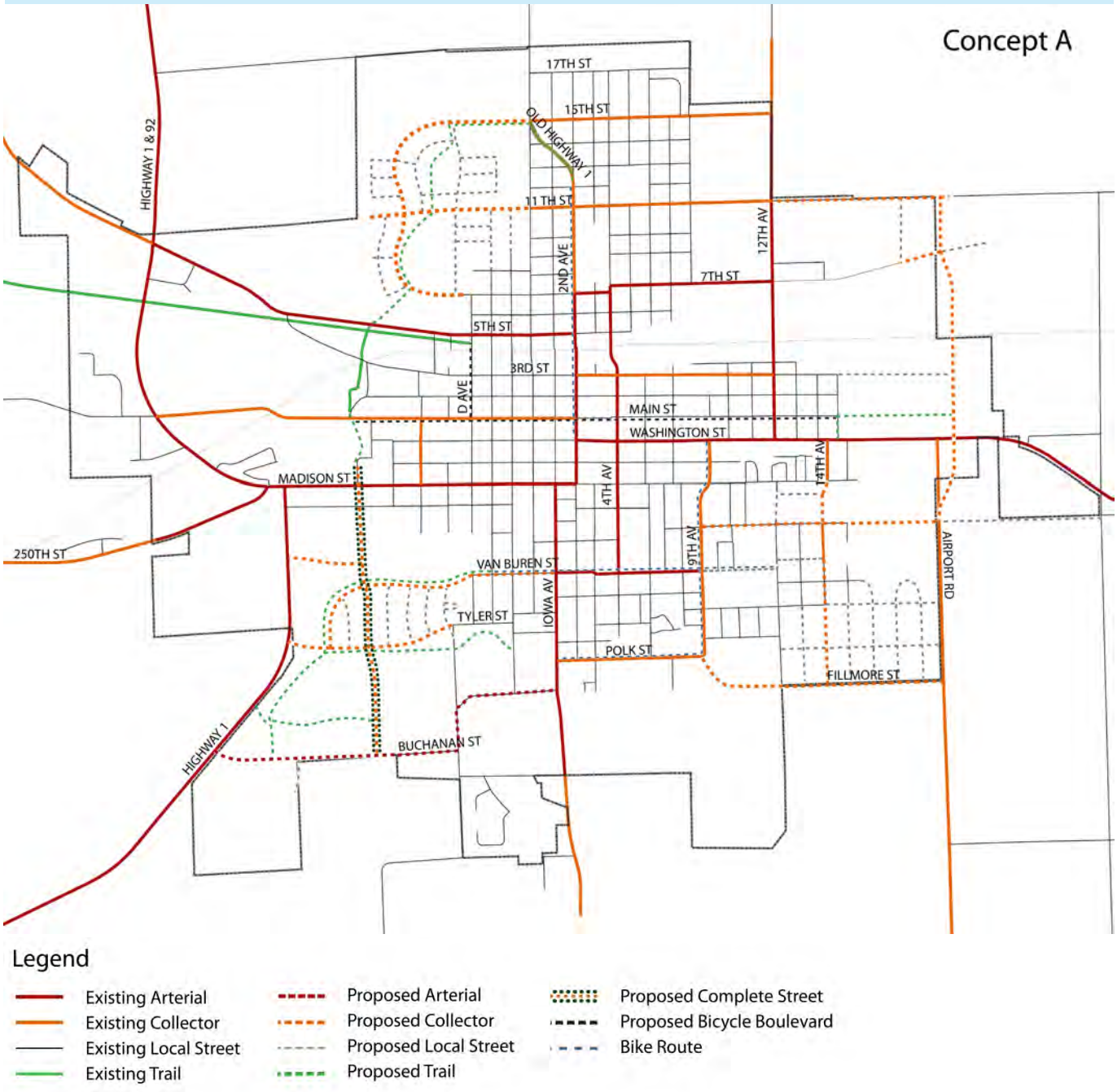
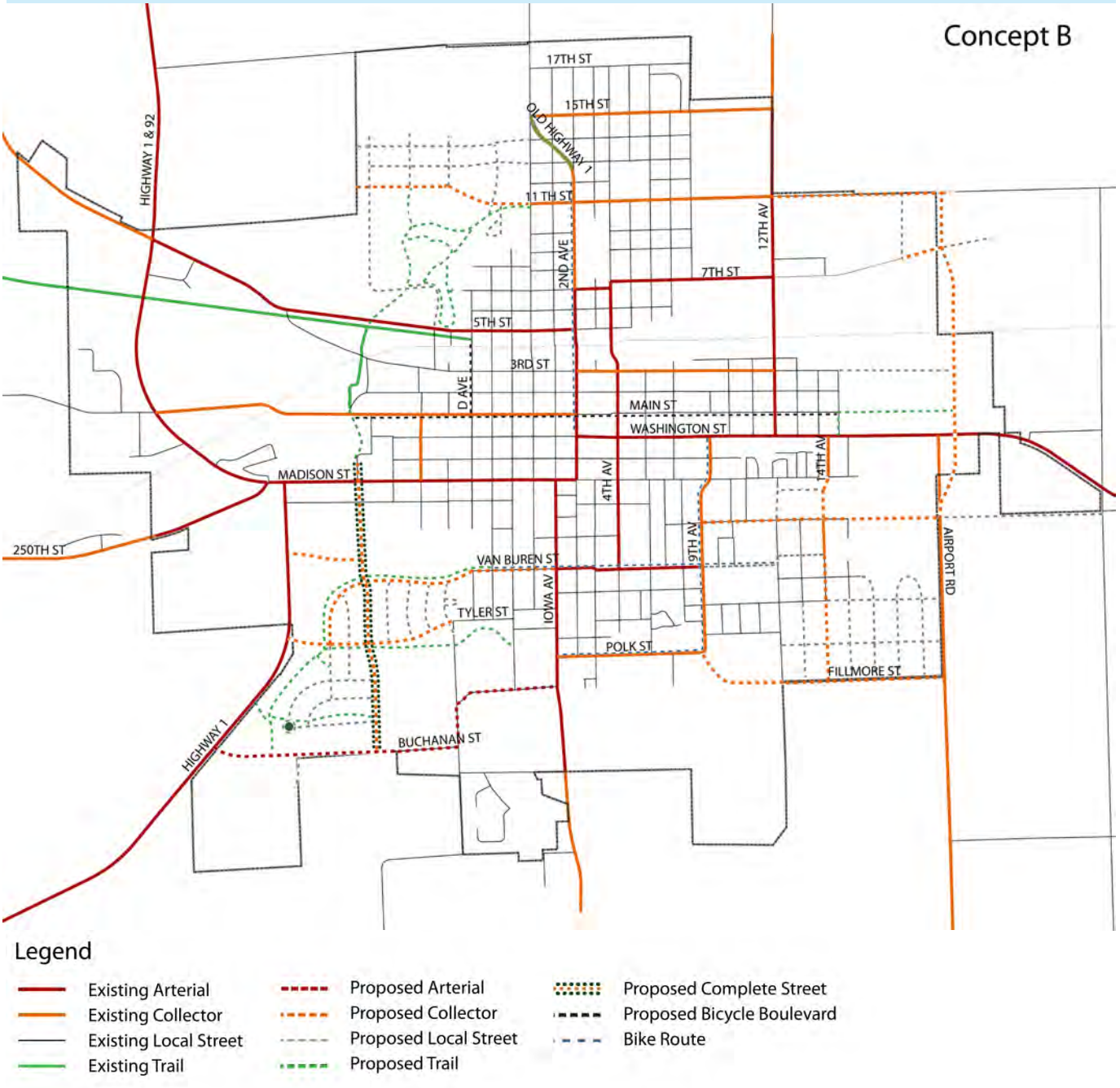


Figure 8.1b - Proposed Transportation System (Concept B)



- **Improve Buchanan Street for higher intensity use.** Buchanan Street is currently an access road for the new sewer treatment plant. This road could be improved to serve public use and open up the possibility for an office park on city-owned land to the north and south.

- **Extend E Adams Street.** Adams could extend east past Wal-Mart, connecting to Palm Ave and Highway 92. This extension, which would be a collector street (moderate traffic levels), opens up new commercial development areas to the north and residential to the south. It provides an option for access to the Wal-Mart commercial area that is lower traffic than Highway 92, which would enhance pedestrian/bicycle access for south side residents that are unable to or choose not to drive.

Recommendations North of Highway 92

- **Extend 11th Street to the west and east.** 11th street is currently a collector road, and is a logical choice for extensions to the east Industrial area and west to proposed residential development. The short extension to the east opens up a new route for Industrial traffic that may keep it out of residential areas and help alleviate the current issues with industrial traffic at the 12th avenue/Highway 92 intersection.

- **Extend Airport Road north to 11th Street.** This extension creates a new route for existing Industrial traffic and opens up new land for Industrial development. The intersection of Airport Road and Highway 92 could serve as a "gateway" to the Washington Industrial area, with the addition of signage or streetscaping. South of the highway, the road would need a realignment to bypass a newly constructed building.

- **Extend 15th street to the west (concept A only).** 15th street would extend west, turning south to connect with the proposed 11th street extension, and looping east to 7th Street. This extension opens up new land for residential development.

- **Remove diagonal segment of old Highway 1.** This street segment creates a complex intersection which poses a safety hazard and is unnecessary for transportation connectivity. The short segment could be removed and transformed into a green space amenity for the surrounding neighborhood.

All Areas

- **Local street connections.** Local streets are proposed throughout Washington and in new development areas. The exact location of these streets will depend on the specifics of new developments, but the principle of connectivity that they demonstrate should be maintained. New streets for growth areas should line up with existing streets whenever possible. New developments should have multiple entrances that connect them to existing neighborhoods and collector/arterial streets.

The above street recommendations are prioritized for short, medium or long term action in the implementation chapter.

Enhancements to Existing Streets

Curb and Gutter

2nd avenue is designated as an arterial from Madison to 7th Street and is designated as a collector from 7th Street to 12th Street. However, the segment of 2nd avenue from 6th Street to 12th does not have curb and gutter. The small segment of 14th Avenue that is designated as a collector street (south of Washington) also does not have curb and gutter. Collector and arterial streets are designed to carry heavier traffic loads, and therefore should be top quality condition, which includes curb and gutter (this does not apply to the highway).

Reclassification

- **Van Buren, east of 9th**: Change designation from collector to local. This route has a number of extra turns that slow down traffic, and portions of this segment have no curb and gutter.

- **E Adams, out to proposed extension of Airport Road**: Change designation from local to collector street to create an east/west collector route from Van Buren to Airport Road that would require only 2 turns (by taking 9th Ave for one block) instead of 4 turns as exists currently, with the collector designation of Van Buren east of 9th.

- **Portions of 14th Ave south of Washington Street**: Change designation from local to collector street. Existing 14th Ave would join with proposed extensions to create a north/south connection between Washington and Fillmore.

- **Buchanan, Avenue E and Sitler**: The city has proposed to redesignate segments of these streets to create a minor arterial route from Highway 1 to Iowa Avenue.

PEDESTRIAN AND BICYCLE SYSTEM

Future trails, bicycle boulevards, and bike routes are proposed for Washington in Figure 8.1.

Trails

Future trails are discussed in chapter 7, as part of the parks and recreation system. However, trails are an important part of the pedestrian and bicycle network described in this section. When strategically located, trails can serve double-duty as both recreation and transportation infrastructure.

Bicycle Boulevards and Bike Routes

Two proposed bicycle boulevards, on Main Street and North D Avenue, works with the trail system to create an interconnected bicycle network. Bicycle boulevards are streets that continue to accommodate cars while providing a bicycle-friendly environment through low cost modifications such as pavement markings, signage or traffic calming. "Sharrows," pavement markings that alert drivers to share the road with bicyclists, are one example of a bicycle boulevard feature.

The Main Street boulevard, which is already signed as a bike route, provides a parallel route to the highway on a lower traffic street. The combination of the two boulevards connect both the Kewash trail and Sunset Park to the downtown, northern residential areas, and a proposed trail on the east side of town.

Figure 8.1 also shows bike routes, which are streets that are signed as preferred bike routes, but may not have any special features for bicyclists.

Sidewalks

Sidewalks are provided in much of the core of Washington, but most new neighborhoods lack sidewalks. Sidewalks are particularly important around schools and parks, since residents and children are more likely to walk to those destinations. A quarter mile is generally considered a comfortable walking distance. Figure 8.2 shows a map of existing sidewalks with quarter-mile buffers around schools and parks.

The figure clearly shows that a majority of Washington is located within a quarter mile walking distance of either a school or a park. In order to provide better pedestrian connectivity for Washington, particularly in these buffer areas, the following sidewalk policies and specific additions are suggested.

GENERAL POLICY FOR SIDEWALKS

- New streets should provide sidewalks on both sides of the street
- Existing streets should be retrofitted where necessary to provide sidewalk on at least one side of the stree. Sidewalk retrofitting can be done over time in conjunction with other street improvement projects.

Figure 8.2 - Existing sidewalk system, shown with quarter mile buffers around school and park property

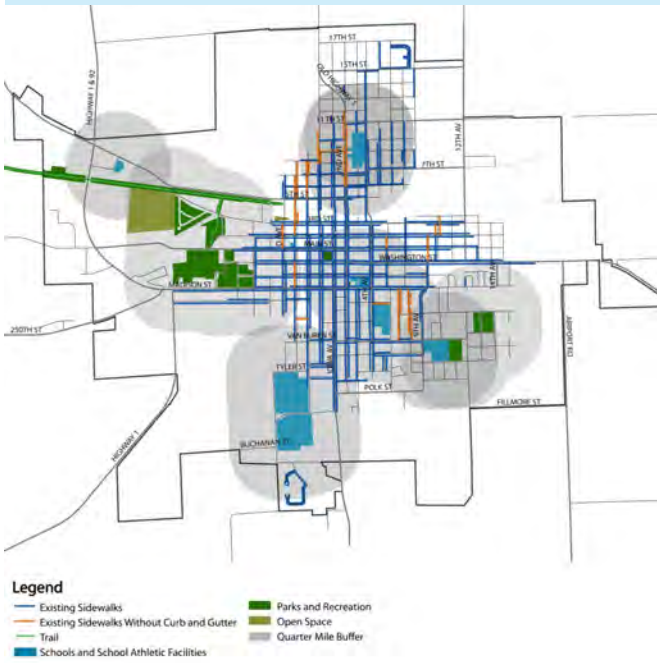
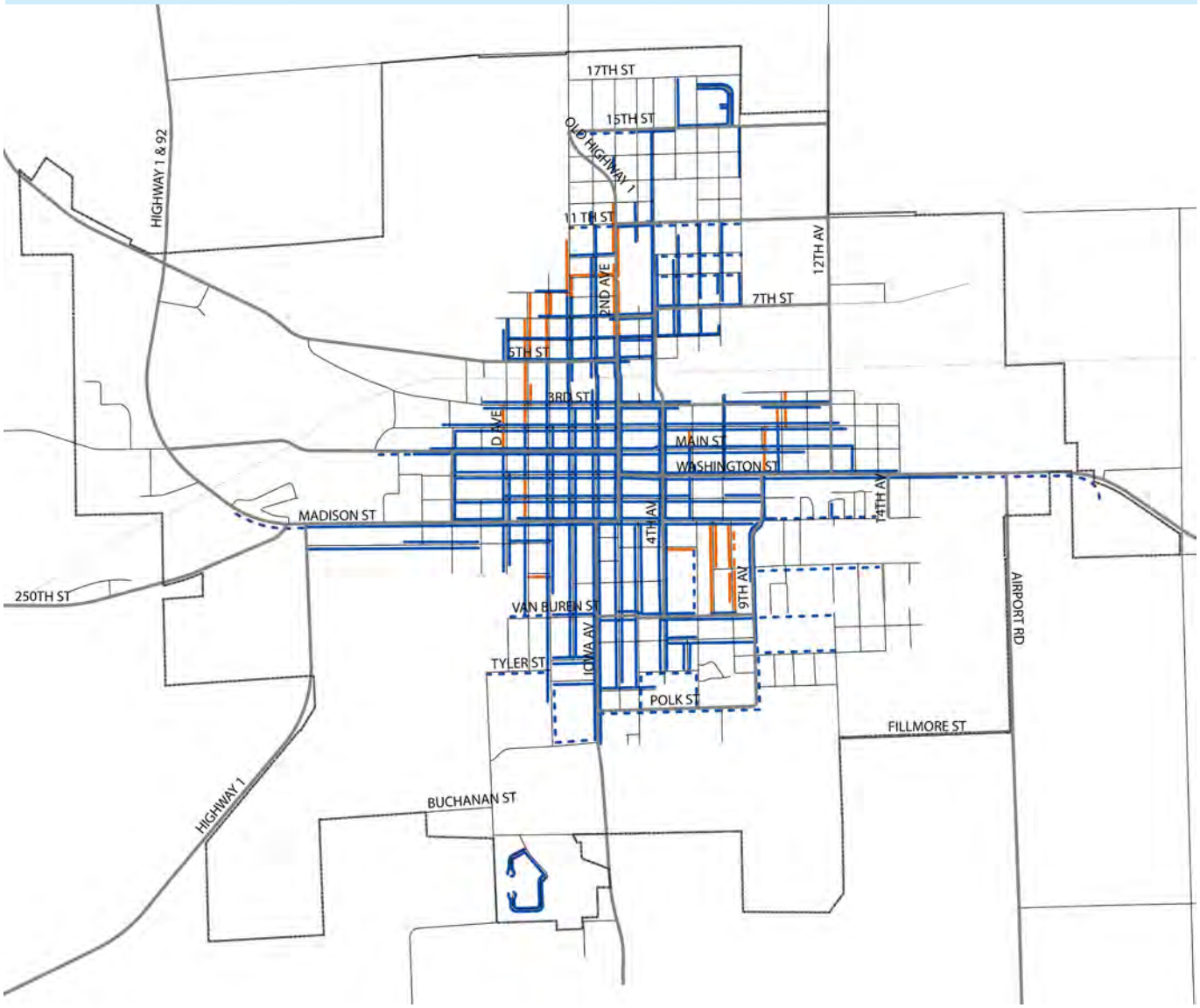


Figure 8.3 - Proposed Sidewalk System



Top priorities for sidewalk additions to existing streets in short term (5 years) (shown in Figure 8.3):

- Tyler Street (south side) - Along high school
- Van Buren, east of 9th (south side) - Along school athletic fields
- E Taylor Street (north side) - Along the school athletic fields, with connection to existing sidewalk on Harrison via 9th Ave.
- Madison Street (north side) - To provide sidewalk access between senior housing development and existing sidewalk network
- Adams Street (south side) – To provide connection between existing sidewalk network and Water Tower park
- South B Ave (east side) and Elm Grove Road (north side) - to form a loop around the senior housing area
- Main Street, north of Sunset park – Connect existing sidewalk to Kewash trail connection
- 11th Street (south side) , from Stewart Elementary to 8th Ave – Connects school to nearby homes
- 10th Street and/or 9th Street east of Stewart Elementary – Connects school to nearby homes

- Polk Street (either side) – All collector streets should have sidewalks
- 9th Avenue from Polk Street to Harrison
- All of 15th Street that currently lacks sidewalk (either side)

Longer term/lower priority sidewalk recommendations are:

- Portions of S 3rd Ave, S 6th Ave and Tyler Street to form a loop around the hospital
- 11th Street between 2nd and Marion (south side) – this will link to proposed new development
- Van Buren, western-most 2 blocks – to connect to proposed new development
- Washington, east to Wal-mart.

Additional Sidewalk Recommendations

A sidewalk survey for Lincoln Upper Elementary School was conducted in the spring of 2012 under the direction of the Iowa Department of Public Health and Iowa State University, as part of the Iowans Walking Assessment Logistics Kit Program. The survey analyzed both the presence of sidewalks and other factors such as their condition and safety. The survey report makes several recommendations that match the above, including adding sidewalks on east/west streets east of S. 9th Ave, and adding sidewalks south of E Harrison Street. The report also makes recommendations regarding improvements to intersection safety. This report should be referenced for more specific sidewalk conditions and recommendations.

FUTURE INFRASTRUCTURE

STORMWATER

Washington's stormwater system has traditionally focused on collecting rainwater into networks of pipes that transport water off-site quickly to detention basins and creeks, or where combined with sanitary sewer pipes, to the wastewater treatment plant. This system can serve the purpose of getting water off-site, but can have negative side effects such as combined sewer overflows, stream bank erosion, downstream flooding, and contaminated streams. These traditional systems can be costly to maintain, and as established in chapter 4, Washington's system is in need of significant repair.

In order to lessen these negative side effects, the development concept in chapter 6 reserves a series of greenways (natural areas) that will help manage stormwater in a way that mimics natural pre-development conditions. Greenways are preserved in strategic locations where water already naturally drains. Instead of running directly into the streams or overflowing pipes, stormwater is instead absorbed into the soil in the greenways, and released gradually into drainageways and creeks. As a result, the stormwater system requires fewer costly pipes and detention basins, and the natural soil filtration results in less erosion and contamination in the waterways. Greenways have the added benefit of contributing to the park system by providing a right-of-way for trails.

Figure 8.4 shows the proposed greenways and detention areas in residential areas in the southwest, northwest and southeast. In the northwest and southwest, parks also con-

Figure 8.4 - Natural Stormwater System: greenways and detention areas in development concept (concept B)

tribute to the stormwater system. In the southwest, the western strip of park along the highway would be minimally developed and left as a natural recreation area. Similarly, in the northwest, a pond would help with stormwater while providing a focal point for the park.

The northeast industrial growth area requires a different approach for stormwater management. Because of the large lot sizes, variable site characteristics, and unpredictable timelines for industrial land development, it is less logical to designate public greenways that cross several property lines. However, this area should have a coordinated stormwater strategy that includes best management practices (BMPs) for on-site retention and detention. BMPs that could benefit both the industrial area and all properties in Washington include:

- **Bioswales**: Infiltration trenches planted with native grasses designed to retain and temporarily store stormwater runoff.
- **Filter Strips**: An area with dense native vegetation designed to filter and absorb runoff.
- **Naturalized Detention/Infiltration Basins**: Like traditional basins, these store and release runoff. The addition of native vegetation on the perimeter improves water quality.
- **Permeable Pavement**: Porous pavement that allows water to pass through to the soil beneath.
- **Other practices include**: Green Roofs, Rain Barrels, Rain Gardens and Native Landscaping

Although some property owners may implement these strategies voluntarily, Washington should consider amending its stormwater regulations to require or incentivize BMPs for new and existing development.

Washington should also consider modifying its planning and zoning regulations to allow other good stormwater practices:

- **Conservation Development**: Site design that preserves natural areas for drainage and detention.
- **Impervious Cover Reduction**: Reducing impervious surface requirements such as streets and parking lots, through alternative site design or use of pervious pavement.

City-wide policies that Washington can consider for stormwater management include:

- **Watershed Development Ordinance**: Regulates development to minimize its impacts on flooding, water quality and erosion. This policy requires collaboration with neighboring jurisdictions.
- **Conservation Easement**: Allows land owners to place a voluntary conservation restriction on their land
- **Stream and Wetland Restoration**: Restore deteriorated ecosystems to their natural state to allow better stormwater function and improved habitat.

Washington should consider amending its stormwater regulations to require or incentivize Best Management Practices.

Bottom Left: A stormwater detention pond with a native vegetation buffer can provide an amenity for a park, as proposed in the northwest area of the development concept

Below: A stream corridor surrounded by greenway helps manage stormwater from an adjacent residential development. The greenways proposed for the southwest and southeast growth areas would serve this function.

SANITARY SEWER AND WATER

The City of Washington has planned a sanitary sewer line extension (Figure 8.5). The line runs through the southwest growth area, and is one of the reasons this was named as a priority growth area. The extension will potentially open up more land for development in the long-term, including land outside of city limits to the south and west of the fairgrounds.

Needs for sewer and water include: new water tower, pipe relacements/repair, water plant upgrade, replacement of water storage reservoir, and sewer/stormwater pipe separation (see chapter 4 for additional discussion).

ADDITIONAL STUDY

The City is currently mapping and assessing the needs of the sanitary sewer, water, and stormwater sewer systems. City staff should use the results of this study to determine infrastructure investment priorities for the coming decades.

Figure 8.5 - Planned Sanitary Sewer Line for Southwest Washington (shown in red)

HAZARD MITIGATION RECOMMENDATIONS

Several infrastructure changes recommended in this chapter are also intended to address hazard mitigation. The Washington County Hazard Mitigation Plan (HMP) sets priority mitigation activities for Washington. Priority activities that are included as part of this chapter include:

- **Stormwater.** The HMP recommends improving storm drainage systems (increasing capacity) and creating a stormwater management ordinance to mitigate flash flooding. The aforementioned effort to map the stormwater system is a first step in improving this system, and the stormwater recommendations in this chapter provide additional assistance. The natural greenway system of stormwater management helps prevent flash flooding during heavy rain events. The future land use map preserves protective ecosystems in order to maintain their natural stormwater management function. The stormwater BMPs recommended here will also reduce flash flooding risk, and should be required or incentivized through a revision to Washington's stormwater regulations.
- **Transportation Network.** The transportation recommendations in this chapter foster an environment that allows greater protection from hazards and other public safety threats. The proposed system provides a more interconnected network with multiple routes to all developed areas and support for multiple modes of transportation (auto, bike and pedestrian). By avoiding single access developments (such as dead-end cul-de-sacs) the proposed system allows for greater evacuation possibilities under disaster conditions, and more efficient access for ambulance and fire service. Providing multiple mode choices allows options for evacuation and mobility during emergency conditions, particularly for those without vehicles.

Other HMP recommendations that are currently being implemented include:

- **System Improvements – Water.** Washington is equipping its lift stations with backup generators, as specified in the HMP. The HMP suggests improving storage capacity, an option the water department is investigating. Washington's effort to map the water system is the first step toward improvement.
- **System Improvements – Sewer/Wastewater.** The HMP raises concerns about insufficient capacity and flooding of lagoons or sewer plants during high water conditions, which will be addressed with the new treatment plant and its increased capacity and expanded EQ basin. Washington's current effort to map the sewer/wastewater system is the first step in further system improvements.

9

Economic Development involves every facet of the community, from housing, to industry, to transportation. Washington must attend to all these facets in order to support existing businesses, maintain a quality workforce, and foster new economic ventures.

The previous chapters of this plan have outlined strategies for many of these issues. However, throughout the planning process, housing emerged as one of the primary concerns for economic development opportunity. This chapter discusses housing revitalization, as well as industrial and commercial development, downtown support, and public infrastructure and amenity investments. All of these pieces fit together to form a strategy that will support a vibrant, enduring economy. Public sector investment, such as those discussed in this plan, should be targeted to stimulate private sector investment, in order to bring more jobs and commercial opportunities to Washington.

ECONOMIC DEVELOPMENT GOALS

In 2008, the Washington Area Economic Development Group (WEDG) instigated the creation of an economic development "road map" for Washington County. The Washington Area Economic Development Road Map document outlined the economic assets of Washington and set goals for improving Washington County's economic competitiveness.

This plan identified economic assets of Washington County, including:

- Location: Access to Avenue of the Saints, a major Midwest transportation corridor; Southern hub of Iowa City metro and the Iowa City/Cedar Rapids "technology corridor"; Proximity to markets.
- Access to Higher Education institutions, such as University of Iowa and Kirkwood
- Railroad Access
- Diverse Base of Businesses
- High Quality of Life

The main challenges identified were:

- Low Unemployment (Not enough available workers)
- Lack of collaboration and trust among leadership
- Not thinking regionally
- Lack of Incentives
- Weak Retail
- Non-progressive mind-set and divisiveness in the community
- Infrastructure (specifically the wastewater treatment plant)
- Poor School Facilities (specifically the Washington high school)

Since the writing of this plan, the last two concerns have been addressed through the construction of the new wastewater treatment plant and the new Washington high school. Chapter 10 presents updates and recommendations regarding the 2nd concern listed, collaboration.

A partial list of economic development needs and goals established in the plan is provided in Table 9.1, along with corresponding responses in the comprehensive plan and other related responses to the goals. The "road map" plan outlined specific duties for WEDG, the county, neighboring communities, educational institutions, and utilities.

Table 9.1 – Economic Development Goals from "Roadmap" and corresponding plans/actions

Washington Area Economic Development Roadmap Recommendation	Response in Comprehensive Plan & Other Relevant Activities (List is not all-inclusive)
Be more "development ready"	Comprehensive Plan: Land use recommendations in Chapter 6; Zoning Review (separate document) and Implementation (chapter 10)
Enhance attractiveness of the area through improvements to infrastructure, utilities, housing, etc.	Comprehensive Plan: Infrastructure improvements in Chapters 4 and 8; Housing recommendations in Chapter 9
Improve collaboration between county and cities	Comprehensive Plan: Chapter 10
Capitalize on access to higher education institutions such as the University of Iowa	Kirkwood Community College will start construction on a new facility in Washington in 2012.
Create a supportive environment for entrepreneurs	WEDG and the Washington Chamber of Commerce activities
Establish brand identity for Washington County and raise awareness of area offerings through proactive marketing	WEDG has redefined Washington County's web presence and in-person presence at corridor-wide events.
Reach out to existing businesses to better understand retention and expansion needs	WEDG is currently conducting a series of interviews with existing industry to understand trends and opportunities.
Enhance incentive programs	Washington city council is considering a city-wide tax abatement program for residential and commercial/industrial.
Create a regional marketing partnership	Since the writing of the "roadmap" plan, a regional marketing partnership called the Corridor Alliance was formed.
Improve success rate for attraction and retention of businesses	All above responses contribute to attraction and retention potential.

HOUSING

A quality and diverse housing stock is critical to Washington's ability to attract and retain residents. As the most prominent use in the city, housing also plays a major role in defining a sense of place and helps brand Washington as a great place to live and do business.

STRENGTHS AND CHALLENGES

Washington has a strong supply of quality senior housing and single family houses, a good balance between rental and owner units, and housing values that have risen significantly in recent years (chapter 1). However, Washington residents, elected officials, and city staff all identified a problem with deteriorating houses in the central city, and field studies confirmed this. At the same time, Washington's housing costs are out of sync with the incomes of its residents, particularly for rental units. Housing affordability and deterioration are analyzed briefly below, followed by recommendations to address these and other housing issues.

HOUSING AFFORDABILITY

The price of a community's housing supply in relation to the income of its residents helps determine whether the city's housing is affordable to its citizens. Households that spend a disproportionately large share of their incomes for basic housing have less money for other essentials and fewer resources to maintain their homes and neighborhoods.

The planning team performed a housing affordability analysis for the city of Washington. Table 9.2 shows how many housing units are affordable for each income group. This affordability analysis assumes that an affordable owner-occupied unit is valued at no more than 2 times a household's annual income, while an affordable rental unit costs no more than 30% of a household's monthly income. In this analysis, a positive balance indicates a surplus of housing within the affordability range for that income group, while a negative balance indicates a shortage of housing in that range. The analysis demonstrates:

Table 9.2 – Housing Affordability Analysis

Income Range	% of Households	# Households	Affordable Range for Owner Units	# of Owner Units	Affordable Range for Renter Units	# of Renter Units	Total Affordable Units	Balance
$0-25,000	29.82%	913	$0-50,000	200	$0-400	242	442	-471
$25,000-49,999	24.07%	737	$50,000-99,999	868	$400-800	550	1418	681
$50,000-74,999	23.15%	709	$100,000-149,999	626	$800-1250	60	686	-23
$75-99,999	11.72%	359	$150,000-200,000	336	$1250-1500	8	344	-15
$100-150,000	7.41%	227	$200-$300,000	108	$1500-2000	0	108	-119
$150,000+	3.82%	117	$300,000+	24	$2000+	10	34	-83

- Shortage of affordable housing for the lowest income residents: $0-$25,000.
    - This shortage is large, but likely overstated. Washington has a large population of seniors with low incomes, who may already own their home and therefore have affordable housing costs despite the higher value of their home.
- Shortage of housing in the affordability range of higher income residents, particularly in the $100-$150,000 income range.
    - Higher income residents are occupying housing that is below the level that they could theoretically afford, which contributes to the lack of available affordable units for low income residents.
- Opportunity for growth in higher end housing.
    - There are a number of residents that could afford higher cost housing, provided the type of housing offered matches their preferences.

Many individuals in Washington, particularly renters, are "housing burdened." When comparing income to housing costs for each household, the 2010 census estimated that:

- 20% of owner households (with a mortgage) pay more than 35% of their annual income on housing
- 52% of renter households pay more than 35% of their annual income on housing.

In addition to the needs stated above, Washington has potential to add housing for workers who currently live in neighboring towns or in the county, or the capacity to attract Iowa City/Coralville workers to live in Washington with the right housing option. These two markets could provide a demand for a wide range of housing types and price ranges.

A quick comparison to similar size communities in Iowa shows that Washington has the lowest ratio of Median Home Value to Median Income (Table 9.3). An affordable, self-sustaining housing market typically has a value between 2.5-3. A value lower than 2 indicates that the market is undervalued, while a value more the 3 indicates the market is unaffordable.

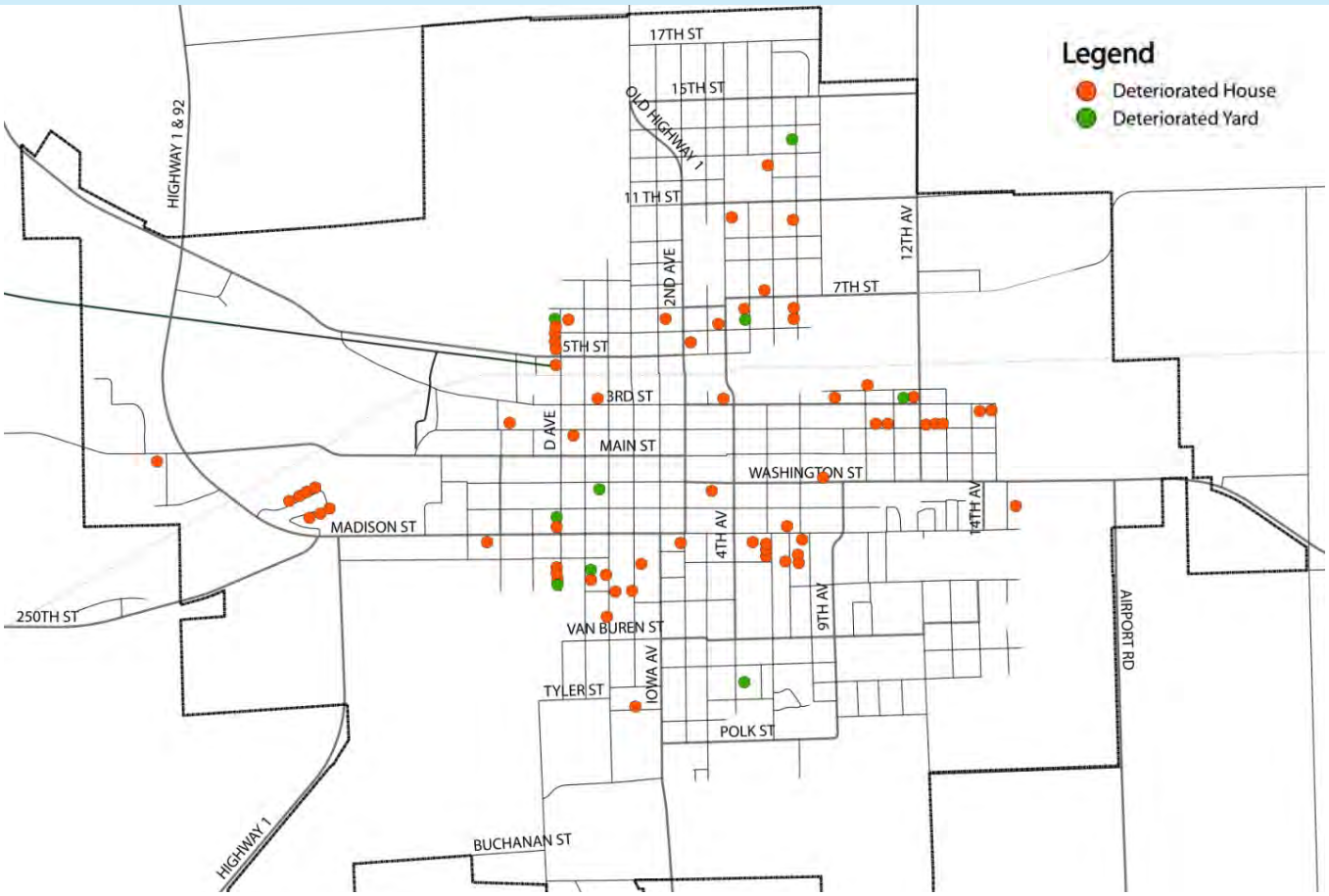
Washington falls on the lower end of the desirable value-to-income range and is comparatively in a good position relative to other towns. However, the low ratio indicates that Washington housing may be at risk for being under-valued.

Table 9.3 - Income to Home Value Ratio for Washington and comparison communities

	Median Income	Median Home Value	Ratio (Value/ Income)
Washington	$46,566	$100,800	2.16
Manchester	$42,036	$96,900	2.31
Mt. Pleasant	$40,265	$97,300	2.42
Anamosa	$41,017	$97,400	2.37
Grinnell	$45,291	$113,000	2.49
Independence	$46,589	$109,100	2.34
Pella	$58,486	$160,700	2.75
State of Iowa	$48,872	$119,200	2.44

Source: U.S. Census Bureau 2010

Figure 9.1 - Deteriorated Residential Properties in Washington



HOUSING DETERIORATION ANALYSIS

The community identified housing deterioration in the central neighborhoods as a significant challenge for Washington. Owners of dilapidated houses lack either the interest or ability to rehabilitate their homes, and as a result, many properties have deteriorated to the point that they are lowering the value of the properties around them.

The planning team for the comprehensive plan performed a cursory housing inventory of the entire city of Washington, to identify properties that were the most dilapidated, that is, those that called for either a major overhaul or complete replacement. Figure 9.1 shows a map that identifies the general location of houses that are in the most critical condition. The exact location of each house is not shown, for privacy reasons. Rather, a dot is placed at the center of the block face where a house of interest is located, or if several houses exist on the same block, the dots are placed in a row.

The houses identified had major structural issues that were clearly visible from the exterior of the house, such as a crumbling foundation or a warped roof, and were obvious eyesores. Homes in need of minor repairs such as a porch repair or repainting/residing were not identified for the purposes of this analysis. No interior assessments were performed.

The map reveals several clusters of poor housing, including:

- North end of D Avenue
- South of Madison Street between 4th and 9th Avenue
- South of Monroe Street from D Avenue to Marion Avenue
- East 2nd and 3rd Streets
- South of 7th Street from Iowa Avenue to 7th Avenue

Conclusions

Focused Efforts

Rehabilitation programs and community efforts would be most effective if they were to focus on concentrated pockets of problematic housing. The areas identified in Figure 9.1 should be investigated more closely to determine if they are a good target for future programs or funding.

Industrial Buffering

Several of the concentrations of deteriorated housing are in neighborhoods that abut industrial areas. Buffering between residential and industrial uses is needed to mitigate the negative impacts of industrial activity. Industrial impacts can lead to devaluing of residential properties, which can result in higher rates of deterioration.

Garages

During the housing inventory, the planning team noted the presence of a large number of dilapidated garages and other accessory buildings. Many of these buildings appeared to be structurally unsound and could present a safety hazard. The city of Washington should **investigate policy options for identification, condemnation and demolition of these unsound structures.**

HOUSING PROGRAMS AND POLICIES

As shown in the previous sections, deteriorating housing and lack of affordable housing are a challenge for Washington. The stated housing goal for this comprehensive plan (presented in chapter 5) is to encourage diverse housing choices and support reinvestment in the existing market, through partnerships between the city and private sector. Another goal of the plan is to encourage economic development through the retention and attraction of talented professionals, a task which can be supported by investing in a quality housing stock. Taking all this into account, the policies and programs recommended below aim to address the following goals for housing in Washington:

- Rehabilitate deteriorated housing and invest in existing neighborhoods
- Provide affordable housing options
- Provide a diversity of housing types
- Support a well-maintained, high quality housing stock

A 5th goal related to housing is to support the maintenance of neighborhoods through the construction of public improvements such as street paving and curb & gutter. This goal was addressed in chapter 8.

ECICOG

At the writing of this plan, a program funded by the Eastern Central Iowa Council of Governments (ECICOG) is supporting the rehabilitation of 6 homes in the northwest part of Washington, including the Avenue D area. ECICOG also offers a number of other services that Washington could take advantage of, including support for:

- Mortgage buy down and down payment assistance programs for home buyers
- New construction of single-family or multi-family dwellings
- Adaptive reuse of existing buildings
- Acquisition, relocation and demolition
- Project development of housing for target populations
- Housing needs assessment
- Rehabilitation of owner occupied and rental units

Staff at ECICOG expressed that the City of Washington does not frequently apply to the aforementioned programs. ECICOG also runs the East Central Iowa Housing Trust Fund (ECITF), which offers flexible funding assistance to non-profit, for-profit and governmental entities for affordable housing projects.

While the amount of financial assistance available to the city of Washington through ECICOG may be relatively low (due to the wide area served), ECICOG provides an administrative structure through which additional assistance could potentially be expanded if funds were raised through other means. Although Washington may not have the will or the means to create its own housing authority, residents could partner with the city to raise funds for housing projects and approach ECICOG for assistance in administration.

Tax Abatement

Washington city council is currently considering a city-wide tax break program for new construction and major renovations of eligible residential and commercial/industrial properties. The program would provide 100% tax abatement for Residential for 3 years (on the first $75,000 of value). A tax break program is intended to encourage improvements to property that would not have otherwise occurred. Without an abatement program, home-owners may be reluctant to improve their homes, because the increased value could cause a sudden increase in property taxes. Tax abatement also incentivizes potential property owners to buy in Washington, by offsetting the cost of a new or rehabilitated home for the first few transitional years. The proposed tax abatement program targets more affordable homes, by providing the tax break on only the first $75,000 of value. Tax abatement is one strategy to help increase the overall tax base of Washington – although the City gives up a portion of taxes for the first few years of development, they will collect full taxes in the years beyond that.

Low Income Housing Assistance

In addition to the assistance available from ECITF noted previously, affordable housing projects can also take advantage of:

- Community Development Block Grant (CDBG) or HOME funds. These funds can provide gap financing for low and moderate –income housing. They are typically used to reduce private capital needs, producing housing costs affordable to the target population.
- Section 42 (Low-Income Housing Tax Credit). This is an investment tax credit in projects that reserve a specific percentage of units for low income residents. Because this tax credit is project specific, Washington would need to actively pursue this by approaching private developers with a plan that designates where projects could be (see Figure 6.5) and ensure that their zoning supports affordable housing.

Land Use Regulations

In order to encourage diverse, affordable housing in Washington, it is important that the land use plan and zoning regulations do not discourage providing a range of housing densities and lots sizes. The future land use plan in chapter 6 encourages diverse densities of housing throughout Washington. This plan should be followed to allow the private market to provide the diverse range of housing demanded by residents and potential residents. The zoning code review that was provided to city staff as part of the planning process provides recommendations for residential lot width that will allow more affordable, small residential lots to be built. The zoning review also proposes enhanced standards for mobile home parks to make them a more desirable option for housing in the community (though not necessarily less expensive).

Lender's Consortium

Washington should investigate creating a lender's consortium to develop needed housing types. Through the consortium, local lenders come together to share the risk of lending to higher risk or unconventional projects. The city can use dedicated housing funds to insure the projects as well. Several communities in Iowa have already generated local funds in support of housing rehabilitation through the establishment of Lender's Consortium. The central missions of the consortium would include:

- Construction and long-term financing of key project types that are identified as high priorities for the community.
- Construction lending to private builders of affordable housing.
- Mortgage financing to low and moderate – income buyers who fall outside of normal underwriting standards for institutions.
- Rehabilitation financing for existing neighborhoods

The consortium and its programs can be funded by a combination of:

- Proportionate funding by lenders, proportional to overall assets.
- Corporate contributions and investments.
- State Community Development Block Grants (CDBG) and other housing funding programs.

Property Maintenance Standards Program

The best conservation programs combine awareness of the need for reinvestment with the tools to finance home repairs and rehabilitation. One strategy for raising awareness is a Property Maintenance Standards Program, an effort to encourage voluntary compliance with community standards. This program could include:

- Preparation and distribution of a Property Standards Manual. This should be a friendly and clear document that sets out the community's expectations for individual building and property maintenance. It can provide useful information, such as sites to dispose of/recycle unwanted household items.
- Organizing voluntary efforts through church and civic groups to assist seniors and disabled people with property maintenance.
- Backing up the property maintenance standards program with rehabilitation financing (discussed in following section).
- Establish a "Better Landlords Bureau," a voluntary investor association/peer group that can provide a seal of approval for rental properties.

Encouraging voluntary compliance is particularly important for Washington, as current staffing limitations make it difficult to consistently enforce the regulations when they are not followed.

Comprehensive Rehabilitation Programs

There are a number of housing units in Washington's older neighborhoods that require repairs or rehabilitation. A coordinated rehabilitation strategy, operating on a reliable, multi-year basis, is vital to ensure preservation of exiting housing. The strategy should include:

- **Emergency repair program: An emergency repair program provides grants or forgivable loans to very low income homeowners, usually from CDBG funds.**
- **Direct rehabilitation grant programs.** This program provides forgivable loans and grants to low income homeowners, from CDBG funds.
- **Leveraged rehabilitation program.** This approach leverages private loan funds (often through the FHA Title 1 Homes Improvement Loan program) by combining private loans with CDBG or other public funds to produce a below market interest rate for homeowners. The program works best in moderate income neighborhoods with minor rehabilitation needs. Loans in a leveraged program can be originated through individual lenders or through the proposed lender's consortium.
- **Energy efficiency loans.** Funding is leveraged through the utility to provide loans that improve the energy efficiency of older homes. These low interest loans or no-interest loans could be used by anyone in the community to replace windows, heating and cooling systems, or other energy related upgrades.

Affordable Lot Supply

The lack of affordable developable lots was identified as an issue through the community participation process. The city should work to assure a supply of affordably priced lots within the city and in new development areas. Possible strategies include:

- Infrastructure Bank: The city provides front-end financing for public improvements by reimbursing the home builder or developer for these costs. The value of these improvements then becomes a subordinated mortgage, due only on sale of the property. This technique is primarily a private market program that finances items in the public domain and provides a payback to the city at the point of sale.
- Public or shared risk initial financing of urban infrastructure for subdivisions through benefit fee district and special assessment districts. This strategy reduces the front-end risk of lot development to the subdivider.
- Utilization of Tax Increment Financing to fund infrastructure improvements and bring down lot improvement costs to the developer.
- Any program should also include redevelopment of existing lots that begins with a site assessment and definition process that maps vacant sites and lots, seriously deteriorated buildings, and current reinvestment efforts. A TIF mechanism can be used to make necessary infrastructure improvements to target redevelopment areas.

Coordination and Additional Study

To promote housing policies and programs in Washington, a committee or group should be formed to investigate housing improvement options in more detail on an ongoing basis. One possibility is to create a committee through the Washington Economic Development Group (WEDG) or another existing city or county agency. Many towns have a city commission, appointed by the city council, that discusses housing issues and makes policy recommendations to the council.

Hazard Mitigation and Public Safety Implications

The Washington County Hazard Mitigation Plan recommends that the City of Washington prioritize property maintenance and rehabilitation in order to prevent structural failure and/or fire, and make buildings better able to withstand high winds and other harsh weather. The housing revitalization strategies above will contribute to the rehabilitation of properties at risk for structural failure, as well as the demolition of hazardous structures that are beyond reasonable repair.

INDUSTRIAL AND COMMERCIAL DEVELOPMENT

BUSINESS PARK

The city of Washington has expressed interest in developing a business park for office and light industrial uses in the southwest part of town, directly north of the new wastewater treatment plant (Figure 6.1). The city owns approximately 80 acres of land in this area. The last lot of the Washington industrial park was sold in the spring of 2012, opening up a possibility for more land need in the future.

TARGET INDUSTRIES

The Washington Economic Development Road Map (2008) recommended that efforts for growing the region be focused on these particular industries:

- Value-added agriculture
- Organic foods
- Light Manufacturing
- Biofuels/Alternative Energy
- Spin-off entrepreneurial businesses out of the University of Iowa
- Back-office/customer service centers
- Retail
- Biotech
- Transportation-related/logistics-sensitive (businesses in need of access to rail/interstate highway connections)
- Elderly care businesses
- Small creative/artisan businesses
- Small businesses, particularly start-ups that could be located in renovated building on Town Square

The retail analysis in chapter 1, table 1.9, can provide guidance on what type of retail should be targeted. For example, in 2010 Washington lost retail spending to other communities in the following categories: clothing and clothing accessories; sporting goods, hobby, book, music; food service and drinking places.

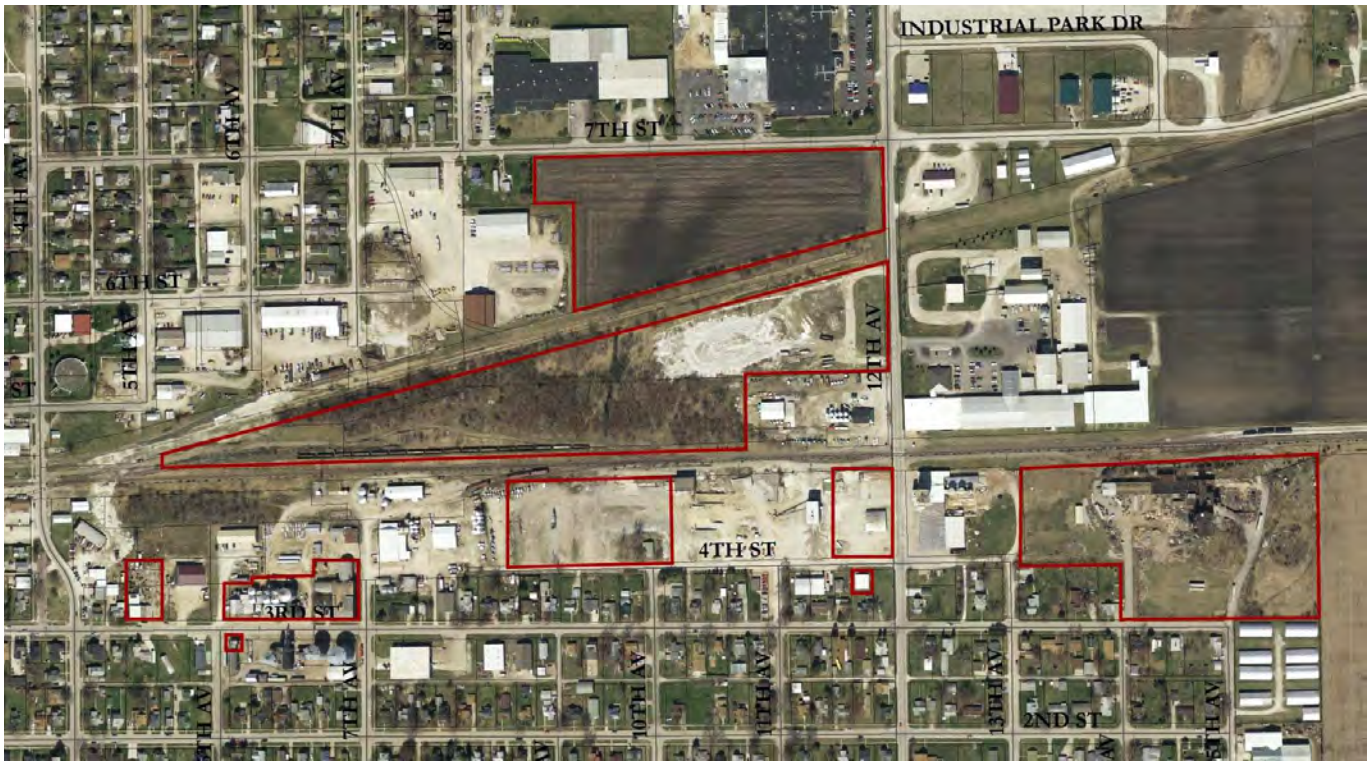


Figure 9.2 – The map above highlights property that is under utilized, vacant, or dilapidated in the Industrial area surrounding the railroad, roughly between 4th and 15th Avenues.

RAILROAD CORRIDOR

Industrial and commercial properties along the railroad corridor in Washington are an important asset. However, several of these properties are under utilized. Figure 9.2 shows several properties that are either vacant, partially vacant, or dilapidated. The two northernmost lots are currently vacant and are the most promising for valuable development. The city could provide incentives for development in this area through TIF or the previously mentioned tax abatement policy. WEDG is already marketing available industrial sites in Washington, and can help find an interested party.

A large lot at the northwest corner of 4th St and 12th Ave has a viable use in the center, but appears under utilized on both the east and west (as shown in red on the map). There are two buildings, one in the eastern portion and one in the western portion, that are dilapidated and should be addressed.

The remaining lots noted on the map are either abandoned or poorly kept, and are eyesores and public safety hazards that should be dealt with over time. The city could investigate the possibility of condemnation and demolition, which could lead to potential acquisition and resale.

A buffer is needed along 4th Street to screen Industrial activity from adjacent homes.

POLICIES AND INCENTIVES

As mentioned in the previous section on housing, the city council is currently considering a tax abatement program for the entire city of Washington. In addition to the benefits to residential improvements and construction mentioned previously, the program would also provide abatement to commercial and industrial property. The abatement would last for 5 years, starting at abatement on 75% of the property value in year one, and working its way down to 15% in year 5 (and 0% in year 6 and beyond).

DOWNTOWN AND TOURISM

Downtown Washington has performed very well over the past several years, boasting low retail vacancy, a new library, and extensive streetscaping improvements. However, there is currently no clear plan for the next step in Washington's downtown development. The streetscape has yet to be finalized, and many second-story spaces sit empty. A few preliminary notes on downtown housing and tourism are included below. It is recommended that representatives of Main Street Washington work with the City, the Chamber of Commerce, and local leaders to create a detailed plan to provide continued support for the vitality of Washington's downtown.

Downtown Housing

Communities of all sizes have proven the popularity of downtown housing and its ability to play an important role in the health of a downtown. Downtown housing can often take advantage of incentives such as historic tax credits. Downtown Washington has upper level building resources that offer opportunities for adaptive reuse, but these have not been identified and acted upon, and many second story spaces are under utilized. Main Street Washington has taken a strong interest in upper story housing for the downtown, however, they have indicated that a market analysis and long range plan is needed to help bring that vision to life. At the writing of this plan, Main Street is applying for a grant from the federal department of Housing and Economic Development (HUD) for second story housing. Main Street also plans to perform an inventory of second story housing potential in the near future. As part of this effort, building code restrictions should be reviewed to identify any part of the code that would inhibit the occupancy of upper floors. Appropriate revisions should be made as necessary.

Downtown housing can also take advantage of programs such as:

- Historic Tax Credits. This program offers an investment tax credit of up to 20% to qualified investors for rehabilitation of buildings on or eligible for listing on the National Register of Historic Places. Rehabilitation is subject to certain standards.
- Tax Increment Financing (TIF). TIF uses the added taxes created by a redevelopment project to finance improvements related to the project.

Tourism

Washington attracts tourism with its historic downtown, outdoor recreation opportunities, and cultural events. The proposed Wellness Park, greenways and trail enhancements discussed in chapter 7 have the potential to increase Washington's tourism draw. With the right marketing and wayfinding tools, and continued support from the Chamber of Commerce tourism committee, visitors coming to town for an athletic event or riding in on the Kewash trail can find their way downtown for a festival, dinner, or a show. A new plan for the downtown, as recommended previously, could help Washington build on one of its strongest tourism assets.

Tourism provides a great opportunity for collaboration with neighboring towns, and Washington is already taking advantage of this through cross-marketing of county attractions. Tourists are more likely to visit the Washington County area and come from farther distances when they have a larger menu of options for events and attractions in several different towns.

PUBLIC INFRASTRUCTURE AND AMENITY INVESTMENTS

Many of the investments already discussed in this plan have important economic development implications, such as preserving natural resources, maintaining a diverse transportation network, providing quality recreational opportunities and public facilities, supporting a reliable infrastructure system, and developing land efficiently, profitably, and responsibly.

STREETS, WATER AND SEWER

The Washington development concept (chapter 6) encourages economic efficiencies in infrastructure provision. Proposed street extensions for new residential areas promote interconnectivity, while street enhancements encourage multi-use, "complete" streets. These strategies prevent overloading existing streets with traffic, which can be a deterrent to businesses and the workforce.

The development concept also gives careful consideration to where water and sewer extensions will be most efficient. Developing in areas with existing pipelines, areas contiguous to existing development, and areas with more level topography, can all lower the cost of infrastructure extension. Infill development, also encouraged in the development concept, is often the most cost effective development solution in terms of infrastructure, since it makes use of existing systems. Lower cost infrastructure minimizes expense to taxpayers and frees up government funds for services which benefit both citizens and businesses, such as schools to educate the future workforce, parks to attract residents and visitors, and hi-tech infrastructure that can support local entrepreneurs. Lowered development costs also lead to properties that are more affordable for prospective businesses or home-owners. Affordable land prices can help make Washington more competitive in the regional market, and help address the affordability issue mentioned previously.

GREENWAYS AND PARKS

The Washington development concept is centered around the preservation of natural areas, and the stewardship of critical resources such as water. Greenways are preserved to provide natural stormwater management, in order to minimize the built infrastructure necessary to deal with heavy rainfall. An adequate stormwater system gives excess water a place to go, thus reducing the likelihood of flash flooding. Greenway preservation also helps to maintain a cleaner water supply, by providing a natural filtration system for stormwater runoff, thus reducing groundwater contamination. A clean, reliable water supply is important for attracting residents, recreational tourists, and industry.

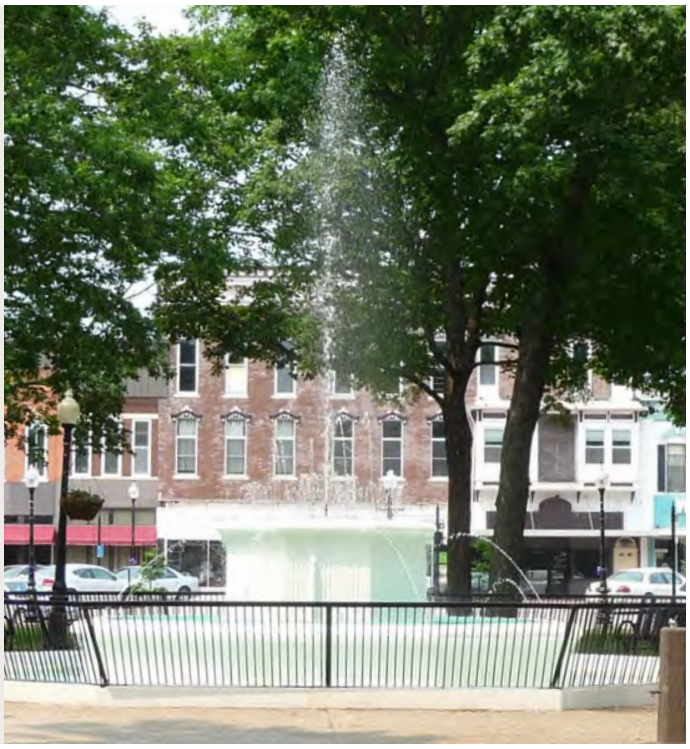
Greenway planning contributes to Washington's open space and park system, a valuable community amenity that attracts residents - particularly young adults, families with children, and retirees. Proximity to natural areas makes land more attractive and more valuable.

10

Implementation, Collaboration and Governance

Washington should implement the visions and actions presented in this plan through a realistic program that is in step with the resources of the community. The previous nine chapters are the core of the Washington Plan. This section addresses plan implementation to be carried out by the city of Washington. Key areas include:

- Collaboration and Governance. This section presents opportunities for Washington to collaborate with other entities and improve efficiency and transparency in governance.
- Development Policies and Actions. This section summarizes the policies and actions proposed in the Washington Plan, and presents projected time frames for the implementation of these recommendations.
- Plan Maintenance. This section outlines a process for maintaining the plan and evaluating progress in meeting the plan's goals.
- Plan Support. This section identifies possible funding sources that can assist in implementation of the plan.



COLLABORATION AND GOVERNANCE

Chapter 5 established a comprehensive plan goal for governance and collaboration that states: Government decision-making processes will be efficient, transparent, coordinated and collaborative. This principle should be integrated into all components of the comprehensive plan. Additionally, throughout the planning process, several specific issues emerged related to this topic:

- Opportunities for Collaboration between the city and entities such as the county and school district
- Efficiency of the development review process
- Communication between the city and the public

The sections below identify core issues for each of these areas and present a few potential opportunities to address them. This overview is not all inclusive, but can serve as a reference for more extensive conversations moving forward. Recommendations below are based on conversations with city staff, elected officials, steering committee members, and members of the public.

COLLABORATION

General Principles for Collaboration

- Regularly (annually) revisit relationship agreements between governments to account for growth and change.
- Foster a culture of trust between the city and other entities. Difficult issues may be exacerbated by distrust between staff/officials of each group, making it difficult to have productive discussions.
- Build an image of the City as "approachable" for discussion.

Neighboring Towns

Neighboring towns such as Kalona, Riverside, and Wellman provide another set of potential partners. The city administrators of these towns have historically been in conversation with one another, and after recent staff turnover in several of the towns, conversations are beginning again. Tourism is a logical area for collaboration among towns such as Riverside, Kalona, Washington and others. The towns of Washington County can (and already do) market their attractions collectively to strengthen their draw. Tourists may be more likely to visit the Washington County area and come from farther distances if they have a larger menu of options for events and attractions in several different towns.

Washington County

The County is a natural partner for the city of Washington, and coordination already occurs in several areas. The Washington Economic Development Group (WEDG) provides a forum for coordination between the city and county, and multiple other entities, on the topic of economic development. The city and county currently partner on fire service – the city of Washington owns the equipment, and serves unincorporated areas and neighboring townships in exchange for a service fee. This agreement should be reviewed regularly (ideally on an annual basis) to assess the distribution of service provision in relation to cost-sharing.

The city and county previously partnered on police protection – the city hired the county sheriff to be the police chief – but this agreement ended in 2005. However, the two groups still maintain a joint emergency communications center. Discussions regarding a move of this center are currently underway, and have faced some disagreement.

One opportunity for better coordination is on GIS (geographic information system) services. GIS data includes information and maps related to roads, parcels, infrastructure, parks, and other systems of civic interest. The county has a good inventory of GIS data, and the city of Washington has the capacity to both contribute to those efforts and benefit from them. The city is currently working on mapping their infrastructure, and could partner with the county to add that data to their existing repository. The two entities could potentially partner to bring in a part time staff/intern position for GIS if needed.

School District

The city and the school district currently partner on athletic fields and indoor gymnasiums. A lack of field supply has created scheduling and use conflicts over the past several years. It is hoped that the creation of the Wellness Park (chapters 6 and 7) will address this supply crunch. The city and school district will likely have a similar agreement on Wellness Park facilities as they do with existing shared fields.

The school superintendent and city administrator are in regular conversation regarding potential partnership opportunities, and this should be continued. One of the most logical areas to partner between the two entities is on future school site selection, as this has a tremendous impact on infrastructure needs and future land use patterns. The city and school could potentially collaborate on infrastructure improvements that would benefit both.

Washington Economic Development Group (WEDG) and Eastern Central Iowa Council of Governments (ECICOG)

Both WEDG and ECICOG provide a forum for collaborative discussion between the city of Washington, the county, and neighboring municipalities. There is potential for future collaborative efforts to "piggyback" off of these existing groups. Housing is one example of an area for potential partnership that could be facilitated through these existing collaborative groups. WEDG also helps connect Washington to the larger region, by participating in the Corridor Alliance group, a regional marketing partnership for the Iowa City/Cedar Rapids corridor.

DEVELOPMENT REVIEW PROCESS

The development review process should be efficient and consistent, while striving to balance regulation needs with a business-friendly approach. Several specific needs were identified:

Project Initiation Meeting/Pre-application

The city has recently decided to integrate a project initiation meeting into the development review process. The purpose of this is to begin the discussion between the city and the developer early on, before the developer has made significant investment of time and money. The benefit of this early discussion is for both parties to understand their respective needs and expectations, and resolve potential conflicts before they become problematic for either party.

Education

Many citizens in Washington are not aware of city regulations regarding construction on their property, such as the addition of a porch or deck. This can be a cause of frustration for the property owner when they have already begun a project or purchased materials. The city should make efforts to educate citizens on what projects require a discussion with or permit from the city.

Clear Communication from City Staff

The City of Washington should assign a point person, or project manager, for each development application to improve consistency and completeness in communication. The project manager would act as a liaison between the applicant and any city departments involved in the project. The city has already begun discussions on this idea.

The city has been working to get building permits and other forms on the website, including one-page summaries and checklists for the development process.

City staff should have internal discussions to clarify what development decisions can be made administratively, and which need to go to the planning & zoning commission.

Collaboration

Washington can be more business-friendly and efficient by working with the county and neighboring towns to identify where their development regulations conflict, or areas where they could be more complementary. This is particularly important for development in the 2-mile area around city limits where the city and county both have development review authority. Depending on the case, either the city or county may waive their rights and allow the other entity mange the case. City and County staff should make sure that they are clear on the respective responsibilities of each entity. These conversations have already begun among staff.

Efficient Zoning Regulations

A zoning review was performed as part of this comprehensive plan process to identify areas where the code could be clearer or more efficient, and has been shared with city staff.

COMMUNICATION WITH PUBLIC

Clear communication between city and public is essential for fostering transparent and equitable decision-making. There are several areas in which the city can improve:

Technology Updates

The city website should be improved to make it easier to find meeting information and staff contact persons. All pages on the website should be kept up to date.

City council meeting notifications currently go out by fax, to a list of people that cannot be easily edited. The city should provide the option for citizens to receive notifications by e-mail or some other electronic means, such as an RSS feed.

Newsletter

The city plans to reinstitute a city newsletter, to be sent twice a year. Money is budgeted to begin the newsletter in 2012.

Public Notice for Planning and Zoning Issues

The City of Washington should review its notification procedures for planning and zoning issues. Current procedures meet state requirements, but Washington may decide to include more wide-reaching notification for certain issues.

IMPLEMENTING POLICIES AND ACTIONS

Table 10.1 presents a concise summary of the recommendations of the Washington Plan. These recommendations include various types of efforts:

- Policies, which indicate continuing efforts over a long time period. In some cases, policies include specific regulatory or administrative actions.
- Action Items, which include specific efforts or accomplishments by the community.
- Capital Investments, which include public capital projects that will implement features of the Washington Plan.

Recommendations are classified according to their time frame: on-going, short term, medium term, or long term. Short-term indicates implementation within five years, medium-term within five to ten years, and long-term within ten to twenty years. Recommendations are categorized by their place in the plan.

Table 10.1: Recommendation Summary and Implementation Schedule

		Type	Ongoing	Short	Medium	Long
	Land Use and Environmental Framework (Chapter 6)					
1	Encourage targeted growth in priority development areas, as shown in development concept, and infill areas (partnership with private sector).	Policy	X			
2	Preserve a system of greenways to naturally manage stormwater and provide a community amenity.	Policy	X			
3	Reserve land for neighborhood parks as new residential areas develop.	Policy Capital	X			
4	Locate the proposed Wellness Park so as to encourage private development and connect to the existing town and park system.	Action Capital		X		
5	Make land use decisions in accordance with the land use principles and future land use criteria established in chapter 6 (partnership with private sector).	Policy	X			
6	Plan for an expected increase in demand for medium and high density housing.	Policy	X			
7	Allow a variety of residential lot sizes	Policy	X			
8	Center residential development around focal points such as greenways, parks, or schools (partnership with private sector).	Policy	X			
9	Reserve land for expansion of Elm Grove Cemetery	Capital			X	
10	Annex land strategically, as needed, on a voluntary basis in areas that can be logically served by city infrastructure.	Policy	X			
11	Review zoning ordinance and make necessary modifications in order to better implement the recommendations of this plan (separate zoning review was provided to city staff). Consider complete rewrite of code to bring up in line with modern code style.	Action		X		
	Parks and Community Facilities (Chapter 7)					
12	Develop a community-wide park, trail and open space plan that prioritizes improvements to the existing system.	Action		X		
13	Add trails to connect new and existing greenways and parks.	Capital			X	

Table 10.1: Recommendation Summary and Implementation Schedule

		Type	Ongoing	Short	Medium	Long
14	Add new neighborhood parks as needed so that all residential areas fall within 1/4 - 1/2 mile service area.	Capital	X			
15	Create partnership between city and private interests to raise funds for the Wellness Park.	Action Capital		X		
16	Implement a standard mechanism for park acquisition.	Policy		X		
17	Extend the Kewash trail/Sunset Park link south to new development area and high school.	Capital			X	
18	Create a link from the Kewash trail to the proposed north side park.	Capital			X	
19	Create trail that links Main Street to the proposed Airport Road extension.	Capital				X
20	Create a trail in the southwest greenway.	Capital				X
21	Review community facility needs on an annual basis to determine CIP priorities.	Policy	X			
22	Explore expansion possibilities for the municipal building, police station and fire station	Action			X	
23	Add a community safe room to protect against tornadoes and other natural threats (Washington County HMP)	Capital	X			
	Transportation and Infrastructure (Chapter 8)					
24	Practice multi-modal street design, to accommodate sidewalks, trails and bike lanes as appropriate.	Policy	X			
25	Provide multiple links between new and existing development. Avoid developments with single access points whenever possible.	Policy	X			
26	Provide curb and gutter for all arterial and collector streets. Retrofit sections of 2nd avenue and 14th avenue that currently lack curb and gutter.	Policy Capital	X		X	
27	Transfer a portion of Van Buren collector status to E Adams to create a more direct east/west collector route.	Action		X		
28	Add new east/west connection to link Polk to Fillmore	Capital			X	
29	Extend Van Buren Street to Highway 1	Capital		X		
30	Extend Tyler Street west	Capital			X	
31	Improve Buchanan Street for higher intensity use.	Capital		X		
32	Create a new boulevard by extending H Ave south form Sunset Park to Buchanan.	Capital			X	
33	Extend E Adams Street east to Highway 92/Palm Ave.	Capital				X
34	Extend 11th Street west and east	Capital			X	
35	Extend Airport Road North to 11th St	Capital				X
36	Extend 15th street to the west (concept A only)	Capital			X	
37	Remove diagonal segment of Old Highway 1	Capital				X
38	Reserve right of way for new local streets that provide logical and continuous connections with existing streets.	Policy	X			

Table 10.1: Recommendation Summary and Implementation Schedule

		Type	Ongoing	Short	Medium	Long
39	Create bicycle boulevards on Main Street and North D Avenue	Action		X		
40	Provide trail connections that link residential areas with existing neighborhood, parks, and other community facilities.	Capital			X	
41	Build sidewalks on all new streets	Policy	X			
42	Retrofit existing streets, where necessary, to provide sidewalk on at least one side of street	Action	X			
43	Add sidewalk connections shown in chapter 8	Capital		X	X	X
44	Consider amending stormwater regulations to require or incentivize best management practices	Policy		X		
45	Consider modifications to zoning and addition of city policies that would allow better stormwater management, such as conservation development design and conservation easements.	Policy		X		
46	Upgrade water plant	Capital		X		
47	Use the results of the infrastructure mapping and analysis (currently in progress) to prioritize repairs, repacements and separations for sewer, stormwater and water systems.	Action		X		
	Housing and Economic Development (Chapter 9)					
48	Support a variety of housing options for a range of incomes and ages.	Policy	X			
49	Focus rehabilitation efforts on concentrated pockets of problematic housing shown in housing survey.	Policy	X			
50	Improve buffering between residential and industrial areas to mitigate negative impacts on housing values.	Capital		X		
51	Investigate options to identify and demolish unsound accessory buildings such as garages.	Capital		X		
52	Increase participation in ECICOG assistance programs.	Action	X			
53	Consider adoption of proposed tax abatement program.	Policy		X		
54	Form a committee/group to investigate options for neighborhood rehabilitation outlined in chapter 9.	Action		X		
55	Encourage Industrial infill development in northeast.	Policy		X		
56	Create a new office/research park in the southwest	Action Capital			X	
57	Focus efforts on target industries as identified in the Washington Economic Development Road Map	Policy	X			
58	Create a plan for continued downtown development, including a downtown housing analysis.	Action		X		
	Hazards and Public Safety					
	See recommendations 2, 5, 22, 23, 24, 25, 38, 41, 42, 43, 44, 45, 49 and 51. See also Hazards appendix.					

PLAN MAINTENANCE

The scope of the Washington Plan is ambitious and long-range, and its recommendations will require funding and other continuous support. The City should implement an ongoing process that uses the Plan to develop annual improvement programs, as outlined below.

ANNUAL ACTION AND CAPITAL IMPROVEMENT PROGRAM

The Planning and Zoning Commission and City Council should define an annual action and capital improvement program that implements the recommendations in this plan (Table 10.1). This program should be coordinated with Washington's existing capital improvement planning and budgeting process, even though many of the Plan's recommendations are not capital items. This annual process should be completed before the beginning of each budget year and should include:

- **A work program for the upcoming year that is specific and related to the City's financial resources.** The work program will establish which plan recommendations the City will accomplish during that year.
- **A three year strategic program.** This component provides for a multi-year perspective, aiding the preparation of the annual work program. It provides a middle-term implementation plan for the City.
- **A six year capital improvement program.** This is merged into Washington's current capital improvement program.

ANNUAL EVALUATION

This Plan should be viewed as a dynamic changing document that is used actively by the City. An annual evaluation of the comprehensive plan should occur at the end of each calendar year. This evaluation should include a written report that:

- Summarizes key land use developments and decisions during the past year and relates them to the Comprehensive Plan.
- Reviews actions taken by the City during the past year to implement Plan recommendations.
- Defines any changes that should be made in the Comprehensive Plan.

FINANCIAL SUPPORT

In order to implement many of the objectives described in the Plan, the City will need to consider outside funding sources. Table 10.2 presents possible funding sources available to the City of Washington for projects recommended in the Comprehensive Plan. This list is not exhaustive and should be reviewed and modified each fiscal year.

Table 10.2 uses the following acronyms: Department of Natural Resources - DNR ; Council of Governments – COG ; Federal Department of Housing and Economic Development - HUD ; Iowa Department of Economic Development - IDED ; Iowa Department of Transportation - IDOT ; Metropolitan Planning Organization - MPO ; Regional Planning Affiliation – RPA ; United States Environmental Protection Agency – EPA

Table 10.2 Potential Funding Sources

SOURCE & ADMINISTRATOR	DESCRIPTION	POSSIBLE USES	DEADLINE	AVAILABLE FUNDS	REQUIRED MATCH
Community Attraction and Tourism Program; Vision Iowa, IDED	Funding for the development and creation of multiple purpose attraction or tourism facilities.	Creation of a major recreation facility in the city.	Quarterly; Jan 15, April 15, July 15, Oct 15	$5 million expected to be available for 2013	Encouraged
Community Development Block Grant (CDBG); HUD & State of Iowa	Federal funding for housing, public facilities, and economic development to benefit low-and moderate income residents.	Rehabilitation and infill projects, directed to projects that benefit low-and-moderate-income households or eliminate blighted areas.	Varies by funding area	Varies by funding area	No
DOT/DNR Fund; IDOT, DNR	Roadside beautification of primary system corridors with plant materials.	Landscaping improvements along key corridors in the city.	Open	$300,000 Annually; Maximum of $100,000 per application per year	Encouraged

Table 10.2 Potential Funding Sources

SOURCE & ADMINISTRATOR	DESCRIPTION	POSSIBLE USES	DEADLINE	AVAILABLE FUNDS	REQUIRED MATCH
Federal Transportation Enhancement Program; IDOT through local COG	Funding for enhancement or preservation activities of transportation related projects.	The following projects are funded: facilities for pedestrians and bicyclists; safety and educational activities for pedestrians and bicyclists; scenic or historic highway programs; acquisition of scenic or historic sites; landscaping and scenic beautification; historic preservation; rehabilitation and operation of historic transportation facilities; preservation of abandoned railway corridors; control and removal or outdoor advertising; archaeological planning and research; mitigation of water pollution due to highway runoff; or transportation museums.	October 1 for statewide applications; Check with local Council of Governments for regional deadlines	$4,500,000 each for all statewide and regional projects annually	Varies by region; Contact your local COG
Recreational Trails Program (Federal); IDOT	Funding for creation and maintenance of motorized and non-motorized recreational trails and trail related projects.	Recreational trail extension.	Oct 1	$1.25 million	20%
Recreational Trails Program (State); IDOT	Funding for public recreational trails.	Trail projects that are part of a local, area-wide, regional, or statewide trail plan.	July 1 and Jan 2 (most years do not have a Jan 2 round - check with DOT)	$2 million	25%
Highway Bridge Program; IDOT	Funds for replacement or rehabilitation of structurally deficient or functionally obsolete public roadway bridges.	Bridge rehabilitation or replacement.	Oct 1	$ 1 Million per bridge (one bridge per city per year)	20%
Housing Fund (HOME); IDED	Funds to develop and support affordable housing.	Rehabilitation of rental and owner-occupied homes; new construction of rental housing; assistance to home buyers; assistance to tenants; administrative costs. HOME funds may be used in conjunction with Section 42 Low Income Housing Tax Credits. They may also be used for innovative project approaches, such as rent-to-own development.	Varies - Usually January	$15 million annually state-wide	NA
Iowa Clean Air Attainment Program (ICAAP); IDOT	Funding for highway/street, transit, bicycle/pedestrian or freight projects or programs which help maintain Iowa's clean air quality by reducing transportation related emissions.	Projects which will reduce vehicle miles traveled or single-occupant vehicle trips; Transportation improvements to improve air quality.	Oct 1	$4.5 million; Minimum $20,000 per project	20%

Table 10.2 Potential Funding Sources

SOURCE & ADMINISTRATOR	DESCRIPTION	POSSIBLE USES	DEADLINE	AVAILABLE FUNDS	REQUIRED MATCH
Land and Water Conservation Fund; Iowa DNR	Federal funding for outdoor recreation area development and acquisition.	Improvements to existing recreation facilities and development of new facilities.	March 15, or closest working day	TBD	50%
Living Roadway Trust Fund; IDOT	Implement integrated Roadside Vegetation Management programs (IRVM) on city, county, or state rights-of-way or areas adjacent to traveled roads.	Roadside inventories, gateways, education, research, roadside enhancement, seed propagation, and special equipment.	June 1	TBD	No
Pedestrian Curb Ramp Construction; IDOT	To assist cities in complying with the Americans with Disabilities Action primary roads.	Construct curb ramps to ADA standards.	Accepted all year	Maximum of $250,000 per city per year	45%
Public Facilities Set-Aside Program (PFSA); IDED	Financial assistance to cities and counties to provide infrastructure improvements for businesses which require such improvements in order to create new job opportunities.	Provision or improvement to sanitary sewer systems, water systems, streets, storm sewers, rail lines, and airports. For Iowa Cities under 50,000 populations. 51% of persons benefitting must be low or moderate income.	Accepted all year	NA	50%; Additional points for higher percentage
Resource Enhancement and Protection (REAP); Iowa DNR	Funding for projects that enhance and protect natural and cultural resources. Grants available in categories such as: City Parks and Open Space, County Conservation and Roadside Vegetation	Parkland expansion, multi-purpose recreation developments, management of roadside vegetation.	Varies by grant category	Varies; approx. $20 million annually for all REAP programs	Varies by grant category; many require no match
Revitalize Iowa's Sound Economy (RISE); IDOT	Funding to promote economic development through construction or improvement of roads and streets.	Construction or improvement of roadways that will facilitate job creation or retention, such as a street system for additional business or industrial development.	Feb 1 & Sept 1 for local projects; Immediate opportunities accepted all year	$11 million for cities and $5.5 million for counties (annually)	Local: 50% Immediate: 20%
Safe Routes to Schools; IDOT	Funding for infrastructure and non-infrastructure improvements that will result in more students walking or bicycling to school.	Sidewalk installation and improvements, pedestrian safety improvements.	Oct 1	$1.5 million annually	No
Section 42 Low Income Housing Tax Credit; HUD	Tax credits for affordable housing developers through the State. Developments can utilize either a 4% or 9% credit, depending on the mix of low-income residents.	Multi-family housing development for low and moderate-income families.	NA	NA	NA
Self-Supported Business Improvement District; Local Business Association (Main Street or Chamber)	Contributions by business owners used for various business district enhancements.	Physical improvements to business district, upper-story restoration of downtown buildings.	NA	NA	NA
Surface Transportation Program (STP); Local COG	Funding for road or bridge projects on the federal aid system.	Road or bridge projects. Trails improvements. Bicycle facilities.	Check with local COG	Check with local COG	Check with local COG

Table 10.2 Potential Funding Sources

SOURCE & ADMINISTRATOR	DESCRIPTION	POSSIBLE USES	DEADLINE	AVAILABLE FUNDS	REQUIRED MATCH
Tax Abatement; City of Washington	Reduction or elimination of property taxes for set period of time on new improvements to property granted as an incentive to do such projects.	Available for commercial, industrial, or residential developments.	NA	NA	NA
Tax Increment Financing (TIF); City of Washington	Use added property tax revenues created by growth and development to finance improvements within the boundaries of a redevelopment district.	New residential, commercial, or industrial developments, including public improvement, land acquisition, and some development costs.	NA	NA	NA
Traffic Safety Improvement Program (TSIP); IDOT	Traffic safety improvements or studies on any public road.	Traffic safety and operations at specific site with an accident history. New traffic control devices. Research, studies or public information initiatives.	June 15	$500,000 maximum per project	No
Transportation and Community and System Preservation Program; IDOT	Funding for planning and implementing strategies that improve the efficiency of the transportation system, reduce the environmental impacts of transportation, reduce the need for costly future public infrastructure investments, ensure efficient access to jobs, services and centers of trade, and examine private sector development patterns and investments that support these goals.	Innovative transportation improvements that address stated goals.	Established yearly	$61,250,000 (annually)	No
Federal Transportation Bill (when adopted) Federal Highway Administration, through local COG	Federal transportation funding, including matching grants for major street improvements, enhancements funding for corridor design, streetscape, trail development, and transit.	Improvements to arterial and major collector streets and trail development.	TBD	TBD	TBD
Urban-State Traffic Engineering Program (U-STEP); IDOT	Funding to solve traffic operation and safety problems on primary roads.	Extension of a primary road; spot improvements or linear improvements.	Accepted all year	$200,000 for spot improvements $400,000 for linear improvements	45%
Watershed Planning Grant; IDNR for EPA (Clean Water Act Section 319)	Watershed planning grants for impaired waters in <50,000-acre watersheds.	Watershed management plan (for addressing TMDLs).	April 1	$10,000 to $50,000 per project	50% local match, with at least 20% in cash
Watershed Implementation Grant; IDNR for EPA (Clean Water Act Section 319)	Funds water improvement plans in <50,000-acre watersheds that drain to impaired waters.	Installation of BMPs and stream improvement projects.	April 1	Unknown	Unknown

Table 10.2 Potential Funding Sources

SOURCE & ADMINISTRATOR	DESCRIPTION	POSSIBLE USES	DEADLINE	AVAILABLE FUNDS	REQUIRED MATCH
Five-Star Restoration Program; EPA	Focuses on partnerships; provides environmental education and training through restoration projects.	Wetland and stream restoration.	Late fall	$10,000 to $40,000 per project	Minimum 50% match; larger matches are more competitive
Wetland Program Development Grants (WPDGs); EPA	Assists with implementing and accelerating water pollution reduction projects.	Research, investigations, experiments, training, demonstrations, surveys, and studies relating to the causes, effects, extent, prevention, reduction, and elimination of water pollution.	July 6 (2011 deadline)	$50,000 to $500,000 per project	Minimum 25% match
City Stormwater Utility Fee; City of Washington	Fees for managing stormwater.	Regional stormwater treatment train projects; BMP demonstration projects.	NA	Unknown	NA
Hotel/Motel Tax; City of Washington/Washington County/State	User tax on hotel/motel rooms.	Tourism, Economic Development, Other	NA	Varies	NA

APPENDIX

A: Supplementary Tables and Figures

B: Smart Planning Matrix

C: Hazard Mitigation Review

CHAPTER 1 – DEMOGRAPHIC AND ECONOMIC PROFILE

A.1: Historical Population Change for Washington, 1900-2010			
Year	Population	Decade	Percent Change
2010	7,266	2000-2010	3.11%
2000	7,047	1990-2000	-0.38%
1990	7,074	1980-1990	7.44%
1980	6,584	1970-1980	4.23%
1970	6,317	1960-1970	4.64%
1960	6,037	1950-1960	2.29%
1950	5,902	1940-1950	12.91%
1940	5,227	1930-1940	8.58%
1930	4,814	1920-1930	2.49%
1920	4,697	1910-1920	7.24%
1910	4,380	1900-1910	2.94%
1900	4,255		
Source: U.S. Census Bureau, 2010			

A.2: Age Composition as Percentage of Total Population, 2000-2010						
Age Cohorts	2000 Population	2010 Population	Change 2000-2010	% Change	% of Total 2000	% of Total 2010
Under 5	410	452	42	10.2%	5.8%	6.2%
5 to 9	443	483	40	9.0%	6.3%	6.6%
10 to14	461	503	42	9.1%	6.5%	6.9%
15-19	465	458	-7	-1.5%	6.6%	6.3%
20-24	332	353	21	6.3%	4.7%	4.9%
25-29	375	412	37	9.9%	5.3%	5.7%
30-34	364	383	19	5.2%	5.2%	5.3%
35-39	483	386	-97	-20.1%	6.9%	5.3%
40-44	535	418	-117	-21.9%	7.6%	5.8%
45-49	501	482	-19	-3.8%	7.1%	6.6%
50-54	390	486	96	24.6%	5.5%	6.7%
55-59	342	494	152	44.4%	4.9%	6.8%
60-64	287	425	138	48.1%	4.1%	5.8%
65-69	330	349	19	5.8%	4.7%	4.8%
70-74	300	259	-41	-13.7%	4.3%	3.6%
75-79	357	295	-62	-17.4%	5.1%	4.1%
80-84	316	235	-81	-25.6%	4.5%	3.2%
85+	356	393	37	10.4%	5.1%	5.4%
Total	7,047	7,266	219	3.1%	100.0%	100.0%

Source: U.S. Census Bureau, 2010

A.3: Racial Makeup of Population, 1990-2010												
	White		Black/African American		Native American		Asian or Pacific Islander		Other Race		Two or More Races	
	2000	2010	2000	2010	2000	2010	2000	2010	2000	2010	2000	2010
Washington	95.20%	92.50%	0.60%	1.40%	0.10%	0.20%	0.40%	0.70%	2.70%	2.70%	1.00%	2.60%
State of Iowa	93.92%	91.31%	2.10%	2.93%	0.30%	0.36%	1.28%	1.81%	1.27%	1.84%	1.08%	1.75%
Source: U.S. Census Bureau, 2010												

A.4: Residential Construction Activity 1999-2011															
Type	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Total	Average
SF	20	34	22	26	14	15	14	17	10	9	5	6	5	197	15.2
2 – 4 Family	0	3	2	1	3	1	1	5	2	1	1	0	0	20	1.5
Multi Family	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0.2
Total Permits	20	37	24	27	17	16	15	24	12	10	6	6	5	219	16.8
Demolished	2	10	6	3	7	2	4	2	6	6	4	3	2	57	4.4
Net Total	18	27	18	24	10	14	11	22	6	4	2	3	3	162	12.5

A5: Employment by Occupation, Washington 2010						
	City of Washington		Washington and Johnson Counties (combined)		State of Iowa	
	Number	%	Number	%	Number	%
Management, business, science, and arts occupations	1,017	28.3%	36,167	43.1%	514,839	33.1%
Service occupations	723	20.1%	14,936	17.8%	252,779	16.3%
Sales and office occupations	936	26.1%	19,431	23.1%	379,912	24.5%
Natural resources, construction, and maintenance occupations	340	9.5%	5,959	7.1%	149,745	9.6%
Production, transportation, and material moving occupations	576	16.0%	7,445	8.9%	256,319	16.5%
Total Employed (Civilian population 16 years and older)	3,592	100%	83,938	100%	1,553,594	100%
Source: U.S. Census Bureau, 2010 American Community Survey 5-year estimates						

A6: Employment by Industry, Washington 2010						
	City of Washington		Washington and Johnson Counties (combined)		State of Iowa	
	Number	%	Number	%	Number	%
Agriculture, forestry, fishing and hunting, and mining	67	1.9%	1,746	2.1%	62,943	4.1%
Construction	233	6.5%	4,056	4.8%	98,644	6.3%
Manufacturing	513	14.3%	6,842	8.2%	232,877	15.0%
Wholesale trade	151	4.2%	1,750	2.1%	50,706	3.3%
Retail trade	462	12.9%	9,232	11.0%	179,217	11.5%
Transportation and warehousing, and utilities	59	1.6%	2,729	3.3%	75,119	4.8%
Information	93	2.6%	1,631	1.9%	33,549	2.2%
Finance and insurance, and real estate and rental and leasing	159	4.4%	4,224	5.0%	119,194	7.7%
Professional, scientific, and management, and administrative and waste management services	313	8.7%	5,890	7.0%	102,220	6.6%
Educational services, and health care and social assistance	1,010	28.1%	33,201	39.6%	365,550	23.5%
Arts, entertainment, and recreation, and accommodation and food services	188	5.2%	8,285	9.9%	115,963	7.5%
Other services, except public administration	114	3.2%	2,623	3.1%	67,249	4.3%
Public administration	230	6.4%	1,729	2.1%	50,363	3.2%
TOTAL	3,592	-	83,938	-	1,553,594	-
Source: U.S. Census Bureau, 2010 American Community Survey 5-year estimates						

A7: Change in Employment by Industry, 2000 and 2010										
	Washington				Washington and Johnson Counties (combined)			State of Iowa		
	'00	'10	Change	% Change	'00	'10	% Change	'00	'10	% Change
Agriculture, forestry, fishing and hunting, and mining	104	67	-37	-35.6%	1,894	1,746	-7.8%	65,903	62,943	-4.5%
Construction	252	233	-19	-7.5%	3,778	4,056	7.4%	91,824	98,644	7.4%
Manufacturing	600	513	-87	-14.5%	6,519	6,842	5.0%	253,444	232,877	-8.1%
Wholesale trade	141	151	10	7.1%	1,584	1,750	10.5%	53,267	50,706	-4.8%
Retail trade	539	462	-77	-14.3%	8,644	9,232	6.8%	179,381	179,217	-0.1%
Transportation and warehousing, and utilities	116	59	-57	-49.1%	2,206	2,729	23.7%	73,170	75,119	2.7%
Information	93	93	0	0.0%	3,238	1,631	-49.6%	41,970	33,549	-20.1%
Finance and insurance, and real estate and rental and leasing	156	159	3	1.9%	3,431	4,224	23.1%	100,395	119,194	18.7%
Professional, scientific, and management, and administrative and waste management services	152	313	161	105.9%	4,394	5,890	34.0%	90,157	102,220	13.4%
Educational services, and health care and social assistance	869	1,010	141	16.2%	28,824	33,201	15.2%	324,142	365,550	12.8%
Arts, entertainment, and recreation, and accommodation and food services	148	188	40	27.0%	5,798	8,285	42.9%	98,819	115,963	17.3%
Other services, except public administration	242	114	-128	-52.9%	2,883	2,623	-9.0%	66,286	67,249	1.5%
Public administration	132	230	98	74.2%	1,828	1,729	-5.4%	51,058	50,363	-1.4%
TOTAL	3,544	3,592	48	1.4%	75,021	83,938	11.9%	1,489,816	1,553,594	4.3%
Source: U.S. Census Bureau, 2010 American Community Survey 5-year estimates										

A.8: Educational Attainment of People 25 Years and Older, 2010 Estimate							
	Less than 9th Grade	Some High School, No Degree	High School Graduate	Some College, No Degree	Associate Degree	Bachelor's Degree	Graduate or Professional Degree
Washington	5.9%	4.3%	37.2%	21.4%	8.1%	17.0%	6.0%
State of Iowa	4.0%	6.1%	34.4%	21.4%	9.7%	17.0%	7.5%

Source: U.S. Census 2010

A.9 - Age of Housing Stock (2011)	
Housing Units by Year Built	% of Units
Housing Units Built 2000 or later	8.8%
Housing Units Built 1990 to 1999	6.9%
Housing Unit Built 1980 to 1989	5.3%
Housing Unit Built 1970 to 1979	10.7%
Housing Unit Built 1960 to 1969	9.9%
Housing Unit Built 1950 to 1959	8.7%
Housing Unit Built 1940 to 1949	7.7%
Housing Unit Built 1939 or Earlier	42.1%
Median Year Structure Built	1950

Source: Claritas 2011

CHAPTER 4 –TRANSPORTATION AND INFRASTRUCTURE

A.10: Typical Traffic Capacity by Facility Type (Vehicles Per Day)			
	Typical Capacity		
	2-Lane	3-Lane	4-Lane
Minimal Access	12,500	16,550	25,400
Residential	12,300	16,250	25,300
Mixed Zoning	11,200	14,850	23,600
Central Business District	9,400	12,650	20,500
Source: HDR, Inc. and RDG Planning & Design			

A.11: Performance of Key Street Segments, Washington 2010						
Street Name	Description	Land Use/Lanes	Capacity (VPD)	2010 Count	V/C Ratio	LOS
Highway 1/92	North of 5th	Residential/2	12,300	3,890	0.32	A
	South of 5th	Mixed Zoning/2	11,200	3,810	0.34	A
	West of 250th	Mixed Zoning/4	23,600	4,350	0.18	A
	East of 250th	Mixed Zoning/4	23,600	5,600	0.24	A
Highway 1	South of Madison	Mixed Zoning/2	11,200	4,420	0.39	A
	At Southern City Limits	Mixed Zoning/2	11,200	3,000	0.27	A
Highway 92	East of Hwy 1	Mixed Zoning/4	23,600	6,800	0.29	A
	F Ave to E Ave	Residential/4	25,300	7,700	0.30	A
	West of B Avenue	Mixed Zoning/4	23,600	7,000	0.30	A
	East of B Avenue	Mixed Zoning/4	23,600	6,700	0.28	A
	West of 2nd Ave, at Madison	Mixed Zoning/4	23,600	5,600	0.24	A
	North of Madison	Mixed Zoning/2	11,200	5,400	0.07	A
	Jefferson to Washington	CBD/2	9,400	5,800	0.48	A
	East of 2nd Avenue, at Washington	Mixed Zoning/4	23,600	7,600	0.32	A
	East of 7th Ave	Residential/4	25,300	7,700	0.30	A
	East of 9th Ave	Residential/4	25,300	8,600	0.34	A
	East of 11th Ave	Residential/4	25,300	8,500	0.34	A
	East of 12th Ave	Residential/4	25,300	7,900	0.31	A
	15th Ave to Airport Rd	Mixed Zoning/4	23,600	8,300	0.35	A
	East of Airport Rd	Mixed Zoning/4	23,600	6,700	0.28	A
Madison	East of 2nd Avenue	Residential/2	12,300	880	0.07	A
5th Street	West of Hwy 1/92	Mixed Zoning/2	11,200	1,070	0.10	A
	East of Hwy 1/92	Mixed Zoning/2	11,200	1,480	0.13	A
	West of B Avenue	Mixed Zoning/2	11,200	2,020	0.18	A
	Marion to Iowa	Mixed Zoning/2	11,200	2,140	0.19	A
	At Western City Limits	Mixed Zoning/2	11,200	890	0.08	A
18th Street	West of Marion	Residential/2	12,300	600	0.05	A
Marion Ave	North of 18th (outside city limits)	Residential/2	12,300	100	0.01	A
2nd Ave	East of Marion (Old Hwy 1)	Mixed Zoning/2	11,200	390	0.03	A
	South of 12th St	Residential/2	12,300	850	0.07	A
	South of 7th St	Residential/2	12,300	1,560	0.13	A
	North of 3rd St	Mixed Zoning/2	11,200	2,240	0.20	A
	South of Main	Mixed Zoning/3	14,850	1,920	0.13	A
	South of Madison	Residential/2	12,300	720	0.06	A
15th Street	East of Marion	Residential/2	12,300	560	0.05	A
	East of Highland	Residential/2	12,300	630	0.05	A

Riverside Rd	North of 15th (outside city limits)	Residential/2	12,300	3,310	0.27	A
	South of 11th	Mixed Zoning/2	11,200	3,860	0.34	A
	North of 4th	Mixed Zoning/2	11,200	4,080	0.36	A
	North of Hwy 92	Residential/2	12,300	3470	0.28	A
11th Street	East of 2nd Ave	Residential/2	12,300	790	0.06	A
	East of 7th Ave	Residential/2	12,300	730	0.06	A
6th Ave	North of 9th	Residential/2	12,300	300	0.02	A
	South of 9th	Residential/2	12,300	320	0.03	A
9th Street	West of 6th Ave	Residential/2	12,300	61	0.00	A
	East of 6th Ave	Residential/2	12,300	54	0.00	A
7th Street	East of 2nd Ave	Residential/2	12,300	1,130	0.09	A
	East of 4th Ave	Residential/2	12,300	960	0.08	A
	At Eastern City Limits	Mixed Zoning/2	11,200	130	0.01	A
4th Avenue	North of 3rd St	Mixed Zoning/2	11,200	2,480	0.22	A
	North of Hwy 92	Mixed Zoning/2	11,200	2,650	0.24	A
	South of Hwy 92	Residential/2	12,300	1540	0.13	A
	South of Jefferson	Mixed Zoning/3	14,850	1,650	0.11	A
3rd Street	East of 11th Ave	Residential/2	12,300	480	0.04	A
Main Street	East of Hwy 1/92	Residential/2	12,300	470	0.04	A
	East of Sunset Dr/Avenue H	Residential/2	12,300	620	0.05	A
	East of D Ave	Residential/2	12,300	880	0.07	A
Washington Street	West of 2nd Ave	CBD/2	9,400	2,480	0.26	A
F Avenue	North of Jefferson	Residential/2	12,300	350	0.03	A
B Avenue	North of Hwy 92	Mixed Zoning/2	11,200	2,190	0.20	A
	South of Hwy 92	Mixed Zoning/2	11,200	1,340	0.12	A
9th Avenue	North of Hwy 92	Residential/2	12,300	160	0.01	A
	South of Hwy 92	Residential/2	12,300	2,240	0.18	A
	South of Harrison	Residential/2	12,300	1,270	0.10	A
Van Buren St	West of 3rd Ave	Residential/2	12,300	1,550	0.13	A
	East of 12th Ave	Residential/2	12,300	110	0.01	A
12th Ave/Van Buren St	Residential/2	12,300	230	0.02	A	
14th Ave	North of Van Buren St	Residential/2	12,300	110	0.01	A
Airport Rd	South of Fillmore St (outside city limits)	Residential/2	12,300	690	0.06	A
Wayland/S Iowa	South of Lincoln St	Residential/2	12,300	2,650	0.22	A
Source: 2010 Traffic Counts from Iowa Department of Transportation; HDR, Inc.						

Smart Planning Matrix: The table below shows the compliance of this document with Iowa Smart Planning Guidelines.

		Smart Planning Principles				
Comprehensive Plan Elements	Chapter Number(s)	Collaboration	Efficiency, Transparency & Consistency	Clean, Renewable & Efficient Energy	Occupational Diversity	Revitalization
Public Participation	5	10	10		5	5
Issues and Opportunities	1-5	10	10		1, 9	1, 9
Land Use	2, 6	6 (Annexation)	6 (p.63), 10	6	6	9
Housing	1, 9	9		9	9	9
Public Infrastructure and Utilities	4, 8	8		4, 8		4, 8, 9
Transportation	4, 8			8	9	
Economic Development	1, 9	9	9		1, 6, 9	9
Agricultural and Natural Resources	2, 6, 3, 7, 8	8				
Community Facilities	3	3	3			
Community Character	Intro, 3, 5, 7					9
Hazards	pp. 32, 45, 56, 62, 65, 100, 110, Appendix	8	8			9
Intergovernmental Collaboration	10	3, 8, 9, 10	10		9	
Implementation	10	10	10	10	10	10

---Continued	----------Smart Planning Principles----------				
Comprehensive Plan Elements	Housing Diversity	Community Character	Natural Resources & Agricultural Protection	Sustainable Design	Transportation Diversity
Public Participation	5	5			
Issues and Opportunities	1, 9	Intro, 5	2, 6	6, 7, 8	4, 8
Land Use	6, 9	6 (p. 63)	6, 7, 8	6, 8 (stormwater)	6, 8
Housing	6, 9	9		6, 9	
Public Infrastructure and Utilities			8	6, 8	
Transportation		8		8	8
Economic Development	9		9		8, 9
Agricultural and Natural Resources		3, 7	2, 6, 3, 7	6, 8	
Community Facilities		3			
Community Character	6	Intro, 5	3, 7	3, 7, 8	8
Hazards			2, 8	8	8
Intergovernmental Collaboration			8		
Implementation	10	10	10	10	10

HAZARD MITIGATION AND PUBLIC SAFETY

Hazard mitigation and public safety are crucial to the comprehensive planning process, and these concerns are integrated throughout the preceding document. In order to facilitate review of this plan for compliance with Iowa's smart planning grant expectations, this section uses the "safe growth audit questions" from the FEMA publication Hazard Mitigation: Integrating Best Practices into Planning as a framework to collect and present the hazard mitigation and public safety elements of this plan.

SAFE GROWTH AUDIT QUESTIONS FROM HAZARD MITIGATION: INTEGRATING BEST PRACTICES INTO PLANNING

Land Use

Does the future land-use map clearly identify natural-hazard areas?

Yes. Although there are no official floodplains in the developed area of Washington, the future land use map (Figure 6.5) shows "greenway" preservation areas in many of the natural drainage-ways, and shows areas for stormwater detention. The goal of both of these components is to encourage good stormwater management in order to minimize flash flooding and improve water quality.

Do the land-use policies discourage development or redevelopment within natural-hazard areas?

As described above, natural drainage-ways are preserved as greenways to discourage development in these areas.

Does the plan provide adequate space for expected future growth in areas located outside of natural-hazard areas?

Yes. The future land use map shows more than enough land for future growth in safe areas. Approximately 360 acres of new development is needed to accommodate new residential, commercial and industrial land, according to the projections in chapter 2. Approximately 1,100 developable acres of land are available. The development concept in Figures 6.3 and 6.4 directs development to areas with low flood risk that can be best served with emergency services and vital infrastructure such as roads, water and electricity, by locating development close to existing city services and avoiding areas with natural barriers to infrastructure provision.

Transportation

Does the transportation plan limit access to hazard areas?

The transportation plan does not encourage access to hazardous areas.

Is transportation policy used to guide growth to safe locations?

Yes. Proposed new roads connect to areas of town that have can be best served with emergency services and vital infrastructure such as water and electricity, by locating development close to existing city services and avoiding areas with natural barriers to infrastructure provision.

Are movement systems designed to function under disaster conditions (e.g., evacuation)?

Yes. One of the primary features of the proposed transportation system (chapter 8) is the provision of multiple access routes to all developed areas, and accommodation of multiple modes of transportation, including auto, bike and pedestrian. By avoiding single access developments (such as dead-end cul-de-sacs), the proposed system allows for greater evacuation possibilities. A more connected system also makes safety services such as ambulance/fire service more efficient. Providing multiple mode choices improves safety by allowing options for evacuation and mobility during disaster conditions, particularly for those without vehicles. Proposed street extensions also reduce the load on existing streets, which increases mobility for safety purposes such as ambulance/fire service and other emergency services.

Environmental Management

Are environmental systems that protect development from hazards identified and mapped?

Yes. Figure 2.3 shows wetlands and hydric soils that comprise the natural drainage system that can help prevent flooding in developed areas by conveying stormwater properly. Figure 2.3 shows topography, which effects which areas of town are best suited for development and can be best served with public safety services and necessary infrastructure such as water.

Do environmental policies maintain and restore protective ecosystems?

Yes. The Future Land Use Map (Figure 6.5) shows much of the natural drainage system as greenway, to preserve its storm-

water conveyance function. The plan recommends developing incentives to guide developments toward using best practices for natural stormwater management (chapter 8).

Do environmental policies provide incentives to development that is located outside of protective ecosystems?

Yes. The future land use map (Figure 6.5) locates new development in areas outside of protective ecosystems and shows areas inside those ecosystems as non-developable (greenways). This map is presented as a guide for the planning and zoning commission and city council in deciding where new development should be allowed.

Public Safety

Are the goals and policies of the comprehensive plan related to those of the FEMA Hazard Mitigation Plan?

Yes. The recommendations of the comprehensive plan support and advance the goals of the Washington County Hazard Mitigation Plan (2012). Goals of the Hazard Mitigation plan that are realized in the recommendations of the comprehensive plan include: system improvements – water (Ch. 4 & 8); system improvements – sewer (Ch. 4 & 8); system improvements – stormwater (Ch. 4 & 8); property maintenance/ rehabilitation (Ch. 9);

Additionally, chapter 3 of the plan addresses the existing capacity and the needs of safety systems including police, fire, emergency services, the proposed community safe room, and medical facilities.

Is safety explicitly included in the plan's growth and development policies?

Yes, safety concerns are included as part of the "10 Principles of Land Use and Development" in chapter 6 and the overarching "Comprehensive Plan Goals" in chapter 5. Traffic safety is the impetus for several transportation improvements in chapter 8. Public Safety is also a stated purpose for recommendations of structural demolition and housing revitalization in chapter 9. Public Safety facilities development is covered in chapter 3.

Does the monitoring and implementation section of the plan cover safe-growth objectives?

Chapter 10, Implementation, summarizes, categorizes, and creates a rough timeline for the public safety and hazard mitigation objectives of the plan, including: #2 Preserve a system of greenways to naturally manage stormwater; #22 Explore expansion possibilities for the police station and fire station; #23 Add a community safe room to protect against tornadoes and other natural threats; #24 Practice multi-modal street design, to accommodate sidewalks, trails and bike lanes as appropriate; #25 Provide multiple links between new and existing development. Avoid development with single access points whenever possible; #41 Build sidewalks on all new streets; #45 Consider amending stormwater regulations to require or incentivize best management practices; #51 Investigate options to identify and demolish unsound accessory buildings such as garages. The Implementation chapter also provides a list of potential sources for financial support for many of these safe-growth objectives (Table 10.2).

SPECIFIC ACTION STEPS FOR PRIMARY PUBLIC SAFETY AND HAZARD MITIGATION RECOMMENDATIONS IN THE COMPREHENSIVE PLAN (ALSO IN CHAPTER 10):

Preserve a system of greenways to naturally manage stormwater.

- Hazard/Public Safety Effect: Keeps new development out of the path of flash flooding and maintains natural stormwater control.
- Responsible Party: City Staff, Planning and Zoning Commission, City Council

Explore expansion possibilities for the police station and fire station.

- Hazard/Public Safety Effect: Strengthens capacity of public safety systems
- Responsible Party: Police and Fire Staff, City Council

Practice multi-modal street design, to accommodate sidewalks, trails and bike lanes as appropriate.

- Hazard/Public Safety Effect: Provides mobility options in case of disaster, particularly for vulnerable populations. Keeps pedestrians out of roadways by providing sidewalks. Provides safe options for bicyclists.
- Responsible Party: City Engineer, City Council

Provide multiple links between new and existing development. Avoid development with single access points whenever possible.

- Hazard/Public Safety Effect: Allows more efficient provision of emergency services. Allows increased options for evacuation in case of emergency.
- Responsible Party: City Staff, Planning and Zoning Commission, City Council, City Engineer

Build sidewalks on all new streets

- Hazard/Public Safety Effect: Increases pedestrian and driver safety; provides safe routes to school
- Responsible Party: City Council, City Engineer

Consider amending stormwater regulations to require or incentivize best management practices;

Consider modifications to zoning and addition of city policies that would allow better stormwater management, such as conservation development design and conservation easements.

- Hazard/Public Safety Effect (6 & 7): Mitigates flash flooding; Improves water quality
- Responsible Party: Planning and Zoning Commission, City Council, City Staff – Maintenance and Construction Superintendent; Zoning Administrator

Investigate options to identify and demolish unsound accessory buildings such as garages;

Form a committee/group to investigate options for neighborhood rehabilitation outlined in chapter 9;

Encourage Industrial infill development in northeast.

- Hazard/Public Safety Effect (8-10): Encourages the demolition or rehabilitation/redevelopment of unsafe structures.
- Responsible Party: City Staff – Building Inspector, Zoning Administrator; City Council; WEDG; Planning and Zoning Commission

Implement public safety improvements as recommended by the Washington County Mitigation Plan (2012), including the construction of a community safe room.

- Responsible Parties: Various – see Hazard Mitigation Plan