



GENERAL PLAN

**FOR
RIVER HEIGHTS CITY, UTAH**

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River Heights, Utah 84321
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Prepared by:
River Heights City
Planning Commission

Adopted by:
River Heights City
Council
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RIVER HEIGHTS CITY GENERAL PLAN

1 INTRODUCTION

Utah State law requires that cities prepare a general plan for the "present and future needs of the municipality." This plan is the official statement that describes overall goals and strategies for future development of the city. This plan functions within a community to:

- Improve the physical environment of the community as a setting for human activity. This purpose is in accord with the broad objective of local government to promote the health, safety, order, convenience, prosperity, and general welfare of the citizens.
- Promote the public interest of the community at large, rather than the interest of individuals or special interest groups. By adopting and following a general guideline it will help prevent arbitrary, capricious, and/or biased actions. The contributions of the plan to a democratically responsible government help safeguard the public interest.
- Facilitate the democratic determination and implementation of community policies on physical development. A general plan is a policy instrument. It is a declaration of long-range goals. It places the responsibility for determining policies on the elected officials and provides an opportunity for citizen participation under the democratic process.
- Inject long range consideration into short range actions. It provides for coordination through time, so that today's decisions lead to tomorrow's goals. The use of forecasts and the establishment of long-range goals are significant features of the general plan.
- Bring professional and technical knowledge to bear on the making of political decisions concerning the physical development of the city. The importance of a general plan as a policy document and a general guide to the future of River Heights should be emphasized. It should be considered as a compass. It sets the direction which the city should take but it is not static. Future events may necessitate a change in course. It should be reevaluated on a regular basis and updated as it becomes necessary to guarantee its relevancy.

This document has five sections:

1. Introduction
2. Land Use
3. Transportation
4. Infrastructure/City Utilities
5. Affordable Housing

Each section contains a description of the current situation and conditions, applicable background information, and recommendations for adoption by the Planning Commission and the City Council.

Once adopted, this becomes the plan for future development of River Heights. The Zoning and other ordinances are then changed, as needed, to comply with and implement the provisions of

this adopted plan. The ordinances then become the instrument by which these policies are put into effect. These two planning documents are interwoven.

Planning is more than the production of a general plan and regulatory ordinances. It is an ongoing process. Therefore, after this plan is adopted, it will be reassessed on a regular basis. This document can change over time.

Planning is dynamic. The initial adoption of the General Plan and its elements is the beginning of the planning process. A periodic reevaluation will be used to maintain the validity of the goals and policies of the plan.

Amending the plan can take two forms. Most amendments will come through the Planning Commission. At periodic intervals they should review the plan and determine if it still coincides with existing conditions and attitudes. If it is determined that it does not meet the needs of the city, after appropriate public input, it should be changed.

A second method of amending the general plan is by written application submitted by an individual requesting consideration for a change.

In either of these methods, the Planning Commission should hold a public hearing, consider the data, and make a recommendation to the City Council. The Council conducts a final review and adopts needed changes and takes final action.

1.1 BACKGROUND

The first settlers came in the 1880s and built homes in the area between Providence and Logan where land was inexpensive. The land sat above Logan River and tended to be dry, therefore earned the name "Dry Town." New inhabitants arrived slowly. It was incorporated into a Town when it became necessary to receive a grant from the federal government to drill an irrigation well to augment scarce water supplies during the drought of the 1930s.

Incorporated as a Town in 1934 and becoming a city in 1968, River Heights is one of the youngest communities in Cache County. Originally pastureland and orchards, it slowly evolved into a residential community. River Heights is on the east bench lands of Cache Valley; the Valley is a remnant of ancient Lake Bonneville. The Bear River range of the Wasatch Mountains is the east backdrop of the city. Providence City is to the south and Logan City is to the north, east and west.

River Heights is unique among most other Cache Valley communities. It is surrounded and confined by other cities or physical barriers. While there remains some land that can be developed, growth potential is limited. The community is primarily residential with some agricultural areas; there are limited commercial uses on the west side of River Heights near Highway 89/91.

1.2 DEMOGRAPHICS

1.2.1 Population

Table 1 shows the historical population of River Heights:

Year	1950	1960	1970	1980	1990	2000	2010	2023
Population	468	880	1,088	1,211	1274	1,495	1,734	2180

Table 1
Historical Population

1.2.2 Projected Population

For many years, Cache County experienced about 2.0% annual growth. In River Heights City, growth for the ten-year period 2000 to 2010 was approximately 1.5% per year and for the period 2010 to 2020 it was 2.2%. Growth for the five-year period 2000 to 2005 was less than 1.0%. As the southeast bench area of Logan has continued to build out, there has been pressure for new subdivisions and homes in River Heights. The following table shows growth projections through 2030 as interpolated from information provided by the Cache County Planning Office.

Year	2023 2025	2030
Population	2180 2356	2589

Table 2
Population Projections

There are approximately 107 458 acres of land currently undeveloped that are either inside the current city boundaries or the annexation declaration policy area. There are approximately 30 75 acres of land in the county that could be incorporated. This land represents the growth limits of the city. Assuming three single-family residential lots per acre, there could be approximately 323 474 additional homes in River Heights compared to the current number of 684 660. This population projection would add approximately 1060 4,560 more residents for a total of 3080 3,580. These numbers are estimates based on available land and current zoning and building trends.

The above estimate is especially useful in planning for infrastructure needs.

2 LAND USE

Current land use is almost exclusively single family residential. There are a few apartments in the city, however, no apartment complexes are allowed under current zoning. The city is divided into three residential density zones allowing for 8,000 square foot lots, 10,000 square foot lots, and 12,000 square foot lots. Some residents of River Heights have requested 15,000 square foot lots, but at present no zone of that size exists. There are also ~~Planned Unit Development~~ and Commercial zones available, but they have been used on a limited basis to date.

Intense development of commercial use is occurring on land adjacent to River Heights to the west and southwest in the cities of Logan and Providence. Community leaders of the city recognize the need for commercial zoning within River Heights for several reasons:

1. Landowners of properties adjacent to current commercial use will likely want the option to zone commercially.
2. In some cases, it may be the best "use" fit for the area.
3. There is an increased revenue need to support city infrastructure; and
4. It is important to design a commercial zone that will best serve the city.

An ordinance establishing an Agricultural Zone was passed by the City Council in 1998. All land annexed in the city is placed under this zone. The agricultural zone allows the integration of residential areas with open space.

2.1 PARKS AND OPEN SPACE

Few things define the ambiance and general attractiveness of a city more than its parks and open spaces.

At present, there are six developed parks in the city: Heber Olsen Park, the playing fields behind River Heights Elementary School, DUP Park, Hillside Park, Saddlerock Park, and Stewart Hill Park.

Heber Olsen Park is six acres in size and is next to the former elementary school and city office building. Within this park is Ryan's Place Park (playground), built in the spring of 2007. Adjacent to Ryan's Place Park are tennis courts, playing fields and a pavilion area for public use.

In 1997, the city transferred approximately 8.4 acres, near 600 South and 800 East, to the Cache County School District. That land had been set aside by the city for a park. The Cache County School District uses that land for outside recreation grounds and playing fields (softball, soccer, etc). Under an agreement made with the School District in 1997, the School District allows these recreational grounds and playing fields to be used by residents of the city and the general public. The public can use the fields at any time except during school hours. This land is, therefore, part of the River Heights City Park system. The total area of the school recreation grounds and playing fields is 5.6 acres.

The DUP Park, located at 400 East and 450 South, is 0.13 acres. Hillside Park, north of River Heights Boulevard and east of 600 East, is 0.27 acres. Saddlerock Park located north of 600 South is 0.29 acres and Stewart Hill Park, on Stewart Hill Drive, is 3.58 acres.

The retention ponds located at 900 East and 600 South are zoned Parks and Recreation.

In 2018, the National Recreation and Park Association recommended as a guideline 10 acres of park land per 1,000 residents. Counting the recreation grounds near the elementary school, River Heights is close to this recommendation at 7.5 acres per 1,000 residents. If River Heights reaches its potential population of ~~3080~~ 3,580 it will be at ~~4.89~~ 3.43 acres per thousand people.

In the future there is the possibility of an additional park in the Riverdale area.

2.2 GEOLOGY

River Heights is located on firm ground. None of the existing neighborhoods in River Heights are built on land said to be unstable for development. A study by Evans, McCalpin, and Holmes, Department of Geology, Utah State University, published in 1996 indicates this. Appendix A contains details about the geology of River Heights.

2.3 SENSITIVE LANDS

Sensitive areas in and near River Heights include the Logan River corridor, the Spring Creek drainage, and steep slopes. There may also be wetlands in some of the undeveloped fields in River Heights. Spring Creek is located between River Heights and Providence City. Steep slopes separate the upper terrace of River Heights from the Riverdale neighborhood, the Logan River, and the area in Logan known as the Island.

2.3.1 Logan River Corridor

The Logan River provides about 3,000 feet of the border between Logan City and River Heights, in the Riverdale neighborhood. This area has the potential for flooding, but the River Heights side of the river is higher than the Logan side and thus less susceptible to flooding. Landowners in Riverdale report that the Logan River did not overflow its banks during the 1983 flood. Flood plain maps provided by FEMA indicate that the Logan River corridor, in River Heights, would not be inundated by a 100-year flood.

The Logan River corridor provides valuable wildlife habitat. The river and its associated riparian vegetation provide habitat for a variety of bird species. These species are listed in appendix B of this document. Appendix C lists the native plant species in the riparian zone along the Logan River.

2.3.2 Spring Creek and Wetlands

Spring Creek is the natural drainage for most of River Heights and Providence. It currently serves as a boundary between the two cities from approximately 400 East to 800 East. From approximately 700 East heading west, Spring Creek is bordered by residential neighborhoods. Developers have left buffers between homes and the waterway; in some areas park-like features have been developed near and around the waterway. Stone Creek Subdivision and Saddlerock Subdivision have built retention ponds for storm water runoff and irrigation purposes.

In this region wetlands include marshes, bogs, wet meadows, shrub wetlands, forested wetlands, and similar areas. Wetlands are protected under section 404 of the Clean Water Act which requires a permit to fill or destroy wetlands. Permits are issued by the United States Army Corps of Engineers (COE). Pursuant to section 404(c) of the Clean Water Act, the Environmental Protection Agency has veto power over the issuance of section 404 permits for certain reasons.

Wetland delineation, performed by the COE or a wetland ecologist as certified by the COE, must be conducted to determine the boundaries of any wetlands that may exist near Spring Creek or in any other part of River Heights City, prior to implementation of any development activities that may affect those wetlands. It is the responsibility of land developers to determine if wetlands exist on any sites that are to be developed. If wetlands are found, it is their responsibility to obtain the required permits from the COE before wetlands can be filled. In most cases, mitigation will be required to compensate for the filling of a wetland. Wetland mitigation usually includes the creation, restoration, or enhancement of an acreage of wetlands comparable to or greater than the wetland acreage impacted. In some cases, wetland preservation may be acceptable as mitigation.

2.3.3 Steep Slopes

The slopes that separate the upper terrace of River Heights from the Logan River and the Riverdale area are too steep to build on. At present, there are no structures on the slopes. Due to the obvious problems associated with building on these slopes, it is doubtful that anyone will propose building on them. These slopes are covered with trees and vegetation. At present there is a zoning ordinance that requires buildings near and on slopes greater than 25 degrees to have adequate provision by siting structures, retaining walls, landscaping, terracing, etc. to maintain site slope stability and to prevent erosion.

2.4 LAND USE GOALS AND STRATEGIES

2.4.1 Goal: River Heights should be primarily a residential community of single-family homes. It should continue to have an atmosphere of pleasant and quiet residential living.

Strategies:

1. Growth in the City should be paced by the City's ability to provide services.
2. Retain a lighting ordinance which preserves a dark sky.
3. Retain zones allowing homes on 8,000, 10,000 and 12,000 square foot lots.
4. Consider developing a senior citizen PUD that could serve those 55 and above. ~~Retain a Planned Unit Development (PUD) ordinance in the City Code. Encourage owner-occupied, single-family units in a PUD. Require open space in PUDs.~~
5. Allow the creation of a residential estate zone.
6. Any additional land annexed East of 1000 East should have allowances for a recreational park.

2.4.2 Goal: Newly annexed areas of the city should maintain an agricultural atmosphere until owners request further development.

Strategies:

1. All newly annexed land shall continue to come into the City zoned agricultural.
2. Allow parcels smaller than five acres in size to be annexed into River Heights under the agricultural zone.

2.4.3 Goal: Maintain an attractive, aesthetically pleasing community with open spaces available for public use.

Strategies:

1. Encourage private landowners to preserve open space.
2. Encourage use of secondary water for watering landscapes and greenery.
3. Require new subdivisions to set aside land for city parks either by paying an impact fee for parks or by requiring land be dedicated to the city for parkland.
4. Require a 30-foot green space buffer zone for any new development which is adjacent to a collector street.
5. All new roads run in a grid pattern for uniform vehicular traffic control, where possible.
6. Encourage citizens to reduce air pollution through decreased driving and increased bicycle and pedestrian travel.
7. Encourage citizens to adhere to “no idling” vehicular laws.
8. Encourage citizens to adhere to air quality conditions and heed recommendations to not burn on “yellow” and “red” pollution days.
9. Encourage citizens to be mindful of limited landfill and energy resources and therefore, recycle as much as possible.
- ~~10. Preserve City property at Stewart Hill, adjacent to Providence City Cemetery, for park/open space.~~

2.4.4 Goal: The City boundary should ultimately go east to the Logan City boundary and south to Spring Creek, continue west along Spring Creek to Providence and Logan on the west. River Heights needs to consider adjacent land for potential annexation. These considerations may include the best use and fit for the environment of the community.

2.4.5 Goal: Maintain a plan for excessive storm water runoff.

Strategy:

Maintain and update, as needed, the storm water runoff plan for River Heights, coordinated with Logan and Providence.

2.4.6 Goal: Preserve and protect sensitive areas.

Strategies:

1. Prohibit building on steep slopes.
2. Encourage landowners along the Logan River to preserve the riparian vegetation along the river, including the over story (trees) and the under story (shrubs, etc.)
3. Encourage landowners along the Logan River to remove concrete and asphalt riprap from the riverbank and replace it with native trees and shrubs.
4. Require structures to be set back at least 50 feet from the Logan River.

5. View jurisdictional wetlands as an opportunity for wetland preservation. Educate developers of the need to comply with the Clean Water Act when planning developments in wetlands.
6. Develop a policy to maintain habitat protection, and destruction or removal of native trees lining the riverbanks. Only when a tree has been determined to be a hazard by a certified arborist, shall removal be permitted. This is to ensure any future development of the area will not devoid the riverbanks of native trees and vegetation.

2.4.7 Goal: Establish an urban forestry program.

Strategies:

1. Retain the street tree ordinance. This is a work and action plan that provides clear guidance for planting, maintaining, and removing of trees from streets, parks and other public places.
2. Apply for Tree City USA, proclaim Arbor Day in River Heights, (National Arbor Day is the last Friday in April) and plant new trees.
3. The city budget should allow, through assessment or donation, \$2.00 per capita for urban forestry.
4. The city should encourage residents to replace noxious trees with better quality trees.
5. Developers of new areas need to adhere to the green space guidelines for new developments.

2.4.8 Goal: Plan pedestrian and bicycle paths.

Strategies:

1. Ensure safe pedestrian traffic to and from River Heights Elementary School and other traffic crossing zones.
2. Plan for a pedestrian/bicycle path where possible.
3. Require that pedestrian and bicycle movement across any new or existing roads be central to the design of any new or improvement road projects.
4. Plan for future trails commencing at the corner of 600 East and River Heights Boulevard, eventually connecting to Temple View Drive, Denzil Stewart Nature Park and beyond.
5. Comply with Title II standards of the Americans with Disabilities Act concerning sidewalk accessibility design standards.
 - a. Assess ADA sidewalk deficiencies within the city.
 - b. Create a plan and project priority list for sidewalk rehabilitation and new construction.
 - c. Establish a reasonable timeline for achieving ADA compliant upgrades to sidewalk infrastructure.

2.4.9 Goal: Preserve a small commercial zone

Strategies:

1. The commercial zone shall be adequately buffered from all residential zones so that noise, lighting, and traffic that may be generated does not significantly impact residential zones.
2. The commercial zone must not cause a significant burden on City services.

3. The general purpose of commercial zoning is to promote the general welfare and sound economic development of River Heights City and to encourage the best use of land in areas most appropriate for the location of commercial establishments. Toward that end, separate zoning areas are established in which specified land uses may be permitted.

2.4.10 Goal: Support the revitalization and productive reuse of structures (at least 50 years old) and sites that hold historic, architectural, or cultural value through Historic Landmark (HL) Overlay Zones.

Strategies

1. Recognize the importance of these significant landmarks and provide a process to allow restoration and practical reuse while minimizing impacts to adjacent properties and avoiding the process of demolition and reconstruction.
 2. Allow light commercial development that will relate to the residential neighborhood and will be compatible with residential character or historic value in nature.
 3. Maintain harmony with amenities of adjacent residential development and to protect the surrounding residences from noise, lights, fumes, pests, overcrowding, heavy traffic, and other problems which may arise from an inharmonious mix of commercial and residential uses.
-

3 TRANSPORTATION

River Heights City strives to ensure that safe neighborhood and collector streets are designed and maintained to provide smooth traffic flow and accommodate bicyclists and pedestrians. This transportation master plan and the information and analyses contained herein should be consulted for direction on transportation-related issues. City ordinances require all newly developed streets to be designed and approved by a professional engineer licensed in the State of Utah. Designated and proposed trails are shown on the Trail and Park Map. Proposed goals and strategies will be implemented as funding becomes available.

The Cache Metropolitan Planning Organization (CMPO) is a consortium of city and county governments in the Logan Urbanized Area that conducts transportation planning to provide a comprehensive, coordinated, and continuing approach. The CMPO (www.cachempo.org) was formed in 1992 to carry out the federally mandated metropolitan planning process so the Logan Urbanized Area can receive federal funds for improving transportation facilities and services. River Heights is part of the CMPO. The Mayor of River Heights sits on the executive committee of the CMPO, as do all the mayors in the Logan urbanized area.

The CMPO develops both the five-year Transportation Improvement Program (TIP) and the 20–30-year long range Regional Transportation Plan (RTP). The TIP and RTP plan for the development of transportation facilities of regional significance, including highway, transit, pedestrian, and bicycle projects for urbanized areas. With the development of 100 East from 300 South to Providence, River Heights has been significantly impacted with increased vehicular and pedestrian traffic on 700 South due to commercial development.

Traffic from surrounding cities flows into and out of River Heights, therefore the city must be involved in the CMPO to participate in the planning of transportation corridors that will impact the city.

~~Although the CMPO currently includes 200 East in Logan; River Heights opposes this alternative. The CMPO TIP includes extending 200 East from 300 South to 100 East at 600 South in Logan which will involve River Heights; therefore, the city should plan accordingly.~~

3.1 TRANSPORTATION GOALS AND STRATEGIES

3.1.1 Goal: River Heights should be a community with adequate streets to effectively move traffic through residential neighborhoods and through the city. The city should plan, design, and enhance roads, pedestrian walkways, and bicycle paths.

Strategies:

1. Local neighborhood streets should have at least a ~~55~~ 56-foot right-of-way.

2. All identified collector streets should have at least a 66-foot right-of-way. Existing collector streets that are less than 66 feet wide should be upgraded wherever possible.
3. All ~~collector~~ streets should have sidewalks, curb, and gutter, and a five-to-eight-foot planting strip on both sides of the street.
4. The widening of roads and rights-of-way should be accomplished sensitively within residential areas. Mitigating measures should be taken to reduce the impact of enlarged roadways.
5. On-street parking will be regulated by ordinance.

3.1.2 Goal: Build sidewalks in the existing developed areas of the city.

Strategy:

Develop a systematic plan to install sidewalks, curbs and gutters (where appropriate). In new subdivisions or developments, however, the cost of sidewalks and curb and gutter will be the sole responsibility of developers and subdividers.

3.1.3 Goal: Local and trans-city traffic should be able to move throughout the city safely and effectively. As much as possible, collector streets should be adequate so as not to concentrate traffic on only a few streets.

Strategies:

1. River Heights is pursuing a Master Transportation Plan to document transportation needs. Roads identified in the plan should be developed or improved to accommodate current and future traffic projections. It is anticipated that the following streets, either existing or as they are developed in the future, are to be collector or functioning as collector streets:
 - A. 400 East from 600 South to 300 South
 - B. 600 East
 - C. 1000 East
 - D. 600 South between 400 East and 1000 East
 - E. 700 South from Highway 89 to 600 East
 - F. River Heights Blvd. from 600 East to 1000 East
2. A right-of-way should be preserved, or obtained, for the following new ~~collector and/or~~ neighborhood streets:
 - ~~A. 200 East from 300 South extending to 500 South, consistent with the CMPO Regional Transportation Plan.~~
 - B. 500 South (Riverdale Ave) from approximately 100 to 400 East
 - C. 800 South from 100 East to 600 East
- ~~3. A right-of-way should be preserved for the following new neighborhood streets:~~
 - A. 700 East between 400 South and 600 South

- B. 400 South from 750 East to approximately 850 East (this right-of-way is also required to protect access to a 10-inch water line)
- ~~C. 750 South from 600 East to 750 East~~
- D. 400 East from 700 South to 800 South
- E. 300 East from 500 South to 600 South (Summerwild Ave to Riverdale Area)

- 4. Collector roads should have controlled access.
- 5. Participate in regional transportation planning by working with the CMPO.

3.1.4 Goal: River Heights should coordinate with the transit district to improve transit services providing access to mass transit.

Strategy:

Maintain communication and contact with the Transit District, via board member, regarding the needs of River Heights City's riders.

4 INFRASTRUCTURE AND CITY UTILITIES

This section describes historical infrastructure information, current infrastructure and utility conditions, and recommendations to guide infrastructure and utility planning, capital improvements budgeting, and infrastructure maintenance.

4.1 WATER

4.1.1 Historical Information

The drought in 1934 resulted in the Utah Drought Agency drilling two wells in the River Heights area to be used for late-season agricultural irrigation. Each was located adjacent to one of the two canals now traversing the city. A year later the state assigned the upper well to the city at no cost. Years later the city purchased the lower well from the Providence-Pioneer Irrigation Company. A third well was drilled in 1980 by the city.

4.1.2 Present Condition

River Heights City acquires water from three different wells which charge two reservoir tanks. By today's pumping capacity and the availability of groundwater to pump, it appears River Heights has the capacity to deliver adequate water to the current residents and should be able to provide enough for anticipated growth. Table 3 below details the city's water system.

The city has instituted direct line reading of electronic water meters.

Source of water supply	3 wells
Number of residential connections	684 683
Number of equivalent residential connections	705
Reservoir capacity	1,500,000 gallons
Average daily use*	615,701 gallons
Peak daily use (summer)*	1,443,000 gallons per day
Peak operating capacity	5,493,679 gallons per day
Estimated number of connections that can be served with water supply**	1325 4,292 (exclusive of water rights pumping capabilities, only water available in the wells)
Total number of projected connections as per land use recommendation	1,150
Present water rights	Approx. 8.5 cubic feet per second
Projected summer peak use requirements:	
at 800 connections*	1,614,400 gallons per day
at 1,000 connections*	1,868,700 gallons per day

* Taken from city water reports. Projected use based upon ~~2024~~ 2020 water usage. ** See 4.1.4 paragraph 5.

Table 3

It would be prudent for River Heights City officials to be mindful of the possible effects of prolonged drought and unanticipated growth via higher density-housing (PUD, condominiums, apartments), either or both of which could introduce the need for more water in the future.

Medium density housing will have either an equal or less impact on the culinary water system than irrigation from single family lots. Under any condition, substantial growth will tax the culinary water storage system.

4.1.3 Secondary Water System

For over 100 years, Providence-Logan Irrigation Company water has sub-irrigated the city, watered and grown its many trees and provided relief to culinary supplies by its secondary use of irrigating fields, gardens and lawns. River Heights City owns and uses several shares in the company to water the Heber Olson Park, and the old elementary school property. It also relies on the canals to carry storm water runoff. However, currently the irrigation company has infrastructure problems. The old flume needs to be replaced with a new delivery structure. Should this source of water cease it will put a greater demand on the city's culinary system.

From a planning perspective, City officials understand the value of retaining, supporting, and or maintaining interest in the irrigation company as a resource which could provide a direct benefit to the city through reduced culinary demand, shade trees watering, etc. and also provide the city bargaining power if they were to be involved in water negotiations with other entities as growth further increases the rising demand for water throughout Northern Utah.

4.1.4 Water Supply and Use

The city has applied for the rights to an additional three cubic feet per second (CFS) from its current wells. The application has not been approved yet. This would allow for 565 additional connections for a total of ~~1,880~~ 4,857 connections. However, that exceeds the number of connections that the present water reservoirs can support. Under the present State guidelines, to get the three cubic feet per second approved, the city would have to come up with a mitigation plan to convert ground irrigation water to culinary water for indoor use.

The State of Utah Division of Drinking Water establishes standards for source and storage capacity for public water systems. The water system should provide for both indoor and outdoor water use. They recommend source capacity of 800 gallons and storage capacity of 400 gallon per equivalent residential connection (ERC). The State also requires minimum storage for fire suppression of 2,000 gpm for 2 hours which results in 240,000 gallons.

At present River Heights has ~~684~~ 683 residential connections and 22 additional ERC for a total of 705 ERCs. Approximately 80 percent of the ERCs are using drinking water for irrigation. Assuming 0.2 acre per ERC and ~~15.87~~ 45.70 acre for parks/school, the outdoor minimum requirements for irrigation use is 570 gallons per day (gpd)/ERC. The total minimum requirement for the water system is Source (indoor + outdoor) and Storage (indoor+outdoor+fire) 970 gpd/ERC which results in total storage requirement of 877,943 gallons.

Using the same factors as stated for the present, the River Heights reservoirs will accommodate approximately ~~1,325~~ 1,322 total ERC for an additional ~~641~~ 639. This assumes that all growth would occur under the present R-1 zones.

~~If all undeveloped land that would qualify under the R-PUD zone is developed, using the state guidelines and all open space uses culinary water (outdoor water) for irrigation the total reservoirs will accommodate approximately 1,292 ERC for an additional 609 connections.~~

There is concern that using the state requirements utilizes the average usage and does not consider the peak usage during the months of July and August as shown in Table 3 which shows it to be near the maximum storage of the combined reservoirs. Since the water system is pressurized from the pumps to the storage reservoirs, the pumping system does provide some relief by providing additional water of storage capacity. The city should look at the pumping system to improve this capability to provide for future growth.

4.1.5 Proposals to Enhance Water Sources

In recent years, considerable attention has been focused on the relationship of ground water to surface water in the Bear River drainage. There is considerable debate about how much the drawing or pumping of sub-surface water ultimately affects the flow of springs and other sources that feed the Bear River system. Water rights in Utah are determined by a priority system, basically first come, first served. River Heights' wells have priority rights of 1934, 1964, and 1980. This compares with three large water users in Box Elder County with rights dating from 1889 to 1923. At times during the late part of the summer and on low water years, these entities have a hard time filling their rights on the river. Because of this shortfall, River Heights could face the possibility of having to turn its pumps off in a drought situation because of a call for water by senior rights holders. This has never happened to date but neither has it been discussed and debated like it is now.

The State Engineer for the State of Utah is the official charged with overseeing and regulating water appropriations. The State Engineer's Office has approved water applications only in the case where a mitigation plan has been implemented (converted ground irrigation water for indoor use). The City has an application pending for an additional 3.0 (three) cubic feet per second (CFS) but it is being held by the State Engineer without approval at this date.

Recently, residents of Cache County voted to implement a water conservancy district. The district is charged with overseeing water use and assisting the cities in Cache County in implementing conservation methods. It is also charged to help in protecting all water sources in Cache County.

The State of Utah has recently required all public water systems to complete a drinking water source protection study and create a plan of action to protect drinking water from contamination at its source. LarWest International Engineering has completed the study and has submitted it to the city along with a plan entitled: *Potential Contamination Source Inventory and Management program for River Heights City*. There are preventative steps to be taken now, and regularly in the future, to warn citizens of potential source contamination. It should be a community effort.

Strategies:

1. The city should develop an ordinance whereby developers are required to transfer their water stock to the city in the event the shares are not used for the development.
2. The city should develop a five – eight-year capital projects improvement and development plan for the water utilities. The plan should prioritize projects and identify methods of paying for them. It should be approved by the city council and updated annually.
3. The city should continue improving the existing wells to increase water output. This would protect the City residents from a water restriction in case of a failure of the primary well.

4. If it becomes necessary, the city should establish a limit for building permits well in advance of the time that connections can be serviced by the present water storage capacity. This will allow all prospective developers and home buyers ample notice of the intent of the city to control development.
5. The city should determine and implement the method of financing additions to the water system. Relying on impact fees, water utility payments or a combination of the two should be considered.
6. The city should develop a policy on water main line extensions – whether they shall be the exclusive responsibility of the city or the developer, or both, and under which circumstances the city will participate.
7. Implement management programs to control potential water sources contamination as indicated in the *Potential Contamination Source Inventory and Management Program for River Heights City*.
8. The city should consider adding a pressure system from the Pro Log canal to water the City Park, the grass area around the Elementary School, Hillside Park and the Stewart Hill Park by either gravity feed or by pumping, which will help preserve and utilize the City's Pro Log shares.
9. As River Heights continues to grow, the city should explore ways to help mitigate the peak demand during the summer months. There may be many options but some to consider are:
 - a. Improve the pumping mechanism so the pumps can continue running during the peak demand.
 - b. Considering encouraging or participating in improving the ProLog irrigation system to provide more irrigation water from Prolog's system.
 - c. Encouraging water restrictions or reduced water times for those lots that are using culinary water to irrigate their landscapes.
10. If county-available land is close to being annexed, the city should implement a mitigation plan to pursue the 3.0 CFS water right application being approved in case present water rights will no longer provide the water required for future use.
11. If development occurs in the Riverdale area, the city should encourage using water from the Pioneer Irrigation Company to irrigate open space areas.

4.1.6 Summary

The City has water "in the ground" and water rights to serve about ~~1,292~~ 1,325 residential connections. By adding additional pumps and receiving approval on the rights that are applied for, the City could serve about 1,857 residential connections. This exceeds the storage capacity of the reservoirs and is more than needed for the projected growth for the City. The addition of large irrigation users or use of the city system to irrigate areas now served by the Providence-Logan Irrigation Company system, should it cease to provide water to its users, could certainly alter this figure.

The city should still consider pursuing mitigating some of the shares they own of the Pro-Log Irrigation company to convert to the applied 3 CFS application to culinary water usage.

The city owns a reservoir site on a bluff just south of the Dry Canyon entrance east of Logan, should it be needed.

4.2 SEWER

River Heights contracted with Logan City for sewage treatment in the mid-1970s. The collection system was installed and is now maintained by River Heights City. A February 1994 study conducted by Wallace Jibson, P.E. concludes that the River Heights system is adequate for the area that it presently serves and for any new development of areas east of 600 East and north of about 700 South that are anticipated by the proposed general plan. A sewer line was installed along 800 South in 2004 to serve the needs of development in that area. This line will also service the needs of future development east of 600 East.

Strategies:

1. The city should develop a five – eight-year capital projects improvement and development plan for the sewer utilities. The plan should prioritize projects and identify methods of paying for them. It should be approved by the city council and updated annually.
2. The city should determine and implement the method of financing additions to the sewer system. Relying on impact fees, sewer utility payments or a combination of the two should be considered.
3. The city should develop a policy on sewer main line extensions – whether they shall be the exclusive responsibility of the City or the developer, or both, and under which circumstances the City will participate.
4. The city should require that any new development within areas where a sewer system is not available, that the sewer system be designed and constructed such that all adjoining areas outside the development can be served in the future either by the developer or joint with the city.
5. Development of the Riverdale area will require a new sanitary sewer collection system serving this area and will include a new connection and measurement station to the Logan City wastewater system. River Heights City will need to coordinate with Logan City as to the capacity of the Logan City System for this connection.
6. Maintain a sewer collection system that is efficient and economical, meeting local, state, and federal requirements.
7. Review, update and maintain the current sanitary sewer management plan as needed.
8. Continue cleaning and video inspection of the sewer collection system.
9. Educate the public on unacceptable discharges into the sewer system, including problems with home sump pumps.

4.3 STORM WATER

Pursuant to existing subdivision regulations, developers are required to provide adequate facilities and improvements within developing subdivisions for storm water drainage. While this subdivision requirement provides for the collection of storm water within the subdivision, the uniform disposal of storm water is an issue that requires a city-wide plan.

Currently, subdividers and developers are required to receive approval from the appropriate ditch or canal company before any storm water is channeled through a ditch, canal, or waterway under the jurisdiction of the company. While the current storm water disposal method works under the existing network of ditches and waterways, in-fill residential development may eliminate agricultural areas and the need for ditches, etc. The city's liability exposure will

require the closing or covering of those canals and waterways thus restricting the capacity of a storm drain system based only upon irrigation ditches and canals.

Future development should minimize the dependency of storm water systems on canal company ditches and waterways. Use of such systems should be limited, where possible, to piped systems with controlled inflow to the system.

The city should pursue a citywide or regional storm water plan which could provide direction regarding the scope, the advisability and general design parameters of a proposed storm water handling facility and the area which said facility would serve to use the gradient of the Spring Creek drainage.

Strategies:

1. Maintain a storm water system utility that is efficient and compliant with the local, state, and federal requirements. Review, update and maintain a storm water plan as needed.
2. Coordinate and work with the Cache County Storm Water Coalition to meet the requirements of the current NPDES and MS4 Permits.
3. Educate public for maintenance of private storm water facilities.
4. Evaluate current user fees to ensure monies are adequate for maintenance, repair and replacement of current storm water facilities, and the construction of future storm water facilities.
5. Prioritize Low Impact Development (LID) storm water infrastructure in accordance with the Utah LID Guide published by the Utah Department of Environmental Quality.
6. Ordinances should be adopted or modified that promote or mandate LID Principles and green infrastructure for all development and redevelopment projects within the city.

4.4 EASEMENTS

Utility easements are and should consistently be required on all subdivision plats and made part of the official record. During the construction process and thereafter, the easements should be consistently protected by the city's best enforcement method. Whenever possible, city representatives should inform property owners regarding the existence of easements and protect said easements from encroachments. Officials considering building permits, and requests for variances, etc., should consider utility easements on every application.

Rocky Mountain Power (RMP) provides electric utility service to River Heights under a franchise agreement. The City and Rocky Mountain Power have had, and continue to have, a good working relationship. In the future, deregulation of electric utilities should pose few, if any, serious problems, or issues for River Heights. RMP has instituted direct line reading of electrical meters.

Opposition to unsightly overhead electrical wires has become a political issue in most Utah communities. State statutes allow electric utilities to install overhead wires as the standard.

The franchise agreement additionally provides for underground services in developing subdivisions and overhead service in existing neighborhoods. Developers and city officials are encouraged to designate streetlight locations early in the subdivision review process so costs of streetlight installation by RMP can be economically included when underground residential

services are installed. The city requires that in all new subdivisions electrical lines be buried at the expense of the developer. The City and RMP should agree to a consistent lighting fixture and pole type based on street and intersection standards, and conforming to the River Heights City Lighting Ordinance. Street lighting in developing subdivisions will be served by underground wiring.

4.4.1 Location of Service Lines

Cable and telephone service lines in developing subdivisions should be installed underground to enhance the value, appreciation, opportunities of land and buildings, reduce visual proliferation of poles, wires, and equipment, and reduce maintenance costs. Respective city officials should make valiant attempts to reduce the visual proliferation of overhead lines, poles and equipment in existing neighborhoods, especially along major transportation corridors and within prime and identified vistas/view sheds.

Strategies:

1. The city should continue to require underground services in developing subdivisions.
 2. The city should review locations for streetlights in developing subdivisions early in the process so RMP can economically install streetlights while residential underground work is commencing.
 3. The city should determine if certain designated areas warrant the expense of burying overhead lines. Special attention should be given to major transportation corridors and areas with significant vistas. The goal is to reduce the proliferation of overhead lines, poles, and equipment.
 4. The city should continue to require utility easements and protect them from encroachment.
 5. Promote use of LED streetlight fixtures when and wherever possible.
 6. Identify and replace all streetlights that do not conform with the current outdoor lighting ordinance.
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5 AFFORDABLE HOUSING

5.1 MODERATE-INCOME HOUSING PLAN

At publication of this document, the availability and affordability of housing in Cache Valley, including River Heights, is a major issue that has a profound impact on individual household budgets and the broader local economy. Housing is considered affordable when a household spends no more than 30% of available income on housing-related expenses (rent/mortgage and utilities). Moderate-income housing is affordable to households which earn below 80% of the area median income (AMI).

Although growth is projected to continue in River Heights, areas for new growth are limited. River Heights is relatively small, with a land area of only six-tenths of a square mile. Annexation of adjacent undeveloped land is limited because the city is landlocked by Logan City to the west, north and east, Providence City borders River Heights to the South. Most open land in River Heights has been built upon and developed into single family residential (R-1) zones. Although approximately 132 acres remain undeveloped, most of this land exists in small non-contiguous lots within existing residential zones. However, the city will strive to ensure that the existing supply of moderate-income housing is preserved and that as the community grows, there is the appropriate level of housing options to meet the needs of future residents.

This plan assesses the need for affordable housing with the following data:

1. An estimate of the existing supply of moderate-income housing.
2. An estimate of the need for moderate income housing for the next five years as revised annually.
3. A survey of total residential zoning.
4. An evaluation of how existing zoning densities affect opportunities for moderate income housing; and
5. Affordable Housing Goals and Recommendations to ensure that existing and future residents of River Heights have a reasonable opportunity to obtain affordable housing.

5.1.1 Existing Supply of Moderate-Income Housing

River Heights currently has 683 dwellings billed for utilities, with approximately 705 housing units located within the city¹. Approximately 27% or 184 of these dwellings are older homes located in the center of the city. Most of these homes were built before 1950, are smaller and generally more affordable. A number of these houses are rented or have apartments within them. To preserve the supply of moderate-income housing opportunities in such older homes, the city should refer eligible homeowners to programs administered by Bear River Association of Governments (BRAG)² to finance repairs.

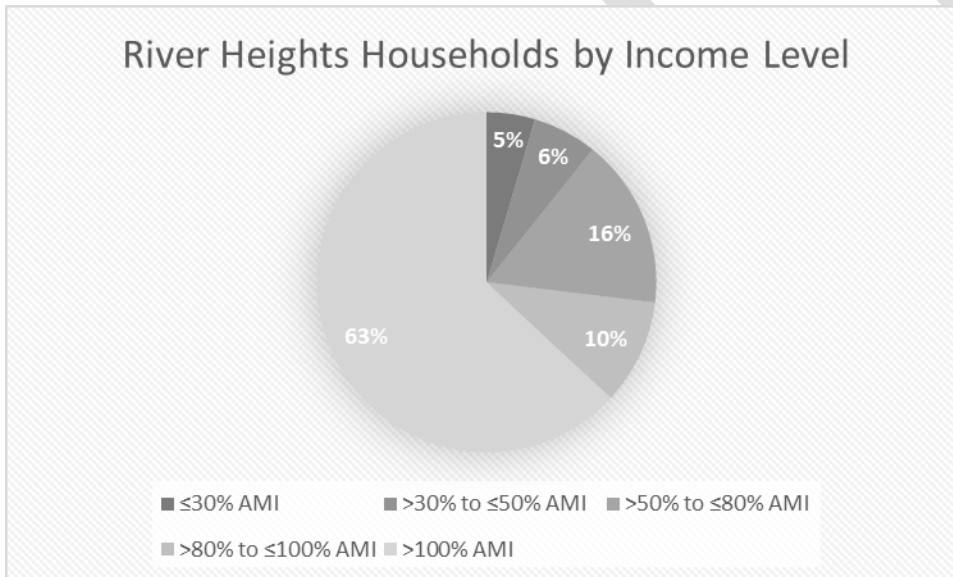
Approximately 4% or 25 dwellings in River Heights are apartments with 2-5 units¹. Almost 15% of housing in the city is renter-occupied with the remainder being owner-occupied. Median gross rent was \$2,000 per month ~~\$867~~ as of 2025 ~~2019~~ and increasing annually.

The State of Utah's Five-Year Housing Projection Calculator estimates housing need primarily based upon US Census Bureau American Community Survey data. According to this calculator, there are currently 130 units affordable to those earning below 80% AMI with 105 renter

households earning below 80% AMI, suggesting that there is generally not a gap in affordable rental opportunities for those currently residing in River Heights. However, in lower income brackets (below 50% AMI), there is a shortage of available and affordable units and households, suggesting that some households may need subsidies to afford housing costs. In addition, housing is becoming increasingly less affordable which is contributing to an increasing gap in affordable and available housing.

5.1.2 Estimated Need of Moderate-Income Housing over the Next Five Years

As noted in Chapter 1, the current population of River Heights, as of 2020 was 2,144. Should growth continue at the projected rate of 1.3% per year, River Heights will add approximately 30 people per year increasing the population to approximately 2,356 by the year 2025. Based on an average household size of 3.19 individuals (*as per current population estimates) this equates to an increase of approximately 47 new households by the year 2025. Approximately 27% of households within River Heights earn below 80% of the Area Median Income. Assuming that new households have the same income distribution and household size as the current population, at least 13 additional housing units should be affordable to low and moderate-income households by the year 2025.



5.1.3 Survey of Total Residential Zoning

Historically River Heights has been a residential community of primarily single-family homes, with a few twin homes and apartment units. As cited in 5.1.1, there are 683 housing units billed for utilities. These dwellings are in residential zones designated as R-1-8, R-1-10 and R-1-12. Within some areas of River Heights, there is an allowance for Planned Unit Developments which allow for an increase in residential housing density and some diversity of housing types, in exchange for the provision of open space and supportive amenities. River Heights also has a small Agricultural zone.

Current land use in River Heights divides into the following approximate percentages: 82% Residential or Parks and Recreation; 15% agricultural; and 3% Commercial zone. The small

commercial zone has been built out with businesses that provide employment opportunities, however, there are no residential dwellings within the zone.

5.1.4 Effect of Existing Zoning on Opportunities for Moderate Income Housing

As of ~~2023~~ 2019 the median income for a household in River Heights was ~~\$109,060~~ \$71,750¹. The median property value was ~~\$482,390~~ \$257,600¹. If more than 30% of a household's income is spent on housing, funds for other necessities such as food, transportation, and health care may be insufficient. Therefore, the maximum amount that should be spent on housing (maximum monthly rent or mortgage plus utilities) would be approximately at the following levels based on a ~~\$109,060~~ \$71,750 median (MI) income.

80% MI = ~~\$87,250~~ \$57,400: 30% or ~~\$1,722~~ \$1,435 per month of this income would be

available for housing. 50% MI = ~~\$54,531~~ \$35,875: 30% or ~~\$1,635~~ \$897 per month of this

income would be available for housing. 30% MI = ~~\$32,718~~ \$21,525: 30% or ~~\$981~~ \$538 per

month of this income would be available for housing.

River Heights has a limited number of available rental units, although there are additional rental opportunities in nearby communities of Logan and Providence. River Heights should plan for additional opportunities to develop more affordable rental options within the city to accommodate existing and future residents.

Families making below 80% of the median income, who are more likely to be renters, may be affected by the limiting housing opportunities, which restrictive zoning impacts. In general, new single-family housing is not being developed at costs which are affordable to moderate-income households. Families making 30% of the median income or lower often need federal or state government housing assistance, regardless of housing availability. However, allowing for opportunities for a wider variety of housing types, such as duplexes, townhomes, and patio homes in potential planned unit developments zones will help increase the housing diversity and provide for the projected moderate-income housing need within the community.

5.2 AFFORDABLE HOUSING GOALS AND STRATEGIES

5.2.1 Goal: Provide moderate- and low-income home ownership and rental opportunities for existing and future residents.

Strategies:

1. Inform prospective residents of the Bear River Association of Governments' existing low-income home buyer programs. Please visit: <http://brag.utah.gov/housing/>²
2. Support the creation of Planned Unit Developments in dispersed areas of the city near services and supportive infrastructure.
3. Allow owners who occupy their home to rent their basement or similar apartments in the same home.
4. Continue to allow property owners to rent homes throughout the city.
5. Allow Accessory Dwelling Units (ADU) contingent upon lot size, setback, off street parking, and owner occupation of primary residence.

5.2.2 Goal: Preserve existing supply of attainable housing by assisting low-income homeowners in financing home repairs.

Strategy:

Inform prospective homeowners about minor and major home repair loans from the Bear River Association of Governments (BRAG). BRAG can make minor repair loans; they also have a program for making loans for major home repairs. Please visit:

<http://brag.utah.gov/housing/>²

5.3 REFERENCES

1. 2019 American Community Survey 5-year Estimates
 2. Bear River Association of Governments - <http://brag.utah.gov/housing/>
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6 APPENDICES

6.1 APPENDIX A GEOLOGY OF RIVER HEIGHTS

River Heights lies on Quaternary units that were deposited in the deltas, shorelines, and the lake bottom of Lake Bonneville (16,000 to 15,000 years ago). The River Heights City center lies on deltaic deposits from the younger, Provo shoreline of Lake Bonneville (14,500 to 13,500 years ago). Quaternary deposits east of River Heights include alluvial stream and fan deposits near the mountain front.

The mountain front of the Bear River Range east of River Heights formed by the East Cache Fault, is an active normal fault which is approximately 48 miles long. This fault forms the boundary between Cache Valley and the Bear River Range. Although this fault runs through parts of Logan City and is visible on the fairways of the Logan Golf and Country Club, it is east of River Heights near the base of the mountains.

A study by Evans, McCalpin, and Holmes, Department of Geology, Utah State University, published in 1996 states that geologic hazards in this area include flooding, mass wasting, and earthquakes. That same study, however, indicates that River Heights is on ground with few geological hazards, except for earthquakes.

River Heights is on four Quaternary units:

Qal – Clast-supported pebble and cobble gravel in a matrix of sand, silt, and minor clay, with thin sand lenses; located on modern floodplains and low terraces. This area covers the Riverdale section of the city.

Qlf – Undivided fine-grained Lake Bonneville deposits. This is a small section in River Heights east of 700 South, below Summerwild Avenue.

Qlpd – Deltaic deposits related to the Provo and younger shorelines - Clast supported pebble and cobble gravel in a matrix of sand and minor silt, with thins, sand beds; mostly deposited at the time of the Bonneville flood. This area covers most of the City's center, surrounding the city office building and the area surrounding the Providence cemetery.

Qlps – Lacustrine sand and silt related to Provo and younger shorelines - Nearshore deposits of coarse to fine sand, silt, and minor clay. This area covers the area surrounding the new elementary school.

6.1.1 Geologic Hazards

None of these Quaternary units, as discussed by Evans, McCalpin, and Holmes, are said to be unsuitable to build on. Further, no problem soils (soils with large amounts of clays that have a high shrinking-swelling potential due to hydration and drying) were found during their investigation (Evans, McCalpin, & Holmes, 1996).

6.1.1.1 Mass Wasting

It is important to note, however, that other Quaternary units near River Heights are unsuitable for building due to a potential for mass wasting. This is a process in which rock, soil, and debris move down slope under the influence of gravity. Mapped complex slope failures are located on both sides of the Logan River where steep slopes of fine-grained Lake Bonneville deposits have failed. This zone exists along the north and south sides of the Logan River for about two miles downstream from the mouth of Logan Canyon. The northern boundary of River Heights is close to this zone.

The Evans and McCaplin study also says that alluvial fans are potential hazard sites. Several alluvial fans are east of River Heights, closer to the mountains.

6.1.1.2 Earthquakes

Because River Heights (and all of Cache Valley) is close to the East Cache Fault, which is an active fault, all of Cache Valley is at risk for an earthquake. Ground shaking due to earthquakes may pose a significant risk to River Heights.

6.1.1.3 Flood Hazards

Flood hazards in River Heights could occur along the Logan River in the Riverdale area or along Spring Creek. Determination of future flood risk is "notoriously poor" for canyon mouths in Utah. Melt-induced floods and peak discharges for the Logan River occurred May 24, 1907 (2,480 CFS) and May 31, 1984 (1,980 CFS). (Evans, McCaplin, & Holmes, 1996).

6.2.1 APPENDIX B BIRD SPECIES FOUND ALONG AND NEAR THE LOGAN RIVER CORRIDOR IN RIVER HEIGHTS

Species	Residency
American Kestrel (<i>Falco sparverius</i>)	year round
American Dipper (<i>Cinclus mexicanus</i>)	year round
<u>American Robin (<i>Turdus migratorius</i>)</u>	year round
Bald Eagle (<i>Haliaeetus leucocephalus</i>)*	winter
Belted Kingfisher (<i>Ceryle alcyon</i>)	year round
<u>Black-billed Magpie (<i>Pica pica</i>)</u>	year round
Black-headed Grosbeak (<i>Pheucticus melanocephalus</i>)	migrating
Cooper's Hawk (<i>Accipiter cooperii</i>)	migrating
<u>European Starling (<i>Sturnus vulgaris</i>)</u>	year round
Fox Sparrow (<i>Passerella illaca</i>)	migrating
Great Horned Owl (<i>Bubo virginianus</i>)	year round
Hermit Thrush (<i>Catharus guttatus</i>)	year round

House Wren (<i>Troglodytes aedon</i>)	migrating
MacGillivray's Warbler (<i>Oporornis tolmie</i>)	migrating
<u>Mallard (<i>Anas platyrhynchos</i>)</u>	year round
Northern Goshawk (<i>Accipiter gentilis</i>)	winter
<u>Northern Flicker (<i>Colaptes auratus</i>)</u>	year round
Red-tailed Hawk (<i>Buteo jamaicensis</i>)	year round
Rough-legged Hawk (<i>Buteo lagopus</i>)	winter
Rufous-sided Towhee (<i>Pipilo erythrophthalmus</i>)	year round
Sharp-shinned Hawk (<i>Accipiter striatus</i>)	migrating
Swallow species	migrating and year round
Townsend's Solitaire (<i>Myadestes townsendi</i>)	winter
Western Screech-Owl (<i>Otus kennicottii</i>)	year round
Western Tanager (<i>Piranga ludoviciana</i>)	migrating
White-breasted Nuthatch (<i>Sitta carolinensis</i>)	winter
White-crowned Sparrow (<i>Zonotrichia leucophrys</i>)	migrating
Wilson's Warbler (<i>Wilsonia pusilla</i>)	migrating
Yellow Warbler (<i>Dendroica petechia</i>)	migrating
Yellow-breasted Chat (<i>Geothlypis trichas</i>)	migrating
Yellow-rumped Warbler (<i>Dendroica coronata</i>)	migrating

*Two bald eagles have had a winter roost along the Logan River, in River Heights, since 1989. Bald eagles are listed as a threatened species, in Utah, on U.S. Fish and Wildlife Service's endangered species list. The eagles arrive in November and leave in March.

6.3 APPENDIX C PLANT SPECIES FOUND ALONG THE LOGAN RIVER

Common Name	Botanical Name
Bebb Willow	<i>Salix bebbiana</i>
Black Hawthorn	<i>Crataegus douglasii</i>
Choke Cherry	<i>Prunus virginiana</i> var. <i>melanocarpa</i>
Dogwoods	<i>Cornus sericea</i>
Fremont Cottonwood Trees	<i>Populus fremontii</i>
Golden Currant	<i>Ribes aureum</i>
Other Willow species	<i>Salix</i> spp.

Peachleaf Willow	<i>Salix amygdaloides</i>
Plains Cottonwood	<i>Populus deltoides</i>
Sandbar Willows	<i>Salix exigua</i>
Thinleaf Alder	<i>Alnus incana</i> var. <i>tenuifolia</i>
Water Birch Trees	<i>Betula occidentalis</i>
Wild Rose	<i>Rosa woodsii</i>
Yellow Willow	<i>Salix eriocephala</i>

6.4 APPENDIX D MAPS

6.4.1 General Plan Land Use Map

6.4.2 General Plan Land Use and Sensitive Area Map

6.4.3 Transportation Master Plan Map

6.4.4 Trail and Park Master Plan Map

6.4.5 Annexation Declaration Map (for reference only)