



Washington City, Utah

Parks & Recreation Master Plan & Impact Fee Facilities Plan/impact Fee Analysis

November 13, 2019





PARKS & RECREATION MASTER PLAN

(IMPACT FEE FACILITIES PLAN AND IMPACT FEE ANALYSIS)

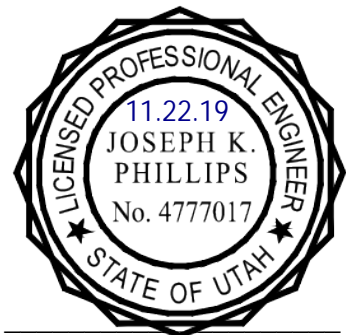
NOVEMBER 2019

MAYOR..... Ken Neilson
COUNCIL MEMBERTroy Belliston
COUNCIL MEMBERJeff Turek
COUNCIL MEMBERDan Cluff
COUNCIL MEMBER Kolene Granger
COUNCIL MEMBER Douglas Ward
CITY MANAGER..... Roger Carter
LEISURE SERVICES DIRECTOR Barry Blake

PREPARED BY:



11 North 300 West
Washington, UT 84780
TEL: 435-652-8450
FAX: 435-652-8416



Joseph K. Phillips, P.E.
Principal Engineer
State of Utah No. 4777017

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I. EXECUTIVE SUMMARY

The following section is for summary purposes only. Detailed information regarding the numbers and figures presented herein are provided in the body of this the Washington City Parks and Recreation Master Plan (Impact Fee Facilities Plan and Impact Fee Analysis).

A. USER ANALYSIS

Washington City has experienced tremendous growth, presenting both challenges and opportunities as the City strives to maintain a high quality of life in regards to parks and recreation for their citizens. A population and growth projection gives the City an idea of what future demands will be required and how the City should plan through that period. The following points have been calculated and presented in this study:

- Growth Rate Of 3% Per Year
- 10-Year Planning Horizon Or Period
- Existing Estimated Projections For 2018:
 - Population = 27,363
 - Households = 8,926
 - Housing Units = 11,006
- Future Estimated Projections For 2028:
 - Population = 36,774
 - Households = 11,996
 - Housing Units = 14,791

B. INVENTORY

Providing an accurate inventory is essential to determining the existing Level of Service (LOS) for the community. In order to accomplish this a complete inventory was collected from City staff which includes quantitative information. The inventory compilation is a three-step process: preliminary data collection, site visits, and data review and compilation. Once this is complete, an existing LOS can be calculated as presented in this plan:

- Existing Facilities:
 - 13 Parks = 112.15 acres

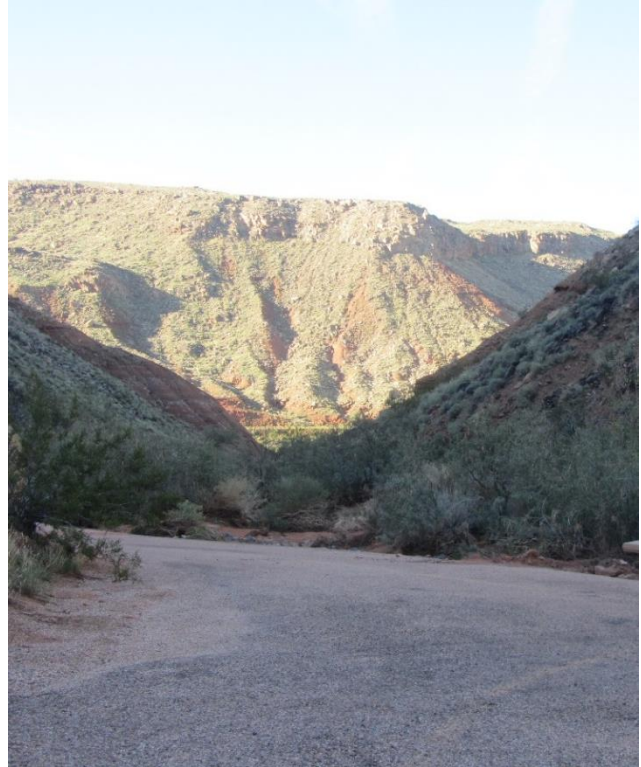


Figure I-1: Hell Hole Trail

- 20 Trail Systems = 19.09 miles
- 1 Recreation Facility = 110,000 sf
- Eligible LOS:
 - Parks = 3.69 acres/1000 people
 - Trails = 0.70 miles/1000 people
 - Recreation Facility = 3,108 sf/1000 people

C. DEMAND ANALYSIS

The demand analysis focuses on the desired or target LOS and the future LOS needed to maintain the current or existing LOS. Discussion on what the target LOS, as well as the future demands due to growth are outlined in the plan.

- Target LOS:
 - Previous Plans Show NRPA Guideline of 6.0 acres/1000 people
 - Assumed Target LOS = 6.0 acres/1,000 people
 - Total Apparent LOS = 6.76 acres/1,000 people is greater than target LOS of 6.0.
- Growth Demand for Planning Horizon:
 - Parks = 34.7 acres

- Trails = 6.6 *miles*
- Recreation Facility = 29,250 *sf*

D. IMPACT FEE FACILITIES PLAN

The facilities plan provides further analysis of the future LOS needed and then outlines an action plan and recommended capital improvements to guide the Leisure Services Department and the City for the next ten years.

- Park Facilities Plan
 - 21 Parks or Phases Identified = 196.9 *acres*
 - 14 Parks or Phases for 10-Year = 27.2 *acres*
 - Minimum City Park Size = 4.0 *acres*
- Trail Facilities Plan
 - 41 Trail Systems Identified = 73.28 *miles*
 - 12 Trail Systems for 10-Year = 6.6 *miles*
 - Trail Material = Asphalt
 - Minimum Trail Width = 10.0 *feet*
- Recreation Facility Plan
 - Total Size = 110,000 *sf*
 - General Population Capacity = 60,000
 - City Population at Capacity = 37,200
 - Current Excess Capacity = 28,144 *sf*
 - Target LOS = 2,983 *sf/1000 people*
 - Excess Capacity in 10-Year = 319 *sf*

E. IMPACT FEE ANALYSIS

Impact Fees are a major current source of funding capital projects. It is important to direct these



Figure I-2: Community Center Court

funds toward parks and recreation improvements that will meet future needs of the community and be in compliance with the facilities plans detailed in this report. Collection and expenditure of Impact Fees shall be in accordance with Utah Code 11-36a-101.

- Existing Impact Fee = \$3,700 *per ERU*
- Unit Costs for New Infrastructure
 - Parks = \$291,096 *per acre*
 - Trails = \$667,398 *per mile*
 - Recreation Facility (Actual Cost) = \$179.00 *per sf*
- Total Impact Fee Eligible Costs = \$22,900,255
- Proposed Maximum Allowable Impact Fee = **\$6,050 *per household***



Figure I-3: Green Spring Park

II. INTRODUCTION

This Section reviews the purpose and scope of this capital facilities plan and analysis, provides background information, identifies the plan's area or limits, and considers connections with adjacent entities related to parks and recreation facilities in Washington City.

A. PURPOSE AND SCOPE

In February 2014, Washington City commissioned Sunrise Engineering, Inc. to conduct a parks and recreation Impact Fee Facilities Plan and Impact Fee Analysis. The City understands the importance of an early planning process to aid in the creation of a comprehensive community-wide park system fulfills the current and future recreational needs of Washington City residents. In January 2018, Washington City commissioned Sunrise Engineering Inc. to update the 2014 Impact Fee Facilities Plan and Impact Fee Analysis.

Parks and recreation facilities are an integral part of the community. The location and attributes of a park and recreational facility can have a vast impact on the type and course of growth in the community. Likewise, these facilities can enhance

the quality of life, and contribute positively to a neighborhood's aesthetics.

As directed by the City, the specific objectives of this plan are to analyze population growth rates and projections, identify existing parks and recreation facilities, establish a facilities plan to accommodate future growth, and perform a financial and Impact Fee Analysis. Ultimately, the goal of this plan is to provide a general guide to the City for making decisions pertaining to future parks and recreation development and to help avoid mistakes attributed to the lack of proper planning.

B. BACKGROUND INFORMATION

Washington City is located in Southern Utah along the I-15 corridor in the south-central portion of Washington County.

The terrain surrounding the City of Washington is characterized by mild to steep slopes. Several bluffs are located within the City, providing natural barriers and potential open areas. The City is divided by a major waterway, the Virgin River, which flows generally northwest to southeast through the center of Washington City. Several



—Figure II-1: Virgin River

natural drainages run north to south through the City and run into the Virgin River, Mill Creek being one of them.

Washington City is characterized by its semi-arid climate which is typically hot and relatively dry in the summer months and mild in the winter months. The average annual rainfall is approximately 8.85 inches, with higher rainfall accumulation occurring primarily in the winter months.

Due to the area's temperate climate and location, Washington City has experienced moderate to high growth rates over the past 30 years, including a dramatic growth increase between 2004 and 2006, which slowed shortly thereafter due to a downfall in the economy. However, in recent years growth rates have increased considerably in Washington City. The City's estimated population in 2017 was 26,566.

As with any other community, growth and development in the area have fostered the need for additional parks and recreation facilities to support the population increase.

C. ANALYSIS AREA

The master plan area is generally contained within the existing Washington City limits; see the Appendix A map titled, "*Location Map*" (Fig 1).

The northern portion of the City is almost entirely comprised of the Red Cliffs Desert Reserve; no development is expected in the region, but it was necessary to coordinate connections as the Reserve provides additional recreation opportunities to the citizens of the City.

Washington City abuts St. George City, the largest city in the county, to the west. Considerations were made in this plan to connect to their facilities to the west, south and wherever seemed appropriate.

To the east, a significant portion of this land will be developed and is outside the current City limits, but this land plays a significant role in making connections to Hurricane City and several recreation spots in Washington County including Sand Hollow State Park.

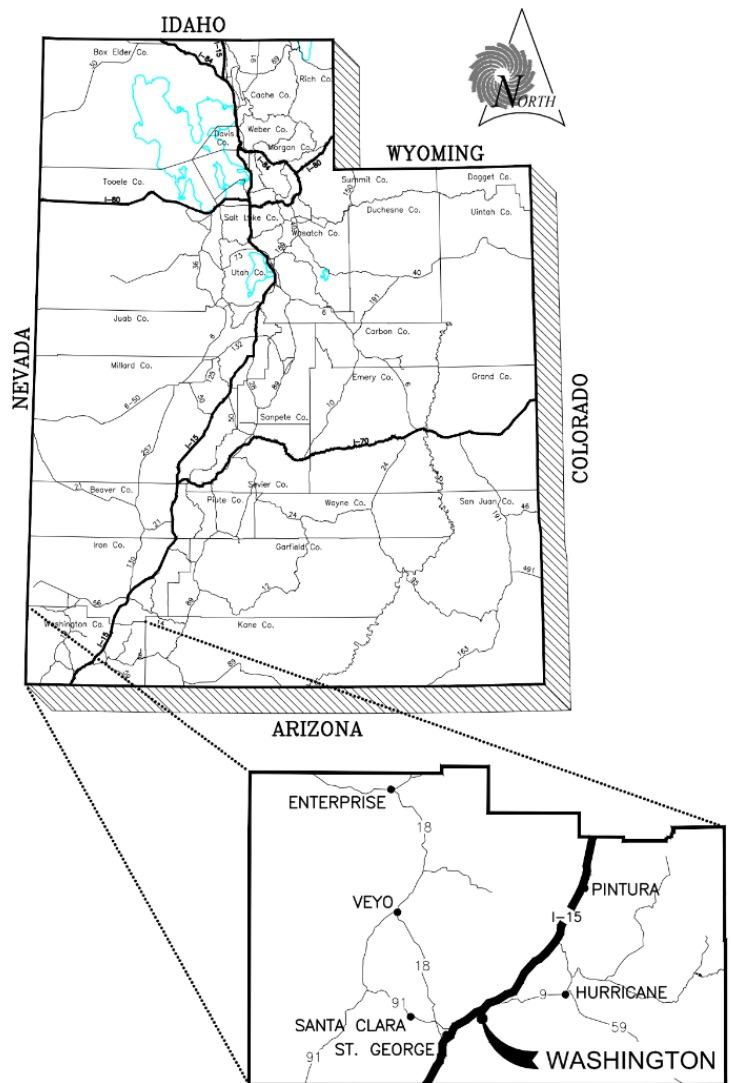


Figure II-2 Area Map

III. USER ANALYSIS

An important element in any community plan is a user analysis or a projection of the City's population growth rate. This projection gives the planner an idea of the future demands the City should plan for throughout the planning period. This section summarizes how the growth rate, planning period, population projections and capacity were calculated or obtained.

A. GROWTH RATE

To determine the level of service standard, projections for the population and growth rate must be calculated. Projecting the future population can be a subjective process, especially with fluctuating growth trends Washington City has seen in recent years. With this in mind, Table III-1 below summarizes periods of historic growth rates from official census data obtained from 1970 to 2010.

Table III-1: Historic Growth Rates

DESCRIPTION	YEAR PERIOD	GROWTH
20-year Historic	1970-1990	9.0%
20-year Historic	1980-2000	5.0%
20-year Historic	1990-2010	7.8%
30-year Historic	1970-2000	8.3%
30-year Historic	1980-2010	6.2%
40-year Historic	1970-2010	8.4%

Washington City has grown significantly since 1970, but the overall growth rate for no less than a 20-year period has been between 5% and 9%. In discussion with the City, a greater population base has been established and the City expects the growth rate to slow. The assumed growth rate for the study will be 3% per year. This growth rate corresponds with estimated growth rates from the City's latest master plans and Impact Fee Analyses (i.e. Culinary Water Master Plan update, 2017).

B. LENGTH OF PLANNING HORIZON

It is typical for an Impact Fee Facilities Plan to use a 10 or 20-year planning horizon or period.

For example, the first year of a 10-year planning horizon would be the year of 2018 with the last year being 2028.

This plan will assume a 10-year planning horizon based upon the following points:

- The City must expend or encumber the Impact Fees for a permissible use within six years of their receipt.
- Assumptions, understandings, data, objectives, goals, etc. can vary widely within a 10-year period.

Table III-2: Population Projections

YEAR	SOURCE	POPULATION	GROWTH
2000	Census	8,186	6.9%
2001	Census	8,815	7.7%
2002	Census	9,661	9.6%
2003	Census	10,496	8.6%
2004	Census	11,558	10.1%
2005	Census	13,693	18.5%
2006	Census	15,310	11.8%
2007	Census	16,614	8.5%
2008	Census	17,716	6.6%
2009	Census	18,355	3.6%
2010	Census	18,761	2.2%
2011	Census Est.	19,985	6.5%
2012	Census Est.	20,888	4.5%
2013	Estimate	21,724	4.0%
2014	Estimate	22,810	5.0%
2015	Estimate	23,950	5.0%
2016	Estimate	25,148	5.0%
2017	Estimate	26,566	3.0%
2018	Estimate	27,363	3.0%
2019	Estimate	28,184	3.0%
2020	Estimate	29,029	3.0%
2021	Estimate	29,900	3.0%
2022	Estimate	30,797	3.0%
2023	Estimate	31,721	3.0%
2024	Estimate	32,673	3.0%
2025	Estimate	33,653	3.0%
2026	Estimate	34,663	3.0%
2027	Estimate	35,702	3.0%
2028	Estimate	36,774	3.0%

C. POPULATION PROJECTION

An essential element in development of this Facilities Plan is the projection of the City's assumed growth rate to an anticipated planning horizon. The future population for each year was then calculated using the compound interest formula and inserting the projected growth rate, the existing population, and the length of the planning horizon.

$$F = P(1 + i)^n$$

Where,

F = Future Population
P = Present Population
i = Growth Rate (3%)
n = Years

This plan has considered official census data from 2000 to 2010, census estimates for 2011 and 2012, and estimates from 2013 to 2017, using the compound interest formula, to calculate the

current and projected populations as shown in Table III-2 and Figure III-1.

D. POPULATION CAPACITY

While population data for this study has been taken from the Census, it is important to note the population figures presented in this plan may not fully reflect the population capacity of Washington City as it relates to total housing units.

For example, the 2010 Census reports 7,546 total housing units but only 6,120 are occupied with the remaining 1,426 being vacant. These vacant homes have been categorized as follows: for rent, rented but not occupied, for sale, sold but not occupied, for seasonal, recreational, or occasional use, and vacant. With regards to Washington City specifically, the majority of vacant homes fall within the seasonal, recreational, or occasional use category.

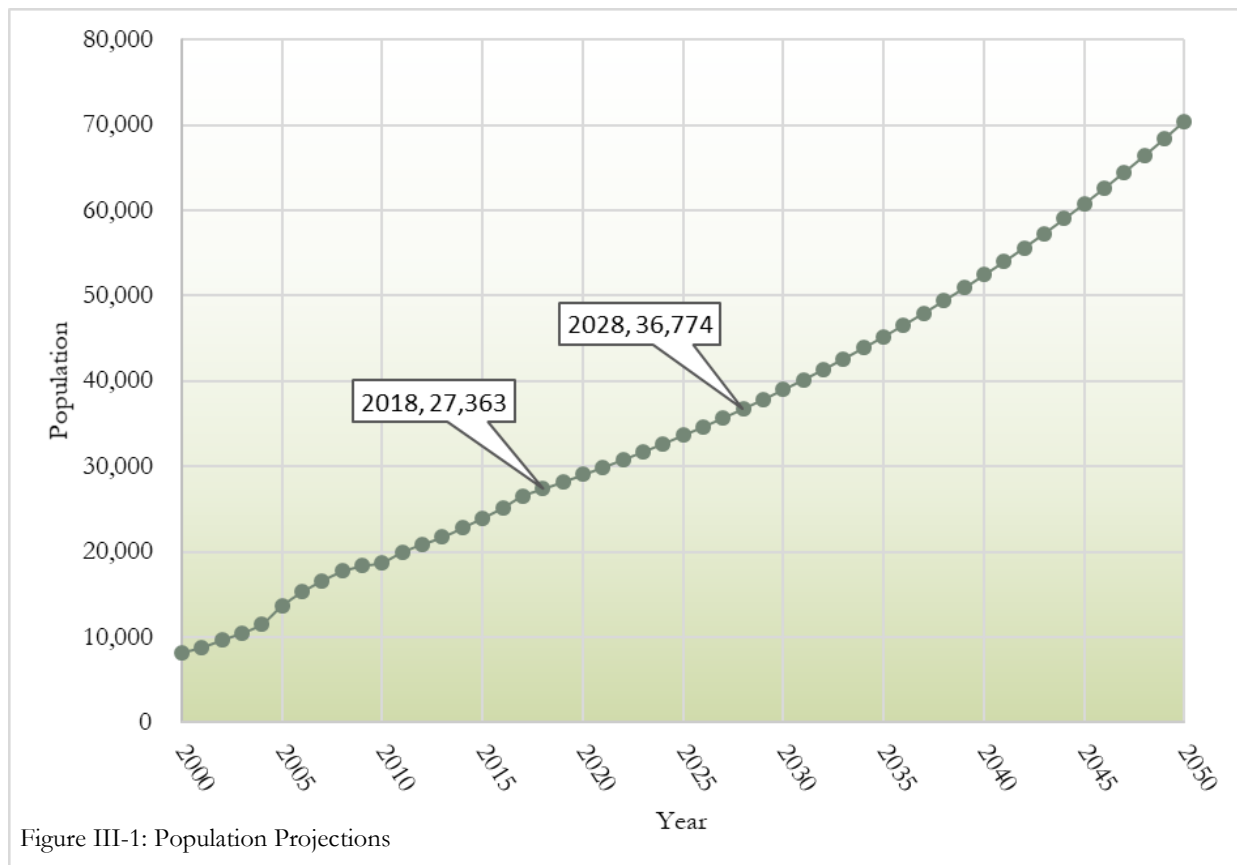


Figure III-1: Population Projections

The population capacity for the 2010 Census can be determined by taking the 2010 population divided it by the number of housing units occupied and then multiplying by the total housing units as shown in the following equation.

2010 Population Capacity:

$$\left(\frac{18,761 \text{ people}}{6,120 \text{ units occupied}} \right) 7,546 \text{ units total} = \mathbf{23,132 \text{ people}}$$

For non-Census years, the ratio of total housing units to occupied housing units will be assumed to remain constant. This ratio will be multiplied by the projected population to determine the population capacity for that year. Calculations for the current and projected population capacity are illustrated in the following equations.

Current Population Capacity (2018):

$$\left(\frac{7,546 \text{ units total}}{6,120 \text{ units occupied}} \right) 27,363 \text{ people} = \mathbf{33,739 \text{ people}}$$

10-year Population Capacity (2028):

$$\left(\frac{7,546 \text{ units total}}{6,120 \text{ units occupied}} \right) 36,774 \text{ people} = \mathbf{45,342 \text{ people}}$$



Figure III-2: Veterans Park

The number of total housing units, or household capacity, for a given year can be determined taking the total population capacity and dividing it by the average household size of 3.0655.

$$\left(\frac{18,761 \text{ people}}{6,120 \text{ units occupied}} \right) = 3.0655 \text{ people/unit}$$

Total Housing Units (2018):

$$\frac{33,739 \text{ people}}{3.0655 \text{ people/unit}} = \mathbf{11,006 \text{ units total}}$$

10-year Total Housing Units:

$$\frac{45,342 \text{ people}}{3.0655 \text{ people/unit}} = \mathbf{14,791 \text{ units total}}$$

More details on the population and growth projections are found in Appendix B.

E. NON-RESIDENTIAL UNITS

Consistent with previous parks and recreation plans, the number of commercial, industrial, business, and non-residential units were not considered a part of this plan or analysis because their impact on the recreation within the City, at this time, are considered to be negligible.

At such time as it becomes apparent that these non-residential type units have impact on the parks and recreation facilities of Washington City, the City may seek to perform additional analysis or impose an Impact Fee, but at this time no fee will be assessed.

IV. INVENTORY

This section seeks to inventory the existing parks and recreation facilities within Washington City, establish guidelines, standards, classifications and existing LOS to be used throughout the facilities plan and in future parks and recreation planning. Information was gathered from the City's GIS department along with various site investigations and with information provided by City personnel.

A. EXISTING FACILITIES

As of 2018, there were 13 existing parks, 20 trail systems, and one community center which are under the management of the Washington City Leisure Services Department. Maps of these parks, trail systems, and community center are found in Appendix A maps titled “Existing Inventory Map” (FIG 2-A1 through FIG 2-C1).

The following Table IV-1 summarizes the acreage and names of the parks included in the existing facilities inventory:

Table IV-1: Existing Parks

PARK NAME	CLASSIFICATION	AREA (acres)
Ball Fields Park	Community Park	14.73
Dog Town Park	Neighborhood Park	1.78
Green Spring Park	Neighborhood Park	8.60
Heritage Park	Neighborhood Park	12.32
Highland Park	Neighborhood Park	7.17
Nisson Park	Neighborhood Park	7.32
Pine View Park	Neighborhood Park	7.91
Razor Ridge Park	Neighborhood Park	3.28
Sienna Hills Park	Neighborhood Park	4.82
Sullivan Park Phase I	Community Park	10.58
Sullivan Park Phase II	Community Park	26.19
Treasure Valley Park	Neighborhood Park	4.62
Veterans Park	Neighborhood Park	2.83
Total		112.15

Table IV-2 shows the City's trails systems and their associated lengths that are part of the existing facilities inventory:

Table IV-2: Existing Trails

TRAIL SYSTEM NAME	LENGTH (miles)
Coral Canyon Trail	4.22
Cottonwood Trail	1.12
Hell Hole Trail	0.45
Henry Walker Homes Trail	1.19
High Point Trail	0.33
Highland Park Loop Trail	2.36
Highland Park South Loop Trail	0.69
Little San Francisco Trail	0.17
Main Street Trail	0.27
Meadows Park Trail	0.13
Millcreek Trail	0.52
North Green Springs Trail	1.15
School Yard Trail	0.25
Sienna Hills Park Trail	0.29
Silver Mine Trail	0.15
Stucki Farms Trail	0.58
Telegraph Trail	0.54
Treasure Valley Trail	0.56
Virgin River Trail	3.17
Washington Parkway Trail	0.93
Total	19.09

The Washington City Community Center was built in 2008 and provides recreational opportunities for the surrounding communities with amenities such as personal fitness, group exercise, recreational sports, youth and adult sports programs, aquatic facilities and lessons, special events and activities, etc. The facility is 110,000 square feet and is located on approximately nine acres.

The Washington City Cemetery is not included as part of this inventory, nor will it be included as part of this plan, but planning, operation and maintenance of the cemetery facility falls under the management of the Leisure Services Department.

B. NRPA GUIDELINES

The National Recreation and Park Association (NRPA) has identified and established standards for the development of park facilities to help communities set guidelines for the types, sizes, proximity, and number of recreational facilities that should be provided for the community (see Appendix C). The NRPA cautions communities that these standards are only guidelines, and that each community can adjust these standards to meet their individual requirements.

Washington City is located in a region known for a variety of outdoor recreational opportunities. Its close proximity to golf courses, state parks, national parks, national forests, etc. add to the recreational needs of the community. Therefore, it may not be necessary for the City to strictly adhere to these guidelines, however, these standards and guidelines are beneficial in planning and developing a recreational facilities plan.

Considering the unique features Washington City has, combined with the NRPA's standard guidelines, recommendations for the planning, development, and facility guidelines have been set forth in this plan.

C. PARK CLASSIFICATION

The City of Washington has various recreational demands and several types of facilities to meet these demands. Using the NRPA's standards as a basis, the following park classifications have been identified as types of recreational facilities that help meet the recreational demand of the community. The following is a description of each type of classification, general parameters that

apply to the classification, specific examples of the classification, and if the classification is applicable to the overall LOS used in the Impact Fee Analysis.

i. Private Park/Facility

Description: The private park/facility is the smallest park classification and is used to address limited or isolated recreational needs for private communities. They are generally developed within a residential area for the exclusive use of residents and are maintained through a neighborhood association. Even though all parks within this classification are private they still serve the recreational needs of the local neighborhoods, however, they are not a complete substitute for public recreation space.

Location: Central to a neighborhood or servicing a specific recreational need or taking advantage of a unique opportunity. Often times location of these private parks/facilities will be determined by the developer with the City often time negotiating final location.

Access: By way of interconnecting trails, sidewalks, or low-volume residential streets.

Desirable Size: 0.25 – 1 acre

Area Served: ¼ mile radius



Figure IV-1: Private Park

Examples: Private parks, private clubhouses, Coral Canyon Community Center

Application of LOS: Considered in Total LOS but not in Apparent LOS nor Existing LOS

ii. Neighborhood Park

Description: The neighborhood park remains the basic unit of the park system and serves as the recreational and social focus of the neighborhood. This type of park provides activities for all age groups and addresses the specific recreational needs of the nearby neighborhood it serves. Facilities may include play structures, picnic areas, shaded seating, soft and hard surface courts, restrooms, trails, and large informal open areas for unorganized play activities. Typically, parks in this classification have no lighted athletic fields for team competition, and no schedule for organized programs.

Location: Centrally located within its service area and uninterrupted by non-residential roads and other physical barriers.

Access: By way of interconnecting trails, sidewalks, or low volume residential streets.

Desirable Size: 4 – 10 acres

Area Served: ½ mile radius

Examples: Highland Park, Nisson Park, Pine



Figure IV-2: Nisson Park

View Park

Application of LOS: Yes

iii. School – Park

Description: The school-park combines the resources of two public agencies and provides a range of recreational services and facilities to several neighborhoods that are served by a school. Depending on circumstances, school-park sites often complement open space and could possibly serve in a number of capacities, such as a neighborhood park or youth athletic field. Even though all parks within this classification are determined by the school district and location of schools, it is important to understand these schools serve the recreational needs of surrounding neighborhoods.

Location: Adjacent to a school facility.

Access: By way of interconnecting trails, sidewalks, and streets. Should have direct access from a collector level (larger) street.

Desirable Size: Dependent upon school district

Area Served: 1 mile or boundary of school

Examples: Horizon, Riverside, Washington, and Coral Canyon Elementary Schools.



Figure IV-3: Riverside Elementary

Application of LOS: Considered in Total LOS but not in Apparent LOS nor Existing LOS

iv. Community Park

Description: The community park may be larger in size and serves a broader purpose than the neighborhood parks. Their focus is on meeting a wide range of recreational activities for several neighborhoods or sections of the community. They allow for group activities and offer other recreational opportunities not feasible – nor perhaps desirable – at the neighborhood level. Community parks can accommodate special events and gatherings and can provide for a broad variety of activities and recreation opportunities. Community parks may be highly developed with amenities such as playgrounds, lighted athletic fields, programmed sports which accommodate specific needs of user groups and athletic associations based on demand and program offering, or they may include large open spaces with sensitive environments such as wildlife habitat, river corridors, and flood plains, greenways, and other protected open space and sensitive lands.

Location: Community parks should be viewed as a strategically located community-wide facility rather than serving a defined neighborhood or area. They should not be adjacent to residential areas unless buffering (topographic breaks, vegetation, walls, etc.) is used, but more importantly the quality of the natural resource base should play a significant role in site selection. Identifying location of these facilities is critical to avoid long term conflicts.

Access: The site should be serviced by a collector level street and not through a residential road. Given that a community park will be likely used for types of league play and tournaments, access routes from outside the community should also be considered. The site should be easily accessible by way of interconnecting trails, as well.

Desirable Size: 10 – 40+ acres

Area Served: 1.5 mile radius

Examples: Sullivan Virgin River Park, Ball Fields Park

Application of LOS: Yes



Figure IV-4: Sullivan Virgin River Park

v. Trail

Description: Trails or trail systems are generally transportation corridors for non-motorized modes of transportation such as walking, jogging, running, and cycling and provide valuable recreation and transportation opportunities for residents and visitors. They are used to interconnect parks, neighborhoods, downtown, and bordering cities and sites. Providing a community wide system of interconnectivity of trails, corridors, pathways, parks is an essential part of the park system and a way to preserve significant unique features of the community.

Location: Generally located in natural corridors such as along stream and river banks and along washes. Care should be taken to ensure preservation and enhancement of these natural corridors and habitat to maintain the fragile ecosystem in which they are placed.

Access: These trails should be serviced mainly by other park classifications to capitalize on existing facilities or features. Some trails may require controlled access to preserve environmental features. All trails should interconnect and have access points to parks, residential roads, local connectors, and main thoroughfares.

Desirable Size: 10 feet in width, length varies

Area Served: Washington City and surrounding region

Examples: Coral Canyon Trail, Virgin River Trail, Cottonwood Trail

Application of LOS: Yes



Figure IV-5: Virgin River Trail

vi. Recreation Facility

Description: The recreation facility represents the contribution of a public community center to the park and recreation system and the recreational opportunities such facility provides to members of the community. The characteristics of a recreation center can be as follows: aquatic facilities including swimming pools, lap pools, water features, splash pads, slides, etc. health and fitness areas including weight rooms, aerobics rooms, tracks, etc. court facilities including tennis,

racquetball, basketball, gymnastics, pickleball, rock climbing, etc.

Location: Centrally located within the community and should be identified prior to development to avoid conflicts.

Access: The site should be serviced by a collector level street and not through a residential road. It should be easily accessible throughout its service area by way of interconnecting trails and sidewalks.

Desirable Size: 50,000 – 125,000 sf

Area Served: 4+ mile radius

Examples: Washington City Community Center

Application of LOS: Yes



Figure IV-6: Community Center

vii. Regional Park

Description: The regional park classification is a large recreation area that serves an entire city or region. The regional park often includes multiple special use facilities including golf courses, lakes, nature centers, campgrounds, state parks, national parks and a broad expanse of natural scenery or open space. Regional parks are designed accommodate large numbers of people for a variety of day use activities.

Location: Often developed around a unique or significant resource or to emphasize a regional recreational interest. They also serve as a buffer and separation between communities or other areas.

Access: Typically regional parks are serviced by a main arterial

Desirable Size: Variable, large scale

Area Served: Washington City, Washington County, Southern Utah

Examples: Green Springs and Coral Canyon Golf Courses, Red Cliffs Desert Reserve, Nearby State and National Parks

Application of LOS: No

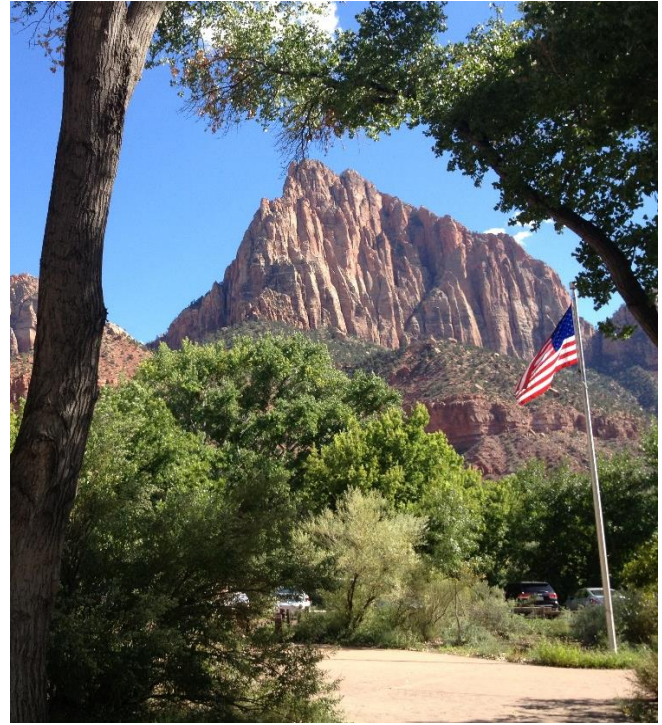


Figure IV-7: Zion National Park

Table IV-3: Washington City Parks & Recreation Classifications

CLASSIFICATION	DESCRIPTION	TYPICAL SIZE	AREA SERVED	APPLICATION OF LOS		
				Apparent	Eligible	Total
Private Park/Facility	Used to address limited or isolated recreational needs for private communities.	0.25 - 1 acre	0.15 mile radius			X
Neighborhood Park	Remain the basic unit of the park system and serves as the recreational and social focus of the neighborhood.	4 - 10 acres	0.50 mile radius	X	X	X
School Park	Often complement open space and could possibly serve in number of capacities such as a neighborhood park or youth athletic field.	Dependent upon school district	1 mile radius or boundary of school			X
Community Park	Serves broader purpose than neighborhood park. Focus is on meeting a wide range of recreational activities (passive, active, programmed sports, league play, tournaments, etc.) for the several neighborhoods or the entire community.	10 - 40+ acres	1.5 mile radius	X	X	X
Trail	Serves as transportation corridors for non-motorized modes of transportation. Used to interconnect parks, neighborhoods, downtown, and bordering cities and sites.	10 width, length varies	Washington City and surrounding region	X	X	X
Recreation Facility	Represents the contribution of a public community center to the park and recreation system and the recreational opportunities. Characteristics often include aquatic, health, fitness, and court type programs and facilities.	50,000 - 125,000 square feet	4+ mile radius	X	X	X
Regional Park	Large recreation area that serves an entire city or region. Often includes multiple special use facilities and accommodates large numbers of people for a variety of day use activities.	Variable, large scale	Washington City and County, Southern Utah			

Table IV-4: Existing Park LOS

D. EXISTING LEVEL OF SERVICE

Establishing an existing LOS is a fundamental part of an Impact Fee Facilities Plan and Impact Fee Analysis. Specific terms used in this plan to characterize a level of service are defined as follows:

Apparent LOS: the current “felt” level of service or what an existing user feels in regard to using parks, trails and recreational facilities. Does not include private and school parks.

Eligible LOS: the level of service considered Impact Fee eligible or that level of service which has been achieved at the expense of existing residents.

Target LOS: the level of service the City desires to attain categorized by parks, trails and recreation facilities.

Total Apparent LOS: similar to apparent LOS but includes private and school parks and private trails.

It is important to realize that the apparent LOS and eligible LOS are both considered a form of

PARK NAME	CLASSIFICATION	AREA (acres)	LEVEL OF SERVICE (LOS)		
			APPARENT (acres/ 1000 people)	ELIGIBLE (%)	ELIGIBLE (acres/ 1000 people)
Ball Fields Park	Community Park	14.73	0.538	100%	0.538
Dog Town Park	Neighborhood Park	1.78	0.065	100%	0.065
Green Spring Park	Neighborhood Park	8.60	0.314	100%	0.314
Heritage Park	Neighborhood Park	12.32	0.450	100%	0.450
Highland Park	Neighborhood Park	7.17	0.262	100%	0.262
Nisson Park	Neighborhood Park	7.32	0.267	100%	0.267
Pine View Park	Neighborhood Park	7.91	0.289	69.7%	0.202
Razor Ridge Park	Neighborhood Park	3.28	0.120	100%	0.120
Sienna Hills Park	Neighborhood Park	4.82	0.176	100%	0.176
Sullivan Park Phase I	Community Park	10.58	0.387	100%	0.387
Sullivan Park Phase II	Community Park	26.19	0.957	67%	0.637
Treasure Valley Park	Neighborhood Park	4.62	0.169	100%	0.169
Veterans Park	Neighborhood Park	2.83	0.104	100%	0.104
Total		112.15	4.10	90.0%	3.69

existing LOS but are at the same time different based on the definitions above. Based on the aforementioned inventory, guidelines, and classifications, the existing LOS for Washington City will be divided into three major classifications: Parks, Trails, and Recreation Facilities. Also of interest are the private parks that are not owned nor maintained by the City, but that nonetheless serve residents of the City.

i. Parks

The existing LOS for parks will be based upon an acreage per thousand people (acres/1,000 people) and will be divided into two sub-classifications: neighborhood parks and community parks.

To calculate an apparent LOS the area of each park is divided by the current estimated population and then multiplied by 1,000 as illustrated in the following equation.

$$\frac{\text{Area of Park}}{27,363} \times 1,000 = \text{Apparent LOS}$$

The eligible LOS is then calculated based upon any capital down and/or debt service that has been paid. In other words, any outstanding debt service on an existing park is not considered eligible to be used in the Impact Fee calculations. In the case of Washington City, Pine View Park



Figure IV-8: Dog Town Park

and Sullivan Park Phase II are the only parks with existing debt service.

$$\text{Apparent LOS} \times (\% \text{ Eligible}) = \text{Eligible LOS}$$

Finally, a figure of **3.69** (acres/1,000 people) is calculated by the summation of the eligible LOS as shown in Table IV-4.

ii. Trails

The existing LOS for trails will be based upon a mileage per thousand people (miles/1,000 people) and is calculated in a similar manner as the parks. Because Washington City does not have any debt service on trails all the existing trails are 100% eligible as illustrated in Table IV-5, thus a figure of **0.70** (miles/1,000 people) is calculated.

iii. Recreation Facility

The existing LOS for a recreation facility will be based upon a square footage per thousand people (SF/1,000 people).

In the same manner as the parks and trails, the apparent LOS for the recreation facility is calculated as shown in the following equation.

$$\frac{110,000 \text{ SF}}{27,363 \text{ people}} \times 1,000 = 4,020 \text{ SF/1,000 people}$$

This apparent LOS is then multiplied by a percentage to obtain the eligible LOS which in the case of the community center includes the amount of the capital down payment summed with the amount of existing

Table IV-5: Existing Trail LOS

TRAIL SYSTEM NAME	CLASSIFICATION	LENGTH (miles)	LEVEL OF SERVICE (LOS)		
			APPARENT (miles/ 1000 people)	ELIGIBLE	
				(%)	(miles/ 1000 people)
Coral Canyon Trail	Trail	4.22	0.154	100%	0.154
Cottonwood Trail	Trail	1.12	0.041	100%	0.041
Hell Hole Trail	Trail	0.45	0.016	100%	0.016
Henry Walker Homes Trail	Trail	1.19	0.044	100%	0.044
High Point Trail	Trail	0.33	0.012	100%	0.012
Highland Park Loop Trail	Trail	2.36	0.086	100%	0.086
Highland Park South Loop Trail	Trail	0.69	0.025	100%	0.025
Little San Francisco Trail	Trail	0.17	0.006	100%	0.006
Main Street Trail	Trail	0.27	0.010	100%	0.010
Meadows Park Trail	Trail	0.13	0.005	100%	0.005
Millcreek Trail	Trail	0.52	0.019	100%	0.019
North Green Springs Trail	Trail	1.15	0.042	100%	0.042
School Yard Trail	Trail	0.25	0.009	100%	0.009
Sienna Hills Park Trail	Trail	0.29	0.010	100%	0.010
Silver Mine Trail	Trail	0.15	0.006	100%	0.006
Stucki Farms Trail	Trail	0.58	0.021	100%	0.021
Telegraph Trail	Trail	0.54	0.020	100%	0.020
Treasure Valley Trail	Trail	0.56	0.021	100%	0.021
Virgin River Trail	Trail	3.17	0.116	100%	0.116
Washington Parkway Trail	Trail	0.93	0.034	100%	0.034
Total		19.09	0.70	100%	0.70

debt service paid to date. This eligible LOS was calculated to be **3,108** (SF/1,000 people) as shown in Table IV-6.

In summary, the figures presented in this section establish a baseline for determining future demand contributed to growth within Washington City and is considered a vital step in any Impact Fee Facilities Plan and Impact Fee Analysis.

iv. Private Parks, School Parks, & Golf Course

One aspect of the Total Apparent LOS or total “felt” LOS is the affect of parks not owned nor maintained by the City. A list of these privately-owned parks and school parks is included in

Table IV-6: Existing Recreation Facility LOS

FACILITY NAME	CLASSIFICATION	AREA (SF)	LEVEL OF SERVICE (LOS)		
			APPARENT (SF/ 1000 people)	ELIGIBLE	
				(%)	(SF/ 1000 people)
Community Center	Recreation Facility	110,000	4,020	77.3%	3,108
Total		110,000	4,020	77.3%	3,108

Appendix I. These parks will not be included in the Impact Fee calculations; however, they will be considered when comparing the LOS to the target LOS.

As can be seen in Appendix I, the total private park area is 24.61 acres and the total area of school properties is 129.06 acres. This report will assume that 61% of the school area is considered recreational area. This is based on evaluating a representative group of the school parks in the City.

The school fields were also assumed to be available to the public a total of 61% of the year. The total apparent LOS was further reduced by multiplication of this factor.

The additional LOS for private parks and school parks are calculated in a similar manner to that of existing parks by dividing by the population.

Private Parks:

$$\frac{24.61 \text{ acres}}{27,363} \times 1,000 = 0.90 \frac{\text{acres}}{1,000 \text{ people}}$$

School Parks:

$$\frac{129.06 \text{ acres} \times 0.61 \times 0.61}{27,363} \times 1,000 = 1.76 \frac{\text{acres}}{1,000 \text{ people}}$$

The golf course is owned and maintained by the City and also provides a benefit to City residents. The total area of the golf course is estimated as 157.82 acres. While the golf course provides a potential benefit to residents, the LOS will not be calculated as it is outside the scope of this report. The City does not intend to add any additional golf courses in the future.

v. Private Trails

Like private parks, private trails were identified throughout the City. These private trails were identified by comparing the existing trails map with other all the trails identified in the City. The total number of private trails found is 0.83 miles. This number should be verified and updated. Calculating the additional LOS for private trails results in an additional 0.03 miles of trail per 1,000 people.



Figure IV-9: Ball Fields Park

V. DEMAND ANALYSIS

This section sets forth goals set by Washington City concerning parks and recreation in the community, establishes a targeted LOS desired by Washington City and quantifies the future demands on parks, trails and recreation facilities necessary to maintain the existing LOS.

A. TARGET LEVEL OF SERVICE

For the target LOS to be established it is necessary to understand the existing LOS that is being provided to the citizens of Washington City. The existing LOS was analyzed in the previous section and Table V-1 summarizes the results. The table does not consider private and school parks which will be considered later in this section.

Table V-1: Existing LOS Summary

CATEGORY	EXISTING LOS		UNIT
	APPARENT	ELIGIBLE	
Park	4.10	3.69	(acres/1,000 people)
Community Park	1.88	1.56	
Neighborhood Park	2.22	2.13	
Trail	0.70	0.70	(miles/1,000 people)
Recreation Facility	4,020	3,108	(SF/1,000 people)

In reviewing previous capital facilities plans completed in 2008 and 1998, and also the general plan, the target LOS for Washington City has been 6.0 acres of park per 1,000 residents, a standard previously suggested by the NRPA. Of important note, any increase from the existing LOS to a higher target LOS requires funding from other fees besides Impact Fees (i.e. user fees).

Since these plans have been completed, Washington City has completed several trail systems, and built a recreational facility that serve the recreational needs of the community, but do not correlate with the NRPA standard of 6 acres of park per 1,000 residents. In discussion with City staff, it is recommended that Washington City determine an adequate target LOS for their

parks and recreational facilities based upon the following points:

- NRPA standards are only guidelines, and that each community can adjust these guidelines to meet their individual requirements
- NRPA standards are tailored more for an urban environment
- Washington City is located in an ideal location for outdoor recreation and access to numerous regional-type parks
- Many of the recreational facilities such as trails, Community Center, regional parks, golf courses, etc. are not accounted for in the 6.0 acres of park per 1,000 residents, but enhance the recreational opportunities for Washington City residents

The determination of an accurate target LOS for Washington City could be made through a public survey process or other avenue.

For the purpose of this study, the target LOS for the parks and trails classifications will equal the

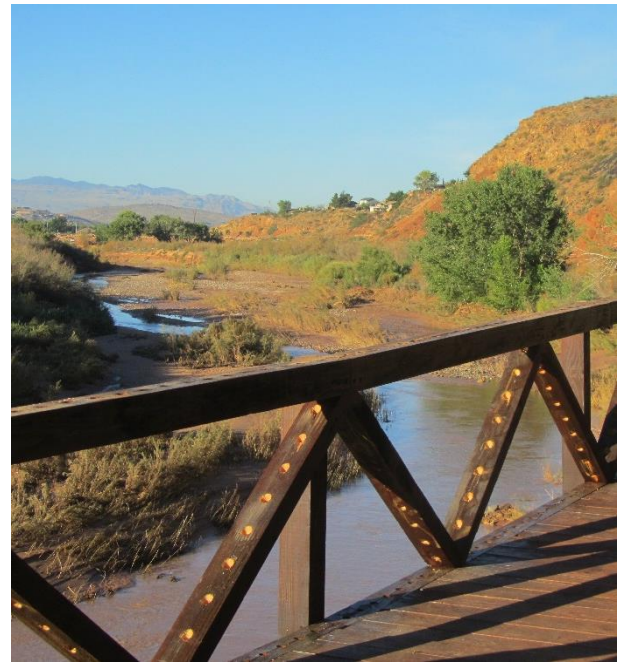


Figure V-1: Virgin River Trail Boardwalk

recommended value of 6 acres of park per 1,000 residents. The parks included in the Total Apparent LOS (Apparent LOS as well as the school and private parks) will all be included in the calculations to compare against the target LOS.

Table V-2 below shows a comparison between the Total Apparent Level of Service with the target LOS as presented in this plan. The LOS for private and school parks as presented in section IV are shown in the table. As can be seen, the target LOS is currently being met.

Table V-2: Total Apparent LOS Comparison to Target LOS

CATEGORY	LOS	UNIT
Apparent LOS	4.10	(acres/1,000 people)
Private Parks LOS	0.90	
School Parks LOS	1.76	
Total Apparent LOS	6.76	
Target LOS	6.00	

In addition to the Total Apparent LOS listed above, the Green Springs Golf Course, owned and maintained by the City, also provides recreational opportunities to residents.

The target LOS trails has not been set in this Plan. However, for future comparison, the total apparent LOS calculated is the sum of the apparent LOS (0.70 acres) and the private trails LOS (0.03 acres). The Trails total apparent LOS was calculated as 0.73 acres.

The target LOS for a recreation facility is calculated in a subsequent section.

B. GROWTH DEMANDS

The additional growth demand or impact in terms of additional population is calculated by taking the difference between future population at the end of the planning horizon (2028) and the current population (2018) as shown in the equation.



Figure V-2: Boilers Park Conceptual Plan

$$36,774 \text{ people} - 27,363 \text{ people} = 9,411 \text{ people}$$

Once the population increase due to growth is calculated then this figure is simply multiplied by the eligible LOS to obtain the future demand due to growth as shown in these equations. These values will be used in the Impact Fee calculations.

Parks:

$$9,411 \text{ people} \left(\frac{3.69 \text{ acres}}{1,000 \text{ people}} \right) = 34.7 \text{ acres}$$

Trails:

$$9,411 \text{ people} \left(\frac{0.70 \text{ miles}}{1,000 \text{ people}} \right) = 6.6 \text{ miles}$$

Recreation Facility:

$$9,411 \text{ people} \left(\frac{3,108 \text{ SF}}{1,000 \text{ people}} \right) = 29,250 \text{ SF}$$

These figures will be the basis for the Impact Fee Facilities Plan and Impact Fee Analysis.

VI. IMPACT FEE FACILITIES PLAN

A main reason Washington City has experienced tremendous growth in the past 40 years is the quality of life it offers. The City has the responsibility of providing proper planning so that this level of quality is maintained and enhanced. This section identifies proposed or future parks, trails, and recreation facilities and provides recommendations based upon the planning horizon for implementation of these facilities and ultimately accomplishing the goal of maintaining the existing LOS and quality of life regarding parks and recreation found in Washington City.

A. PARK FACILITIES PLAN

This park capital facilities plan provides Washington City with direction in terms of park development to meet future demands and satisfy the recreational needs of the community. In order to meet the future demand, 19 parks, with corresponding classification and approximate acreage, have been identified in Table VI-1.

Roughly 59.9 acres of neighborhood park and 137.0 acres of community park for a total of 196.9 acres of park have been identified. Maps of these parks can be found in Appendix A maps titled “Proposed Facilities Plan Map” (FIG 5-A1 through FIG 5-C1).

In certain instances, neighborhood parks are the responsibility of new development, to match the demand created by the development. These parks are sometimes built by the developer and then turned over to the City. If this is the case, the City requires a minimum of 4.0 acres of park to be built. In exchange for the park built to City standards, the City may give an Impact Fee credit for the facility to the developer. This process benefits both parties given that the new development is more appealing with a neighborhood

Table VI-1: Proposed Parks

PARK NAME	CLASSIFICATION	AREA (acres)
Washington Fields Park Complex Ph 1	Community Park	13.5
Washington Fields Park Complex Ph 2	Community Park	13.4
Washington Fields Park Complex Ph 3	Community Park	13.4
Boilers Park/Trailhead	Neighborhood Park	2.5
Buena Vista Park	Neighborhood Park	4.1
Cottonwood Coral Canyon Park	Community Park	24.3
Dino Cliffs Trailhead/Park	Neighborhood Park	2.5
Grapevine Crossing Trailhead/Park	Neighborhood Park	2.5
Gypsum Park	Community Park	72.5
Harmons Farm Park	Neighborhood Park	4.0
Hellhole Park/Trailhead	Neighborhood Park	2.5
Henry Walker Homes Park	Neighborhood Park	4.0
Highlands South Park	Neighborhood Park	7.0
Ice House Trailhead/Park	Neighborhood Park	2.5
Mill Creek Gorge Park	Neighborhood Park	4.5
Mill Creek Trailhead/Park	Neighborhood Park	2.5
Prospector Trailhead/Park	Neighborhood Park	2.5
Shooting Star Park	Neighborhood Park	6.2
SITLA Block North Park	Neighborhood Park	5.0
Staheli Farm Park	Neighborhood Park	5.0
Veterans Park Ph. II	Neighborhood Park	2.7
Total		196.9

park and the City acquires the park acreage required to be constructed by this plan and new development.

Table VI-2: Proposed Parks in Planning Horizon (10-yr)

PARK NAME	AREA (acres)	10-YR PLANNING HORIZON		
		Potential Construction Year	Impact Fee Eligible (%)	Area to be Constructed (acres)
Washington Fields Park Complex Ph 1	13.5	2022	100.0%	13.49
Washington Fields Park Complex Ph 2	13.4	2025		
Washington Fields Park Complex Ph 3	13.4	2027		
Boilers Park/Trailhead	2.5	2019	100.0%	2.53
Dino Cliffs Trailhead/Park	2.5	2024		
Grapevine Crossing Trailhead/Park	2.5	2022		
Hellhole Park/Trailhead	2.5	2019	100.0%	2.50
Highlands South Park	7.0	2026		
Ice House Trailhead/Park	2.5	2024		
Mill Creek Gorge Park	4.5	2024		
Mill Creek Trailhead/Park	2.5	2020	100.0%	2.50
Prospector Trailhead/Park	2.5	2024		
Shooting Star Park	6.2	2019	100.0%	6.20
Veterans Park Ph. II	2.7	2023		
Total	78.1			27.2

SECTION VI – IMPACT FEE FACILITIES PLAN

In the case of community parks, the City will generally be responsible for the development and construction of these types of facilities, since they typically serve multiple neighborhoods and often require a great deal of planning in order to be strategically located to serve the entire community.

Of the 196.9 acres of park identified in this plan, 78.1 acres or twelve parks have been included in the 10-year planning horizon. A potential construction year and a percent Impact Fee eligible is shown for these twelve parks in Table VI-2. A map titled “10 Year Proposed Facilities Plan Map” (FIG 4) focusing on these specific parks is found in Appendix A.

The Washington Fields Park Complex is listed as three phases. A potential location for the project is shown on the exhibits. The actual location of each phase will be determined by community needs and land availability.

It is important to note that Pine View Park was built in 2007 and Sullivan Soccer Complex Ph. II was built in 2016, but since there is still outstanding debt service to be paid on these parks, a percentage of its acreage can still be eligible for Impact Fees.

B. TRAIL FACILITIES PLAN

This section of the facilities plan provides Washington City with direction in terms of trail development to meet future demands and emphasizes safe travel for pedestrians to and from parks and around the community. The focus is as much on transportation as it is on recreation. The identified 41 trail systems, with corresponding classifications and approximate lengths have been shown in Table VI-3.

A total of approximately 73.28 miles of new trails, trail extensions, and trail systems have been identified and maps of each of these trails are

Table VI-3: Proposed Trails

TRAIL SYSTEM NAME	CLASSIFICATION	LENGTH (miles)
3050 East	Trail	0.45
3650 S Trail	Trail	2.49
390 South Trail	Trail	0.48
Buena Vista Trail	Trail	1.28
Canal Trail	Trail	7.57
Coral Canyon Trail Connector	Trail	1.28
Cottonwood Wash Trail	Trail	1.74
Dino Cliffs Trail	Trail	0.51
Foothills Trail	Trail	2.81
Future Trail 82	Trail	0.94
Grapevine Trail	Trail	1.52
Green Spring Drive	Trail	2.60
Hell Hole Trail	Trail	0.26
Henry Walker Homes Trail	Trail	0.20
Highland Park Loop Trail	Trail	3.32
Hurricane City Connector	Trail	0.61
Indian Springs Trail	Trail	0.30
Little San Francisco Trail	Trail	0.13
Main Street Trail	Trail	2.03
Millcreek Trail	Trail	2.48
North Green Springs Trail	Trail	0.32
North SITLA Block Trail	Trail	3.05
Northern Parkway Trail	Trail	2.54
Pine View Park Trail	Trail	0.48
Punchbowl Trail	Soft Trail	2.11
Riveredge Road/Apache Drive	Trail	0.23
Riverside School Trail	Trail	1.61
Shinob Kibe	Soft Trail	0.65
Sienna Hills Park Trail	Trail	0.48
SITLA North Block Trail	Trail	0.62
South Nichols Peak Trail	Trail	1.69
Southern Parkway Trail	Trail	6.41
St. George City Connector	Trail	3.20
Staheli Farms Trail	Trail	0.36
Stucki Farms Trail	Trail	6.41
Telegraph Trail	Trail	3.54
Three Rivers Trail System	Trail	0.36
Virgin River Trail	Trail	3.83
Warm Spring Park Trail	Trail	0.66
Washington Parkway Trail	Trail	0.75
Washington Fields Park Complex Trail	Trail	0.98
Total		73.28

found in Appendix A maps titled “Proposed Facilities Plan Map” (FIG 5-A1 through FIG 5-C1).

In many instances, these trails will come with the arrival of new development. These trails are sometimes built by the developer and then turned over to the City. If this is the case, the City requires the trail material to be asphalt, which

complies with their standard specifications, and the trail must be ten feet in width at a minimum. In exchange for a length of trail constructed to City standards, the City may give an Impact Fee credit for the trail length to the developer. This process benefits both parties given that the new development is more appealing with a network of trails and ties into the City trail system and the City obtains the constructed trail mileage needed by this plan and new development.

As a part of this plan update, the City has added proposed trails within BLM property and is working with the Red Cliffs Desert Reserve to improve existing trails within the City boundaries. Given the natural character of these areas, it is recommended that the City develop a standard for soft/unpaved trails. The unpaved trails would be approved by City Council for construction within the Reserve and BLM properties only. The unpaved trails might also be accompanied with improvements such as trail heads, trail signage, parking lots, kiosks, etc.

With trail improvements, the City may focus their efforts on implementing the major connections or trunk lines of the community trail system and let development drive the need, planning, and construction of the secondary trails.

Of the 73.28 miles of trail identified in this plan, 6.6 miles have been included to be built within the 10-year planning horizon. Since trail construction is driven on the impact of new development, it is difficult to identify which trail systems will be built within the planning horizon. For the purpose of this study, it is assumed that 0.66 miles of trail will be built each year in the planning horizon for a summation at the end of 10 years of 6.6 miles of trail to maintain the existing LOS.

C. RECREATION FACILITY PLAN

The final part of the facilities plan provides Washington City with an analysis of their existing recreational facility (Community Center), the

capacity of said facility, and will give direction concerning expansion and improvements to the Community Center or new recreation facility to meet future demands.

Built in 2008, the Washington City Community Center is the only recreation facility within the City and has a footprint of 110,000 square feet. According to Mark Wilson Architects, the building has the capacity to serve a population of 60,000 people. In order to understand how the capacity of the existing building relates to the population and users, there are three issues to consider:

Current Community Center Usage: Data was obtained for the 2014 Impact Fee Facilities Plan from Community Center staff and shown updated in Table VI-4. It was assumed that the percentage of total users that are Washington City residents (62.0%) and that the percentage of Washington City's population using the Community Center (14.2%) would remain constant from 2014 through the current 10-year planning horizon. Application of this breakdown of usage was used to keep impact fees paid by new residents from paying to serve non-residents' use of the Community Center.

Table VI-4: Community Center User Data

USERS	AMOUNT	UNIT
Washington City	1,404	Memberships
	3,994	People
	62.0%	% Residents
	14.2%	% of Population Using Community Center
Other	861	Memberships
	2,448	People
	38.0%	% Non-Residents
Total	2,265	Memberships
	6,442	People
	2.84	People/Membership

Equivalent Population Served: Since the Community Center serves other users outside Washington City, it is necessary to include those users in the capacity calculation and it is done by taking the other users and dividing it by the percent of population using the facility to obtain a population served by other users. This figure is then added to the current Washington City population to get a current equivalent population served as illustrated in the following equations.

$$\frac{2,448 \text{ other users}}{14.2\%} = 17,239 \text{ population}$$

$$\begin{aligned} &17,286 \text{ population} \\ &+ 27,363 \text{ current population} \\ &= \mathbf{44,649 \text{ equivalent population}} \end{aligned}$$

In simple terms, the current Community Center is serving the equivalent of a population of 44,649 people.

Community Center Capacity Absorption: Once the current equivalent population is calculated, the percentage of excess capacity to be used by future population is determined by the following equation.

$$1 - \frac{44,649 \text{ population}}{60,000 \text{ population}} = 25.6\%$$

Using this percentage, an excess capacity can be calculated in building square footage, population, Washington City residents, and other residents as presented in Table VI-5.

Table VI-5: Excess Capacity

EXCESS CAPACITY	AMOUNT
Building Square Footage	28,144
Population	15,351
Washington City Residents	9,518
Other Residents	5,833

To calculate the Washington City population at which full capacity absorption occurs, the excess capacity population for Washington City residents is simply added to the current population.

$$\begin{aligned} &9,518 \text{ excess capacity population} \\ &+ 27,363 \text{ current population} \\ &= \mathbf{36,881 \text{ population}} \end{aligned}$$

Hence, the target LOS is calculated as shown in the equation below.

$$\begin{aligned} &\frac{110,000 \text{ SF}}{36,881 \text{ population}} \times (1,000) \\ &= \mathbf{2,983 \text{ SF/1,000 people}} \end{aligned}$$

After the target LOS has been established this figure can be used to calculate the required square footage of recreation facility for a given year.

Community Center capacity required at end of planning horizon (2028):

$$\begin{aligned} &\frac{36,774 \text{ population}}{1,000} \times 2,983 \text{ SF/1,000 people} \\ &= \mathbf{109,681 \text{ SF}} \end{aligned}$$

And excess capacity at end of planning horizon (2028):

$$110,000 \text{ SF} - 109,681 \text{ SF} = \mathbf{319 \text{ SF}}$$

In basic terms, the existing Community Center has enough excess capacity to last through the 10-year planning horizon without requiring additional square footage to be added. However, the following year (2029) the Community Center will have reached its full capacity at which time the City may consider further expansion of the Community Center or construction of a new recreation facility. For more detailed analysis of the Community Center, please refer to Appendix D.



Figure VI-1: Pine View Park

capacity and therefore extend its full capacity date. For the purpose of this plan, the assumption was made that all programs within the Community Center are operating at a high level of efficiency.

D. ADDITIONAL CONSIDERATIONS

To help the City envision the level of service throughout the community, a set of maps titled “*Theoretical Service Area Map*” (FIG 3-A through FIG 3-G) have been provided in Appendix A. These maps show the service area for the park classifications explained in Section IV.

When the service areas for multiple components, both existing and proposed, are plotted on a map a radius emerges that represents the cumulative service provided by that classification upon a geographic area. These maps can be used to determine if there any areas with a higher/lower levels of service, which in turn can be used in the park planning process.

Understand that all parts of the community will have different levels of service. For example, commercial and industrial areas might reasonably be expected to have lower levels of service for parks and recreation opportunities than residential areas.

The Washington City Leisure Services Department provides many types of programs including aquatics, activities, adult sports, youth sports, fitness and wellness, gymnastics, special events, etc. at the Community Center.

Theoretically, if the Leisure Services Department were to maximize their programming efficiency, the facility would have the ability to hold a higher

VII. IMPACT FEE ANALYSIS

A final component to any community plan is an Impact Fee Analysis or a calculation of costs attributed to growth within the planning horizon window. This calculation is considered an Impact Fee or a payment of money imposed upon future development activity as a condition of development approval. This section includes a cost analysis of proposed improvements, Impact Fee calculations, a cash flow analysis, and an Impact Fee certification.

A. EXISTING IMPACT FEE

As a result of the 2014 Impact Fee Facilities Plan and Impact Fee Analysis, the maximum allowable Impact Fee for parks and recreation was \$4,658 per residential unit. The actual Impact Fee that was adopted by City officials and is the current Impact Fee assessed is \$3,700. Commercial and industrial properties are not charged a parks and recreation Impact Fee.

B. COST ANALYSIS

An important part of calculating any Impact Fee is understanding and estimating the costs associated with new infrastructure. The total cost for each classification has been divided into three cost categories:

Construction: the cost for construction was obtained from recent bid tabulations provided by Washington City, St. George City and Sunrise Engineering for parks, trails and recreation facilities.

Incidentals: incidental costs such as planning engineering design and construction services, bidding and negotiating, inspection, preliminary engineering, environmental compliance, geotechnical reporting and testing, survey, origination fees, permitting, etc. were based upon



Figure VII-1: Razor Ridge Park

previous projects completed by Washington City and Sunrise Engineering.

Land: land costs for parks were based upon current market conditions for raw land. Based upon the cross-sectional area of a typical trail it was assumed a width of 20 feet for a typical trail easement with a cost of 75% that of park land due to the fact that trail are generally located on land less functional than parks.

The final unit costs calculated for each classification, including an Impact Fee Facilities Plan and Impact Fee Analysis (IFFPA) update cost, are summarized in the Table VII-1. Detailed calculations on how these unit prices were calculated is found in Appendix E.

Table VII-1: Unit Cost Summary

COST CATEGORY	PARK	TRAIL	RECREATION FACILITY	IFFPA
	(\$/acre)	(\$/mile)	(\$/SF)	(2 each)
Construction	\$ 236,968	\$ 528,713	\$ 158.00	-
Incidentals	\$ 29,128	\$ 92,686	\$ 21.00	
Land	\$ 25,000	\$ 46,000	-	
Total	\$ 291,096	\$ 667,398	\$ 179.00	\$ 70,000

SECTION VII – IMPACT FEE ANALYSIS

Table VII-2: Proposed Parks in Planning Horizon (10-yr) Detailed Cost Summary

PARK NAME	AREA (acres)	10-YR PLANNING HORIZON					
		Potential Construction Year	Impact Fee Eligible (%)	Area to be Constructed (acres)	ESTIMATED PROJECT COST	INFLATED PROJECT COST	INCLUDING FINANCING
Washington Fields Park Complex Ph 1	13.5	2022	100.0%	13.49	\$ 3,926,885	\$ 4,419,743	\$ 5,670,277
Washington Fields Park Complex Ph 2	13.4	2025			\$ -	\$ -	\$ -
Washington Fields Park Complex Ph 3	13.4	2027			\$ -	\$ -	\$ -
Boilers Park/Trailhead	2.5	2019	100.0%	2.53	\$ 999,530	\$ 1,029,516	\$ 1,320,810
Dino Cliffs Trailhead/Park	2.5	2024			\$ -	\$ -	\$ -
Grapevine Crossing Trailhead/Park	2.5	2022			\$ -	\$ -	\$ -
Hellhole Park/Trailhead	2.5	2019	100.0%	2.50	\$ 1,250,000	\$ 1,250,000	\$ 1,250,000
Highlands South Park	7.0	2026			\$ -	\$ -	\$ -
Ice House Trailhead/Park	2.5	2024			\$ -	\$ -	\$ -
Mill Creek Gorge Park	4.5	2024			\$ -	\$ -	\$ -
Mill Creek Trailhead/Park	2.5	2020	100.0%	2.50	\$ 727,740	\$ 772,059	\$ 990,508
Prospector Trailhead/Park	2.5	2024			\$ -	\$ -	\$ -
Shooting Star Park	6.2	2019	100.0%	6.20	\$ 1,300,000	\$ 1,300,000	\$ 1,300,000
Veterans Park Ph. II	2.7	2023			\$ -	\$ -	\$ -
<i>Existing Debt</i>							
Pine View Park	5.5	2007	30.3%	1.67			\$ 325,265
Sullivan Soccer Complex Ph II	17.4	2016	33.5%	5.83			\$ 1,525,450
Total	78.1			34.7	\$ 8,204,155	\$ 8,771,319	\$ 12,382,310

Parks Cost: Once park unit costs were calculated, they were then applied to the 10-year park facilities plan to obtain a total cost for parks as shown in Table VII-2.

The total estimated Impact Fee eligible cost for parks is **\$12,382,310**.

Trails Cost: Due to the trails facilities plan assuming 0.66 miles of trail will be built each year in the planning horizon, a simple calculation of multiplying the growth demand by the unit cost of trail and then applying the compound interest formula for inflation a total estimated Impact Fee eligible cost for trails is **\$5,201,133**. The trails

projects are assumed to be self-funded.

Recreation Facility Cost: Because the existing Community Center was built in 2008, actual costs were used to formulate the unit cost for a recreation facility.

The total estimated Impact Fee eligible project cost for a recreation facility is simply obtained by multiplying the growth demand by the unit cost of a recreation facility to equal **\$5,235,663**.

IFFPA Update Cost: This plan is recommended to be updated at least every five years. Therefore, two updates are anticipated during the planning

Table VII-3: Total Estimated Impact Fee Eligible Costs

DESCRIPTION	PARK	TRAIL	RECREATION FACILITY	IFFPA UPDATE	TOTAL
Unit	acres	miles	square feet		
Eligible LOS (<i>unit/1,000 people</i>)	3.69	0.70	3,108		
Growth Demand or Impact	34.7	6.6	29,250		
Estimated Project Cost	\$ 10,054,870	\$ 4,404,830	\$ 5,235,663	\$ 70,000	\$ 19,765,363
Estimated Inflation Cost	\$ 567,164	\$ 796,303	\$ -	\$ 11,149	\$ 1,374,616
Estimated Financing Cost	\$ 1,760,276	\$ -	\$ -	\$ -	\$ 1,760,276
Total Estimated Impact Fee Eligible Project Cost (w/ Inflation & Financing)	\$ 12,382,310	\$ 5,201,133	\$ 5,235,663	\$ 81,149	\$ 22,900,255

horizon. These updates to this plan are considered 100% Impact Fee eligible and total estimated Impact Fee eligible cost for IFFPA updates is **\$81,149**.

A summary of all estimated Impact Fee eligible costs are shown in Table VII-3 for a total amount of **\$22,900,255**.

C. MAXIMUM ELIGIBLE IMPACT FEE

The demand analysis, included in Section V, outlined the demand or impact to be placed on the Washington City parks and recreation facilities by growth and development. These demands will result in a decrease in existing LOS if additional facilities are not constructed within the planning horizon.

The Impact Fee Facilities Plan, located in Section VI, provides planned improvements or means whereby Washington City will be able to meet those demands and maintain the existing LOS relating to parks, trails, and recreation facilities.

The aforementioned cost analysis provides estimated costs for those planned improvements and gives a detailed perspective of how much all these facilities will cost.

The general idea behind calculating the maximum allowable Impact Fee amount is relatively simple: the total Impact Fee eligible expenses are divided by the total additional growth or in this case the growth in households as calculated in Section III. The calculations for determining the maximum allowable Impact Fee amount are shown in the equation and Table VII-4 below.

Table VII-4: Maximum Allowable Impact Fee

DESCRIPTION	AMOUNT
Total Impact Fee Eligible Cost	\$22,900,255
Existing Households (2018)	11,006
Future Households (2028)	14,791
Growth in Households	3,785
Maximum Allowable Impact Fee	\$6,050

$$\frac{\$22,900,255}{3,785 \text{ households}} = \$6,050 \text{ per household}$$

This figure represents the maximum amount that can be charged per household. The City Council may set a lower actual Impact Fee, but it may not exceed this maximum amount.

A cash flow spreadsheet has been completed to show the collection and expenditure of Impact Fee funds and is found in Appendix F.

D. IMPACT FEE RELATED ITEMS

In general, it is beneficial to update this Impact Fee Facilities Plan and Impact Fee Analysis at least every five years or more frequently if unusual growth or changes affect the assumptions and data in this plan. It is assumed that this plan will be updated as recommended.

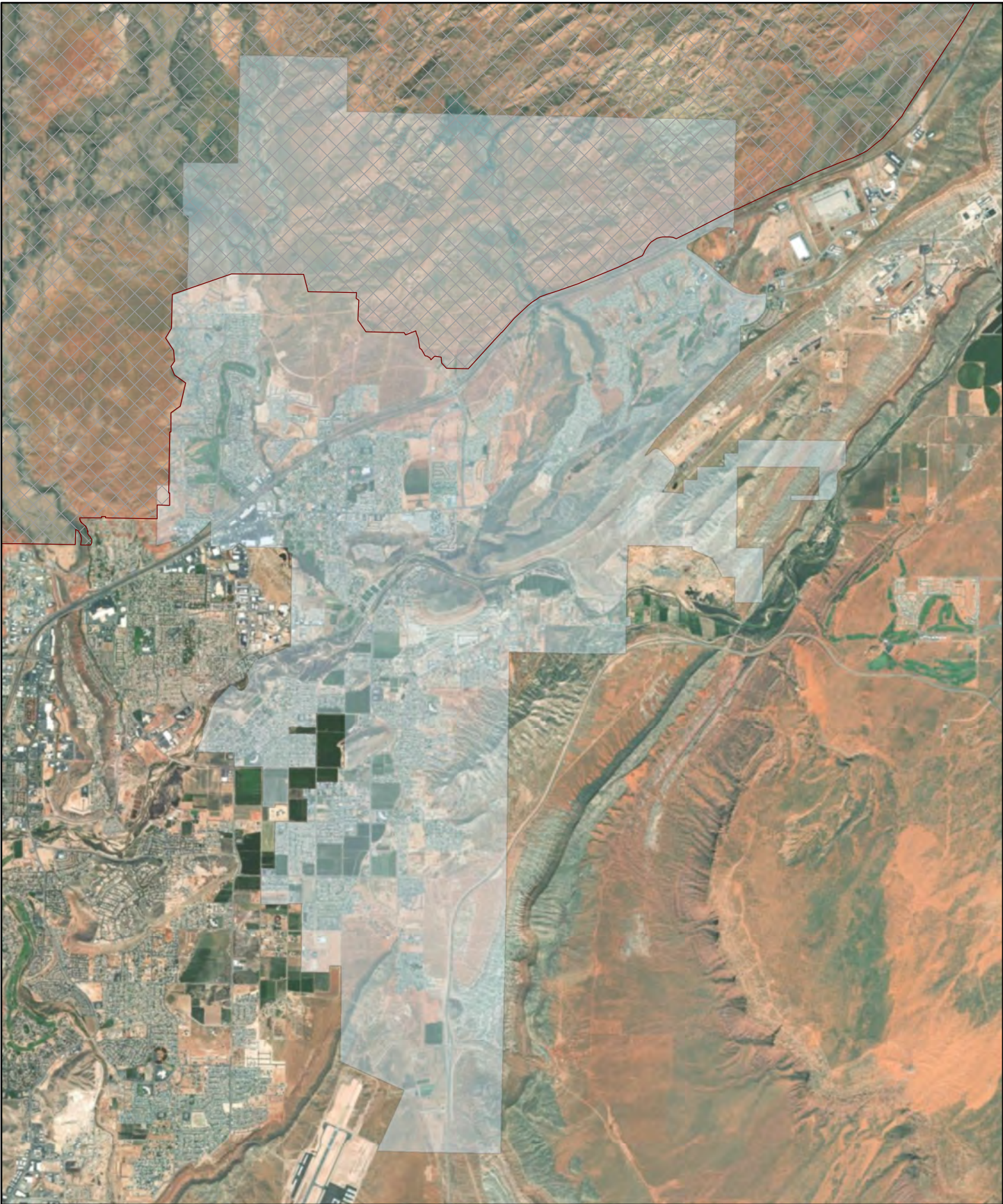
There are few items relating to Impact Fees that Washington City must consider when planning for, collecting, and expending Impact Fees in accordance with Utah Code 11-36a-101.

City staff must understand that Impact Fees can only be expended for a system improvement that is identified in the Impact Fee Facilities Plan and that is for the specific facility type for which the fee was collected. Impact Fees must be expended or encumbered for a permissible use within six years of their receipt unless 11-36a-602(2)(b) applies. Also, Impact Fees must be accounted for property (track each fee in and out) in accordance with Utah Code 11-36a-601.

In accordance with Utah Code 11-36a-306, a certification of Impact Fee Analysis is located in Appendix G.

The impact Fee ordinance adopted by Washington City will be attached as Appendix H following enactment of an Impact Fee amount by the City Council.

APPENDIX A – MAPS



0 3,250 6,500
Feet
1 in = 6,500 feet



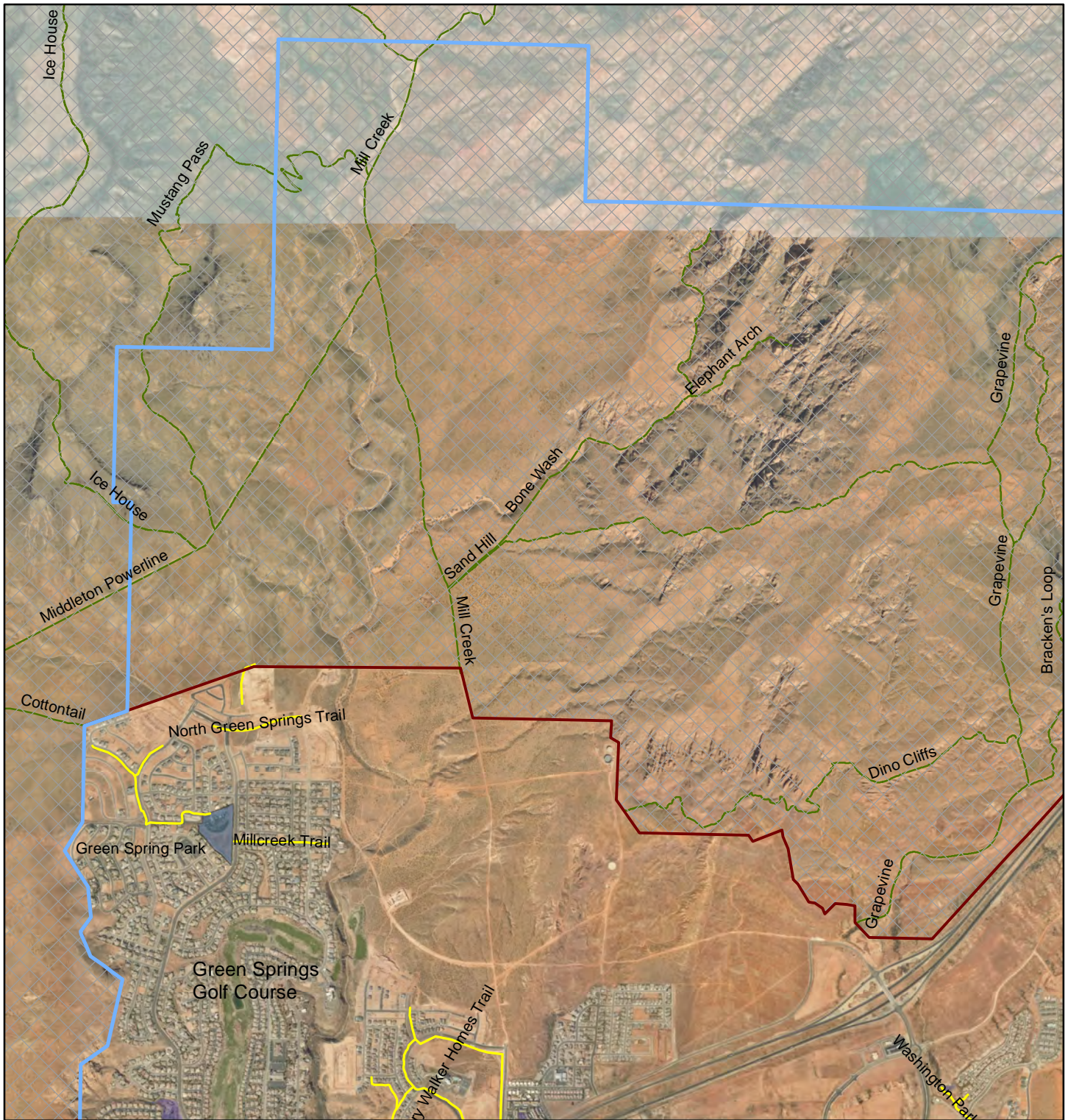
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WASHINGTON CITY

PARKS AND RECREATION
MASTER PLAN
LOCATION MAP

SET NO.	DESIGNED	DRAWN	CHECKED
06221	BJS	BJS	KJP

FIG 1



MAP LEGEND

Trails

Existing Trails

Red Cliffs Area Trails

Parks

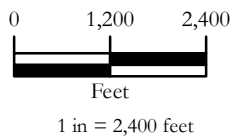
Existing Neighborhood Park

Private Park

Red Cliffs Desert Reserve

City Boundary

A1	A2
B1	B2
C1	



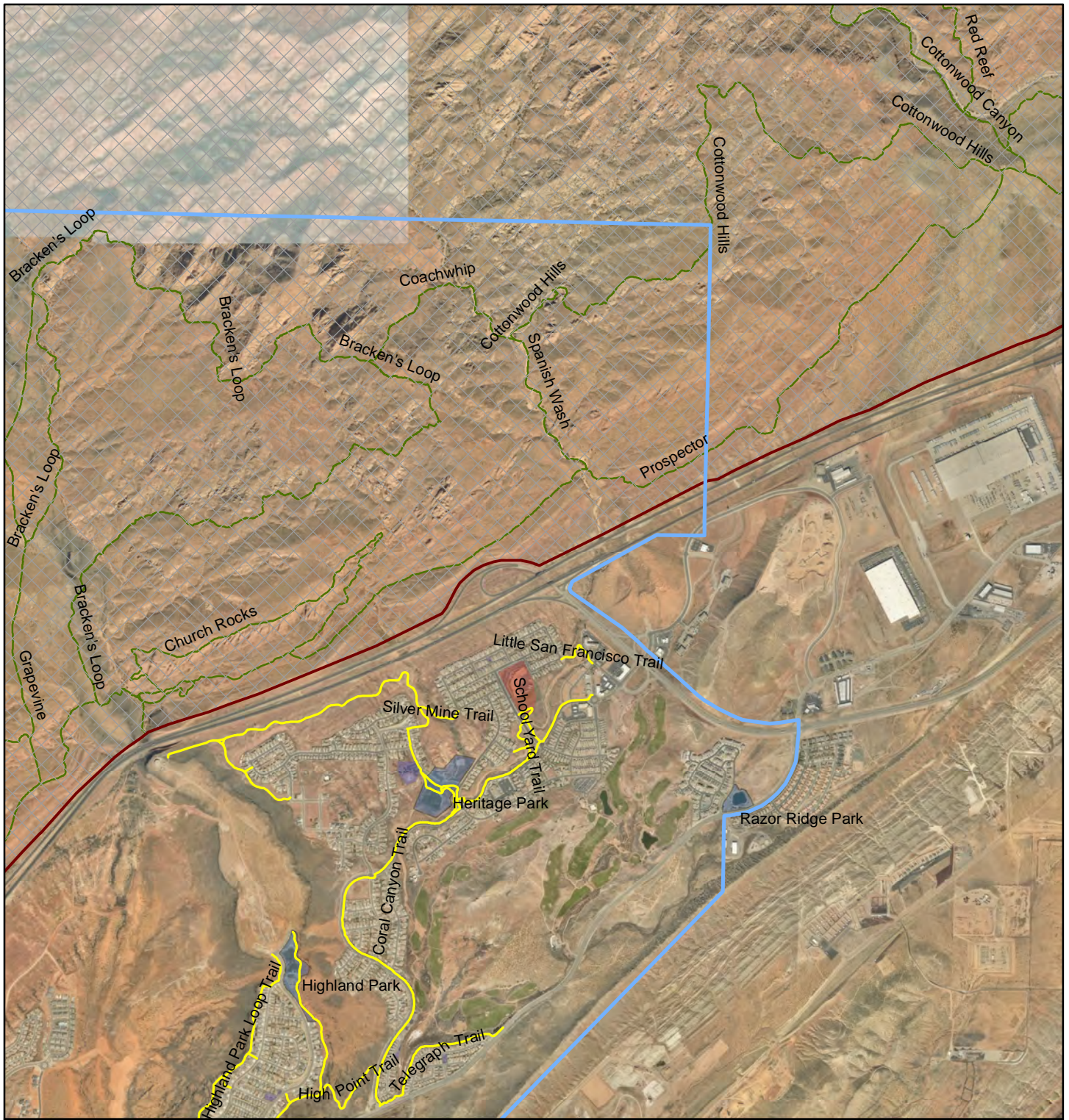
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PARKS AND RECREATION MASTER PLAN

EXISTING INVENTORY MAP

SEL NO.	DESIGNED	DRAWN	CHECKED	FIG 2-A1
06221	BJS	BJS	JKP	



MAP LEGEND

Trails

- Existing Trails
- Red Cliffs Area Trails

Parks

- Existing Neighborhood Park
- Private Park
- School Park



Red Cliffs Desert Reserve



City Boundary

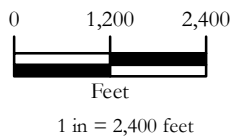
A1

A2

B1

B2

C1



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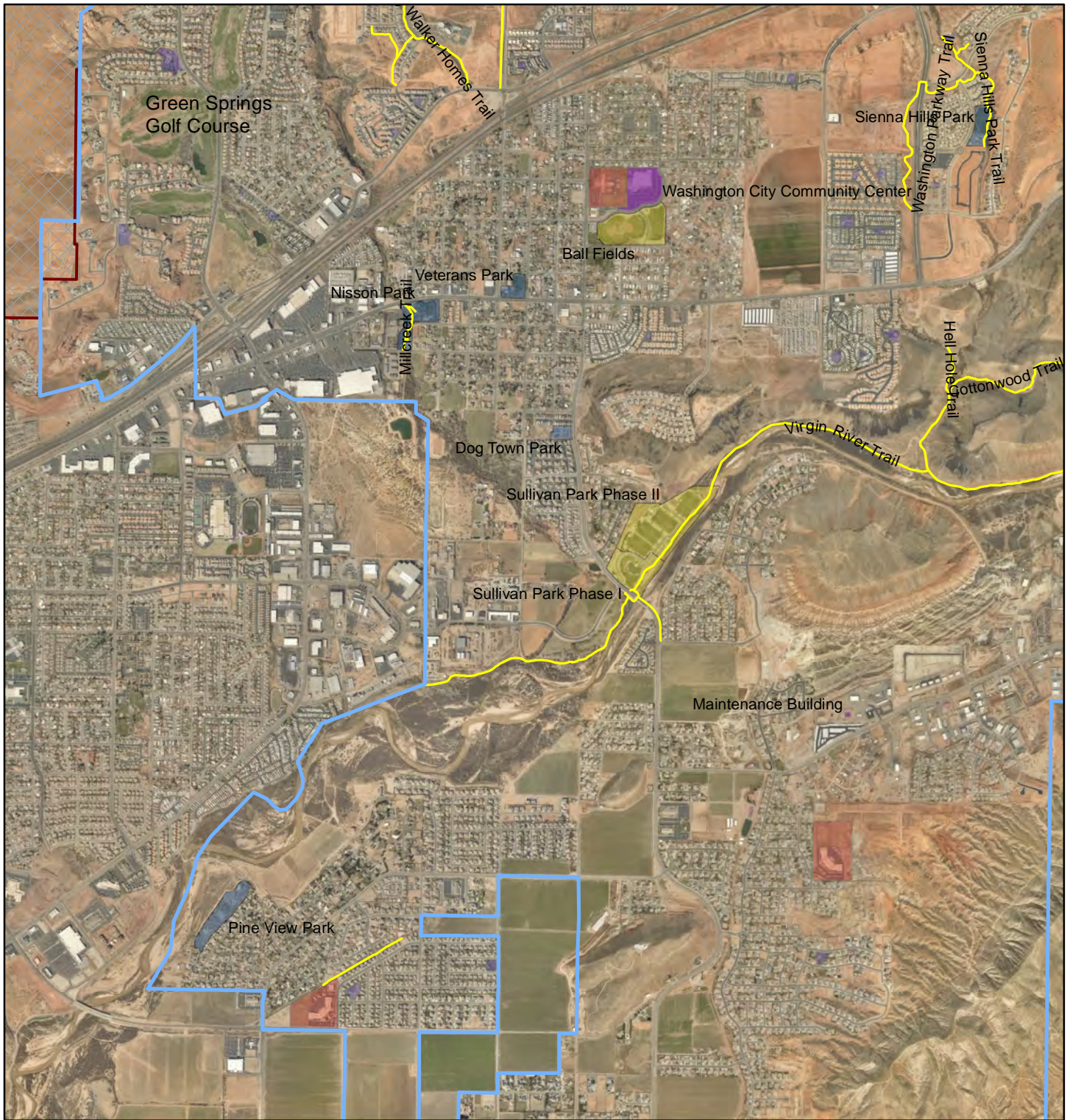
WASHINGTON CITY

PARKS AND RECREATION MASTER PLAN

EXISTING INVENTORY MAP

SEE NO.	DESIGNED	DRAWN	CHECKED
06221	BJS	BJS	JKP

FIG 2-A2



MAP LEGEND

Trails

Existing Trails

Parks

Existing Community Park



Existing Neighborhood Park



Private Park



School Park



Recreation Facility



Red Cliffs Desert Reserve



City Boundary

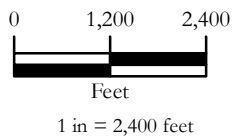
A1

A2

B1

B2

C1



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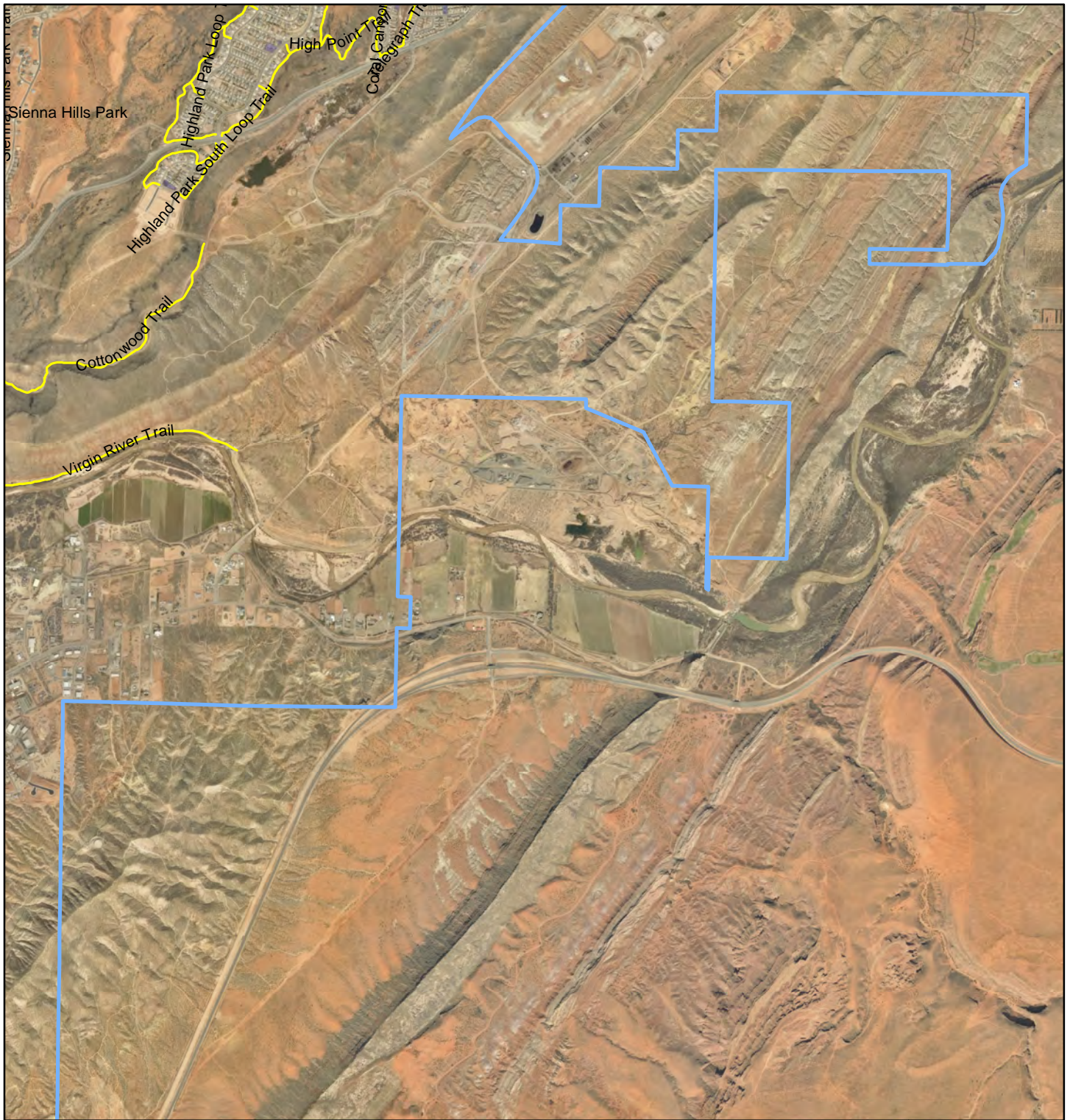
WASHINGTON CITY

PARKS AND RECREATION MASTER PLAN

EXISTING INVENTORY MAP

SEE NO.	DESIGNED	DRAWN	CHECKED
06221	BJS	BJS	JKP

FIG 2-B1



MAP LEGEND

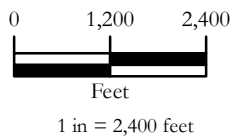
Trails
 Existing Trails

Parks
 Existing Neighborhood Park

Private Park

City Boundary

A1	A2
B1	B2
C1	



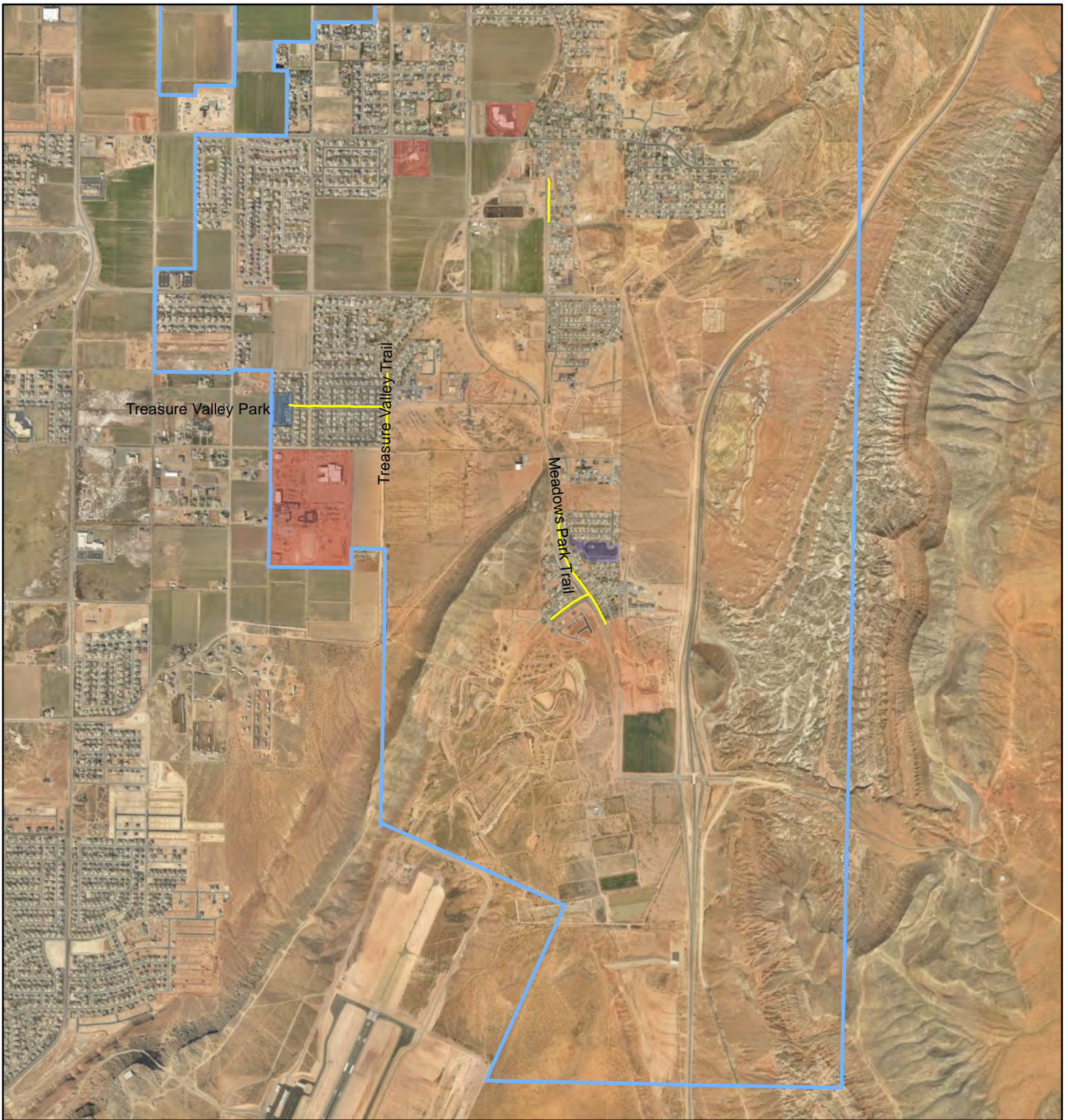
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EXISTING INVENTORY MAP

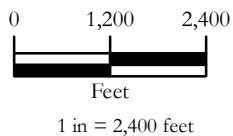
SEE NO.	DESIGNED	DRAWN	CHECKED	FIG 2-B2
06221	BJS	BJS	JCP	



MAP LEGEND

- | | | | | |
|--------|---|----------------------------|---|--------------|
| Trails |  | Existing Trails |  | Private Park |
| Parks |  | Existing Neighborhood Park |  | School Park |
| |  | City Boundary | | |

A1	A2
B1	B2
C1	



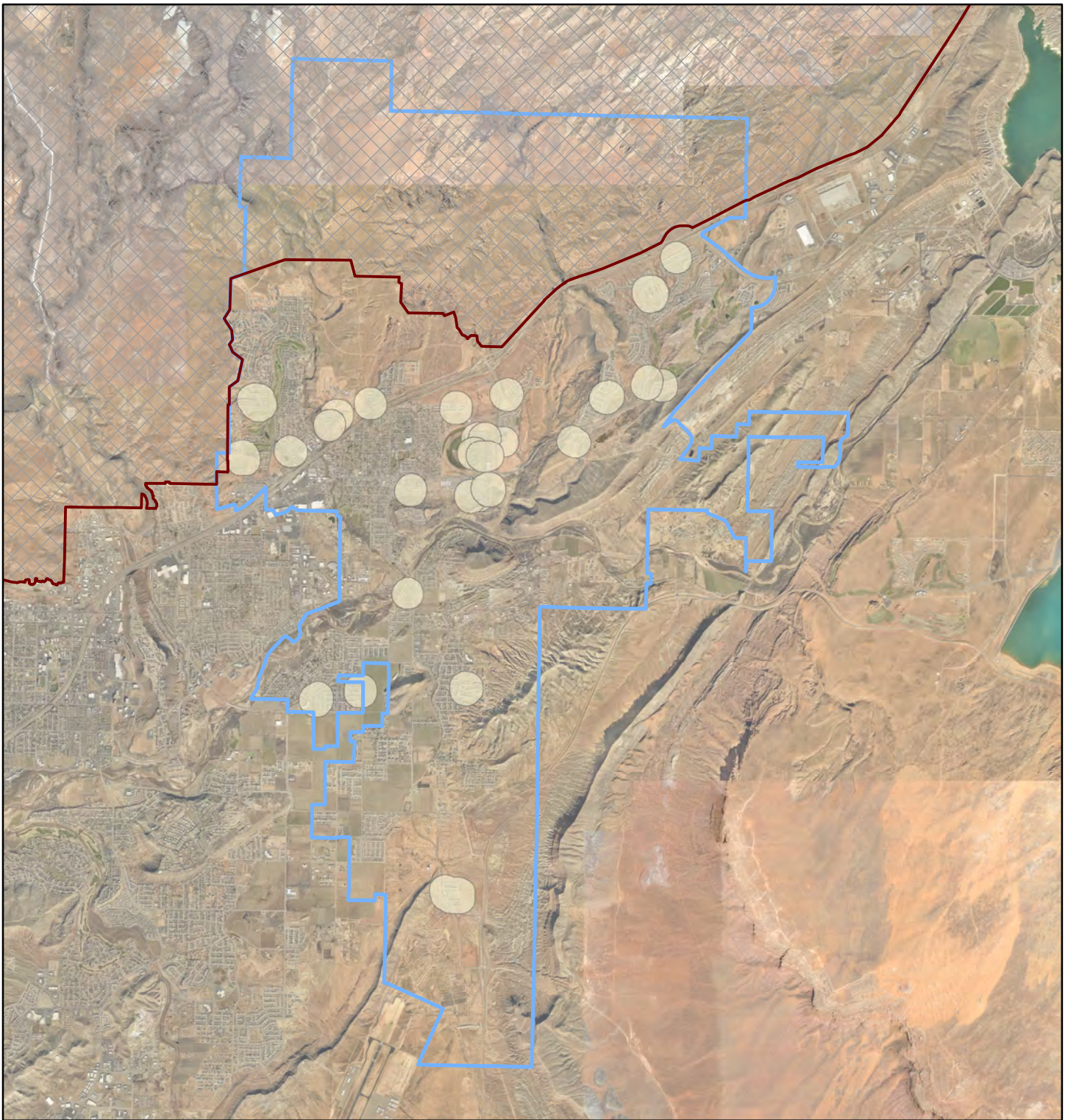
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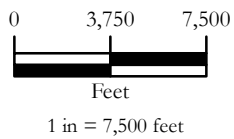
EXISTING INVENTORY MAP

SEE NO.	DESIGNED	DRAWN	CHECKED	FIG 2-C1
06221	BJS	BJS	JKP	



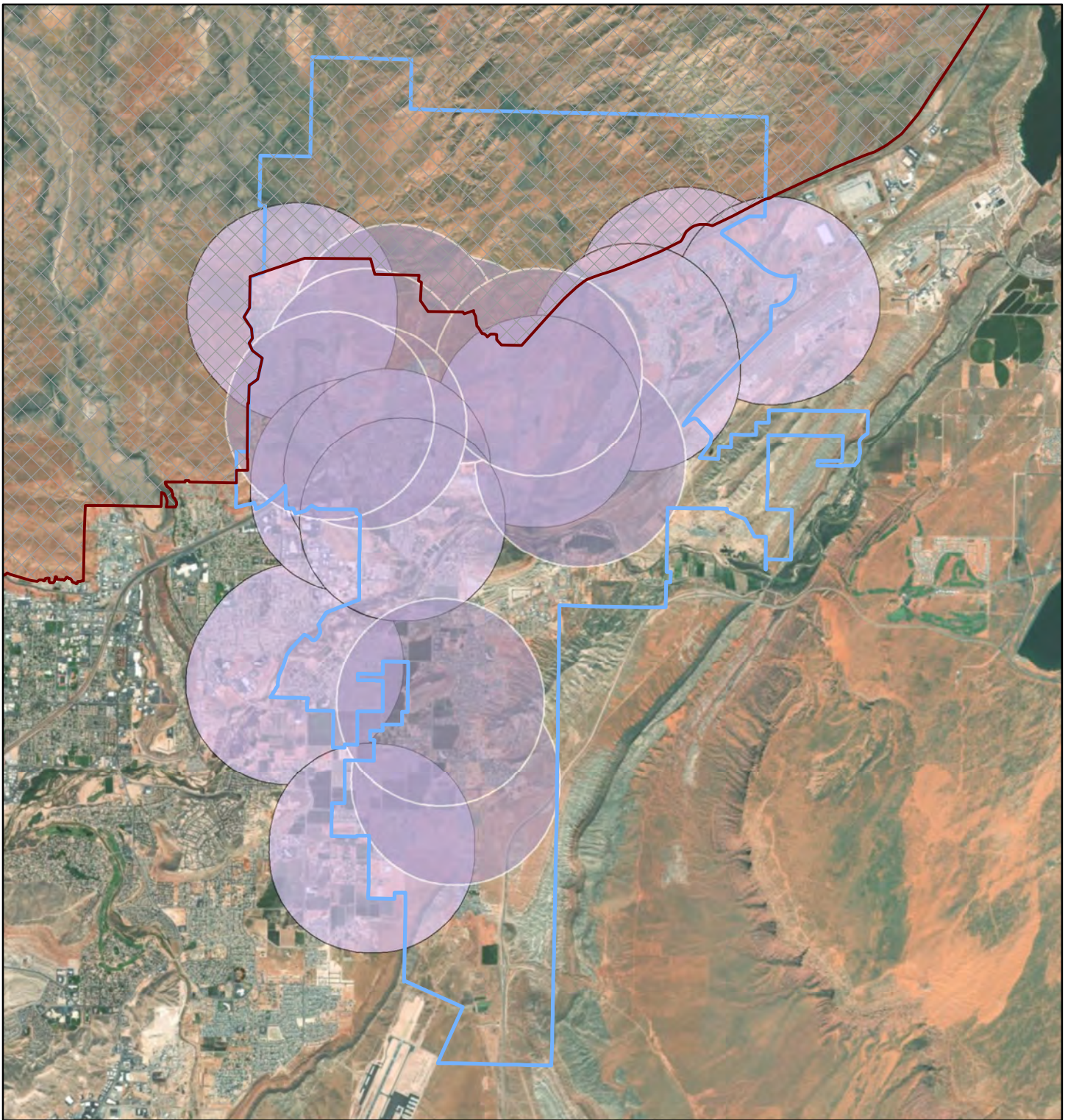
MAP LEGEND

-  Existing Private Park Service Area .15 Mile
-  Red Cliffs Desert Reserve
-  City Boundary







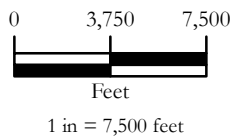
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PARKS AND RECREATION MASTER PLAN				
THEORETICAL SERVICE AREA MAP				
3E1 NO. 06221	DESIGNED BJS	DRAWN BJS	CHECKED JKP	FIG 3-A



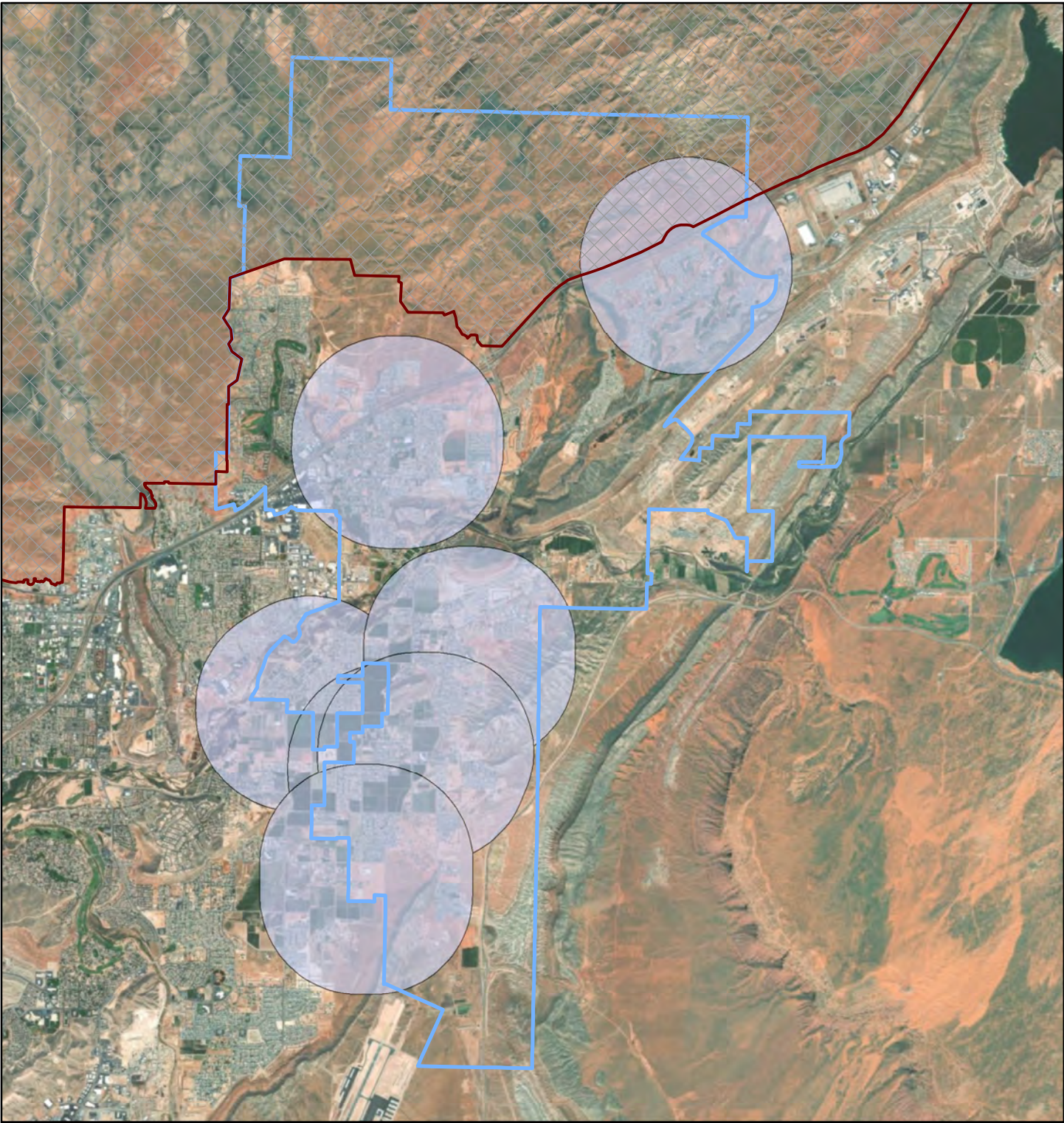
MAP LEGEND

-  Existing Neighborhood Park Service Area 1 Mile
-  Proposed Neighborhood Park Service Area 1 Mile
-  Red Cliffs Desert Reserve
-  City Boundary






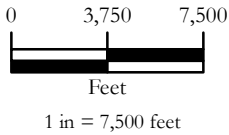
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PARKS AND RECREATION MASTER PLAN				
THEORETICAL SERVICE AREA MAP				
3E1 NO. 06221	DESIGNED BJS	DRAWN BJS	CHECKED JKP	FIG 3-B



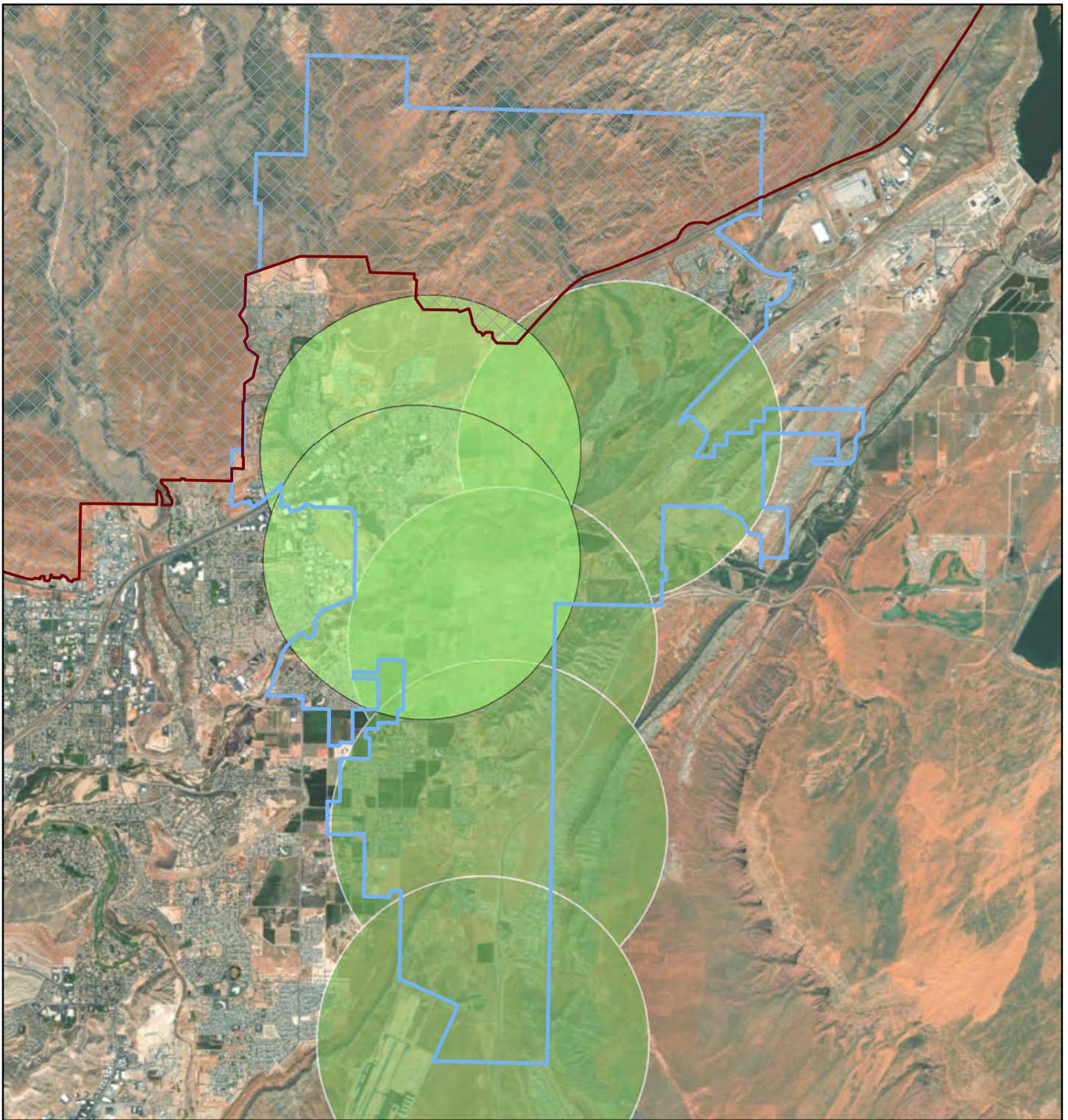
**MAP
LEGEND**

-  Existing School Park Service Area 1 Mile
-  Red Cliffs Desert Reserve
-  City Boundary



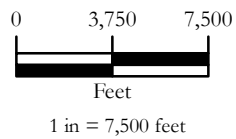
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PARKS AND RECREATION MASTER PLAN			
THEORETICAL SERVICE AREA MAP			
3E1 NO. 06221	DESIGNED BJS	DRAWN BJS	CHECKED JKP
			FIG 3-C



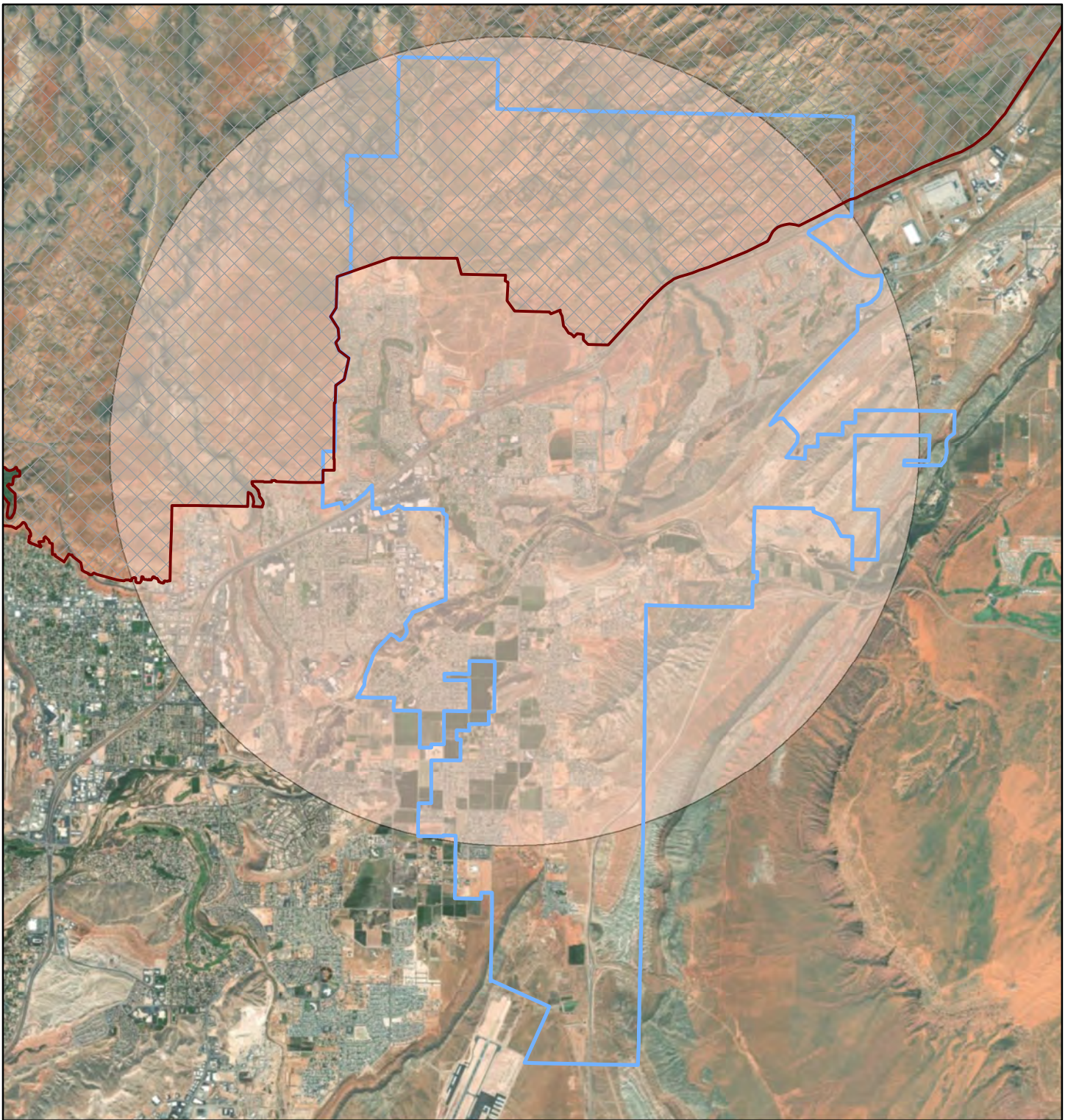
MAP LEGEND

-  Existing Community Park Service Area 1.5 Miles
-  Proposed Community Park Service Area 1.5 Miles
-  Red Cliffs Desert Reserve
-  City Boundary






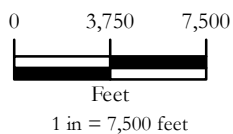
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THEORETICAL SERVICE AREA MAP				
SEE NO. 06221	DESIGNED BJS	DRAWN BJS	CHECKED JKP	FIG 3-D



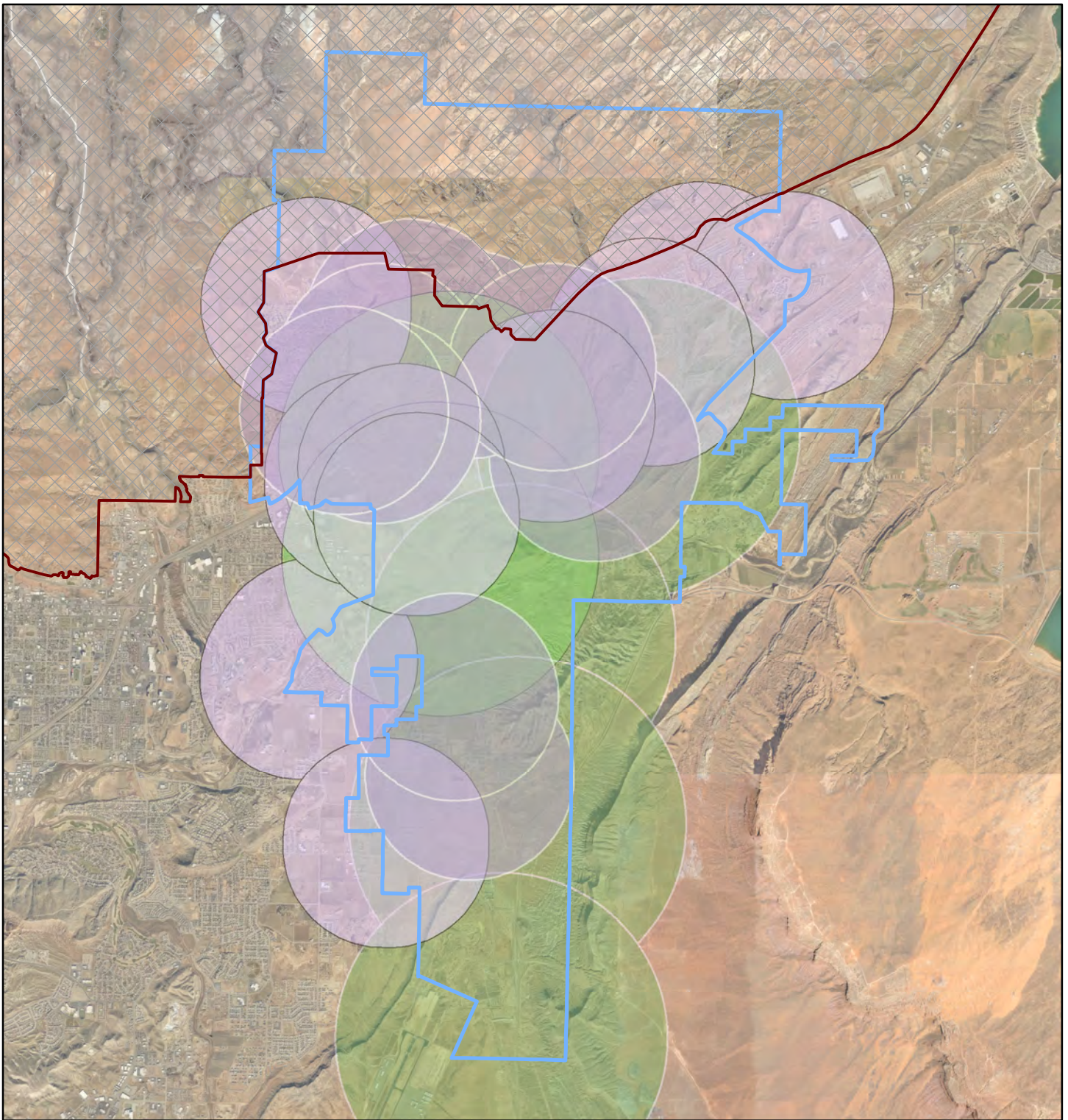
MAP LEGEND

-  Existing Recreation Facility Service Area 4 Miles
-  Red Cliff Desert Reserve
-  City Boundary



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THEORETICAL SERVICE AREA MAP				
SEE NO.	DESIGNED	DRAWN	CHECKED	
06221	BJS	BJS	JKP	FIG 3-E

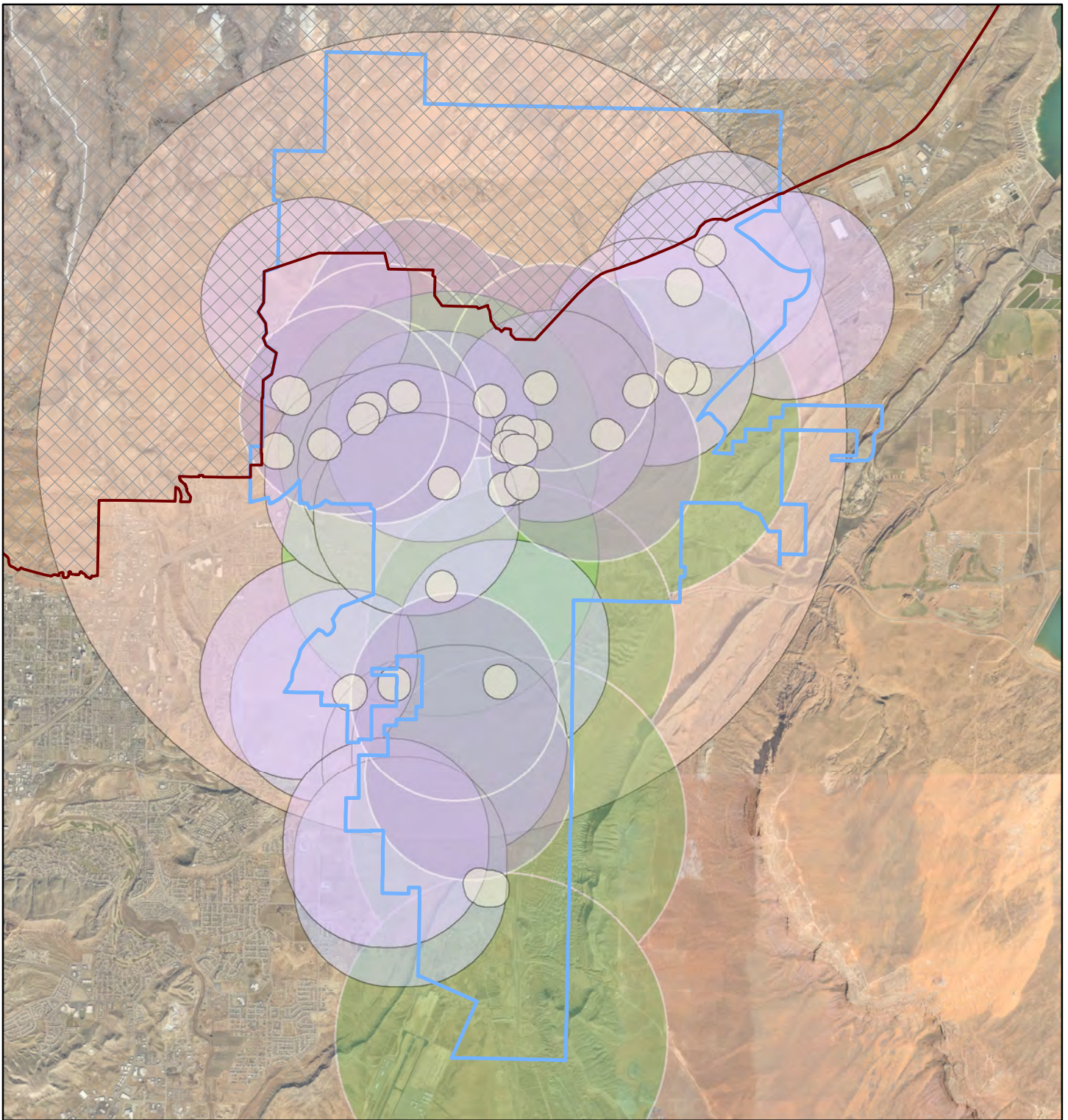


MAP LEGEND










- Existing Neighborhood Park Service Area 1 Mile
- Existing Community Park Service Area 1.5 Miles
- Proposed Neighborhood Park Service Area 1 Mile
- Proposed Community Park Service Area 1.5 Miles

- Red Cliffs Desert Reserve
- City Boundary

 <div style="text-align: center;"> <p>0 3,750 7,500</p>  <p>Feet</p> <p>1 in = 7,500 feet</p> </div>		 <p style="font-size: small;">11 NORTH 300 WEST WASHINGTON, UTAH 84780 TEL 435.652.8450 - FAX 435.652.8416 www.sunrise-eng.com</p>	<p>WASHINGTON CITY</p> <p>PARKS AND RECREATION</p> <p>MASTER PLAN</p> <p>THEORETICAL SERVICE AREA MAP</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <tr> <td style="width: 12.5%;">SHEET NO.</td> <td style="width: 12.5%;">DESIGNED</td> <td style="width: 12.5%;">DRAWN</td> <td style="width: 12.5%;">CHECKED</td> <td rowspan="2" style="width: 25%; text-align: center;">FIG 3-F</td> </tr> <tr> <td>06221</td> <td>BJS</td> <td>BJS</td> <td>JKP</td> </tr> </table>	SHEET NO.	DESIGNED	DRAWN	CHECKED	FIG 3-F	06221	BJS	BJS	JKP
SHEET NO.	DESIGNED	DRAWN	CHECKED	FIG 3-F								
06221	BJS	BJS	JKP									



MAP LEGEND

- | | | |
|--|---|---|
|  Existing Private Park Service Area .15 Mile |  Existing Recreation Facility Service Area 4 Miles |  City Boundary |
|  Existing Neighborhood Park Service Area 1 Mile |  Proposed Neighborhood Park Service Area 1 Mile | |
|  Existing School Park Service Area 1 Mile |  Proposed Community Park Service Area 1.5 Miles | |
|  Existing Community Park Service Area 1.5 Miles |  Red Cliffs Desert Reserve | |



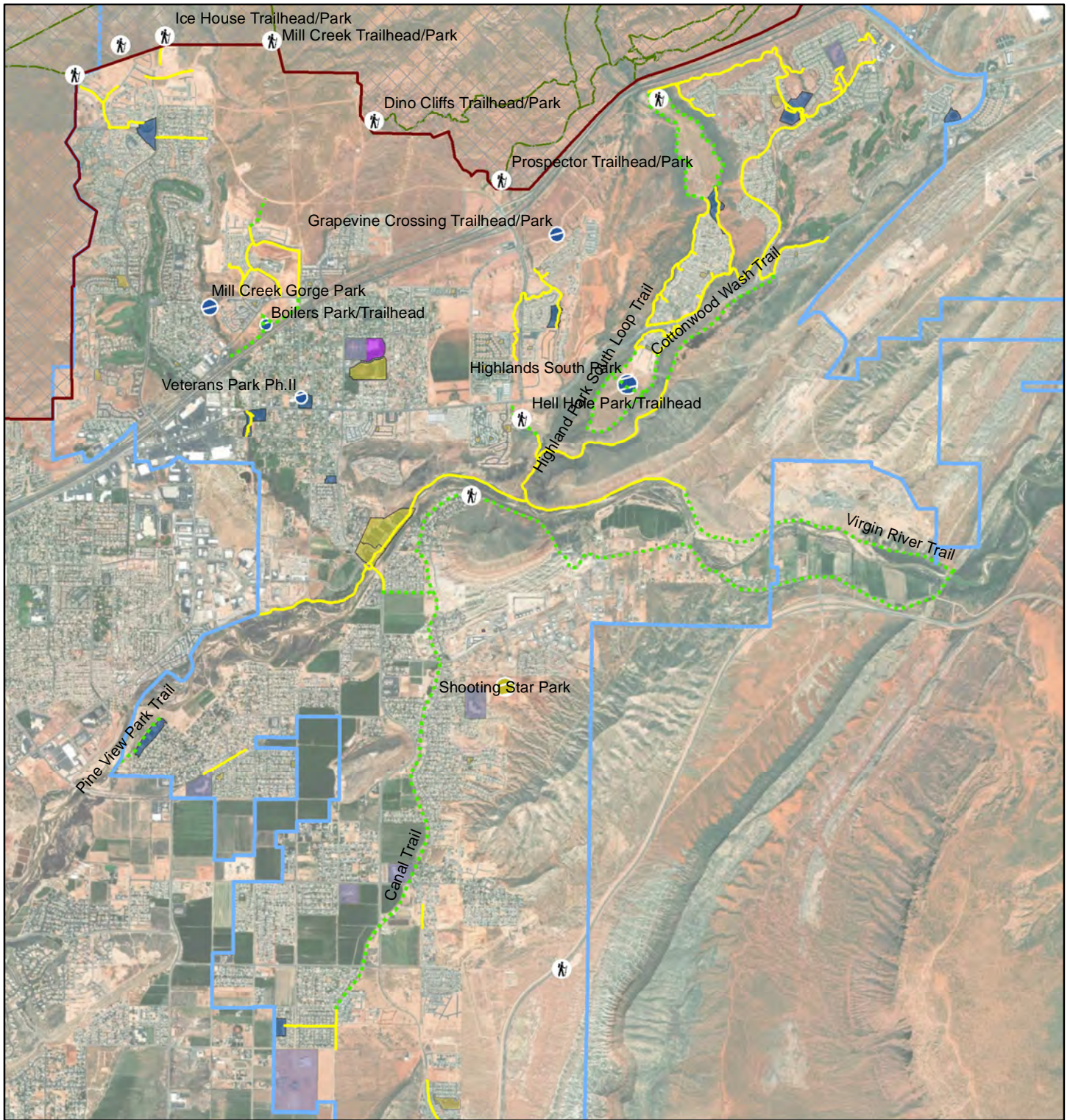
0 3,750 7,500
Feet
1 in = 7,500 feet



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PARKS AND RECREATION
MASTER PLAN
THEORETICAL SERVICE AREA MAP

3E1 NO.	DESIGNED	DRAWN	CHECKED	FIG 3-G
06221	BJS	BJS	JKP	



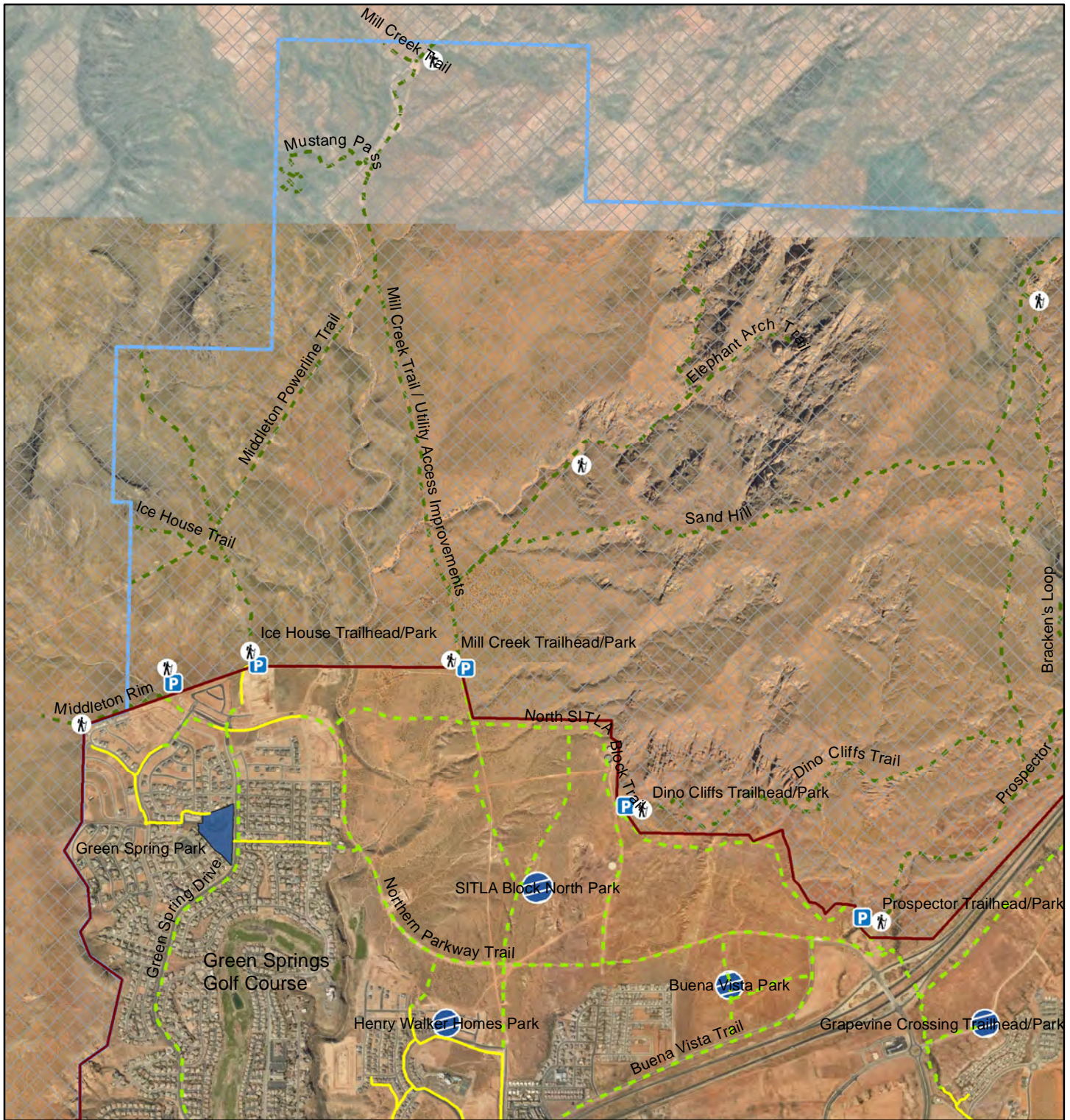
MAP LEGEND

- Trailhead
- Existing Trails
- Proposed Trails
- Existing Community Park

- Existing Neighborhood Park
- Private Park
- School Park
- Recreation Facility

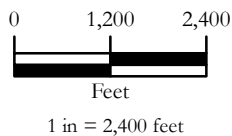
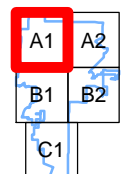
- Proposed Community Park
- Proposed Neighborhood Park
- Proposed Recreation Facility
- Red Cliffs Desert Reserve

- City Boundary



MAP LEGEND

- Parking Lot
- Trailhead
- Existing Trails
- Proposed Trails
- Red Cliffs Area Trails
- Existing Neighborhood Park
- Proposed Neighborhood Park
- Red Cliffs Desert Reserve
- City Boundary



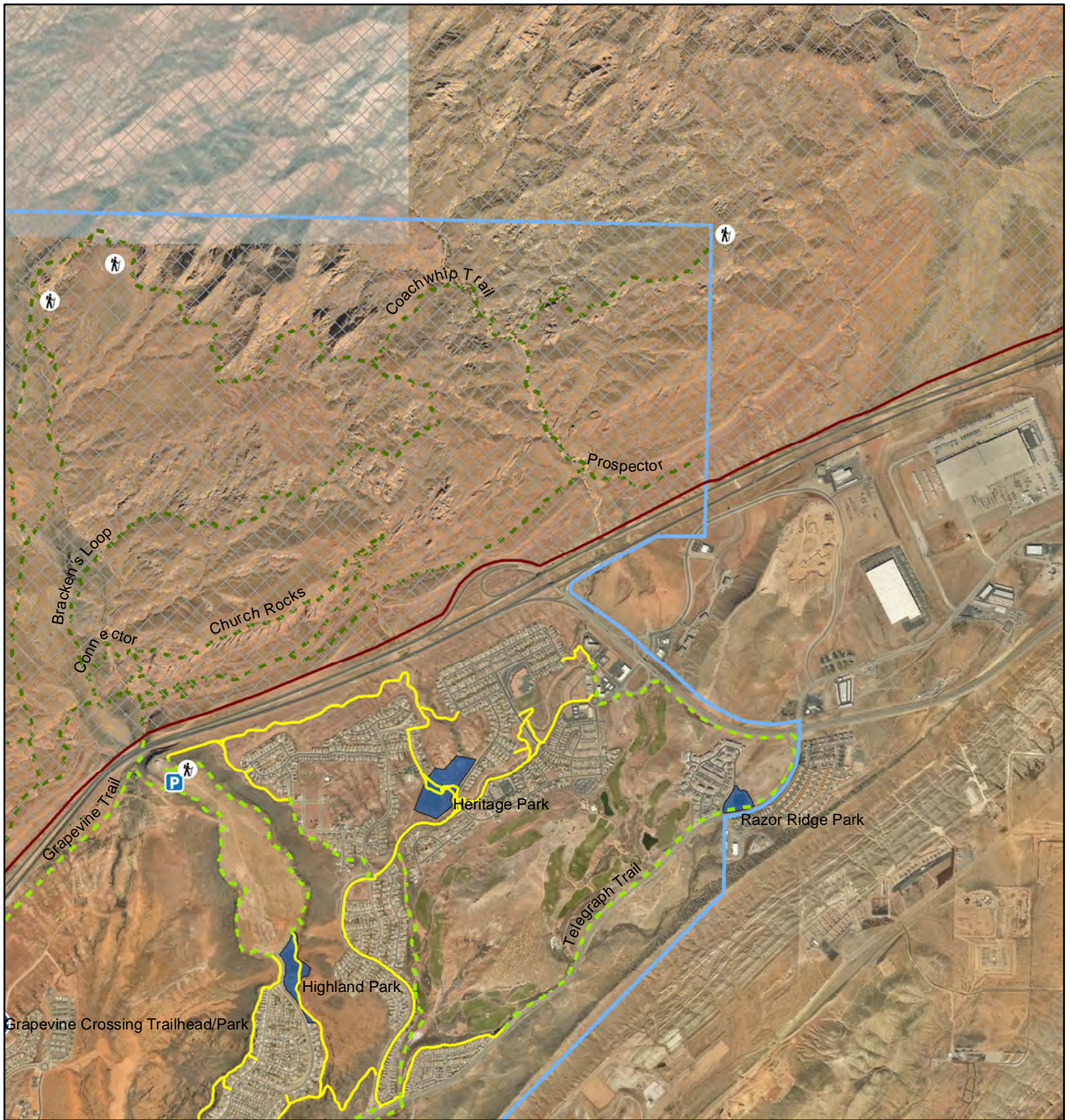
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PARKS AND RECREATION MASTER PLAN

PROPOSED FACILITIES PLAN MAP

SEE NO.	DESIGNED	DRAWN	CHECKED	FIG 5-A1
06221	BJS	BJS	JKP	

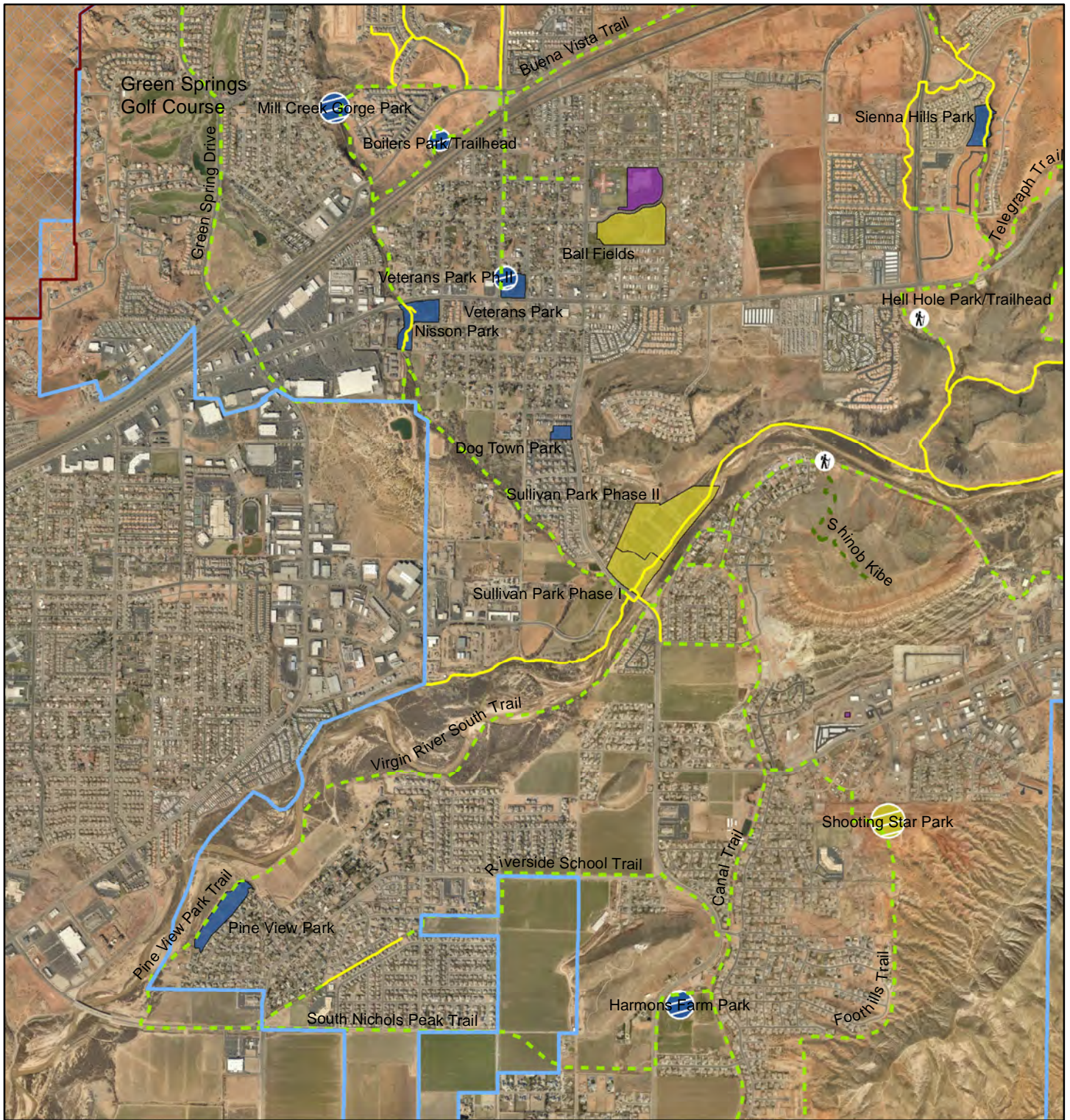


MAP LEGEND

- Parking Lot
- Trailhead
- Existing Trails
- Proposed Trails
- Red Cliffs Area Trails
- Existing Neighborhood Park
- Proposed Neighborhood Park
- Red Cliffs Desert Reserve
- City Boundary

A1	A2
B1	B2
C1	

	<p>0 1,200 2,400</p> <p>Feet</p> <p>1 in = 2,400 feet</p>	<p>Washington City Where Dixie Begins</p>	<p>SUNRISE ENGINEERING</p> <p>11 NORTH 300 WEST WASHINGTON, UTAH 84780 TEL 435.652.8450 - FAX 435.652.8416 www.sunrise-eng.com</p>	<p>WASHINGTON CITY</p> <p>PARKS AND RECREATION</p> <p>MASTER PLAN</p> <p>PROPOSED FACILITIES PLAN MAP</p>									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">SHEET NO.</td> <td style="width: 10%;">DESIGNED</td> <td style="width: 10%;">DRAWN</td> <td style="width: 10%;">CHECKED</td> <td style="width: 60%;">FIG 5-A2</td> </tr> <tr> <td style="text-align: center;">06221</td> <td style="text-align: center;">BJS</td> <td style="text-align: center;">BJS</td> <td style="text-align: center;">JKP</td> <td></td> </tr> </table>				SHEET NO.	DESIGNED	DRAWN	CHECKED	FIG 5-A2	06221	BJS	BJS	JKP	
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06221	BJS	BJS	JKP										

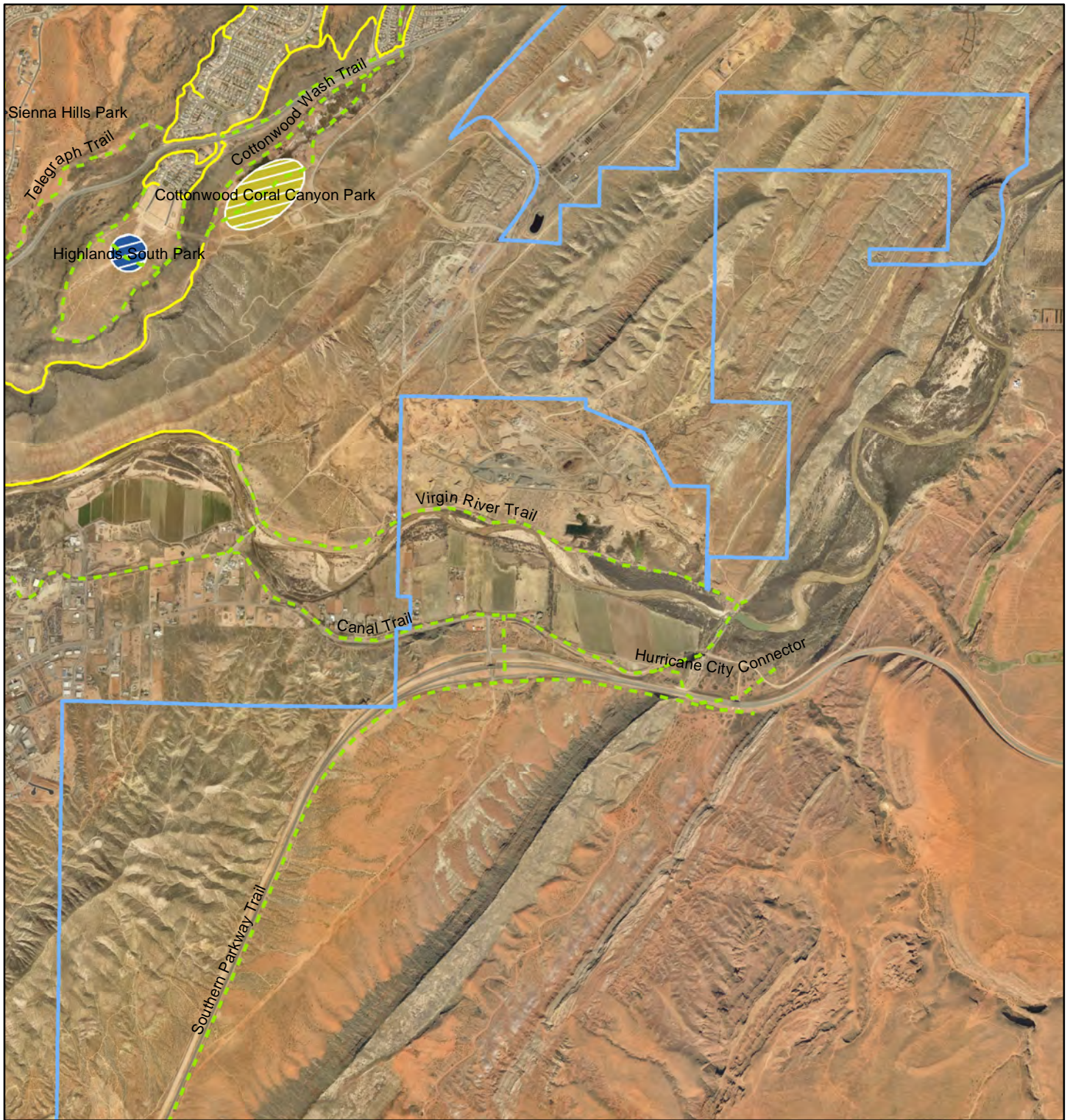


MAP LEGEND

- Trailhead
- Existing Trails
- Proposed Trails
- Red Cliffs Area Trails

- Existing Community Park
- Existing Neighborhood Park
- Proposed Community Park
- Proposed Neighborhood Park

- Recreation Facility
- Red Cliffs Desert Reserve
- City Boundary



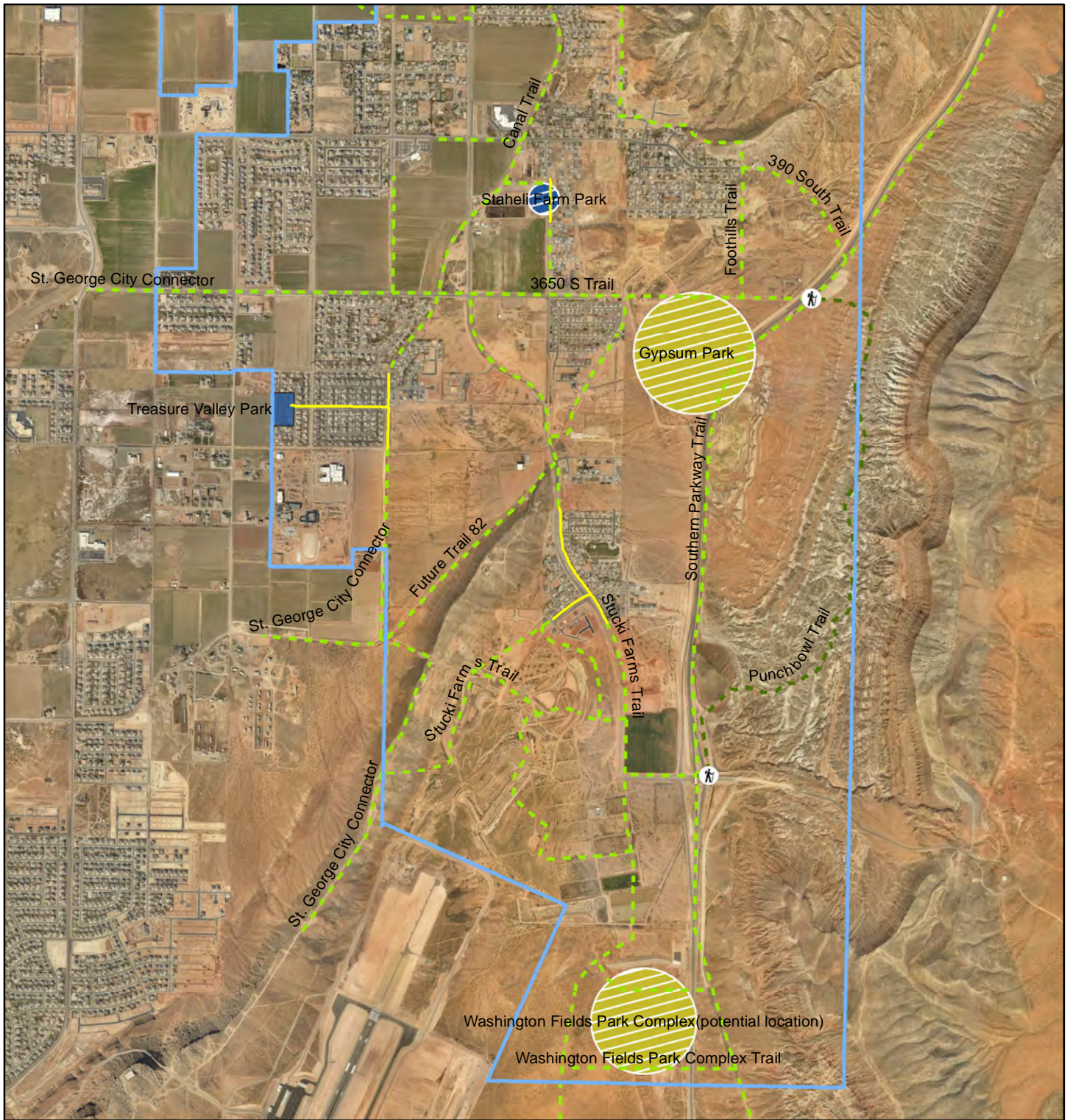
MAP LEGEND

- Existing Trails
- - - Proposed Trails
- Existing Neighborhood Park
- Proposed Community Park

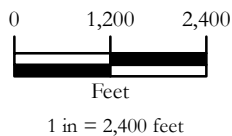
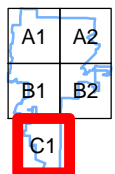
- ⊕ Proposed Neighborhood Park
- City Boundary

A1	A2
B1	B2
C1	

<div style="text-align: center;"> <p>0 1,200 2,400</p> <p>Feet</p> <p>1 in = 2,400 feet</p> </div>	<p>Washington City <small>Where Dixie Begins</small></p>	<p>SUNRISE ENGINEERING</p> <p><small>11 NORTH 300 WEST WASHINGTON, UTAH 84780 TEL 435.652.8450 - FAX 435.652.8416 www.sunrise-eng.com</small></p>	<p>WASHINGTON CITY</p> <p>PARKS AND RECREATION</p> <p>MASTER PLAN</p> <p>PROPOSED FACILITIES PLAN MAP</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 15%; font-size: 8px;">SHEET NO.</td> <td style="width: 15%; font-size: 8px;">DESIGNED</td> <td style="width: 15%; font-size: 8px;">DRAWN</td> <td style="width: 15%; font-size: 8px;">CHECKED</td> <td style="width: 40%; font-size: 12px; font-weight: bold;">FIG 5-B2</td> </tr> <tr> <td style="font-size: 8px;">06221</td> <td style="font-size: 8px;">BJS</td> <td style="font-size: 8px;">BJS</td> <td style="font-size: 8px;">JKP</td> <td></td> </tr> </table>	SHEET NO.	DESIGNED	DRAWN	CHECKED	FIG 5-B2	06221	BJS	BJS	JKP	
SHEET NO.	DESIGNED	DRAWN	CHECKED	FIG 5-B2									
06221	BJS	BJS	JKP										



- MAP LEGEND**
- Trailhead
 - Existing Trails
 - Proposed Trails
 - Red Cliffs Area Trails
 - Existing Neighborhood Park
 - Proposed Community Park
 - Proposed Neighborhood Park
 - City Boundary



11 NORTH 300 WEST
WASHINGTON, UTAH 84780
TEL 435.652.8450 - FAX 435.652.8416
www.sunrise-eng.com

WASHINGTON CITY

PARKS AND RECREATION MASTER PLAN

PROPOSED FACILITIES PLAN MAP

SET NO.	DESIGNED	DRAWN	CHECKED	
06221	BJS	BJS	JKP	FIG 5-C1

APPENDIX B – POPULATION AND GROWTH PROJECTIONS

Census Data (Historic)		
Year	Population	Growth (%)
1970	750	
1980	3,092	15.2%
1990	4,198	3.1%
2000	8,186	6.9%
2010	18,761	8.6%
Census Estimates (Projected)		
Year	Population	Growth (%)
2011	19,985	6.5%
2012	20,888	4.5%
2020	26,727	3.6%
2030	38,110	3.6%
2040	50,496	2.9%
2050	64,192	2.4%
2060	79,020	2.1%
Growth Rates		
Description	Years	Growth (%)
20-year Historic	1970-1990	9.0%
20-year Historic	1980-2000	5.0%
20-year Historic	1990-2010	7.8%
30-year Historic	1970-2000	8.3%
30-year Historic	1980-2010	6.2%
40-year Historic	1970-2010	8.4%
20-year Projected	2010-2030	3.6%
30-year Projected	2010-2040	3.4%
40-year Projected	2010-2050	3.1%

HOUSING OCCUPANCY		
Total housing units	7,546	100%
Occupied housing units	6,120	81%
Vacant housing units	1,426	19%
Person per Household	3.0655	-

Washington City Population & Growth Projections					
Year	Population	Population Capacity	Occupied Households	Household Capacity	Growth Rate (%)
1970	750				
1980	3,092				15.2%
1990	4,198				3.1%
2000	8,186				6.9%
2001	8,815				7.7%
2002	9,661				9.6%
2003	10,496				8.6%
2004	11,558				10.1%
2005	13,693				18.5%
2006	15,310				11.8%
2007	16,614				8.5%
2008	17,716				6.6%
2009	18,355				3.6%
2010	18,761	23,132	6,120	7,546	2.2%
2011	19,985	24,642	6,519	8,038	6.5%
2012	20,888	25,755	6,814	8,402	4.5%
2013	21,724	26,785	7,086	8,738	4.0%
2014	22,810	28,125	7,441	9,174	5.0%
2015	23,950	29,531	7,813	9,633	5.0%
2016	25,148	31,007	8,203	10,115	5.0%
2017	26,566	32,756	8,666	10,685	3.0%
2018	27,363	33,739	8,926	11,006	3.0%
2019	28,184	34,751	9,194	11,336	3.0%
2020	29,029	35,793	9,470	11,676	3.0%
2021	29,900	36,867	9,754	12,026	3.0%
2022	30,797	37,973	10,046	12,387	3.0%
2023	31,721	39,112	10,348	12,759	3.0%
2024	32,673	40,286	10,658	13,142	3.0%
2025	33,653	41,494	10,978	13,536	3.0%
2026	34,663	42,739	11,307	13,942	3.0%
2027	35,702	44,021	11,646	14,360	3.0%
2028	36,774	45,342	11,996	14,791	3.0%
2029	37,877	46,702	12,356	15,235	3.0%
2030	39,013	48,103	12,726	15,692	3.0%
2031	40,183	49,546	13,108	16,162	3.0%
2032	41,389	51,033	13,501	16,647	3.0%
2033	42,631	52,564	13,906	17,147	3.0%
2034	43,910	54,141	14,324	17,661	3.0%
2035	45,227	55,765	14,753	18,191	3.0%
2036	46,584	57,438	15,196	18,737	3.0%
2037	47,981	59,161	15,652	19,299	3.0%
2038	49,421	60,936	16,121	19,878	3.0%
2039	50,903	62,764	16,605	20,474	3.0%
2040	52,430	64,647	17,103	21,088	3.0%
2041	54,003	66,586	17,616	21,721	3.0%
2042	55,623	68,584	18,145	22,373	3.0%
2043	57,292	70,641	18,689	23,044	3.0%
2044	59,011	72,761	19,250	23,735	3.0%
2045	60,781	74,943	19,827	24,447	3.0%
2046	62,605	77,192	20,422	25,181	3.0%
2047	64,483	79,508	21,035	25,936	3.0%
2048	66,417	81,893	21,666	26,714	3.0%
2049	68,410	84,350	22,316	27,516	3.0%
2050	70,462	86,880	22,985	28,341	3.0%

APPENDIX C – NRPA STANDARDS AND GUIDELINES

PARKS AND OPEN SPACE CLASSIFICATIONS				
Classification	General Description	Location	Size Criteria	Application of LOS
Mini-Park	Used to address limited, isolated or unique recreational needs	Less 1/4 mile distance in residential setting	Between 2500 sq. ft. and one acre in size	No
Neighborhood Park	Neighborhood park remains the basic unit of the park system and serves as the recreational and social focus of the neighborhood. Focus is on informal activity and passive recreation.	1/4 mile to 1/2 mile distance and uninterrupted by non-residential roads and other physical barriers	5 acres is considered minimum size. 5 to 10 acres is optimal	Yes
School-Park	Depending on circumstances, combining parks with school sites can fulfill the space requirements for other classes of parks, such as neighborhood, community, sports complex, and special use.	Determined by location of school district property	Variable depends on function	No
Community Park	Serves broader purpose than neighborhood park. Focus is on meeting community-based recreation needs, as well as preserving unique landscapes and open spaces.	Determined by the quality and suitability of the site. Usually serves two or more neighborhoods within a 1/2 to 3 mile distance	As needed to accommodate desired uses. Usually between 30 and 50 acres	Yes
Large Urban Park	Large Urban parks serve a broader purpose than community parks and are used when community and neighborhood parks are not adequate to serve the needs of the community. Focus is on meeting community-based recreational needs as well as preserving unique landscapes and open spaces.	Determined by the quality and suitability of the site. Usually serves the entire community.	As needed to accommodate desired uses. Usually a minimum of 50 acres with 75 or more acres being optimal	No
Natural Resource Areas	Lands set aside for preservation of significant natural resources, remnant landscapes, open space and visual aesthetics or buffering.	Resource availability and Opportunity	Variable	No
Greenways	Effectively tie the park system components together to form a continuous park environment.	Resource availability and Opportunity	Variable	No
Sports Complex	Consolidates heavily programmed athletic fields and associated facilities to larger and fewer sites strategically located throughout the community.	Strategically located Community-wide facilities	Determined by projected demand usually a minimum of 25 acres with 40 to 80 acres being optimal	No
Special Use	Covers a broad range of parks and recreation facilities oriented toward single-purpose use.	Variable – dependent on specific use	Variable	Depends on type of use
Private Park/Recreation Facility	Parks and recreational facilities that are privately owned yet contribute to the public park and recreation system.	Variable – dependent on specific use	Variable	Yes

PATHWAY CLASSIFICATIONS		
Classification	General Description	Description of Each Type
Park Trail - Type I	Multi-purpose trails located within greenways, parks and natural resource areas. Focus is on recreational value and harmony with the natural environment.	Separate/single-purpose hard-surfaced trails for pedestrians or bicyclists/in-line skates.
Park Trail - Type II		Multipurpose hard-surfaced trails for pedestrians and bicyclists/in-line skaters.
Park Trail - Type III		Nature trails for pedestrians, which may use either hard or soft surfaces.
Connector Trails - Type I	Multipurpose trails that emphasize safe travel for pedestrians to and from parks and around the community. Focus is as much on transportation as it is on recreation.	Separate/single-purpose hard-surfaced trails for pedestrians or bicyclists/in-line skates located in independent Rights-of-ways (ROWS) e.g., old railroad ROW.
Connector Trails - Type II		Separate/single-purpose hard-surfaced trails for pedestrians or bicyclists/in-line skates. Typically, located within road ROW.
On-Street Bikeways - Bike Route	Paved segments of roadways that serve as a means to safely separate bicyclists from vehicular traffic.	Designated portions of the roadway for the preferential or exclusive use of bicyclists.
On-Street Bikeways - Bike Lane		Shared portions of the roadway that provide separation between motor vehicles and bicyclists, such as paved shoulders.
All-Terrain Bike Trail	Off-road trail for all terrain (mountain) bikes.	Single-purpose loop trails usually located in larger parks and natural resource areas.
Cross-Country Ski Trail	Trails developed for traditional and skate-style cross-country skiing	Loop trails usually located in larger parks and natural resource areas.
Equestrian Trails	Trails developed for horseback riding.	Loop trails usually located in larger parks and natural resource areas. Sometimes developed as multipurpose with hiking and all-terrain biking where conflicts can be controlled.

Suggested Outdoor Facility Development Standards

Activity Format	Recommended Size and Dimensions	Recommended Space Requirements	Recommended Orientation	Service Radius and Location Notes
Badminton	Singles—17' x 44' Doubles—20' x 44' with 5' unobstructed area on both sides.	1622 sq. ft.	Long axis north - south	1/4 - 1/2 mile. Usually in school recreation center or church facility. Safe walking or biking or biking access.
Basketball 1. Youth 2. High school 3. Collegiate	46' - 50' x 84' 50' x 84' 50' x 94' with 5' unobstructed space all sides.	2400-3036 sq. ft. 5040-7280 sq. ft. 5600-7980 sq. ft.	Long axis north - south	1/4 - 1/2 mile. Same as badminton. Outdoor courts in neighborhood/community parks, plus active recreation areas in other park settings.
Handball (3-4 wall)	20' x 40' with a minimum of 10' to rear of 3-wall court. Minimum 20' overhead clearance.	800 sq. ft. for 4-wall, 1000 sq. ft. for 3-wall.	Long axis is north - south. Front wall at north end.	15 - 30 min. travel time, 4-wall usually indoor as part of multi-purpose building. 3-2 all usually in park or school setting.
Ice hockey	Rink 85' x 200' (Min. 85' x 185') Additional 5000 22,000 sq. ft. including support area.	22,000 sq. ft. including support area.	Long axis is north - south if outdoors.	1/2 - 1 hour travel time. Climate important consideration affecting no. of units. Best as part of multi-purpose facility.
Tennis	36' x 78'. 12 ft. clearance on both ends.	Min. of 7,200 sq. ft. single court area (2 acres per complex).	Long axis north - south.	1/4 - 1/2 mile. best in batteries of 2 - 4. Located in neighborhood/community park or near school site.
Volleyball	30' x 60'. Minimum of 6' clearance on all sides.	Minimum 4,000 sq. ft.	Long axis north - south.	1/2 - 1 mile.
Baseball 1. Official 2. Little League	Baselines - 90' Pitching dist. - 60.5' Foul lines - min. 320' Center field - 400'+ Baselines - 60' Pitching distance-46' Foul lines - 200' Center field - 200'-250'	3.0 -3.85 A min. 1.2 A min.	Locate home plate so pitcher is not throwing across sun, and batter not facing it. Line from home plate through pitchers mound to run east-northeast.	1/4-1/2 mile. Part of neighborhood complex. Lighted fields part of community complex.
Field Hockey	180' x 300' with a minimum of 10' clearance on all sides	Minimum 1.5 A	Fall season - Long axis northwest or southeast. For longer periods, north/south	15-30 minute travel time. Usually part of baseball, football, soccer complex in community park or adjacent to high school.
Football	160' x 360' with a minimum of 6' clearance on all sides.	Minimum 1.5 A	Same as field hockey.	15 - 30 min. travel time. Same as field hockey.
Soccer	195' to 225' x 330' to 360' with 10' minimum clearance on all sides.	1.7 - 2.1 A.	Same as field hockey.	1 - 2 miles. Number of units depends on popularity. Youth popularity. Youth soccer on smaller fields adjacent to fields or neighborhood parks.

Golf - driving range	900' x 690' wide. Add 12' width each additional tee.	13.5 A for min. of 25 tees.	Long axis is southwest -northeast with golfer driving northeast.	30 minute travel time. Park of golf course complex. As separate unit may be privately operated.
1/4 mile running track	Over-all width - 276' length -600'. Track width for 8 - 4 lanes is 32'.	4.3 A	Long axis in sector from north to south to northwest - southeast, with finish line at north end.	15-30 minute travel time. Usually part of a high school or community park complex in combination with football, soccer, etc.
Softball	Baselines - 60' pitching dist. - 45' men. 40' women Fast pitch field radius from plate - 225' Slow pitch - 275' (men) 250' (women).	1.5 - 2.0 A	Same as baseball. indimensions for 16".	1/4 - 1/2 mile. Slight difference May also be used for youth baseball.
Multiple use court (basketball, tennis, etc.)	120' x 80'	9,840 sq. ft.	Long axis of court with primary use north and south.	1 - 2 miles, in neighborhood or community parks.
Archery range	300' length x minimum 10' between targets. Roped, clear area on side of range minimum 30', clear space behind targets minimum of 90' x 45' with bunker.	Minimum 0.65 A	Archer facing north + or - 45 degrees.	30 minutes travel time. Part of a regional/metro complex.
Golf				
1. Par 3 (18 hole)	Average length varies -600 - 2700 yards.	50 - 60 A	Majority of holes on north/south axis	1/2 - 1 hour travel time
2. 9-hole standard	Average length 2250 yards.	Minimum of 50 A		9-hole course can accomodate 350 people/day.
3. 18-hole standard	Average length 6500 yards.	Minimum 110 yds		500 - 550 people/day. Course may be located in community, district or regional/metro park.
Swimming pools	Teaching - min. 25 yds x 45' even depth of 3-4 ft. Competitive - min. 25 m x 16 m. Min. of 25 sq. ft. water surface per swimmer. Ration of 2 to 1 deck to water.	Varies on size of pool and amenities. Usually 1 - 2 A sites.	None, but care must be taken in siting life stations in relation to afternoon sun	15 to 30 minute travel time. Pools for general community use should planned for teaching competitive and recreational purposes with enough to accomodate 1m and 3m diving boards. Located in community park or school site.
Beach areas	Beach area should have 50 sq. ft. of land and 50 sa. ft. of water per user. Turnover rate is 3. There should be a 3 -4 A supporting area per A of beach.	N/A	N/A	1/2 to 1 hour travel time. Should have a sand bottom with a maximum slope of 5%. Boating areas completely segregated from swimming areas. In regional/metro parks.

APPENDIX D – COMMUNITY CENTER CALCULATIONS

Community Center Size	110,000	square feet (data provided by project architect)
Design Population Service Capacity	60,000	population (data provided by project architect)
Design Level of Service	1,833	calculated, square feet per 1,000 population
Current Washington City Population	27,363	per growth curve
Current Community Center Usage:	~	
<i>Total Current Memberships</i>	2,265	data provided by Washington City Community Center (forecast from 2014)
<i>Average Users per Membership</i>	2.84	calculated, users
<i>Total Individuals Using Community Center</i>	6,442	data provided by Washington City Community Center
<i>% of Memberships Based in Washington City</i>	62.0%	memberships located in Washington City zip codes
<i>Washington Residents Using Center</i>	3,994	calculated, users
<i>% of Memberships Based outside Washington City</i>	38.0%	memberships located outside Washington City zip codes
<i>Other Residents Using Center</i>	2,448	calculated, users
Equivalent Population Served:	~	
<i>Washington Population Served</i>	27,363	current estimated Washington City population
<i>Washington Residents Using Center</i>	3,994	calculated, see above
<i>% of Washington City Population Using Center</i>	14.162%	calculated as residents using center divided by current population
<i>Other Residents Using Center</i>	2,448	calculated, see above
<i>Other Population Served</i>	17,286	calculated as other residents using center divided by 14.2% usage rate
<i>Total Population Served in 2018</i>	44,649	equals Washington City population served plus other population served
Community Center Capacity Absorption:	~	
<i>% of Capacity Used by Existing Population</i>	74.4%	calculated as total population served in 2018 divided by design service capacity
<i>% of Capacity To Be Used by Future Population</i>	25.6%	calculated as the difference between design service capacity and current usage
<i>Excess Capacity in Building Square Footage</i>	28,144	calculated as the difference between design service capacity and current usage
<i>Excess Capacity in Population</i>	15,351	calculated as the excess square footage capacity divided by the design level of service
<i>Excess Capacity for Washington City Residents</i>	9,518	calculated assuming Washington City residents will use 62.0% of the excess capacity
<i>Excess Capacity for Other Residents</i>	5,833	calculated assuming other residents will use 38.0% of the excess capacity
Washington City Population at Full Capacity Absorption	36,881	calculated as the existing population plus the excess capacity for Washington City residents
Year in which Full Capacity of Community Center Absorbed	2028	year in which full capacity of community center is being used
Year at End of Planning Period	2028	end of 10-year planning horizon
Washington City Population at End of Planning Period	36,774	per growth curve
Apparent Washington City Level of Service	4,020	calculated as community center size divided by current Washington City population
Existing Washington City Level of Service	3,108	calculated as apparent level of service multiplied by percent eligible level of service (66.6%)
Target Washington City Level of Service	2,983	calculated as community center size divided by Washington City population at full capacity absorption
Community Center Capacity Required at End of Planning Period	109,681	calculated as target level of service multiplied by Washington City population at end of planning period
Excess Capacity at End of Planning Period	319	calculated as the difference in the required capacity at end of planning period minus existing capacity

APPENDIX E – UNIT COST CALCULATIONS

PARKS								
Owner	Name	Year	Project Type	Project Costs			Total Acreage	Cost / Acre
				Construction	Incidentals	Total		
St. George City	Sunset Park Phase II	2018	New Facility	\$ 1,000,000.00	\$ 102,900.00	\$ 1,102,900.00	4.3	\$ 256,488.37
St. George City	Little Valley Phase II	2017	Reconstruction	\$ 1,638,992.61	\$ 123,800.00	\$ 1,762,792.61	10.8	\$ 163,221.54
St. George City	Little Valley Sports Field	2016	New Facility	\$ 2,894,600.00	\$ 195,700.00	\$ 3,090,300.00	11.5	\$ 268,721.74
Washington City	Sullivan Soccer Park, Phase II	2016	New Facility	\$ 4,362,000.00	\$ 235,000.00	\$ 4,597,000.00	26.2	\$ 175,458.02
Lincoln County	Pioneer Park Phase I & II	2014	Upgrade	\$ 749,700.00	\$ 157,700.00	\$ 907,400.00	3.2	\$ 283,562.50
St. George City	Royal Oaks Park	2014	New Facility	\$ 412,000.00	\$ 72,225.41	\$ 484,225.41	1.0	\$ 484,225.41
St. George City	Silkwood Park	2014	New Facility	\$ 385,300.00	\$ 67,544.78	\$ 452,844.78	1.5	\$ 301,896.52
St. George City	Sunset Park	2014	Upgrade	\$ 560,900.00	\$ 98,328.24	\$ 659,228.24	2.4	\$ 274,678.43
White Pine County	Preston Park	2013	New Facility	\$ 155,400.00	\$ 36,500.00	\$ 191,900.00	0.7	\$ 274,142.86
White Pine County	North Ely Park	2013	New Facility	\$ 162,400.00	\$ 44,100.00	\$ 206,500.00	1.0	\$ 206,500.00
White Pine County	Bianchi Park	2013	Upgrade	\$ 153,600.00	\$ 22,100.00	\$ 175,700.00	0.6	\$ 292,833.33
White Pine County	McGill Park	2013	Upgrade	\$ 255,100.00	\$ 36,800.00	\$ 291,900.00	1.3	\$ 224,538.46
White Pine County	Steptoe Park	2013	Upgrade	\$ 103,200.00	\$ 14,900.00	\$ 118,100.00	0.4	\$ 295,250.00
White Pine County	Courthouse Park	2013	Upgrade	\$ 229,500.00	\$ 48,100.00	\$ 277,600.00	1.3	\$ 213,538.46
St. George City	Little Valley Pickleball	2012	New Facility	\$ 813,800.00	\$ 90,500.00	\$ 904,300.00	2.5	\$ 361,720.00
Lincoln County	Pioche Park Phase II	2012	Upgrade	\$ 758,000.00	\$ 167,500.00	\$ 925,500.00	2.7	\$ 342,777.78
Washington City	Sullivan Virgin River Phase I	2011	New Facility	\$ 1,497,200.00	\$ 262,465.74	\$ 1,759,665.74	10.6	\$ 166,006.20
Lincoln County	Rachel Park	2011	Upgrade	\$ 239,600.00	\$ 52,600.00	\$ 292,200.00	1.5	\$ 194,800.00
City of Caliente	Dixon Park	2008	New Facility	\$ 2,180,900.00	\$ 287,000.00	\$ 2,467,900.00	5.3	\$ 465,641.51
City of Caliente	Super Park	2008	New Facility	\$ 784,900.00	\$ 181,000.00	\$ 965,900.00	3.0	\$ 321,966.67
City of Caliente	Rose Park	2008	Upgrade	\$ 394,900.00	\$ 85,000.00	\$ 479,900.00	1.3	\$ 369,153.85
Washington City	Green Springs Park	2007	New Facility	\$ 834,300.00	\$ 146,256.46	\$ 980,556.46	8.6	\$ 114,018.19
Subtotal				\$ 20,566,292.61	\$ 2,528,020.64	\$ 23,094,313.25	101.7	\$ 227,082.73
Cost / Acre				\$ 202,225.10	\$ 24,857.63	\$ 227,082.73		
Average Construction Year				2013				
Cost / Acre Including Inflation (2018 Costs)				3.0%	\$ 236,967.76	\$ 29,128.21	\$ 266,095.97	

TRAILS								
Owner	Name	Year	Project Costs			Total Miles	Cost / Mile	Cost / SF
			Construction	Incidentals	Total			
Washington City	Three Rivers Trail Connection	2014	\$ 1,200,000.00	\$ 210,365.28	\$ 1,410,365.28	2.32	\$ 607,916.07	\$ 11.51
Washington City	Three Rivers Trail Reconstruction	2011	\$ 220,800.00	\$ 38,707.21	\$ 259,507.21	0.38	\$ 685,099.04	\$ 12.98
Washington City	Mill Creek Trail	2011	\$ 38,560.00	\$ 6,759.74	\$ 45,319.74	0.10	\$ 453,197.38	\$ 8.58
Washington City	Virgin River Trail	2010	\$ 101,200.00	\$ 17,740.81	\$ 118,940.81	0.50	\$ 237,881.61	\$ 4.51
St. George City	Virgin River Trail, South C	2013	\$ 121,500.00	\$ 21,299.48	\$ 142,799.48	0.50	\$ 285,598.97	\$ 5.41
Subtotal			\$ 1,682,060.00	\$ 294,872.52	\$ 1,976,932.52	3.80	\$ 520,411.40	\$ 8.60
Cost / Mile			\$ 442,788.61	\$ 77,622.79	\$ 520,411.40			
Average Construction Year			2012					
Cost / Mile Including Inflation (2018 Costs)			3.0%	\$ 528,712.76	\$ 92,685.67	\$ 621,398.43		

APPENDIX F – CASH FLOW SPREADSHEET

Cashflow Analysis - Washington City Parks & Recreation Impact Fee Fund											
Year	Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Revenues											
Total Households		11336	11676	12026	12387	12759	13142	13536	13942	14360	14791
New Households		330	340	350	361	372	383	394	406	418	431
Impact Fees Collected		\$ 1,997,565	\$ 2,057,492	\$ 2,119,216	\$ 2,182,793	\$ 2,248,277	\$ 2,315,725	\$ 2,385,197	\$ 2,456,753	\$ 2,530,455	\$ 2,606,369
Expenses											
Existing Recreation Center Debt		\$ 451,068	\$ 462,793	\$ 474,350	\$ 486,737	\$ 499,946	\$ 513,966	\$ 527,785	\$ 542,404	\$ 557,813	\$ -
Pine View Park Existing Debt		\$ 4,374	\$ 64,676	\$ 63,880	\$ 64,142	\$ 64,129	\$ 64,065	\$ -	\$ -	\$ -	\$ -
Sullivan Park Phase II Existing Debt		\$ 507,902	\$ 508,620	\$ 508,928	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Washington Fields Park Complex Ph 1	2022				\$ 283,514	\$ 283,514	\$ 283,514	\$ 283,514	\$ 283,514	\$ 283,514	\$ 283,514
Boilers Park/Trailhead	2019	\$ 66,040	\$ 66,040	\$ 66,040	\$ 66,040	\$ 66,040	\$ 66,040	\$ 66,040	\$ 66,040	\$ 66,040	\$ 66,040
Hellhole Park/Trailhead	2019	\$ 62,500	\$ 62,500	\$ 62,500	\$ 62,500	\$ 62,500	\$ 62,500	\$ 62,500	\$ 62,500	\$ 62,500	\$ 62,500
Mill Creek Trailhead/Park	2020		\$ 49,525	\$ 49,525	\$ 49,525	\$ 49,525	\$ 49,525	\$ 49,525	\$ 49,525	\$ 49,525	\$ 49,525
Shooting Star Park	2019	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000
Trails		\$ 453,697	\$ 467,308	\$ 481,328	\$ 495,767	\$ 510,640	\$ 525,960	\$ 541,738	\$ 557,991	\$ 574,730	\$ 591,972
Impact Fee Update						\$ 35,000					\$ 46,149
Exepenses Paid From											
Impact Fees		\$ 1,610,582	\$ 1,746,463	\$ 1,771,551	\$ 1,573,226	\$ 1,636,296	\$ 1,630,570	\$ 1,596,103	\$ 1,626,974	\$ 1,659,123	\$ 1,164,701
Difference		\$ 386,983	\$ 311,028	\$ 347,666	\$ 609,566	\$ 611,981	\$ 685,155	\$ 789,094	\$ 829,778	\$ 871,332	\$ 1,441,668

APPENDIX G – IMPACT FEE CERTIFICATION

CERTIFICATION OF IMPACT FEE ANALYSIS BY CONSULTANT

In accordance with Utah Code Annotated § 11-36a-306, Joseph K. Phillips, P.E., on behalf of Sunrise Engineering, Inc., make the following certification:

I certify that the attached impact fee facilities plan and impact fee analysis:

1. Includes only the costs of public facilities that are:
 - a. Allowed under the Impact Fees Act; and
 - b. Actually incurred; or
 - c. Projected to be incurred or encumbered within six years after the day on which each impact fee is paid;
2. Does not include:
 - a. costs of operation and maintenance of public facilities;
 - b. costs for qualifying public facilities that will raise the level of service for the facilities, through impact fees, above the level of service that is supported by existing residents; or
 - c. an expense for overhead, unless the expense is calculated pursuant to a methodology that is consistent with generally accepted cost accounting practices and that methodological standards set forth by the Federal Office of Management and Budget for federal grant reimbursement;
3. Offsets costs with grants or other alternate sources of payment; and
4. Complies in each and every relevant respect with the Impact Fees Act.

Joseph K. Phillips, P.E., makes this certification with the following qualifications:

1. All of the recommendations for implementation of the Impact Fee Facilities Plan ("IFFP") made in the IFFP documents or in the Impact Fee Analysis documents are followed in their entirety by the Washington City, Utah, staff, and elected officials.
2. If all or a portion of the IFFP or Impact Fee Analyses are modified or amended, this certification is no longer valid.
3. All information provided to Sunrise Engineering, Inc., its contractors or suppliers, is assumed to be correct, complete and accurate. This includes information provided by Washington City, Utah, and outside sources.

4. The undersigned is trained and licensed as a professional engineer and has not been trained or licensed as a lawyer. Nothing in the foregoing certification shall be deemed an opinion of law or an opinion of compliance with law which under applicable professional licensing laws or regulations or other laws or regulations must be rendered by a lawyer licensed in the State of Utah.
5. The foregoing Certification is an expression of professional opinion based on the undersigned's best knowledge, information and belief and shall not be construed as a warranty or guaranty of any fact or circumstance.
6. The foregoing certification is made only to Washington City, Utah, and may not be used or relied upon by any other person or entity without the expressed written authorization of the undersigned.

Sunrise Engineering, Inc.

By: 

Dated: November 22, 2019

APPENDIX H – IMPACT FEE ORDINANCE

The Impact Fee Ordinance is Washington City Ordinance 2019-19.

APPENDIX I – LIST OF PRIVATE PARKS

Class	Name/Location	Acres
School Park	Coral Canyon Elementary	8.60
School Park	Washington Elementary	10.09
School Park	Riverside Elementary	11.64
School Park	Horizon Elementary	15.18
School Park	St. George Academy	9.12
School Park	Majestic Fields Elementary	10.31
School Park	Crimson Cliffs Middle School	64.11
		<u>129.06</u>
Private Park	Fourteenth Fairway Dr.	0.30
Private Park	Cottonwood Wash Dr.	0.25
Private Park	Highland Parkway & Desert Cliff Dr.	0.65
Private Park	Rock Creek Dr.	0.44
Private Park	End of Catalpa Dr.	0.45
Private Park	2500 South	1.06
Private Park	20 East & Primrose Ln.	0.75
Private Park	Petroglyphs Alley	0.15
Private Park	Turnbury Ln.	0.46
Private Park	Vista View Dr.	3.03
Private Park	Grasslands Parkway	2.80
Private Park	Sendero Dr.	0.29
Private Park	Oak Grove Dr.	0.34
Private Park	Dover Ln.	0.39
Private Park	Queen Way	0.81
Private Park	King's Highway Rd.	0.68
Private Park	Pointsettia Cir.	0.23
Private Park	Wildflower Cir.	0.55
Private Park	Ridge Point Dr.	1.07
Private Park	Horizon West Dr.	0.31
Private Park	High Ridge Dr.	0.73
Private Park	Lions Head Dr.	1.45
Private Park	Stoneledge Cir.	0.38
Private Park	Abundant Way	0.19
Private Park	Main St. (La Venita Condos)	0.37
Private Park	Sunrise Dr.	0.56
Private Park	River Park Dr.	0.10
Private Park	4535 South (Meadows Park)	5.84
		<u>24.61</u>
Golf Course	Green Springs Golf Course	61.81
Golf Course	Green Springs Golf Course	15.46
Golf Course	Green Springs Golf Course	51.86
Golf Course	Green Springs Golf Course	14.19
Golf Course	Green Springs Golf Course	14.51
		<u>157.82</u>