

CAPITAL IMPROVEMENTS PLAN

IMPACT FEE SERVICE AREA NUMBER 1 UPDATED FEE SCHEDULE April 2018

Prepared by:



House Moran Consulting, Inc.

and

The City of Sparks Community Services Department
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1 EXECUTIVE SUMMARY

This Capital Improvements Plan (CIP) provides updated land use, projects, costs, methodologies, and assumptions to update Impact Fee Service Area Number 1 (IFSA#1) within the City of Sparks (City). The process used to determine the Impact Fees conforms to the requirements in Nevada Revised Statutes (NRS), Chapter 278B – Impact Fees for New Development. This CIP supersedes the previous "Capital Improvements Plan Impact Fee Service Area Number 1 Updated Fee Schedule, 2016", by House Moran Consulting, Inc with City of Sparks Community Services Department, dated November, 2016 and approved by the Sparks City Council on December 12, 2016 as Resolution 3304.

On October 24, 2016 the City of Sparks approved Ordinance 2531, annexing 67.4 acres of land generally located on the southwest corner of Highland Ranch Parkway and Pyramid Highway. On October 17, 2017 Lewis and Roca, acting as agent for the property owner, petitioned the City of Sparks to include the land annexed under Ordinance 2531 within IFSA#1.

This report provides the review prescribed by NRS 278B for consideration of the petition and includes revision to land use assumptions to include the area annexed (as well as other land use changes that have occurred since the 2016) update, projects identification, project costs, and development that has occurred through December 15, 2017 for the following infrastructure types: Sanitary Sewer, Flood Control, Parks and Recreation, and Fire Station Projects.

The net cost of existing infrastructure and planned cost for undeveloped infrastructure were provided by the City and adjusted for inflation. The inflation interest rate used in all analysis was based on a percentage equal to the average percentage of increase over the preceding five-year period provided by *Engineering News-Record's (ENR's) 20-City Average Construction Cost Index (CCI)*. ENR is a nationally recognized publication that is considered the industry standard for construction economics data. In this CIP, the five-year average CCI is 2.962%. Accordingly, this value was used to adjust the net and planned costs. Table 1-1 presents the proposed updated Impact Fees as well as the current (2016) Impact Fees for IFSA#1:

Table 1-1 Proposed 2018 Impact Fees

		Proposed Fee by Infrastructure Type (2018)				
	Sanitary Flood Parks and Fire Station Total 2016		Total 2016	Total		
Land Use Type	Sewer	Control	Recreation	Projects	Impact Fee	Impact Fee
Single Family	\$267	\$454	\$833	\$354	\$2,008	\$1,907
Multifamily	\$267	\$350	\$833	\$354	\$1,763	\$1,803
Business Park	\$83	\$420	N/A	\$354	\$846	\$857
General Commercial	\$251	\$591	N/A	\$354	\$1,157	\$1,196
Public Facilities	\$83	\$364	N/A	\$354	\$844	\$801
Tourist Commercial	\$251	\$299	N/A	\$354	\$1,044	\$904
Lodging	\$139	N/A	N/A	\$354	\$495	\$493

2 Introduction

2.1 BACKGROUND

In March of 1992, the City of Sparks City Council approved Resolution No. 2161 adopting the Northern Sparks Sphere of Influence (NSSOI) Plan. The NSSOI planning area encompassed approximately 7,200 acres of mostly undeveloped land for future annexation into the City of Sparks. The NSSOI plan included a mix of residential, commercial, industrial, business park and recreational land uses and emphasized the use of master planned development. The adopted NSSOI plan included an *Improvement Cost Sharing-Financing Plan* for the provision of infrastructure to serve the planning area. The plan specifically stated that "Prior to implementation of the overall plan, a detailed financing and mechanism for fee collection by the City of Sparks shall be established."

In March of 1994, the City Council approved Resolution No. 2270 adopting the NSSOI Financing Concept Plan. The NSSOI Financing Concept Plan established a capital improvements plan and cost estimates for the provision of sanitary sewer facilities, roadways, flood control facilities, parks and open space and public facilities to support the development of the NSSOI. The NSSOI Financing Concept Plan set a schedule of infrastructure financing fees based upon land use types. The NSSOI Financing Concept Plan recommended the use of development agreements as the mechanism for the collection of fees because, in 1994, the Nevada Revised Statutes (NRS 278B) did not allow for parks and public facilities to be included in an impact fee system.

In March of 1997, the City Council approved Resolution No. 2454 adopting the NSSOI Infrastructure Financing Plan Fee Update. The 1997 update included revisions to the capital improvements and land use plans and adjusted the infrastructure financing fees accordingly. Due to the establishment of the Regional Transportation Commission of Washoe County Regional Road Impact Fee Program in 1996, infrastructure financing fees for roads were deleted from the 1997 update to the NSSOI Infrastructure Financing Plan Fee Update.

The Nevada Legislature amended the impact fee statute (NRS 278B) during the 2001 session via Assembly Bill 458. The bill proposed, and the Legislature ultimately adopted, language that allowed for fire station, police station and parks projects to be included in capital improvement plans for the establishment of impact fees associated with new development. Due to these statutory changes, the City of Sparks elected to convert the NSSOI Financing Concept Plan to an NRS 278B Impact Fee Program.

In December of 2002, the City Council passed and adopted Ordinance No. 2157 which converted the NSSOI Infrastructure Financing Concept Plan to Impact Fee Service Area Number 1 (IFSA#1). In passing and adopting Ordinance No. 2157, the City Council ordained, among other things, the following:

• The City of Sparks had a need to expand its sewer facilities, flood control facilities, parks and recreation facilities, and fire station facilities within the proposed IFSA#1 boundary

in order to maintain current levels of service such that new development could be accommodated without decreasing current levels of service. This expansion of facilities had to be done in order to promote and protect the health, safety and welfare of the City of Sparks.

- NRS 278B authorized the City of Sparks to impose impact fees and the Council found that the imposition of impact fees was one of the preferred methods of ensuring that development bore a proportional share of the cost of capital facilities necessary to accommodate development.
- The projects, as described in the Capital Improvements Plan (CIP for IFSA#1, 2002), were necessitated by and are attributable to new development defined and described in the Plan.
- There was a reasonable relationship between the amount of the impact fees provided for in the Capital Improvements Plan and the benefits provided by the Projects.
- The purpose of the ordinance was to regulate the use and development of land so as to assure that new development bears a proportionate share of the cost of Capital Improvements.
- The Service Area for IFSA#1 was established as all property contained within the boundary defined by a metes and bounds legal description attached to the ordinance.
- The impact fees established in the Capital Improvements plan were imposed upon all new development within the defined boundary of IFSA#1.
- Impact fees shall be collected at the time of issuance of a building permit.

In November of 2005 the City Council approved a revision to the land use assumptions, Capital Improvements Plan and associated impact fees for IFSA#1. The significant revisions for the 2005 update included the land use assumptions for the following planned unit developments: Foothills at Wingfield Springs, Sparks Galleria, Spanish Springs Towne Centre, Sparks Crossing, The Vineyards, Upper Highlands at Cimarron East and Kiley North. The 2005 update to the IFSA #1 Capital Improvements Plan included revisions for improvements that had been completed, and updated cost estimates for future improvements.

In June of 2013 the City Council approved a revision to the land use assumptions, Capital Improvements Plan and associated impact fees for IFSA#1. The significant revisions for the 2013 update included the land use assumptions for the following planned unit developments: Foothills at Wingfield Springs, Pioneer Meadows and Kiley North. The 2013 update to the IFSA #1 Capital Improvements Plan included revisions for improvements that had been completed, and updated cost estimates for future improvements.

On December 12, 2016 the City Council approved, through resolution 3304, a revision to the land use assumptions, Capital Improvements Plan and associated impact fees for IFSA#1. The significant revisions to the 2016 Capital Improvements Plan included land use assumptions for the following planned unit developments: Upper Highlands, Wyndam Hill (The Highlands), The Foothills at Wingfield, Stonebrook, Pioneer Meadows, and Kiley North. In addition, revised

estimates for the construction of planned trails (Parks & Recreation) and Flood Controls were made to the cost estimate for capital improvements.

2.2 PURPOSE

The purpose of this Capital Improvements Plan (CIP) is to update the land use, projects, costs, methodologies, and assumptions for IFSA#1 to include 67.4 acres of land annexed by the Sparks City Council on October 24, 2016 (Ordinance 2531) and petitioned for inclusion in IFSA#1 by agent for the land owner on October 17, 2017.

This report provides the review and revision to land use assumptions, project identification, project costs, and development that has occurred through December 15, 2017, for the following infrastructure types:

- Sanitary Sewer
- Flood Control
- Parks and Recreation
- Fire Station Projects

Baseline information and development projections were based on previous and current versions (as applicable) of the City's Master Plan. The full build-out scenario was used to estimate future infrastructure costs and how they were allocated to each land use type. Planned costs are identified as "undeveloped cost" for remaining development. Master plans are considered "living" documents, meaning they are subject to change. In determining Impact Fees there are many variables which can have a material effect on the remaining cost estimates. These variables are managed by updating the CIP every three years or in response to a petition for inclusion within IFSA#1. This update was prepared as a result a petition to include additional lands within IFSA#1.

2.3 LAND USE TYPES AND SERVICE UNITS

For the purpose of this CIP, land use is divided into two primary categories: residential and non-residential. Residential is subdivided into single family and multi-family dwellings (service units) to address the difference in density and associated impervious surface areas. The non-residential category is subdivided into:

- Business Parks
- General Commercial
- Public Facilities
- Tourist Commercial
- Lodging
- Open Space and Rural Reserve
- Parks and Recreation

Table 2-1 presents these land use types along with a brief definition and the unit of measure (service unit) that is used in determining allocation of costs.

A service unit is defined by NRS 278B as, "a standardized measure of consumption, use, generation or discharge which is attributable to an individual unit of development calculated for a particular category of capital improvements or facility expansions". Table 2-1 provides the land use types and definitions along with the associated service unit.

Table 2-1 Land Use Definitions and Service Units

Land Use Types	Definition/Examples	Service Unit
Residential	-	
Single Family	Detached dwelling units on individual lots; two detached dwelling units located on one lot; not more than two attached dwelling units with separate entrances, connected only by a vertical common wall, and each dwelling unit is situated on a separate lot.	Each dwelling unit
Multifamily	Three or more attached dwelling units, such as condominiums, townhouses, apartments and boarding houses.	Each dwelling unit
Non-Residential		
Business Park	Uses that are found in a campus like setting including general offices, medical offices, research and development facilities, laboratories, corporate and regional facilities for national and regional businesses. This category includes support uses, but does not include warehousing and distribution facilities as principal uses.	Each 1,000 sf of building space
General Commercial	A grouping of uses that provide services and supplies for the community including retail, personnel services, offices, and restaurants. This category does not include warehousing, distribution facilities or manufacturing.	Each 1,000 sf of building space
Public Facilities	Facilities owned by a government entity, or which are dedicated for public use such as golf courses, common areas, parks, fire stations, police stations, public administration buildings.	Each 1,000 sf of building space
Tourist Commercial	A grouping of uses that caters to the visitor including gaming, lodging (motel or hotel), meeting rooms and support uses.	Each 1,000 sf of building space
Lodging	Hotel, motel, or other rooms intended for rent less than 30 days per stay.	Each room
Open Space and Rural Reserve	Undeveloped areas, lands dedicated as open space and areas designated as rural reserve	N/A
Schools and Parks	Public parks and schools	N/A

If there is an instance where a question arises regarding which category a development type fits into, the administrator shall select the category that is the most comparable based on expected demands for facilities being financed with the Impact Fees.

2.4 SERVICE AREA

The service area is defined in NRS 278B as, "the area within the boundaries of the local government which is served and benefitted by the capital improvement or facilities expansion as set forth in the capital improvement plan". The Service Area is the area in which the Impact Fees are applied to pay for the necessary infrastructure improvements directly supporting a development.

IFSA#1 was established by taking into consideration the need for infrastructure improvements and facility requirements for sanitary sewer, flood control, parks and recreation, and fire station projects. The primary factors used to define the service area for sanitary sewers and flood control facilities are topography, geology and population.

The existing and proposed service area boundaries for IFSA#1 are presented in Appendix A.

3 LAND USES WITHIN IFSA#1

3.1 Analysis of Master Plan Land Use

Projected land uses for IFSA#1 are aligned with the land use designations in the City's Master Plan. Table 3-1 presents the projected total acreage and number of service units under a full build-out scenario, (i.e. the total of existing and planned service units). The service units are used to determine the percentage of land use type for the types of infrastructure listed in Section 2.2 of this CIP. The acreages are used to determine the flow rates per acre for non-residential service units and percentage of land use type for flood control.

For the purpose of estimating the number of nonresidential service units in this CIP, nonresidential structures are assumed to occupy 25% of the area designated in the master plan for nonresidential land use. Accordingly, it is estimated there will be 10.89 service units per acre of nonresidential land use. This value was arrived at using the following formula:

$$\frac{Service\ Units}{Acre} = \frac{43,\!560\frac{sf}{Acre} \times 25\%}{1,\!000\ sf} = 10.89\ Service\ Units/Acre$$

Full Build-Out Scenario for IFSA#1 Land Use Type **Total Service Units** Acres Residential Single Family 3,576 14,226 Multifamily 4,099 611 **Total Residential** 4,187 18,325 Non-Residential **Business Park** 366 3,020 General Commercial 614 4,440 **Public Facilities** 38 361 19 **Tourist Commercial** 195 Lodging 0 200 Open Space and Rural Reserve 2,868 N/A Parks and Recreation N/A 666 Right-of-Way (Streets) N/A**Total Non-Residential** 4,571 8,216 8,758 26,541 Totals

Table 3-1 Full Build-out Scenario

Notes: 'The information for full build-out was provided by the City of Sparks Community Services Department.

3.2 Analysis of Developed Land Uses

Developed land within IFSA#1 is defined by the portion of full build-out that has occurred as of a specific date. For the purpose of this CIP, that date is December 15, 2017. The analysis of development as of this date was provided by the City's Community Services Department. A summary of developed land as of December 15, 2017 is presented in Table 3-2.

Table 3-2 Existing Service Units within IFSA#1

Developed Land within IFSA#1				
Land Use	Developed Service Units ¹			
Residential				
Single Family	8,960			
Multifamily	1,926			
Total Residential	10,886			
Non Residential				
Business Park (1,000 sf of building)	349			
General Commercial (1,000 sf of building)	1,253			
Public Facilities (1,000 sf of building)	41			
Tourist Commercial (1,000 sf of building)	0			
Lodging (rooms)	0			
Open Space and Rural Reserve	N/A			
Parks and Recreation	N/A			
Right-of-Way (Streets)	N/A			
Total Non-Residential	1,643			
Totals	12,529			

Notes: The number of service units was provided by the City of Sparks Community Services Department as of December 15, 2017.

3.3 ANALYSIS OF UNDEVELOPED LAND USES

Undeveloped Land within IFSA#1 is defined as the portion of development under a full build-out scenario that is planned but not yet constructed. The quantities of undeveloped service units are derived by subtracting the total number of existing units from the total number of planned units as of December 15, 2017. Table 3-3 presents the estimated number of undeveloped units in IFSA#1.

Table 3-3 Undeveloped Service Units in IFSA#1

Undeveloped Service Units in IFSA#1					
Land Use	Full Build-out Service Units ¹	Developed Service Units ²	Undeveloped Service Units		
Residential	<u>'</u>				
Single Family	14,226	8,960	5,266		
Multifamily	4,099	1,926	2,173		
Total Residential	18,325	10,886	7,439		
Non Residential					
Business Park	3,020	349	2,671		
General Commercial	4,440	1,253	3,187		
Public Facilities	361	41	320		
Tourist Commercial	195	0	195		
Lodging	200	0	200		
Open Space and Rural Reserve	N/A	N/A	N/A		
Parks and Recreations	N/A	N/A	N/A		
Right-of-Way (Streets)	N/A	N/A	N/A		
Total Non-Residential	8,216	1,643	6,573		
Totals	26,541	12,529	14,012		

Notes: ¹The number of service units for the full build-out scenario are presented in Table 3-1.

²The number of service units representing current build-out are presented in Table 3-2.

3.4 Comparison of 2018 Master Plan Land Use Analysis to 2016 Update

A comparison of the 2018 analysis of Master Plan Land Use to the analysis presented in the 2016 IFSA#1 update is presented in Table 3-4.

Table 3-4 Comparison of Master Plan Land Use Analysis

Analysis of Master Plan Land Use for IFSA#1 (Full Build out)						
Land Use Type	2018 Service Units	2016 Service Units	Difference			
Residential						
Single Family	14,226	14,004	+222			
Multifamily	4,099	4,225	-126			
Total Residential	18,325	18,229	+96			
Non-Residential						
Business Park	3,020	2,966	+54			
General Commercial	4,440	4,441	-1			
Public Facilities	361	405	-44			
Tourist Commercial	195	195	0			
Lodging	200	200	0			
Total Non-Residential	8,216	8,207	+9			
Totals	26,541	26,436	+105			

As presented in the table above, a comparison of the 2018 Master Plan Land Use analysis to the analysis presented in the 2016 update indicates an increase of 105 service units within IFSA#1. This increase in service units is due to land use changes, and associated build out assumptions, that have occurred since 2016 within the Upper Highlands, Wyndam Hill (The Highlands), The Foothills at Wingfield, Stonebrook, Pioneer Meadows, Kiley North, and Highlands Ranch (lands annexed under Ordinance 2531).

4 IMPACT FEES

Since the inception of the NSSOI Financing Concept Plan in 1994, four updates to the Capital Improvements Plan, analysis of land use, and associated infrastructure/impact fees have been prepared. The formats and contents of these plans have evolved as the City's infrastructure expanded and the Master Plan was updated to reflect existing and planned land use.

Impact Fees are monetary charges imposed by the City on new development to recoup or offset a proportionate share of public capital facility costs required to accommodate such development with new facilities. Determination of an Impact Fee begins with calculating demand-to-capacity ratios for different capital facilities and then estimating the size and cost of facilities that will be necessary for achieving a prescribed level-of-service to accommodate growth projections within IFSA#1.

The cost of existing infrastructure is evaluated by determining the net cost of each facility and adjusting for inflation, where net cost represents the unpaid balance of constructed facilities as of December 15, 2017. The cost for planned facilities represents the portions of Capital Improvements Plan for each infrastructure type that had not been constructed as of December 15, 2015. Appendix B provides a more detailed explanation of the methods and rationale applied in the cost adjustments due to inflation.

Allocation of Impact Fees is based on a per unit basis where the costs are calculated for each infrastructure type based on the number of service units for each land use type included in the Master Plan for IFSA#1. The fees are not applied towards the operation, maintenance, repair, alteration or replacement of the infrastructure.

The cost of infrastructure is maintained by the City along with fees collected to account for the balance of the cost. The balance is called Net Cost which is then adjusted for inflation. The adjusted cost is applied to the calculation of Impact Fees as presented in Sections 4.1 through 4.5 below.

4.1 SANITARY SEWERS

In order to conform to the City's Master Plan, sanitary sewer facilities are often constructed prior to the collection of Impact Fees. Therefore, the City maintains records of the costs incurred along with revenues collected to account for the balance of the cost.

4.1.1 Existing Sanitary Sewer Facilities

Table 4-1 provides a list of each facility, the associated cost in 2012 dollars, and revenue collected since 1995.

Table 4-1 Cost of Existing Sanitary Sewer Facilities

Facility ¹	Cost ²
Name	
NE Interceptor & Main Trunk	\$5,841,926
NW Interceptor	\$2,604,407
Reliever Line	\$3,872,919
Subtotal	\$12,319,252
Revenue Collected ³	
1995-2004 Fees	\$1,270,562
1997-2004 Fees	\$421,386
2005-2012 Fees	\$1,215,624
2013-2015 Fees	\$216,845
2016-2017 Fees	\$301,080
Washoe County Lease	\$2,215,005
Revenue Projections	\$3,99,869
Subtotal	\$9,634,371
Net Cost	\$2,684,881
Adjusted Cost ⁴ Existing	\$3,106,776

Notes: 1,2The existing facilities and associated costs were obtained from the 2016 CIP.

4.1.2 Undeveloped Sanitary Sewers

The requirements for sanitary sewers vary based on land use types and quantities within a specified area. The usage per land use type is based on its percent contribution. Table 4-2 presents the per unit usage of each development type, total number of proposed units, and percentage of total flow. The percentage is used to calculate the appropriate portion of costs to support a specific development on a per unit, per land use type basis. The equation for calculating the percent share of remaining flow is:

% Share of Remaining Flow =
$$\frac{Sewage\ Flow\ from\ Undeveloped\ Land\ Use\ Type}{\sum Remaining\ Sewage\ Flows}$$

³ Revenue Collected is provided in Appendix C.

⁴ Calculations for Adjusted Cost are provided in Appendix B.

Table 4-2 Percent Share of Flow for Undeveloped Land Uses

Undeveloped Land Use Sanitary Sewer Flows					
Land Use	Total Sewage Flow ^{1,2} (gpd)	Remaining Sewage Flow ³ (gpd)	Percent Share of Remaining Flows ⁴		
Residential	\O1 /				
Single Family	9,246,900	3,422,900	45.17		
Multifamily	2,664,350	1,412,450	18.64		
Total Residential	11,911,250	4,835,350			
Non Residential					
Business Park	610,040	539,542	7.12		
General Commercial	2,717,280	1,950,444	25.74		
Public Facilities	72,922	64,640	0.85		
Tourist Commercial	119,340	119,340	1.57		
Lodging	68,000	68,000	0.90		
Open Space and Rural Reserve	NA	NA	NA		
Parks and Recreation	NA	NA	NA		
Right-of-Way (Streets)	N/A	N/A	N/A		
Total Non-Residential	3,587,582	2,741,966			
Totals	15,498,832	7,577,316	100%		

Notes: ¹Total Sewage Flow is calculated by multiplying "usage" (by Land Use) and Total Number of Service Units.

4.1.3 Undeveloped Sanitary Sewer Facilities

The City's current Master Plan and associated Capital Improvements Plan do not include additional Sanitary Sewer Facilities above those constructed to date.

4.1.4 Sanitary Sewer Impact Fees

The total adjusted costs of existing and undeveloped sanitary sewers/facilities are allocated based on the percentage usage for each land use type.

Table 4-3 presents the values used to calculate the Impact Fees for each land use. The equation used to calculate the Impact Fees for Sanitary Sewers (SS) is:

$$Impact \ Fee_{SS} = \frac{\% \ Remaining \ Flow \ \times \ Total \ Adjusted \ Cost}{\# \ of \ Undeveloped \ Service \ Units}$$

² The "usage" values for each land use type are presented in Table 4-3.

³ Remaining Sewage is calculated by multiplying "usage" by the Number of Undeveloped Service Units.

⁴ Percent Share of Remaining Flows is calculated by dividing Remaining Sewage Flow by the sum of Remaining Flows.

Table 4-3 Sanitary Sewer Impact Fees

Land Use	Usage (gpd/unit) ¹	Percent of Remaining Flow ²	Undeveloped Service Units ³	Impact Fees
Residential				
Single Family	650	45.17	5,266	\$267
Multifamily	650	18.64	2,173	\$267
Non-Residential				
Business Park	202	7.12	2,671	\$83
General Commercial	612	25.74	3,187	\$251
Public Facilities	202	0.85	320	\$83
Tourist Commercial	612	1.57	195	\$251
Lodging	340	0.90	200	\$139
Open Space and Rural Reserve	N/A	N/A	N/A	N/A
Parks and Recreation	N/A	N/A	N/A	N/A
Right-of-Way (Streets)	N/A	N/A	N/A	N/A

Notes: ¹Usage values for each land use was obtained from the City of Sparks Master Plan, 1994.

²Percent share for total flow were obtained from Table 4-2.

³Undeveloped Service unit calculations are presented in Table 3-3.

4.2 FLOOD CONTROL

The amount of impervious surface varies by land use type so any modifications to the Master Plan will affect the planned number of flood controls.

4.2.1 Existing Flood Control Facilities

Table 4-4 presents the net and adjusted costs for flood control facilities.

Table 4-4 Cost of Existing Flood Control Facilities

Facility ¹	Cost ²
Name	
La Posada Ditch #1	\$597,789
Cimarron Unit Bypass Channel	\$400,000
Reach 5	\$770,697
Reach 7 – Wingfield Springs	\$1,350,805
Reach 8	\$376,800
Reach 11	\$1,353,825
La Posada Ditch #2	\$526,716
Reach 10	\$367,504
Reach 12	\$21,550
Reach 4	\$1,873,105
Reach 6 Foothills	\$270,248
Reach 6 GERP	\$539,584
Tucker Detention Basin	\$425,773
West Side Diversion	\$162,145
Wetlands Detention Basin	\$222,500
Subtotal	\$9,259,041
Funded Projects	
Boneyard Flat Improvements	\$2,883,416
Subtotal	\$12,142,457
Revenue Collected ³	
Flood Control Portion of Connection Fees	\$598,044
Committed or Paid Prior to 2005	\$3,252,059
2005-2012 Fees	\$4,887,366
2013-2015 Fees	\$553,477
2016-2017 Fees	\$437,199
Subtotal	\$9,728,145
Net Cost ⁴	\$2,414,312

Notes: 1,2The names and costs of existing facilities were obtained from the 2016 CIP.

³ The revenues collected for Flood Controls are provided in Appendix D.

⁴ Calculations for Adjusted Cost do not apply to Flood Control projects.

4.2.2 Cost of Undeveloped Flood Control

Table 4-5 provides a list of undeveloped flood control facilities along with the planned and adjusted costs.

Table 4-5 Cost of Undeveloped Flood Control Facilities

Undeveloped Facility ¹	Cost ²
Reach 12, Remaining	\$1,107,264
Reach 9	\$2,277,600
Total Cost	\$3,384,864
Adjusted Cost ³ Planned	\$3,916,752

s: 1,2The undeveloped facilities and planned costs were obtained from the 2016 CIP.

3 The calculations for Adjusted Cost are provided in Appendix B.

4.2.3 Flood Control Impact Fees

Flood control cost allocation is a function of the percentage runoff created by each land use type. The flood control master plan was based on a mathematical model designed by the U.S. Army Corps of Engineers. The model analyzes numerous variables affecting storm water runoff. These variables include:

- Precipitation rate
- Interception/infiltration
- Soil type
- Vegetative cover type
- Impervious surface
- Ground slope (topography)
- Presence and/or operational characteristics of existing storm water facilities

The most significant of these variables is impervious surface. Therefore, the service unit for determining the impact fee for flood control is impervious area of each land use type. As with the allocation of sanitary sewer costs, flood control costs are first distributed to each land use type based on the land use type's average impervious surface and then the respective share of the cost is divided among all of the remaining development units. The flow contribution for each land use is estimated by calculating the total flow then calculating the percent contribution for each land use type. Impervious surface for each land use (LU) is calculated differently for residential and non-residential land uses. The equation for the residential service units is:

$$Imperv. Acres_{LU} = \frac{Remaining \ Service \ Units}{Total \ Service \ Units} \times Total \ Acres_{LU} \times C_{LU}$$

The equation for non-residential service units is:

$$Imperv.Acres_{LU} = Total Acres_{LU} \times C_{LU}$$

The total acres represent the full build-out scenario presented in Table 3-1. The coefficient "C" for each land use is provided in Appendix D. The percent contribution per land use is calculated using the following equation:

$$Percent\ Contribution_{LU} = \frac{Impervious\ Acres_{LU}}{Total\ Developed\ Acrea}$$

The impact fee for flood control (FC) for each land use is calculated using the following equation:

$$Impact \ Fee_{FC} \ = \frac{Total \ Adjusted \ Cost \ (Existing + Planned) \times Percent \ Contribution_{LU}}{\# \ of \ Undeveloped \ Service \ Units}$$

Table 4-6 provides the values used to calculate impact fees for Flood Control.

Table 4-6 Flood Control Impact Fees

Flood Control Impact Fees							
Land Use	Undeveloped Service Units ¹	Total Service Units ²	Coefficient "C" ³	Total Unit Acres ⁴	Impervious Acres ⁵	Percent Contribution ⁶	Impact Fees ⁷
Residential (per	dwelling)						
Single Family	5,266	14,226	50%	3,576	662	37.74%	\$454
Multifamily	2,173	4,099	65%	611	211	12.00%	\$350
Non-Residential	(per 1,000 sf of	built space)	1				
Business Park	2,671	3,020	85%	366	311	17.74%	\$420
General	3,187	4,440	85%	614	522	29.76%	\$591
Commercial							
Public	320	361	85%	38	32	1.84%	\$364
Facilities							
Tourist	195	195	85%	19	16	0.92%	\$299
Commercial							
Lodging	200	200	85%	0	0	0	\$0
Open Space	N/A	N/A	N/A	2,868	N/A	0%	N/A
and Rural							
Reserve							
Parks and	N/A	N/A	N/A	666	N/A	N/A	N/A
Recreation							
Right-of-Way	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

4.3 PARKS AND RECREATION FACILITIES

This plan provides the basis for future park facilities within IFSA#1 and accounts for parks and recreation facilities that serve more than IFSA#1. In such situations, the cost is distributed to IFSA#1 and non- IFSA#1 land use types.

¹The remaining (undeveloped) service units are presented in Table 3-3.

²The total service unit calculations are presented in Table 3-1.

³Values used for the coefficient "C" area provided in Appendix D.

⁴Total unit acres are presented in Table 3-1.

^{5,6,7} Impervious Acres, Percent contribution, and Impact Fees are calculated using the equations above.

4.3.1 Existing Parks and Recreation Facilities

Table 4-7 provides a list of each facility, the associated cost in 2012 dollars, and revenue collected since 1995.

Table 4-7 Cost of Existing Parks and Recreation Facilities

Facility ¹	Cost ²
Name	
Section 18 Regional Sports Complex	\$5,269,000
Linear Park - Orr Ditch Partial	\$525,648
Linear Park - Spanish Springs Trail Partial	\$1,477,842
Wedekind Park Trailhead	\$300,000
Subtotal	\$7,572,490
Revenue Collected ³	
1995-2004 Fees	\$3,505,656
1997-2004 Fees	\$74,288
2005-2012 Fees	\$2,733,835
2013-2015 Fees	\$569,813
2016-2017 Fees	\$567,890
Subtotal	\$7,451,482
Net Cost	\$121,008
Adjusted Cost ⁴ Existing	\$140,023

Notes: 1.2 The existing facilities and associated costs were obtained from the 2016 CIP with the exception of Wedekind Park Trailhead which was completed in 2013.

4.3.2 Undeveloped Parks and Recreation Facilities

The basis for identification of required projects are founded on the amount of population and the distribution of that population in IFSA#1. The projects are identified in the master plan, and specifically the parks element. In addition to IFSA#1 users, those living outside of IFSA#1 are also likely to utilize the regional parks. While the exact distribution of the two types of users is difficult to identify, an estimated allocation of costs between IFSA#1 and the non- IFSA#1 users of 60% and 40%, respectively is assigned to the estimated project costs.

Table 4-8 resents the approved future projects as of December 15, 2017.

Table 4-8 Cost of Undeveloped Parks and Recreation Facilities

Planned Facilities ¹	Adjusted Costs ^{2,3}
Name	
Section 18 Community Park (12 acres)	\$3,229,343
Linear Park - Orr Ditch Remaining	\$1,173,773
Linear Park - Spanish Trail Remaining	\$1,470,994
Kiley Ranch North Connector Trail	\$127,128
Wingfield Trail Connection	\$54,808
Total Adjusted Cost ³ Planned	\$6,056,047

Notes: 1,2 The Planned Facilities and associated costs were obtained from the 2016 CIP.

³ The Revenues Collected are provided in Appendix E.

⁴ Calculations for adjusted costs are provided in Appendix B.

³ Calculations for adjusted cost are provided in Appendix B.

4.3.3 Parks and Recreation Impact Fees

Costs for the development of parks and recreation are distributed among the residential land uses because they are the principal users of such facilities. The standards used for service units are based on those contained in the City's Master Plan. The service units are summarized in Table 4-9.

Table 4-9 Parks and Recreation Service Units

Park and Recreation Service Units			
Facility Type Service Unit Standard ^{1,2}			
	(per 1,000 population)		
Community Park	0.77 acre		
Regional Park	5.5 acres		
Pathway/Trails	0.27 mile		

Notes: ¹The service use standards were taken from the City's Master Plan.

The cost allocation for parks and recreation costs is based on the undeveloped residential service units since they are representative of the users of parks and recreation facilities. The Impact Fees per service unit (dwelling) are calculated by total adjusted cost of parks and recreation by total planned number of service units (dwellings). Table 4-10 Parks and Recreation Impact Fees presents the data used to calculate the Impact Fees.

$$Impact Fee_{PR} = \frac{Total \ Adjusted \ Cost \ (Existing + Planned)}{\# \ of \ Undeveloped \ Residential \ Service \ Units}$$

Table 4-10 Parks and Recreation Impact Fees

Land Use	Total Remaining Service Units ¹	Impact Fee ²
Single Family	5,266	\$833
Multifamily	2,173	\$833
Totals	7,439	

Notes:

4.4 FIRE STATION PROJECTS

The City's criteria for the number and staffing of fire stations is based on the volume of calls and response times. Priority of fire station projects within IFSA#1 is determined by a combination of the frequency of responses, population projections, and funding.

²Service unit standards used for Community Park and Regional Park may incorporate standards for other types of facilities, such as soccer fields, baseball and softball fields, and football fields, based on the inclusion of these elements in the Community Park or Regional Park.

¹The remaining (undeveloped) service units are presented in Table 3-1.

² Impact Fees are calculated using the equation above.

4.4.1 Existing Fire Stations

Table 4-11 presents the net cost and adjusted cost of existing fire stations within IFSA#1.

Table 4-11 Cost of Existing Fire Station Projects

Facility	Cost
Name ¹	
Fire Station #5	\$2,248,116
Revenue Collected ²	
1995-2004 Fees	\$739,224
2005- 2012 Fees	\$1,187,144
2013 -2015 Fees	\$254,736
2016-2017 Fees	\$351,245
Total Cost	\$2,532,349
Net Cost	-\$284,233
Cash on Hand/Adjusted Cost ³ Existing	-\$284,233

Notes: ¹The name and associated cost of the existing fire station was obtained from the 2016 CIP.

4.4.2 Undeveloped Fire Stations

Given the magnitude and distribution of population, and the proposed roadway network envisioned for IFSA#1, the Sparks Fire Department assessed the required minimum response times. Response times provided the basis for identification of fire stations required for the full build-out master plan for Service Area Number 1. The demand for additional Fire Stations would most likely come when 1,000 residential units or commercial units or any combination of both are built within the area. A "call for service" volume of 210 calls is also an indicator than an additional station is needed. Table 4-12 presents the number of Fire Station Projects planned under a total build-out scenario.

Table 4-12 Cost of Undeveloped Fire Station Projects

Planned Facilities	Planned Cost
Fire Station #6	\$3,483,526
Fire Station #4 Expansion	\$1,047,030
Subtotal	\$4,530,556
Adjusted Cost ² Planned	\$5,242,475

Notes: ¹The planned fire stations and associated costs were obtained from the 2016 CIP.

4.4.3 Fire Station Projects Impact Fees

Fire station projects are targeted for funding from all land use types. The basis for this allocation was determined because the level of fire response for all citizens and residents are the same. The response time standard for determining fire station projects is a four-minute travel time to the coverage area.

The total net cost of developing fire station projects in the IFSA#1 is distributed to service units in all land use classifications. Table 4-13 presents the cost allocations based on the number of

² The Revenue Collected is provided in Appendix F.

³ Inflation is not applied to balance of collected fees. This balance goes towards planned Fire Station Projects.

² Calculations for adjusted costs are presented in Appendix B.

service units (residential and non-residential). The formula used to calculate the Impact Fees for Fire Stations (FS) is:

$$Impact \ Fee_{FS} = \frac{Total \ Adjusted \ Cost(Existing + Planned)}{\# \ of \ Undeveloped \ Service \ Units}$$

Table 4-13 Fire Station Projects Impact Fees

Land Use	Undeveloped Service	Impact Fees ²
	Units ¹	
Residential		
Single Family	5,266	\$354
Multifamily	2,173	\$354
Total Residential	7,439	
Non Residential		
Business Park	2,671	\$354
General Commercial	3,187	\$354
Public Facilities	320	\$354
Tourist Commercial	195	\$354
Lodging	200	\$354
Open Space and Rural Reserve	N/A	N/A
Parks and Recreation	N/A	N/A
Right-of-Way (Streets)	N/A	N/A
Total Non-Residential	6,573	
Total	14,012	

Notes:

¹The remaining (undeveloped) service units are presented in Table 3-1.

² Impact Fees are calculated using the equation above.

4.5 Proposed 2018 Impact Fees and Comparison to 2016 Fees

Table 4-14 presents a summary of the proposed 2018 Impact Fees for IFSA#1 and a comparison to the Current (2016) Fees.

Table 4-14 Proposed 2018 Impact Fees and Comparison to 2016 Fees

2018 IFSA#1 Impact Fees					Proposed	Current	
		Infrastr	ucture Type		2018	2016	Change to
Land Use	Sanitary	Flood	Parks and	Fire	Impact	Impact	Fee
	Sewer ¹	Control ²	Recreation ³	Station ⁴	Fee Total	Fee Total	%
Residential							
Single Family	\$267	\$454	\$833	\$354	\$1,907	\$2,008	-5%
Multifamily	\$267	\$350	\$833	\$354	\$1,803	\$1,763	2%
Non-Residential							
Business Park	\$83	\$420	N/A	\$354	\$857	\$846	1%
General Commercial	\$251	\$591	N/A	\$354	\$1,196	\$1,157	3%
Public Facilities	\$83	\$364	N/A	\$354	\$801	\$844	-5%
Tourist Commercial	\$251	\$299	N/A	\$354	\$904	\$1,044	-13%
Lodging	\$139	N/A	N/A	\$354	\$493	\$495	< -1%

Notes:

As presented in the table above, the results of the 2018 IFSA#1 CIP update and analysis of land use yield a mixture of decreased and increased impact fees compared to the current (2016) fees. The variance is due to the addition of 67.4 acres of land annexed under Ordinance 2531, and adjustments made to build out land use assumptions since the 2016 update.

¹The Sanitary Sewer Impact Fee calculations are presented in Table 4-3 Sanitary Sewer Impact Fees.

²The Flood Control Impact Fees are presented in Table 4-6 Flood Control Impact Fees.

³The Parks and Recreation Impact Fees are present in Table 4-10 Parks and Recreation Impact Fees.

⁴The Fire Station Impact Fee calculations are presented in Table 4-13 Fire Station Impact Fees.

4.6 COLLECTION, CREDITS AND ADMINISTRATION OF IMPACT FEES

4.6.1 Collection

Impact Fees shall be collected at the time building permits are issued for improvements in IFSA#1. Impact Fees shall be paid according to the fee schedule in effect at the time of building permit issuance. The CIP must be periodically reviewed, and fee schedules may be changed at any time. Fees shall be determined and paid in accordance with the Administrative Manual.

4.6.2 Conditions of Collections

As required by NRS 278B.250, Impact Fees may be collected only for projects, which are described in this CIP.

Reservation of capacity or agreement to reimburse.

As required by NRS 278B.250(2), before collecting the Impact Fees set forth herein, the Administrator shall enter into a written agreement with the owner or developer where the City agrees to either:

- Reserve to the developer or owner (or assigns) a portion of the new capacity of the improvements being built and paid for by the Impact Fees to be collected in an amount agreed upon; or
- Permit the owner or developer to construct or finance the improvements and if the owner or developer does so, the City will provide credits to Impact Fees as provided above, or will (at City's option) reimburse the owner or developer for those costs from the Impact Fees paid from other developers who will use those improvements.

4.6.3 Credits

Any person initiating a land development activity may apply for credits against Impact Fees as provided in this section. The following provisions apply to requests for credits:

- Credits shall be requested, granted, documented, and applied against Impact Fees as provided in the Administrative Manual.
- Credits may be transferred to any developer, as provided in the Administrative Manual, but may be applied only to developments in IFSA#1.

Calculation of actual costs upon completion of projects; Refunds of fees collected.

Upon the completion of a capital improvement or facility expansion identified in the capital improvements plan, the City shall determine the actual cost of the improvement and shall combine that amount with estimated costs of other projects in the same category to be completed. If the actual costs plus projected costs are less than the amounts actually collected from the developer or owner, the City shall refund the surplus Impact Fees collected.

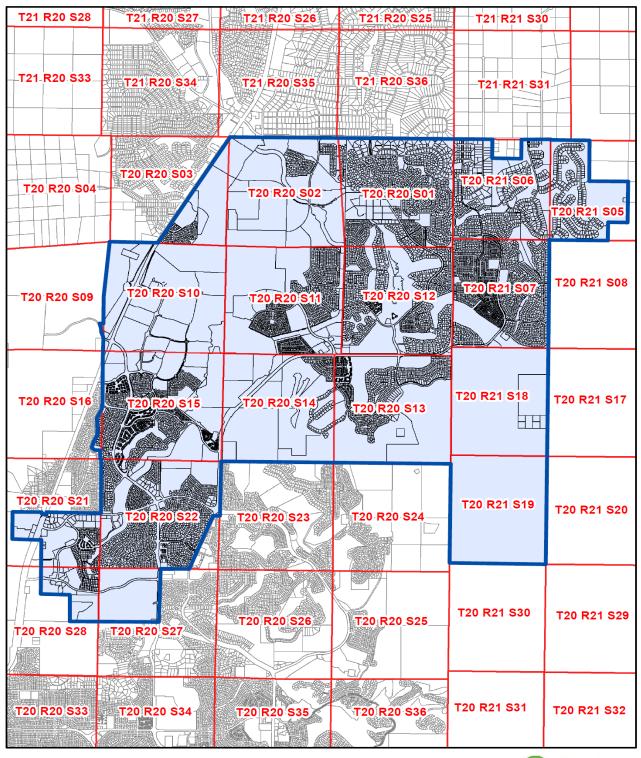
If the City fails to commence projects or complete the expenditure of Impact Fees collected with the time frames set forth in NRS 278B.260 it shall refund the fees as provided therein.

4.6.4 Review Frequency

In accordance with NRS 278B, the Capital Improvements Plan, an analysis of land use within the boundary of IFSA#1, and associated Impact Fees shall be reviewed in three years.

APPENDICES

APPENDIX A – IFSA#1 SERVICE AREA BOUNDARY - EXISTING





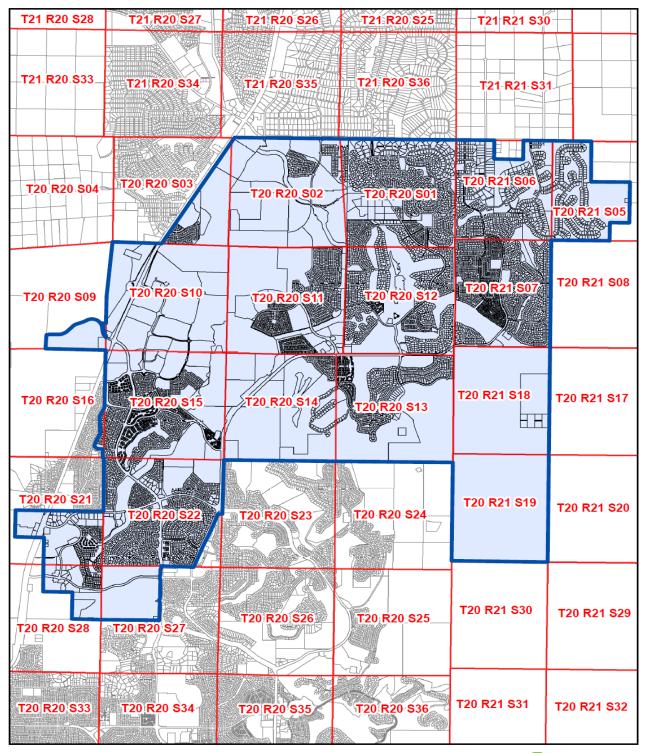






City of

APPENDIX A1 – IFSA#1 SERVICE AREA BOUNDARY - PROPOSED



Impact Fee Service Area #1 Boundary Proposed







City of

APPENDIX B – COST ADJUSTMENTS

The two scenarios applied to this CIP are the adjusted net cost for existing facilities and adjusted future costs of proposed facilities. This appendix provides the rationale and methodology for adjusting costs for both scenarios.

The value of a dollar varies from year to year due to inflation. Inflation is accounted for because past costs and future costs are added to determine total cost for the full build-out scenario. The rates used for this plan are the five-year average of the Construction Cost Index (CCI). These rates were obtained from Engineering News-Record (ENR).

Cost Adjustments for Existing Capital Improvement Facilities

Infrastructure that has already been constructed and provides benefit to a new development are included in this category. Net cost is the unpaid balance of these facilities and is calculated by gross cost minus revenue sources. The net cost is then adjusted to represent the value of that infrastructure on December 31, 2015. The formula for calculating the adjusted cost is provided below.

Adjusted
$$Cost_{Existing} = Net Cost x (1 + i)^n$$

Where: i = CCI 5-year average inflation rate

n = number of years from time of completion to December 31, 2015

Cost Adjustments for Undeveloped Capital Improvement Facilities

Infrastructure that is planned but has not been developed is included in this category. The net costs are prepared using cost of goods and services at the time of the estimate. This cost is adjusted by taking a five-year average of inflation and applying it to each remaining infrastructure improvement. The equation used to determine the adjusted cost for remaining facilities is provided below.

$$Adjusted\ Cost_{Remaining} = \frac{Projected\ Future\ Cost}{(1+i)^n}$$

Where: i = past 5-year average of CCI inflation rates

n = number of years from December 15, 2017 to proposed date of completion

Inflation Rate

ENR calculates the CCI based on the change in price for a specific combination of construction labor, steel, concrete, cement and lumber using data from 20 cities across the United States. The CCI uses 200 hours of common labor, multiplied by the 20-city average rate for wages and fringe benefits. For the materials components, CCI uses 25 cwt of standard fabricated structural steel at the 20-city average price, 1.128 tons of bulk Portland cement priced locally and 1,088 board-foot of 2x4 lumber priced locally. The ENR indexes measure how much it costs to purchase this hypothetical package of goods compared to the price in the base year.

ENR has price reporters who check prices locally in 20 U.S. cities. The prices are quoted from the same suppliers each month. ENR computes its latest indexes from these figures as well as local union wage rates. The 20 cities used for this index includes:

-	Atlanta	- Kansas City
-	Baltimore	- Los Angeles
-	Birmingham	- Minneapolis
-	Boston	- New Orleans
-	Chicago	- New York City
-	Cincinnati	- Philadelphia
-	Cleveland	- Pittsburgh
-	Dallas	- St. Louis
-	Denver	- San Francisco
-	Detroit	- Seattle

The table below presents the 5-year average on inflation from ENRs CCI from 2013 to 2017.

Year	CCI
2013	2.57%
2014	2.72%
2015	2.32%
2016	3.9%
2017	3.3%
Average	2.962%

The cost adjustment table provides the values used to calculate the adjusted costs for existing and planned facilities which are then added together to determine the Total Adjusted Cost.

	Cost	Adjustme	nts		
Infrastructure Type	Net ¹ /Planned Cost ²	Year ³	"n" ⁴	"i "5	Adjusted Cost ⁶
Sanitary	•				
Existing	\$2,684,881	2012	5	2.962	\$3,106,776
Planned	\$0	N/A	N/A	2.962	\$0
		Adjusted Cost ⁶ Sanitary Sewers			\$3,106,776
Flood Control					
Existing	\$9,259,041	N/A	N/A	N/A	\$9,259,041
Existing (Funded	\$2,719,903	2015	2	2.962	\$2,883,416
Projects)					
Fees Collected	\$9,728,145	N/A	N/A	N/A	-\$9,728,145
			Total Net Co	St Flood Control	\$2,414,312
Planned	\$3,384,864	2012	5	2.962	\$3,916,752
		Adjusted Cost ⁶ Flood Control		\$6,331,064	
Parks and Recreation					
Existing	\$121,008	2012	5	2.962	\$140,023
Planned (2012)	\$5,076,417	2012	5	2.962	\$5,874,111
Planned (2017)	\$181,936	2017	0	2.962	\$181,936
		Adju	sted Cost ⁶ Par	ks and Recreation	\$6,196,070
Fire Stations					
Existing	-\$284,233	2012	5	2.962	\$328,8977
Planned	\$4,530,566	2012	5	2.96	\$5,242,475
		•	Adjusted Co		\$4,913,578

Notes:

¹Net Cost equals cost of existing infrastructure minus fees collected.

²Planned Cost represent undeveloped (planned) infrastructure and associated costs.

 $^{^3\}mbox{Year}$ is representative of the cost or adjusted cost for the specified year.

^{4&}quot;n" = the number of years between the "year" defined above and 2017.

 $^{^{5}}$ "i" = the 5-year average inflation rate calculated in the table above.

⁶ Adjusted Cost equals the calculated value (future or present) using the formulas provided above

⁷ The balance of fees collected are applied to Planned Fire Stations.

APPENDIX C - SANITARY SEWER CALCULATIONS

Revenue from Sanitary Sewer Connection Fees

Sanitary sewer connection fees paid in IFSA#1 include a part that is devoted to development of interceptors. This allocation is assigned to interceptor development, which decreases the funding requirement for interceptors in IFSA#1.

Flow Rates by Land Use Type ¹			
Land Use Type	Flow/Service Unit (gpd/SU)	Flow/Acre (gpd/acre)	
Single Family	650	NA	
Multifamily	650	NA	
Business Park	202	2,200	
General Commercial	612	6,666	
Public Facilities	202	2,200	
Tourist Commercial	612	6,666	
Lodging	340	340	
Open Space and Rural Reserve	N/A	N/A	
Parks and Recreation	N/A	N/A	
Right-of-Way (Streets)	N/A	N/A	

Notes ¹ The flow rates for each land use type was obtained from the 1994 NSSOI Financing Concept Plan.

The amount of the fee devoted to interceptor development is \$151 per equivalent service unit. The residential projections are calculated by multiplying the number of service units and the flow rate fee.

Revenue projections for Sanitary Sewers are provided in the table below.

Revenue Projections				
Land Use	Service Units or Acres ¹	Flow/Acre ²	Flow Rate Fee ³	Projected Revenue ⁴
Residential				
Single Family	14,226 SU	NA	\$151	\$2,148,126
Multifamily	4,099SU	NA	\$151	\$618,949
			Subtotal	\$2,767,075
Non-Residential				
Business Park	366 acres	2,200	\$511	\$187,054
General Commercial	614 acres	6,666	\$1,549	\$950,818
Public Facility	38 acres	2,200	\$511	\$19,421
Tourist Commercial	19 acres	6,666	\$79	\$1,501
Lodging	200 rooms	340	340	\$68,000
Open Space and Rural Reserve	2,868	N/A	N/A	N/A
Parks and Recreation	666	N/A	N/A	N/A
Right-of-Way (Streets)	N/A	N/A	N/A	N/A
			Subtotal	\$1,226,794
			Projected Revenue	\$3,993,869

Notes Number of service units and acres are based on full build-out scenario presented in Table 3-1.

^{2,3} The flow rates were provided by the City Sparks.

⁴ Projected Revenue was calculated by multiplying the number of SU (or acres) by Flow Rates.

Washoe County leases part of the interceptor capacity in several portions of the completed main trunk and the northeast interceptor.

Interceptor	Lease Cost	Number of Years	Amount
La Posada to Los Altos	\$70,658	20	\$1,413,160
Los Altos to SW corner of	\$194,985	1	\$194,985
Section 22 (Drop Manhole)			
SW corner of Section 22 (Drop	\$30,343	20	\$606,860
Manhole) to Baring Blvd			
		Total	\$2,215,005

The table below provides an account of fees collected for Sanitary Sewer in IFSA#1.

Items	Amount
Previously Paid Fees & Credits Given ¹	11110 (111)
1995 All Sources except 1000 series collections	\$24,486
1996 All Sources except 1000 series collections	\$72,155
1997 All Sources except 1000 series collections	\$114,279
1998 All Sources except 1000 series collections	\$169,780
1999 All Sources except 1000 series collections	\$149,580
2000 All Sources except 1000 series collections	\$118,561
2001 All Sources except 1000 series collections	\$113,108
2002 All Sources except 1000 series collections	\$128,736
2003 All Sources except 1000 series collections	\$164,084
2004 All Sources except 1000 series collections	\$215,793
Subtotal	\$1,270,562
Fees Collected from 1997 through 2004 ¹	
1997-2004 Kiley 1000 series collection	\$376,381
1997-2004 Bailey-McG 1004 series collection	\$279
1997-2004 Lewis Homes 1007 series collection	\$341
1997-2004 Barker Cole 1022 series collection	\$90
1997-2004 Sewer-Reno Dev. 1027 series collection	\$39,741
1997-2004 Sewer R&K Homes 1029 series collection	\$4,554
Subtotal	\$421,386
Fees Collected from 2005 through 2012 ¹	
2005 IFSA#1 Sewer Fees Collected	\$452,084
2006 IFSA#1 Sewer Fees Collected	\$406,959
2007 IFSA#1 Sewer Fees Collected	\$120,632
2008 IFSA#1 Sewer Fees Collected	\$158,900
2009 IFSA#1 Sewer Fees Collected	\$17,341
2010 IFSA#1 Sewer Fees Collected	\$20,753
2011 IFSA#1 Sewer Fees Collected	\$16,005
2012 IFSA#1 Sewer Fees Collected	\$22,950
Subtotal	\$1,215,624
Fees Collected from 2013 through 2015 ²	
2013 IFSA#1 Sewer Fees Collected	\$43,178
2014 IFSA#1 Sewer Fees Collected	\$54,645
2015 IFSA#1 Sewer Fees Collected	\$119,022
Subtotal	\$216,845
Fess Collected from 2016 through 2017	
2016 IFSA#1 Sewer Fees Collected	\$90,115
2017 IFSA#1 Sewer Fees Collected	\$210,965
Subtotal	\$301,080
Total	\$3,425,497

Notes

¹ This data was obtained from the 2016 CIP.
² This information was collected from the City of Sparks Community Services Department.

APPENDIX D – FLOOD CONTROL CALCULATIONS

Impervious Surface Area by Land Use

To account for land area and for degree of impervious surface, which causes storm water runoff, the amount of remaining acreage for each land use type was adjusted in a consistent manner among all land use types. Estimates of impervious area are based on factors commonly used in projecting runoff quantities (Rational Formula) in the table below.

Impervious Surface Area by Land Use					
Land Use Type	Percentage Impervious				
	Surface Area				
Single Family	50%				
Multifamily	65%				
Business Park	85%				
General Commercial	85%				
Public Facilities	85%				
Tourist Commercial	85%				
Lodging	85%				

Flood Control Portion of Connection Fees.

A portion of the sanitary sewer connection fees paid in IFSA#1 includes a part that is devoted to storm drainage. This allocation decreases the funding requirement for IFSA#1flood control. The amount of the fee devoted to flood control is \$36/equivalent service unit, however only 75% of the storm drainage element (\$27/equivalent service unit) is used to offset the flood control infrastructure cost, per City policy.

a. Residential Contribution

```
Single Family = Total SF Service Units \times Flood Control Infrastructure Cost
Single Family = 14,226 Service Units \times $27 = $384,102
```

 $\label{eq:multifamily} \textit{Multifamily} = \textit{Total MF Service Units} \times \textit{Flood Control Infrastructure Cost} \\ \textit{Multifamily} = 4,099 \textit{Service Units} \times \$27 = \$110,673$

Total Residential Contribution = Single Family + Multifamily

Total Residential Contribution = \$384,102 + \$110,673 = \$494,775

b. Relate residential fee to non-residential fee based on runoff coefficient used in the rational formula

Single Family: Total acres; Total Service Units; C_{SF}

Single Family: 3,576 acres; 14,226 Service Units; 0.5

Multifamily: Total MF acres; Total MF Service Units; C_{MF}

Multifamily: 611 acres; 4,099 Service Units; 0.65

Non Residential: Total Acres (Business Parks + General Commercial + Public Facilities

+ Tourist Commercial); C_{NR}

Non Residential: (366+614+38+19) = 1,037 acres; 0.85

c. Adjust residential areas to account for runoff coefficient. SF = Single Family, MF = Multifamily

$$Adjusted\ Acres_{Res} = \frac{Total\ SF\ Acres}{C_{SF}} + \frac{Total\ MF\ Acres}{C_{MF}}$$

Adjusted
$$Acres_{Res} = \frac{3,576}{0.5} + \frac{611}{0.65} = 8,092$$

d. Develop residential rate per residential acre

$$Residential\ Rate\ =\ \frac{Total\ Residential\ Cost}{Adjusted\ Acres}$$

Residential Rate =
$$\frac{\$494,775}{8,092}$$
 = $\$61.14/acre$

e. Weighted residential runoff coefficient, C

$$C_{WT} = \frac{Total \ SF \ Acres \times C_{SF} + Total \ MF \ Acres \times C_{MF}}{Total \ SF \ Acres + Total \ MF \ Acres}$$

$$C_{WT} = \frac{3,576 \times 0.5 + 611 \times 0.65}{3,576 + 611} = 0.5219$$

f. Relate Residential rate per acre to non-residential rate based on runoff coefficients:

Non Residential Rate =
$$\frac{Residential\ Rate}{C_{WT}} \times C_{NR}$$

Non Residential Rate = $\frac{\$61.1437}{0.521889} \times 0.85 = \$99.5846/acre$

g. Non-residential Contribution:

Non Residential Cont. = \sum (Non Residential Acres) × Non Residential Rate Non Residential Cont. = 366 + 614 + 38 + 19) × \$99.5846/acre = \$103,269/acre

h. Sum of residential and non-residential contributions from connection fees:

 $Total\ Fees = Residential\ Contributions + Non\ Residential\ Contributions$ $Total\ Flood\ Control\ Connection\ Fees = \$494,775 + \$103,269 = \$598,044$

The table below provides a summary of fees collected for Flood Control in IFSA#1.

Summary of Fees Collected for Flood Control					
Items	Amount				
Committed or Paid NSSOI Flood Control Fees Prior to 2005 ¹	\$3,252,059				
Fees Collected from 2005 through 2012 ¹					
2005 IFSA#1 Flood Fees Collected	\$2,179,486				
2006 IFSA#1 Flood Fees Collected	\$1,386,271				
2007 IFSA#1 Flood Fees Collected	\$500,974				
2008 IFSA#1 Flood Fees Collected	\$424,499				
2009 IFSA#1 Flood Fees Collected	\$125,753				
2010 IFSA#1 Flood Fees Collected	\$103,702				
2011 IFSA#1 Flood Fees Collected	\$65,497				
2012 IFSA#1 Flood Fees Collected	\$101,184				
Subtotal	\$4,887,366				
Fees & Credits from 2013 through 2015 ²					
2013 IFSA#1 Flood Fees Collected	\$148,945				
2014 IFSA#1 Flood Fees Collected	\$120,276				
2015 IFSA#1 Flood Fees Collected	\$284,256				
Subtotal	\$553,477				
Fees & Credits from 2016 through 2017 ²					
2016 IFSA#1 Flood Fees Collected	\$211,765				
2017 IFSA#1 Flood Fees Collected	225,434				
Subtotal	437,199				
Total	\$9,130,101				

¹ This data was obtained from the 2016 CIP.

² This information was provided by the City of Sparks Community Services Department.

APPENDIX E – PARKS AND RECREATION CALCULATIONS

The table below provides a summary of the fees collected for Parks and Recreation in IFSA#1.

Summary of Fees Collected for Parks and Recreation					
Fees Collected from 1995 through 2004 ¹	Amount				
1995 All Sources except the 1000 series	\$59,432				
1996 All Sources except the 1000 series	\$166,566				
1997 All Sources except the 1000 series	\$244,412				
1998 All Sources except the 1000 series	\$461,358				
1999 All Sources except the 1000 series	\$428,662				
2000 All Sources except the 1000 series	\$324,810				
2001 All Sources except the 1000 series	\$330,726				
2002 All Sources except the 1000 series	\$372,744				
2003 All Sources except the 1000 series	\$490,811				
2004 All Sources except the 1000 series	\$626,135				
Subtotal	\$3,505,656				
Fees Collected from 1997 through 2004 ¹ (1000 Series)					
1997-2004 Kiley 101 series collection	\$27,426				
1997-2004 Bailey-McG 1005 series collection	\$5,260				
1997-2004 Sparks Dev. 1019 series collection	\$543				
1997-2004 Area 1 R&K Homes 1030 series collection	\$41,059				
Subtotal	\$74,288				
Fees Collected from 2005 through 2012 ¹					
2005 IFSA#1 P&R Fees Collected	\$1,152,806				
2006 IFSA#1 P&R Fees Collected	\$714,533				
2007 IFSA#1 P&R Fees Collected	\$247,622				
2008 IFSA#1 P&R Fees Collected	\$399,668				
2009 IFSA#1 P&R Fees Collected	\$49,166				
2010 IFSA#1 P&R Fees Collected	\$54,643				
2011 IFSA#1 P&R Fees Collected	\$44,915				
2012 IFSA#1 P&R Fees Collected	\$70,482				
Subtotal	\$2,733,835				
Fees Collected from 2013 through 2015 ²					
2013 IFSA#1 P&R Fees Collected	\$129,085				
2014 IFSA#1 P&R Fees Collected	\$131,847				
2015 IFSA#1 P&R Fees Collected	\$308,881				
Subtotal	\$569,813				
Fees Collected from 2016 through 2017 ²					
2016 IFSA#1 P&R Fees Collected	\$230,887				
2017 IFSA#1 P&R Fees Collected	\$337,003				
Subtotal	\$567,890				
Totals	\$7,451,482				
Notes 1This data was obtained from the 2016 CIP					

Notes ¹This data was obtained from the 2016 CIP.

²This information was provided by the City of Sparks Community Services Department.

APPENDIX F – FIRE STATION PROJECTS CALCULATIONS

The table below provides a summary of the fees collected for Fire Station Projects in IFSA#1.

Summary of Fees Collected for Fire Station Projects						
Fees Collected from 1995 to 2004 ¹		Amount				
1995 All Sources		\$8,701				
1996 All Sources		\$24,069				
1997 All Sources		\$39,915				
1998 All Sources		\$81,861				
1999 All Sources		\$81,109				
2000 All Sources		\$61,717				
2001 All Sources		\$61,308				
2002 All Sources		\$67,213				
2003 All Sources		\$115,323				
2004 All Sources		\$198,008				
	Subtotal	\$739,224				
Fees Collected from 2005 Through 2012 ¹						
2005 IFSA#1 Public Facility Fees Collected		\$446,775				
2006 IFSA#1 Public Facility Fees Collected		\$400,182				
2007 IFSA#1 Public Facility Fees Collected		\$115,802				
2008 IFSA#1 Public Facility Fees Collected		\$152,292				
2009 IFSA#1 Public Facility Fees Collected		\$18,643				
2010 IFSA#1 Public Facility Fees Collected		\$20,148				
2011 IFSA#1 Public Facility Fees Collected		\$14,302				
2012 IFSA#1 Public Facility Fees Collected		\$19,000				
	Subtotal	\$1,187,144				
Fees Collected from 2013 through 2015 ²						
2013 IFSA#1 Public Facility Fees Collected		\$43,954				
2014 IFSA#1 Public Facility Fees Collected		\$68,354				
2015 IFSA#1 Public Facility Fees Collected		\$142,428				
	Subtotal	\$254,736				
Fees Collected from 2016 through 2017 ²						
2016 IFSA#1 Public Facility Fees Collected		\$107,908				
2017 IFSA#1 Public Facility Fees Collected		\$243,337				
	Subtotal	\$351,245				
N	Totals	\$2,532,349				

Notes

¹ This information was obtained from the 2016 CIP.

² This data was provided by the City of Sparks Community Services Department.

APPENDIX G – HISTORICAL IMPACT FEES

1994 NSSOI Infrastructure Financing Fees

Land Use Type	Infrastructure Type					
	Sanitary Sewer	Road	Flood Contr ol	Parks & Rec.	Public Facilities	Total Fees
Single Family Residence (per dwelling)	\$318	\$973	\$353	\$782	\$113	\$2,529
Multifamily Residence (per dwelling)	\$212	\$624	\$113	\$782	\$113	\$1,844
Business Park (per 1,000 SF of Building)	\$96	\$1,072	\$122			\$1,290
General Commercial (per 1,000 SF of Building)	\$299	\$1,499	\$122			\$1,920
Public Facilities (\$/acre)	\$96	\$166	\$1332			\$1,594
Tourist Commercial/Resort Lodging (per room)	\$166	\$732	\$123			\$1,021

1997 Updated NSSOI Infrastructure Financing Fees

	Infrastructure Type						
Land Use Type	Sanitary Sewer	Flood Control	Parks & Rec.	Public Facilities	Total Fees		
Single Family Residence (per dwelling)	\$220	\$543	\$628	\$121	\$1,512		
Multifamily Residence (per dwelling)	\$166	\$189	\$663	\$121	\$1,139		
Business Park or Public Facility (per 1,000 SF of Building)	\$112	\$251		\$121	\$484		
General or Tourist Commercial (per 1,000 SF of Building)	\$350	\$251		\$121	\$722		
Resort Lodging (per room)	\$194			\$121	\$315		

2002 Impact Fee Service Area No. 1 Impact Fees

	Infrastructure Type					
Land Use Type	Sanitary Sewer	Flood Control	Parks & Rec.	Fire Station Projects	Total Fees	
Single Family Residence (per dwelling)	\$227	\$1,317	\$768	\$224	\$2,536	
Multifamily Residence (per dwelling)	\$223	\$521	\$768	\$224	\$1,736	
Business Park (per 1,000 SF of Building)	\$74	\$587		\$224	\$885	
General Commercial (per 1,000 SF of Building)	\$219	\$614		\$224	\$1,057	
Public Facilities (per 1,000 SF of Building)	\$108	\$501		\$224	\$883	
Tourist Commercial (per 1,000 SF of Building)	\$229	\$534		\$224	\$987	
Lodging (per room)	\$84			\$224	\$308	

2005 Updated Impact Fee Service Area No. 1 Impact Fees

	Infrastructure Type					
Land Use Type	Sanitary Sewer	Flood Control	Parks & Rec.	Fire Station Projects	Total Fees	
Single Family Residence (per dwelling)	\$225	\$992	\$691	\$200	\$2,108	
Multifamily Residence (per dwelling)	\$230	\$389	\$691	\$200	\$1,510	
Business Park (per 1,000 SF of Building)	\$76	\$445		\$200	\$721	
General Commercial (per 1,000 SF of Building)	\$212	\$461		\$200	\$873	
Public Facilities (per 1,000 SF of Building)	\$77	\$463		\$200	\$740	
Tourist Commercial (per 1,000 SF of Building)	\$147	\$432		\$200	\$779	
Lodging (per room)	\$108			\$200	\$308	

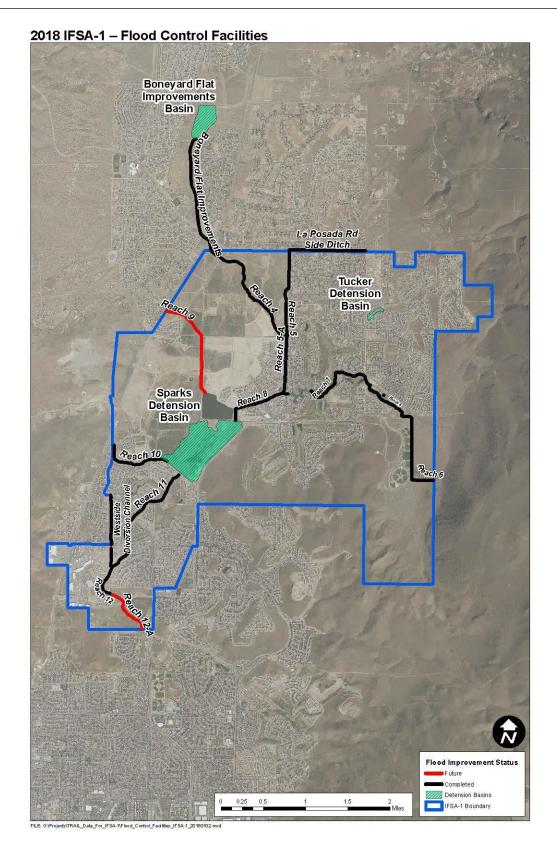
2013 Updated Impact Fee Service Area No. 1 Impact Fees

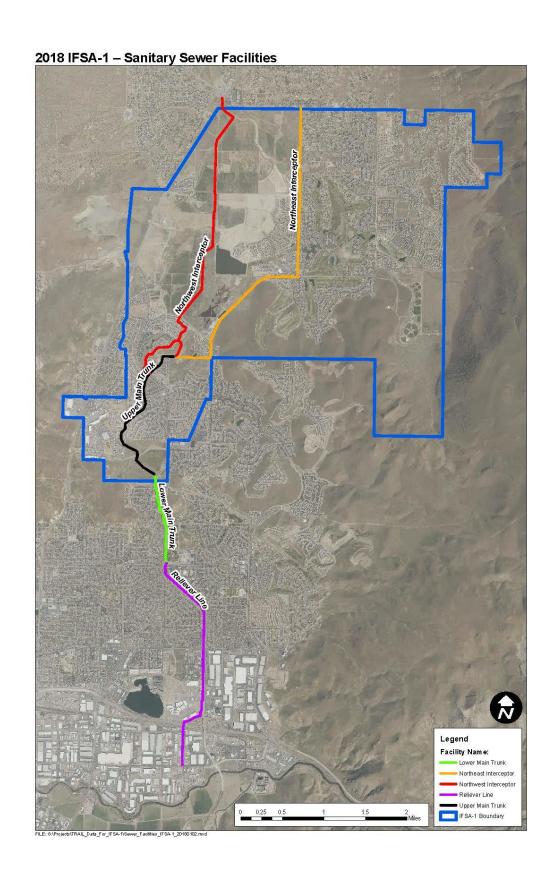
	Infrastructure Type					
Land Use Type	Sanitary Sewer	Flood Control	Parks & Rec.	Fire Station Projects	Total Fees	
Single Family Residence (per dwelling)	\$239	\$564	\$619	\$286	\$1,708	
Multifamily Residence (per dwelling)	\$239	\$198	\$619	\$286	\$1,342	
Business Park (per 1,000 SF of Building)	\$75	\$325		\$286	\$686	
General Commercial (per 1,000 SF of Building)	\$225	\$324		\$286	\$835	
Public Facilities (per 1,000 SF of Building)	\$74	\$324		\$286	\$684	
Tourist Commercial (per 1,000 SF of Building)	\$225	\$324		\$286	\$835	
Lodging (per room)	\$126			\$286	\$412	

2016 Updated Impact Fee Service Area No. 1 Impact Fees

	2016 Impact Fees						
Land Use Type	Sanitary	Sanitary Flood Control Parks & Fire Station In					
	Sewer		Recreation	Projects	Fees		
Single Family	\$297	\$593	\$778	\$340	\$2,008		
Multifamily	\$297	\$348	\$778	\$340	\$1,763		
Business Park	\$92	\$413	N/A	\$340	\$846		
General Commercial	\$279	\$537	N/A	\$340	\$1,157		
Public Facilities	\$92	\$412	N/A	\$340	\$844		
Tourist Commercial	\$279	\$425	N/A	\$340	\$1,044		
Lodging	\$155	N/A	N/A	\$340	\$495		

APPENDIX H - FIGURES





2018 IFSA-1 - Regional Trails IFSA Regional Trails

Existing

