

Sierra County Fire Protection
District Number 1

**Nexus Study for Fire
Development Impact Fee**

FINAL

July 15, 2020

HEC No. 190300

The following report was prepared by Hansford Economic Consulting LLC.

The analyses and findings contained within this report are based on primary data provided by the Sierra County Fire Protection District #1, as well as additional secondary sources of data available as of the date of this report. Updates to information used in this report could change or invalidate the findings contained herein. While it is believed that the primary and secondary sources of information are accurate, this is not guaranteed.

This Fire Development Impact Fee Nexus Study should be utilized strictly for the purposes of the scope and objectives of the commissioned study. Projected facilities costs and growth in building square feet of structures protected by the Sierra County Fire Protection District #1 are estimates only to be used generally for planning purposes; there are many factors that can cause actual expenses and growth to deviate from the projections shown in the report. The fee calculations contained herein should be routinely updated (every five years) as capital improvement costs and land use development plans change continually.

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Section 1: INTRODUCTION AND SUMMARY OF FINDINGS

1.1 INTRODUCTION AND PURPOSE OF THE STUDY

The Sierra County Fire Protection District #1 (“District”) was formed in 1930 for the purposes of fire suppression, fire prevention, intervention, medical assistance, and education. The District serves the eastern portion of Sierra County (“County”) where it is the first responder. In certain areas, other fire departments are better geographically located with fire suppression facilities to be the first responders. The District contracts with Truckee Meadows Fire Protection District in the Verdi/Long Valley area, and with the City of Loyalton for properties in the vicinity surrounding the City’s service territory. The District provides mutual aid to Loyalton, Truckee, Sierra City, Beckwourth, Vinton and Chilcoat.

The District collects a development impact fee from permitted new structural space and additions of structural space to existing buildings. The fee is imposed on new development by Sierra County (“County”) on behalf of the District. The purpose of the District’s development impact fee is to provide funding for new and expanded fire facilities, apparatus, vehicles, and equipment that are required as a direct result of the increase in fire protection demand generated by new development.

The fee is collected by the County for the District under the authority of the Mitigation Fee Act, contained in California Government Code Section 66000 et. seq. When a municipality adopts or updates a development impact fee, it must establish a reasonable relationship or connection between anticipated development and the fee that is charged. Studies undertaken to demonstrate this connection are called nexus studies. Maximum justifiable fees are calculated pursuant to the legal requirements for enactment of a development impact fee, which requires demonstration of the nexus between new development and the increase in demand for the infrastructure that is provided to serve the new development.

This report presents the nexus study for the maximum justifiable fire development impact fee that could be imposed on new development within the District’s service territory.

1.2 CALCULATED FEE LEVEL OPTIONS

This Sierra County Fire Protection District #1 Nexus Study (“Nexus Study”) calculates the maximum justifiable fees that may be adopted. Fees may be adopted at or below the levels calculated in this study. Five fee level options are presented for consideration by the District Board of Directors (“Board”). The fee comprises two components:

1. A facilities costs fee for items included in the District’s 20-year Capital Improvement Plan (“CIP”).
2. A buy-in fee for facilities and assets currently owned by the District that will also serve new development.

The five fee level options are generated by the treatment of the value of the currently-owned assets in the buy-in fee calculation.

Many fire impact fee studies calculate the buy-in fee using a replacement cost methodology. Under this approach, all of the agency's current assets are valued at the current cost to replace them. This methodology is most appropriate in more urban settings or areas with greater financial resources where old equipment is usually replaced with new equipment. The District rarely purchases new equipment; as such, this first approach (option 1) has been modified to deduct depreciation from the value of the assets. Option 2 deducts depreciation on a straight-line original cost methodology, while option 3 deducts depreciation on a straight-line replacement cost methodology. Both of these modified replacement cost approaches are frequently used for development impact fee calculations.

- Option 2 recognizes the actual depreciation that has been accounted for on the District's books, and that existing customers have paid for to date. Under this option, assets that have in theory exceeded their useful life may still have a value associated with them that new development would pay for a portion of.
- Option 3 only accounts for the value of assets that still have a useful life (in theory), per the straight-line depreciation methodology.

Options 4 and 5 use the original cost approach where the buy-in fee reflects the original investment in existing capacity, paying an amount similar to what the existing customers paid for the capacity (or the remaining value of the original investments). A concern with this approach is that it is impractical because insufficient capital is raised to ensure maintenance of the asset.

- Option 4 bases the buy-in fee on the original cost of the assets (when it was purchased or constructed).
- Option 5 bases the buy-in fee on the net book value of the District's assets. This methodology is based on an accounting perspective that depreciates the original cost of the assets and assumes that anything beyond its theoretical useful life no longer has any value to new customers.

Table 1 on the following page summarizes the fire development impact fee under each of the fee level options. The current fee is \$1.25 per building square foot. Under the fee calculation options, the updated fee would increase to between \$1.52 and \$2.10 per building square foot.

While all five approaches to setting the buy-in fee are legitimate approaches, the Nexus Study recommends option 2 as the most appropriate for the District. This approach recognizes the cost of providing capacity to customers as if the capacity were added at the time it was needed for new growth and it compensates the existing customers for carrying costs of excess capacity to date. In addition, while many of the District's assets have theoretically exceeded their useful life, they are in fact perfectly capable of performing as required. This is demonstrated by the District's recent ISO rating of 5¹, which is a very good rating for such a rural area.

¹ May 25, 2020 letter from the ISO to the District.

Table 1
Summary of Calculated Fee Level Options

	Option 1	Option 2	Option 3	Option 4	Option 5
	<i>Replacement Cost</i>	<i>Option 1 less Original Cost Depreciation</i>	<i>Option 1 less Replacement Depreciation</i>	<i>Original Cost</i>	<i>Original Cost less Depreciation</i>
Calculated Fee	\$2.10	\$1.90	\$1.59	\$1.74	\$1.52
Current Fee	\$1.25	\$1.25	\$1.25	\$1.25	\$1.25
Increase in Fee	\$0.85	\$0.65	\$0.34	\$0.49	\$0.27

Source: 2020 HEC Fee Study.

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It is recommended that the District update the fees annually by a predetermined index. The County would have to approve and implement the revised fee schedule each year. The Engineering News Record San Francisco Construction Cost Index March to March change is recommended for an annual July 1 update. Periodic review of the mitigation fee is also recommended whenever estimated costs are revised, facility standards change, or there are changes in demographics or the land use plan.

Section 2: FEE METHODOLOGY

The methodology for calculating the fire development impact fee is summarized below:

1. Determine the total cost of facilities and equipment to be included in the fee calculation.
 - a. **CIP Facilities Cost.** Determine the cost of new and replacement facilities needed to service both existing structures and projected new structures for the next 20 years.
 - b. **Buy-In Facilities Cost.** For existing facilities and equipment with capacity to serve new development, determine the value of the District’s current assets and the “buy-in” cost for new structures that will be protected with the District’s existing fire suppression assets’ capacity.
2. For Steps 1a and 1b, apply other revenue sources (developer contributions, grants, and property taxes for example) as credits to the total cost of facilities identified in Step 1 to determine net costs to be funded from existing and future service properties. Remove facilities and equipment on the current assets list that are included in the CIP to avoid double-counting of costs.
3. For costs developed under 1a and 1b, allocate only the portion of costs associated with increased demand from new development to the fire mitigation fee calculation.
4. Identify existing development (structures) building square feet and estimate new building square feet in the District’s service territory to be developed over the next 20 years.
5. Divide the total cost by the estimated new building square feet to be served over the next 20 years to calculate the new fire development impact fee per building square foot.

2.1 FACILITY NEEDS AND COST ESTIMATES

2.1.1 CIP Facilities Costs

The District formed an ad hoc committee, comprised of three Board members, to determine the District’s needs for the next 20 years. The identified needs include replacement of two water tenders and a command vehicle. New facility needs include ADA compliance infrastructure at the Sierraville and Calpine fire stations, and an equipped new 4-wheel drive rescue vehicle. The most significant cost is for construction of a new 3-bay station in Sattley (the old station, which has access issues onto a busy main road, will continue to be used for housing equipment); in addition, a water tank is needed to provide fire suppression capability in Loyaltown Pines. The cost of updating the impact fee every five years is also included in the CIP. In total, the 20-year CIP cost is estimated at \$2,067,000 in 2020 dollars.

Table 2 on the next page lists the CIP items that have been identified, and the cost of those items in 2020 dollars.

Table 2
Twenty-Year Capital Improvements Plan Estimated Cost

CIP Items	Replace /Upgrade or New	Location	Estimated Cost 2020 \$s
Facility / Equipment Needs			
Replacement Water Tender (2)	replace	District	\$650,000
ADA Building Compliance/Bathroom Remodel	new	Sierraville	\$50,000
Upstairs Completion/ADA Compliance/Exterior Access	new	Calpine	\$170,000
Sattley: Maint Facility/ 3 Bay Station	new	Sattley	\$1,000,000
Command Vehicle	replace	District	\$60,000
Rescue 4WD Vehicle UTV Truck Style/Stokes EMS Equipment	new	District	\$45,000
Well/Water Storage Tank - Loyaltown Pines	new	District	\$60,000
Total Facility/Equipment Needs			\$2,035,000
Fee Nexus Studies [1]			\$32,000
Total Capital Improvements Plan			\$2,067,000

Source: Sierra County Fire District, February 2020.

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[1] \$8,000 every 5 years for fee revisions.

2.1.2 Buy-In Facilities Costs

Many fire impact fee studies calculate the buy-in fee using a replacement cost methodology. Under this approach, all of the agency’s current assets are valued at the current cost to replace. This methodology is most appropriate in more urban settings or areas with greater financial resources where old equipment is usually replaced with new equipment. The District rarely purchases new equipment; as such, this first approach (option 1) has been modified to deduct depreciation. Option 2 deducts depreciation on a straight-line original cost methodology, while option 3 deducts depreciation on a straight-line replacement cost methodology. Both of these modified replacement cost approaches are frequently used for development impact fee calculations.

- Option 2 recognizes the actual depreciation that has been accounted for on the District’s books, and that existing customers have paid for to date. Under this option, assets that have in theory exceeded their useful life may still have a value associated with them that new development would pay for a portion of.
- Option 3 only accounts for the value of assets that still have a useful life (in theory), per the straight-line depreciation methodology.

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- Option 4 bases the buy-in fee on the original cost of the assets (when it was purchased or constructed).

- Option 5 bases the buy-in fee on the net book value of the District's assets. This methodology is based on an accounting perspective that depreciates the original cost of the assets and assumes that anything beyond its theoretical useful life no longer has any value to new customers.

Table 3 on the following page lists the District's current assets and the value of the assets under each of the fee options. The total value of assets ranges from \$335,158 to \$1,897,518 under the options. Deducted from the total value of the assets are facilities costs that were funded by grants (existing customers did not pay for them) and outstanding debt (which must be removed because debt is paid for with property taxes), as well as capital facilities that are paid for with property taxes.

The estimate of capital facilities costs paid for with property taxes is determined using the District's fiscal year 2020 budget. **Tables 4** and **5** show the budgeted expenses and revenues, respectively. Capital expenses are identified in **Table 4** and total \$65,000 of the budgeted almost \$306,000 of expenses (21% of expenses). Property taxes comprise about 94% of the District's annual income (see **Table 5**). Multiplying 21% by 94% results in 20% of capital expenses being paid for with property taxes.

The three vehicles (two water tenders and a command vehicle) that are scheduled to be replaced in the CIP are identified in **Table 3** with an asterisk. The valuation of these items must be removed from the total valuation to avoid double-counting in the fee because these costs are included in the CIP portion of the fire development impact fee.

Table 3
Valuation of Current Assets

Item	Year Purchased	Useful Life	Years Spent	Years Remaining	Original Cost	Inflation Adjustment	Replacement Cost	Accumulated Depreciation		Replacement Cost less Depreciation		Original Cost less Depreciation (net book value)
								Original	Replacement	Original Cost Depreciation	Replacement Cost Depreciation	
						3.81% per year						
Buildings		years			Option 4	[1]	Option 1			Option 2	Option 3	Option 5
Calpine Storage	1959	30	61	0	\$3,551	9.79	\$34,749	\$3,551	\$34,749	\$31,198	\$0	\$0
Calpine Fire House	1996	30	24	24	\$88,600	2.45	\$217,357	\$70,880	\$173,886	\$146,477	\$43,471	\$17,720
Sattley Fire House	1938	30	82	0	\$4,000	21.46	\$85,837	\$4,000	\$85,837	\$81,837	\$0	\$0
Sierraville Fire Hall	1974	30	46	0	\$38,775	5.58	\$216,548	\$38,775	\$216,548	\$177,773	\$0	\$0
Sierraville Engine Storage	2004	30	16	16	\$50,800	1.82	\$92,404	\$27,093	\$49,282	\$65,311	\$43,122	\$23,707
Sattley Fire House Additions	1993	40	27	27	\$10,000	2.74	\$27,445	\$6,750	\$18,525	\$20,695	\$8,920	\$3,250
Sattley Fire House Remodel	2010	20	10	10	\$59,114	1.45	\$85,918	\$29,557	\$42,959	\$56,361	\$42,959	\$29,557
Total Buildings					\$254,840		\$760,258			\$579,651	\$138,472	\$74,234
Equipment												
Equipment	1998	10	22	0	\$35,067	2.28	\$79,829	\$35,067	\$79,829	\$44,762	\$0	\$0
Foam Unit	2008	7	12	0	\$7,351	1.57	\$11,514	\$7,351	\$11,514	\$4,163	\$0	\$0
Desktop Computer & Printer	2009	5	11	0	\$1,381	1.51	\$2,084	\$1,381	\$2,084	\$703	\$0	\$0
Projector & Screen	2010	5	10	0	\$775	1.45	\$1,126	\$775	\$1,126	\$351	\$0	\$0
SCBA-breathing Apparatus	2011	5	9	0	\$7,464	1.40	\$10,450	\$7,464	\$10,450	\$2,986	\$0	\$0
Two Snowmobiles	2012	5	8	0	\$3,000	1.35	\$4,046	\$3,000	\$4,046	\$1,046	\$0	\$0
Snowmobile Trailer	2012	7	8	0	\$500	1.35	\$674	\$500	\$674	\$174	\$0	\$0
Dell Computer & Software	2014	4	6	0	\$1,956	1.25	\$2,448	\$1,956	\$2,448	\$492	\$0	\$0
Amazon Printer	2014	4	6	0	\$158	1.25	\$198	\$158	\$198	\$40	\$0	\$0
Jaws of Life	2017	15	3	3	\$9,111	1.12	\$10,193	\$1,822	\$2,039	\$8,370	\$8,154	\$7,289
Radio Tower	2016	10	4	4	\$3,675	1.16	\$4,268	\$1,470	\$1,707	\$2,798	\$2,561	\$2,205
Total Equipment					\$70,438		\$126,830			\$65,885	\$10,715	\$9,494
Vehicles												
1937 Am La Franc	1978	10	42	0	\$8,000	4.81	\$38,471	\$8,000	\$38,471	\$30,471	\$0	\$0
1970 Dodge R9	1990	10	30	0	\$10,000	3.07	\$30,703	\$10,000	\$30,703	\$20,703	\$0	\$0
1983 GMC-S25	1990	10	30	0	\$10,000	3.07	\$30,703	\$10,000	\$30,703	\$20,703	\$0	\$0
1973 Kenworth-WT18 *	1990	10	30	0	\$60,000	3.07	\$184,216	\$60,000	\$184,216	\$124,216	\$0	\$0
1991 Ford-R27	2007	10	13	0	\$16,000	1.63	\$26,015	\$16,000	\$26,015	\$10,015	\$0	\$0
1980 Peterbilt-WT20 *	1997	10	23	0	\$60,000	2.36	\$141,792	\$60,000	\$141,792	\$81,792	\$0	\$0
1971 International -E24	2002	10	18	0	\$35,000	1.96	\$68,608	\$35,000	\$68,608	\$33,608	\$0	\$0
1990 Dodge-R23	2002	10	18	0	\$9,000	1.96	\$17,642	\$9,000	\$17,642	\$8,642	\$0	\$0
Engine 289 1991 International	2009	10	11	0	\$54,143	1.51	\$81,691	\$54,143	\$81,691	\$27,548	\$0	\$0
Engine #48 (1981 VNPL)	2011	25	9	9	\$5,473	1.40	\$7,663	\$1,970	\$2,759	\$5,692	\$4,904	\$3,503
Water Tender #51	2012	10	8	8	\$18,943	1.35	\$25,548	\$15,154	\$20,439	\$10,394	\$5,110	\$3,789
International 81 Fire Truck	2012	10	8	8	\$10,000	1.35	\$13,487	\$8,000	\$10,790	\$5,487	\$2,697	\$2,000
1989 Pierce Fire Engine	2012	15	8	8	\$60,000	1.35	\$80,922	\$32,000	\$43,158	\$48,922	\$37,763	\$28,000
1994 Jeep Command Vehicle *	2013	5	7	0	\$6,000	1.30	\$7,795	\$6,000	\$7,795	\$1,795	\$0	\$0
Brush Truck	2014	5	6	0	\$3,000	1.25	\$3,755	\$3,000	\$3,755	\$755	\$0	\$0
2000 HME E-21 Type I Engine	2017	20	3	3	\$35,000	1.12	\$39,155	\$5,250	\$5,873	\$33,905	\$33,282	\$29,750
Ford F550 Light Rescue Truck	2018	20	2	2	\$156,919	1.08	\$169,104	\$15,692	\$16,910	\$153,412	\$152,194	\$141,227
Total Vehicles					\$557,478		\$967,269			\$618,059	\$235,950	\$208,268
Land												
Sattley	\$40,000	per acre	0.94 acres		\$30,506		\$30,506			\$30,506	\$30,506	\$30,506
Sierraville	\$65,000	per acre	0.39 acres		\$12,657		\$12,657			\$12,657	\$12,657	\$12,657
Total Land					\$43,162		\$43,162			\$43,162	\$43,162	\$43,162
Total Value					\$925,918		\$1,897,518			\$1,349,920	\$471,461	\$335,158
less USDA Grant					\$51,300		\$51,300			\$51,300	\$51,300	\$51,300
less Outstanding Debt					\$42,368		\$42,368			\$42,368	\$42,368	\$42,368
less Reduction for Property Tax Contributions		20%			\$184,932		\$378,989			\$269,618	\$94,164	\$66,941
Total Net Value					\$647,318		\$1,424,862			\$986,635	\$283,629	\$174,550

Source: California Department of Industrial Relations and SCFPD #1.

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[1] Adjusted by the average annual rate of inflation in California since 1955.

* The CIP includes vehicles to replace these vehicles.

Table 4
Adopted Current Fiscal Year Budget - Expenses

Expenses	Capital Expenses	FY 19/20 Budget	Percent of Budget
1.0 General			
1.1 Audit		\$3,850	1.3%
1.2 Clerical (labor)		\$15,000	4.9%
1.3 Office Expense		\$1,000	0.3%
1.4 Fire House Maintenance	\$15,000	\$15,000	4.9%
1.5 Bank Fee		\$50	0.0%
1.6 CSDA Membership		\$550	0.2%
1.7 Rentention Incentives		\$2,500	0.8%
1.8 Building Taxes/Solid Waste		\$500	0.2%
1.9 Consulting		\$1,000	0.3%
2.0 EMS			
2.1 EMS Training		\$3,500	1.1%
2.2 EMS Medical supplies	\$5,000	\$5,000	1.6%
3.0 Communication			0.0%
3.1 Repeater Site Rental		\$2,000	0.7%
3.2 Web Site (Rental, etc.)		\$1,000	0.3%
3.3 Communication Consulting & System Repairs		\$7,500	2.5%
3.4 Radio and Repeater Batteries	\$500	\$500	0.2%
4.0 Fire Protection			
4.1 Personal Protection Equip	\$7,000	\$7,000	2.3%
4.2 Grant Expense		\$0	0.0%
4.3 Operating Supplies for Fire & Rescue		\$1,500	0.5%
4.4 Portable Equip (Fire Ext, etc.)	\$34,500	\$34,500	11.3%
4.5 Equip Repair & Maint (other than Vehicles)	\$3,000	\$3,000	1.0%
4.6 Fire Training		\$2,000	0.7%
4.7 Fire Protection			0.0%
4.7.1 Fire Protection /TMFPD		\$48,000	15.7%
4.7.2 Fire Protection /Loyalton		\$57,000	18.6%
4.8 Fire Labor		\$0	0.0%
4.9 Annexation Eastern Sierra County		\$5,149	1.7%
5.0 Insurance			
5.1 Work Comp		\$10,000	3.3%
5.2 Liability, Vehicle, Facility Loss		\$12,000	3.9%
5.3 Firefighter Insurance-Myers Toole		\$2,301	0.8%
6.0 Vehicle Repairs			
6.1 Fuel		\$6,000	2.0%
6.2 Labor		\$8,500	2.8%
6.3 Parts, Tires		\$6,000	2.0%
6.4 Pump Testing (Every Other Year)		\$3,500	1.1%
6.5 Taxes & Licenses		\$500	0.2%
6.6 Outside Repair Services		\$5,000	1.6%
7.0 Utilities			
7.1 Electric		\$3,750	1.2%
7.2 Propane		\$5,000	1.6%
7.3 Water		\$550	0.2%
7.4 Trash & Solid Waste		\$1,000	0.3%
7.5 Telephone		\$1,500	0.5%
8.0 Capital Asset Expense			
8.1 USDA Rescue Truck Loan Payment		\$6,087	2.0%
8.2 Calpine Rescue		\$0	0.0%
8.3 Sattley Rescue		\$0	0.0%
9.0 Grants			
9.1 2018 50/50 Grant		\$5,000	1.6%
Reserve		\$12,201	4.0%
Total Expenses	\$65,000	\$305,988	100.0%
Percentage of Expenses on Capital Items	21%		

Source: SCFPD #1.

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Table 5
Adopted Current Fiscal Year Budget - Revenues

Revenues	FY 19/20 Budget	Percent of Budget
Income		
A. Tax Income		
A.1 Sierra Co. FPD#1 Tax Income	\$135,500	49.5%
A.2 Mitigation Fees	\$0	0.0%
A.3 Verdi Income	\$41,110	15.0%
A.4 Long Valley	\$13,000	4.7%
A.5 Loyalton Service Area	\$68,000	24.8%
Subtotal Tax Income	\$257,610	94.0%
B. Fire Income	\$5,000	1.8%
C. Fire House Rent/Sherriff's Department	\$1,200	0.4%
D. Grant Income	\$0	0.0%
USDA Grant	\$0	0.0%
USDA Loan	\$0	0.0%
USDA Truck SCFPD1 Share	\$0	0.0%
2018 50/50 Grant	\$5,000	1.8%
F. Accident Income	\$0	0.0%
G. Interest Income	\$30	0.0%
H. Donation Income	\$0	0.0%
Sattley Vehicle Donation \$7k SFD & SFD	\$0	0.0%
I. Other Income	\$0	0.0%
Workmans Comp Refund	\$0	0.0%
J. Annexation	\$5,148	1.9%
Donation	\$0	0.0%
K. Sale of Equipment	\$0	0.0%
M. Budget Carry Over for Capital Asset Purchase	\$0	0.0%
Total Income	\$273,988	100%
Revenues less Expenses	(\$32,000)	

Source: SCFPD #1.

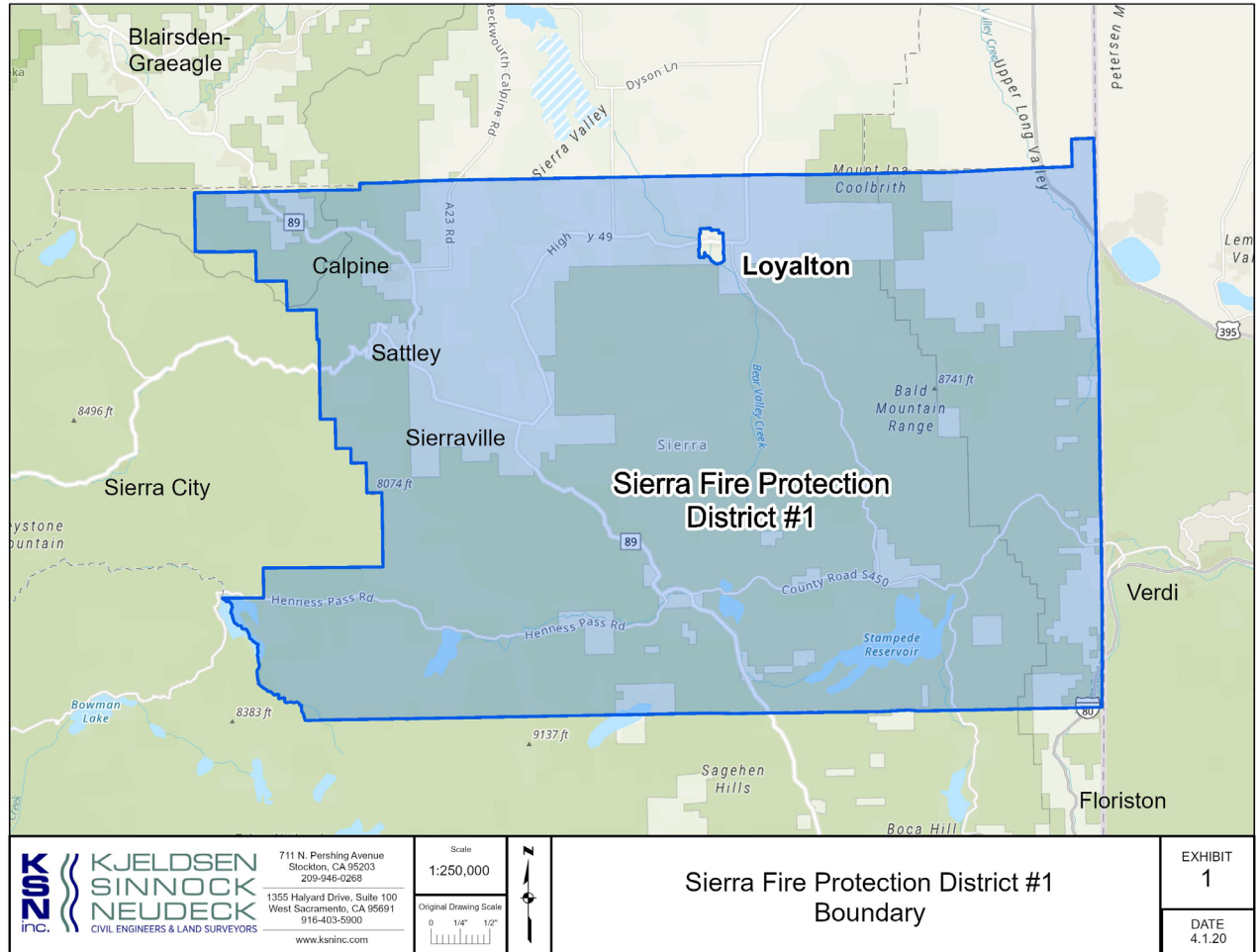
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2.2 LAND USE AND GROWTH

The District provides fire protection and emergency response services to the eastern unincorporated portions of Sierra County. The District services approximately one-third of the County's population (about 980 people) and protects 1,389,400 building square feet (of which about 90% is residential structures). The Nexus Study projects that the District will protect an additional 189,500 building square feet over the next 20 years.

Map 1 shows the District’s current boundaries (source KSN Inc. April 2020, prepared for the 2020 Fire Impact Fee Nexus Study). In 2018, the District annexed a significant portion of eastern Sierra County into its boundaries. **Map 2** (source: Sierra Local Agency Formation Commission Sierra County Fire Protection District #1 Municipal Service Review and Sphere of Influence report adopted November 28, 2018) shows the portion of the County that was annexed in 2018 (in green shading).

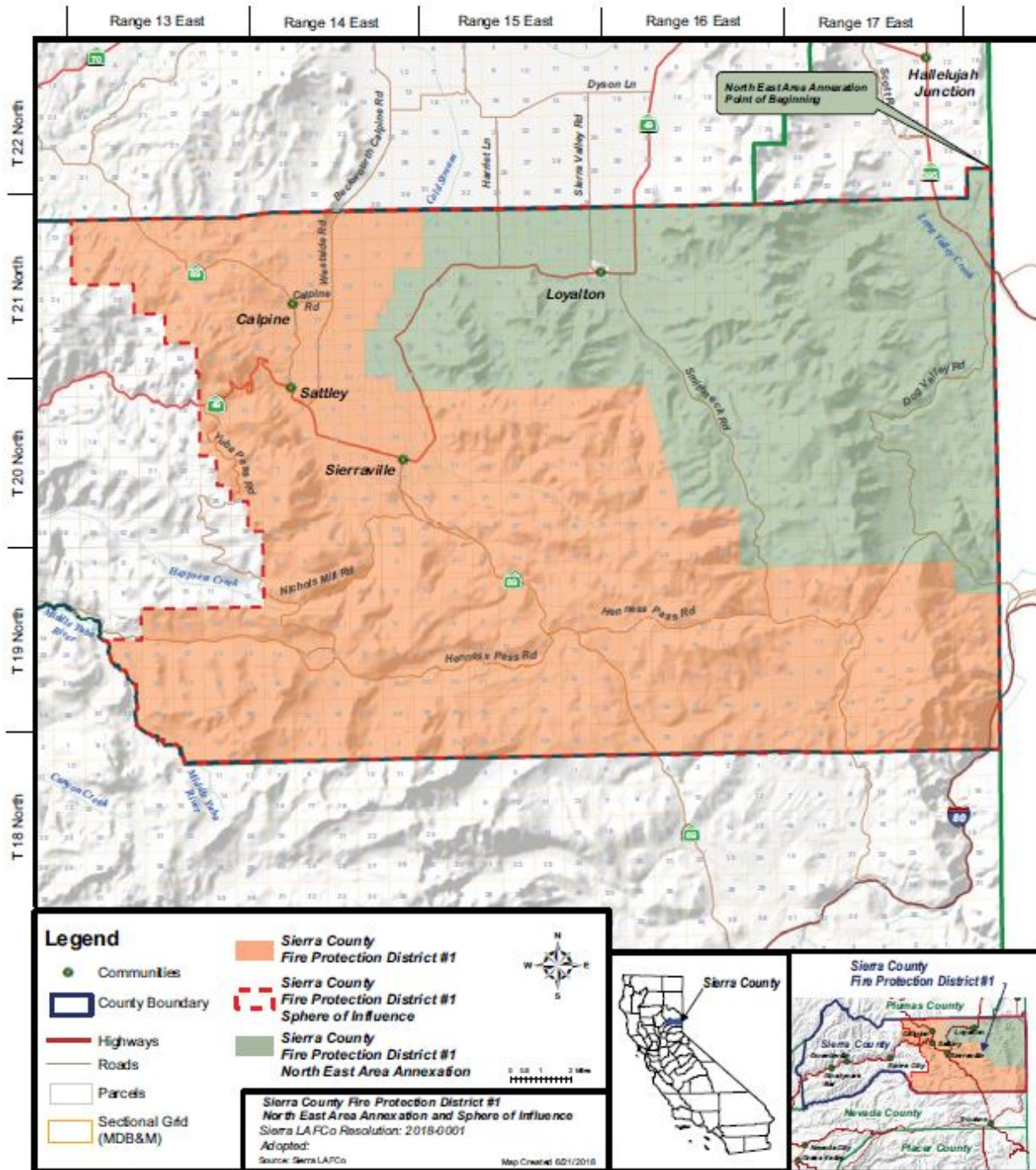
**Map 1
District Current Service Territory**



In certain portions of the District’s service territory, other fire departments are better geographically located with fire suppression facilities to be the first responders. The District contracts with Truckee Meadows Fire Protection District in the Verdi/Long Valley area, and with the City of Loyalton for properties in the vicinity surrounding the City’s service territory. The District provides mutual aid to Loyalton, Truckee, Sierra City, Beckwourth, Vinton and Chilcoot.

Map 2
 Area Annexed into the District in 2018

LAFCo FILE 2018-0001
SIERRA COUNTY FIRE PROTECTION DISTRICT #1
NORTH EAST AREA ANNEXATION



The population of Sierra County has been declining; however, the total number of housing units has increased since 2000. The County saw a relatively rapid increase in new homes between 2000 and 2010 and slower growth in the past decade. Since 2010, the number of new homes county-wide has averaged 2.6 per year. The occupancy of units has decreased, while the number of persons per occupied home has remained around 2.25.

Table 6 below shows the change in population, housing, and vacancy rates county-wide since 2000.

Table 6
Sierra County Population and Housing Estimates

Year, Jan. 1st	Population Estimate	Housing Units			Vacancy Rate	Persons per HH	New Units per Year
		Total	Occupied	Vacant			
2000	3,555	2,202	1,520	682	31%	2.34	
2001	3,603	2,213	1,518	695	31%	2.37	11
2002	3,576	2,226	1,513	713	32%	2.36	13
2003	3,555	2,244	1,515	729	32%	2.35	18
2004	3,506	2,269	1,522	747	33%	2.30	25
2005	3,449	2,279	1,517	762	33%	2.27	10
2006	3,427	2,289	1,512	777	34%	2.27	10
2007	3,384	2,295	1,503	792	35%	2.25	6
2008	3,314	2,312	1,502	810	35%	2.21	17
2009	3,264	2,318	1,492	826	36%	2.19	6
2010	3,240	2,328	1,482	846	36%	2.19	10
2011	3,241	2,330	1,482	848	36%	2.19	2
2012	3,233	2,329	1,467	862	37%	2.20	-1
2013	3,215	2,333	1,469	864	37%	2.19	4
2014	3,204	2,336	1,459	877	38%	2.20	3
2015	3,197	2,337	1,456	881	38%	2.20	1
2016	3,201	2,339	1,426	913	39%	2.24	2
2017	3,212	2,344	1,418	926	40%	2.27	5
2018	3,215	2,345	1,393	952	41%	2.31	1
2019	3,210	2,352	1,384	968	41%	2.32	7
2020	3,201	2,354	1,385	969	41%	2.31	2
Change	-354	152	-135	287			
Av. Annual % Change	-0.5%	0.3%	-0.5%	1.8%			
Average Annual Change	-18	8	-7	14			

Source: CA Department of Finance January 1st estimates.

stats

Using US Census data on census designated places, which include Calpine, Sattley, Sierraville, and Sierra Brooks, the District serves about one-third of the County population (980 permanent residents). The fire impact fee is not based on population served, however. Given how rural the District’s service territory is, for purposes of fire impact fee methodology, 100-percent of the service need is related to the structural areas (building square feet) in which residents and business owners live or work.

Table 7 provides the current building square feet in the District’s service territory and the estimated building square feet that will be developed over the next twenty years. In total (original and 2018 annexed service areas), the District provides fire protection to 1,389,398 building square feet of structures, of which about 90% is residential structures. Over the next 20 years, there is one major development proposed, the “Sierra Hot Springs” development near Sierraville, which proposes an additional 89,500 building square feet that would be subject to the fire development impact fee. In addition, it is estimated that, on average, another 5,000 building square feet will develop each year.

By 2040, it is estimated that the District will protect 1,578,989 building square feet. New development’s share of the CIP and buy-in of current asset value is 12% based on the current and estimated new building square feet.

**Table 7
Building Square Feet of Structures Protected by the District**

Item	Building Square Feet	Share of Bldg. Sq. Ft.
Existing Square Feet		
Building Square Feet in Original District boundaries	683,348	
Building Square Feet in 2018 Annexed Area [1]	706,050	
Total District Building Square Feet Served	1,389,398	88%
New Square Feet		
Hot Springs Proposal Additional Square Feet	89,500	
Projected Other New Square Feet (next 20 yrs) [2]	100,000	
Total Projected New Square Feet	189,500	12%
Total Projected Square Feet in 2040	1,578,898	100%

Source: SCFPD, ParcelQuest, and HEC.

sq ft

[1] In 2018 the District annexed 115,627 acres into its territory.

[1] Estimated as 5,000 building square feet per year for 20 years.

2.3 CALCULATED FIRE DEVELOPMENT IMPACT FEE

The fire development impact fee is calculated in **Table 8** under all five fee level options. The CIP fee is \$1.41 per building square foot, regardless of the fee level option. The buy-in fee changes depending on the approach to valuation of the District’s existing assets. The District’s current fire development impact fee is \$1.25 per building square foot. Under the fee calculation options, the updated fee would increase to between \$1.52 and \$2.10 per building square foot. The calculated fees are the maximum justifiable fees based on the methodology presented, which satisfies required nexus study findings (provided below). The Board can approve, and can request the County approve and implement, fees up to the maximum justifiable amounts.

The Board needs to determine which approach and option best fits the District. While all five approaches to calculating the buy-in fee are legitimate approaches, the Nexus Study recommends option 2 as the most appropriate for the District. This approach recognizes the cost of providing capacity to customers as if the capacity were added at the time it was needed for new growth and it compensates the existing customers for carrying costs of excess capacity to date. In addition, while many of the District’s assets have theoretically exceeded their useful life, they are in fact perfectly capable of performing as required. This is demonstrated by the District’s recent ISO rating of 5², which is a very good rating for such a rural area.

Table 8
Calculation of Updated Fire Development Impact Fee

Fee Item		Current Asset Valuation Methodology				
		Option 1	Option 2	Option 3	Option 4	Option 5
		<i>Replacement Cost</i>	<i>Option 1 less Original Cost Depreciation</i>	<i>Option 1 less Replacement Depreciation</i>	<i>Original Cost</i>	<i>Original Cost less Depreciation</i>
Estimated CIP Costs	Table 2	\$2,035,000	\$2,035,000	\$2,035,000	\$2,035,000	\$2,035,000
New Growth Share of Costs	12%	\$244,242	\$244,242	\$244,242	\$244,242	\$244,242
Cost of Nexus Fee Studies		\$32,000	\$32,000	\$32,000	\$32,000	\$32,000
less Current Fund Balance		(\$9,237)	(\$9,237)	(\$9,237)	(\$9,237)	(\$9,237)
CIP Costs Included in the Fire Impact Fee		\$267,005	\$267,005	\$267,005	\$267,005	\$267,005
Buy-In Facilities Cost	Table 3	\$1,424,862	\$986,635	\$283,629	\$647,318	\$174,550
less replacement of assets included in the CIP		(\$333,803)	(\$207,803)	\$0	(\$126,000)	\$0
Net Buy-In Facilities Cost		\$1,091,058	\$778,831	\$283,629	\$521,318	\$174,550
New Growth Share of Buy-In Facilities Cost	12%	\$130,949	\$93,476	\$34,041	\$62,569	\$20,950
Costs Included in the Fire Impact Fee		\$397,954	\$360,480	\$301,046	\$329,573	\$287,954
Estimated New Square Feet in District through 2040		189,500	189,500	189,500	189,500	189,500
Updated Fire Impact Fee per Building Square Foot						
CIP		\$1.41	\$1.41	\$1.41	\$1.41	\$1.41
Buy-In		\$0.69	\$0.49	\$0.18	\$0.33	\$0.11
Total Fire Impact Fee per Bldg. Sq. Ft.		\$2.10	\$1.90	\$1.59	\$1.74	\$1.52
Current Fee per Building Square Foot		\$1.25	\$1.25	\$1.25	\$1.25	\$1.25
Increase in Fire Impact Fee per Bldg. Sq. Ft.		\$0.85	\$0.65	\$0.34	\$0.49	\$0.27

Source: HEC June 2020.

calc

² May 25, 2020 letter from the ISO to the District.

It is recommended that the District update the fees annually by a predetermined index³. The Engineering News Record San Francisco Construction Cost Index March to March change is recommended for an annual July 1 update. Periodic review of the mitigation fee is also recommended whenever estimated costs are revised, facility standards change, or there are changes in demographics or the land use plan.

2.4 NEXUS FINDINGS

California Government Code Section 66001 provides requirements and guidelines related to the imposition of a development impact fee, including preparation of a capital improvement plan (CIP). The fee must meet certain nexus tests, as described in the table below. The District’s fire development impact fee meets all of the nexus tests.

Nexus Test for the Fire Protection Development Impact Fee	
Identify the purpose of the fee.	The purpose of the fee is to fund new development’s share of fire protection facilities and equipment costs.
Identify the use of the fee.	The fee will be used to construct facilities and buy equipment that will provide fire protection to new development.
Determine how there is a reasonable relationship between the fee’s use and the type of development project on which the fee is imposed.	New development within the District’s service territory will generate additional fire protection service calls. The fee will be used to mitigate costs of facilities and equipment necessary to respond to the addition fire protection calls from the new developments.
Determine how there is a reasonable relationship between the need for the public facility and the type of development project on which the fee is imposed.	The District will utilize existing and new facilities and equipment to serve newly developed properties. Owners of new structures will pay their proportional impact of the facilities and equipment costs.
Determine how there is a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed.	The fee is based on the best estimate of costs to provide adequate fire protection throughout the District’s service territory. Developing properties will be responsible for their portion of the total project cost based on their share of the estimated additional building square feet over the next 20 years.

³ The County would have to approve and implement the revised fee schedule each year.

Section 3: MITIGATION FEE ADMINISTRATION

3.1 UPDATED IMPACT FEE ADOPTION

Pursuant to California Government Code, prior to increasing an existing fee, an agency must hold at least one open and public meeting. At least ten days prior to that meeting, the agency must make the nexus study and accompanying infrastructure costs and funding sources information available to the public. After adoption of the enabling ordinance or resolution there is a 60-day waiting period before the fees go into effect, unless an urgency ordinance is adopted with findings regarding the urgency being claimed. Fees adopted by urgency go into effect immediately.

The Board must hold a noticed public hearing, approving the Nexus Study and proposed fire development impact fee, and requesting that the County Board of Supervisors adopt the approved fee on behalf of the District. Although the County collects the impact fee on behalf of the District, the fee is passed through. The District is responsible for the proper accounting for and expenditure of the fire development impact fees. The District maintains a separate fire impact fee fund.

All developers shall pay the amount of the fire development impact fee in effect at the time a building permit is issued unless stated otherwise in a developer agreement with the County and the District.

3.2 MITIGATION FEE ACT COMPLIANCE

The District must comply with annual and five-year reporting requirements. Within 180 days of the end of a fiscal year, the following is to be furnished for the prior fiscal year:

1. The amount of the fee,
2. The beginning and ending balance of the account or fund,
3. The amount of the fees collected and interest earned,
4. An identification of each public improvement for which fees were expended and the amount of expenditures,
5. An identification of an approximate date by which the construction of a public improvement will commence, if sufficient funds exist for the project,
6. A description of each interfund transfer or loan made from the account or fund, including a description of repayment terms, and
7. Identification of any refunds once it has been determined that sufficient monies have been collected to fund all fee-related projects.

The information is to be available for public review and to be presented at the next regularly scheduled public meeting no less than 15 days after the information has been made available for public review.

Every five years, the District must also make the following findings with respect to any remaining funds in the fee account:

1. Identify the purpose to which the fee is to be put,
2. Demonstrate the reasonable relationship between the fee and the purpose for which it is charged,
3. Identify all sources and amounts of funding anticipated to complete financing of incomplete improvements, and
4. Designate the approximate dates on which funding of incomplete improvements is expected to be deposited into the fee account.

If the District does not make these findings, the law requires the District to refund monies on a prorated basis to the then current record owners of the development project.

3.3 FEE CREDITS OR REIMBURSEMENTS

The District may provide fee credits or reimbursements to developers who dedicate land or construct facilities. The credit or reimbursement may only be up to the cost of the improvement, as included in the mitigation fee program, or the actual cost paid by the developer, whichever is lower. No credit or reimbursement will be allowed for costs incurred that are higher than estimated in the fee program. Credits or reimbursements may be repaid based on the priority of the capital improvements, as determined by the District. Fee credits or reimbursements may be determined by the District on a case-by-case basis.

APPENDIX A

STRUCTURES SUBJECT TO THE FIRE DEVELOPMENT IMPACT FEE

NEW CONSTRUCTION

Any Residential, Commercial, or Institutional Building Square Feet
Agricultural Building Square Feet requiring Fire Suppression Support [1]
Garages (Attached or Detached)
Out Buildings (includes Workshops) requiring a permit
Decks and Porches used for Commercial or gathering purposes

REMODELS

Increased Building Footprint
Change in Use from fee exempt use [2]

TEMPORARY STRUCTURES

Tent/Sand Buildings
Temporary Housing [3]

[1] Excludes livestock barns and hay storage facilities and any out building that does not require a permit.

[2] If a building that did not require a permit is converted; for example, an out building to a gathering space, new residential unit(s) or a commercial use.

[3] Such as RVs or camp trailers. Fee will be credited when permanent construction is completed.