

North County Fire Protection District Economic Impact Report



2020



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Economic Impact of North County Fire Protection District in 2020

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Executive Summary

Fire protection districts provide emergency services and uphold the responsibility of protecting surrounding communities. Funding and cost recovery have become key issues for fire districts nationwide, but California fire districts have been especially impacted from tax legislation such as Proposition 13.

The North County Fire Protection District (NCFPD) looks to diversify revenue streams by enhancing the efficiency of 11 current cost recovery methods used. New cost recovery methods proposed within the report are based upon programs and policies currently established by other fire districts. Prospective methods identified include short term rental inspections, residential annual inspection programs, business license inspections, false alarm billing, fire code violation billing, intergovernmental agreements, first responder fees, and floating mill levies. Proposed cost recovery methods are explained in further detail starting on page 26.

Not only does the NCFPD protect the community, it also brings value to the local economy. According to Chief Abbott, annual general revenue for the NCFPD is approximately \$19.5M with 80% of the budget allocated to labor. The total economic output measured from NCFPD operations equates to \$27,146,369. This provides stimulus amongst business to business spending as well as the earnings spent at a household level.

As housing and population numbers are projected to grow into 2024 it is vital the NCFPD secure funding to scale services to meet the needs of the growing population. By doing so the district can ensure the highest quality service possible while securing financial security in the process.

About This Report

This report analyzes the economic impact of activities associated with the North County Fire Protection District. Information within this report was produced by the Office of Business Research and Analysis (OBRA) at California State University San Marcos, which is a joint effort between the College of Business, the Department of Economics, and the University Library.

Office of Business Research and Analysis

Founded in 2018, the Office of Business Research and Analysis (OBRA) is a joint partnership between California State University San Marcos' College of Business Administration (CoBA) and the Department of Economics. OBRA works directly with the local community in creating a suite of research services, including economic impact reports, industry analyses, and business plans.

California State University San Marcos

Building on an innovative 30-year history, California State University San Marcos (CSUSM) is a forward focused institution, dedicated to preparing future leaders, building great communities, and solving critical issues. Located on a 304-acre hillside overlooking the city of San Marcos, the University is just a short distance from some of Southern California's best beaches and an hour from the US-Mexico border. CSUSM enrollment is over 14,000 and growing. The University is fully accredited by the Western Association of Schools and Colleges.

COVID-19 Impacts

The findings in this report do not reflect impacts of the COVID-19 pandemic as comprehensive information on economic activity and insights are not yet available.

Data

The data supporting this report was collected from several sources during the first half of 2020. A combination of secondary sources were used to produce information within the report. Each data source has varying effective dates, and every precaution has been taken to ensure relative comparability.

Geographic Information System (GIS) Software

Geographic Information System (GIS) software was used for the graphing data and mapping in this report. Environmental Systems Research Institute (ESRI) builds GIS to analyze geographic information to help maximize opportunities and make strategic decisions based on the data. ESRI

gathers data from sources such as the US Census Bureau to capture accurate information on the local population, economy, housing, and business aspects in the United States. Business Analyst is a function within the GIS framework that applies ESRI data with GIS capabilities to conduct spatial analysis and mapping of an area of interest.

IMPLAN®

To properly measure and quantify the flow of dollars through the San Diego economy, OBRA uses leading economic impact software, called IMPLAN®. IMPLAN® is advanced input-output modeling software with regional data and economic multipliers built in. IMPLAN® extracts and measures data from local sources, rather than extrapolating regional data from national averages, to properly incorporate regional trade-flow assumptions and economic multipliers into customizable models to view economic impacts. All IMPLAN® modeling within this report uses inputs provided by the Office of Business Research and Analysis.

InDesign

InDesign was used to design the layout of the report. This software creates posters, brochures, newspapers, and ebooks through Adobe software. InDesign publishes content in conjunction with Adobe Digital Publishing Suite and exports to multiple platforms. Main users of InDesign include graphic designers and production artists for publications, print media, and posters.

Photographs

The photographs used within this report are action shots taken by North County Fire Protection District personnel of the district's first responders to depict efforts in training and service calls.

Acknowledgements

A special thank you to Chief David Wolf of Estes Fire Protection District, Chief Gigliotti of Apple Valley Fire Protection District, Chief Schwartz of North Tahoe Fire Protection District, and Chief Parsons of the Oceanside Fire Department. The named fire chiefs devoted time to speak with OBRA to provide insights on cost recovery methods and approaches to implementing special procedures.

Disclaimer

Every effort has been made to verify the findings provided in this report to the best of the ability of CSUSM researchers, including a focus on consistency and clarity of the information provided. Any feedback or corrections may be forwarded to obra@csusm.edu.

Further, the information provided in this research document does not, and is not intended to, constitute legal advice; instead, all information, content, and materials provided are for general

informational purposes only. Readers of this document should contact their attorney to obtain advice with respect to any particular legal matter. No reader or user of this document and its content should act or refrain from acting on the basis of the information provided without first seeking legal advice from counsel in the relevant jurisdiction.

Firefighter Industry

Funding

Federal Versus State Funding Sources

Fire districts and Emergency Medical Services (EMS) face increasingly steepening costs for expenses such as training, equipment, and salaries, all which require continual maintenance and funding. First responder services commonly receive funding from the local municipal government's budget. Also, state and federal governments allocate funds on a supplemental basis. State constitutions and laws regulate municipal approaches used to diversify sources of revenue and recover costs at a local level. Local strategies and funding structures are unique to each district to provide the most cost effective methods. Fire departments are a part of EMS and are often stretched within government provided budgets. A needs assessment survey was created by the U.S. Fire Administration to review the necessary improvements for training and resources. Fire departments have limited funding which may prevent additional training for situations such as flooding or hazmat. As a higher service is expected by the community, fire departments and EMS are experiencing "tighter budgets, fewer government subsidies, and fewer donations."³⁰ Fortunately, there are other funding options available for struggling fire departments.

Municipal

Municipal funding is dependent on a broad spectrum of revenue sources such as taxes, development impact and user fees, fines, forfeitures, citations, enterprise funds and utility rates, sale of assets and services, benefit assessments, and borrowing. Primary revenues typically rely on property taxes within the respective jurisdiction. Due to this heavy reliance on property taxes, population growth or decline can directly correlate to gains or losses in future revenue. US population growth rates vary depending on the area. Population migration can cause communities to experience a range of growth rates or deficits and can affect the age makeup of the region. This is an important consideration for first responders as it dictates the emergency services and needs for a community.⁵⁸

State

State level funding reflects legislation unique to each state. Funding is available either based on the physical location of the fire district for direct funding or via grant and loan opportunities available from the federal government. California funds the state-run agency called Cal Fire that primarily protects state-owned wildland property. Cal Fire offers a variety of emergency services such as hazard aid, water rescue, medical aid, disturbance calls, earthquakes, floods or other natural disasters. Cal Fire works alongside local fire departments to aid in emergency services defined through contracts with local governments. According to the Cal Fire website, 62% of all counties in California work with Cal Fire. Additional resources are available through Cal Fire

such as grants for specific initiatives.

Federal

Federal funding for fire districts are available specifically through grants. Grants available for EMS and fire districts include block, project, demonstration, and congressional earmarks.³⁰ Each grant has different levels of competition and formulas for determining funds allocated. Federal funding can also be found for assistance. With no specified formula or geographic region, assistance is awarded to the fire districts based on the needs and merit of the community.³⁰ While states are responsible for suppressing wildfires on non-federal land, it is not uncommon for local fire districts to battle fires on federal lands.³⁴

Challenges of Political Funding

Another way fire districts experience funding challenges is through the political climate within the federal government. Political opportunities inhibit the ability to prepare for disaster and to stay updated within their stations. The Federal Emergency Management Agency (FEMA) has gone through cutbacks for aid programs, creating challenges for grants which are the largest opportunity for fire districts to receive excess funding. The grants available to fire districts through the federal government are set at a competitive level which disallows other districts from receiving funding. Grants such as the Pre-Disaster Mitigation (PDM) program are awarded through a designated allocation process. In 2011, PDM was cut in half and the federal administration pushed for no funding at all. Some grant funding may only be made available after a major disaster which limits the ability of fire stations to freely access funds. The reduced funding to acts and programs like the Recovery Act, Assistance to Firefighters Grants program, and the Fire Prevention and Safety Grants program is caused by allocation of funds to other political campaigns like education or police activity. With minimal prioritization of the aid to fire districts, and little recognition of the need for funding, districts see little political funding support.

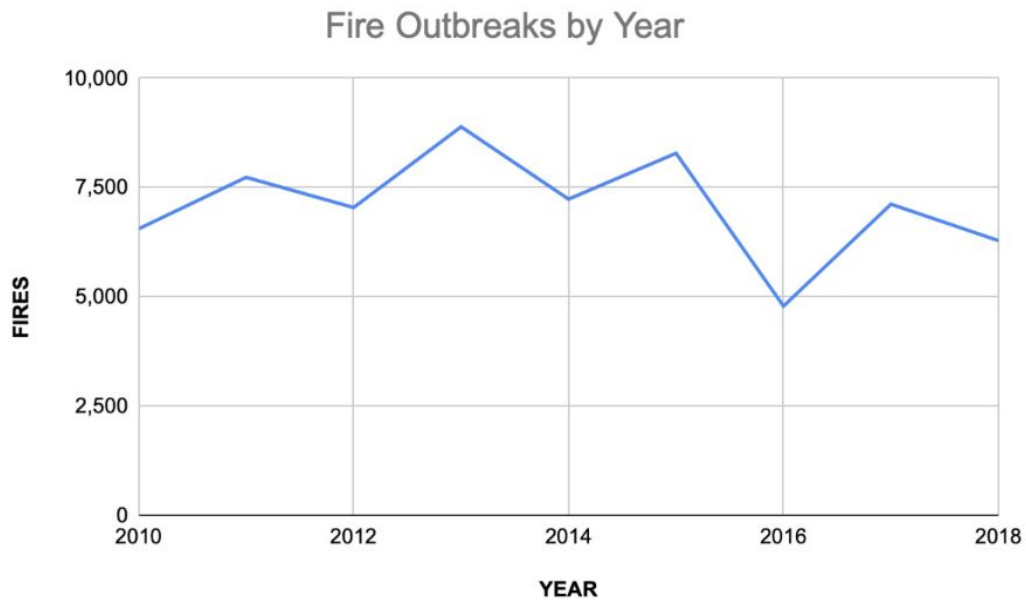
Increased Need for Services

Community needs for emergency services are continually increasing. COVID-19 is the most recent example of a spike in demand for emergency services across the United States. According to the Bureau of Labor Statistics, emergency personnel have one of the highest rates of illness and injury. Additional demand for services increases exposure for first responders. Because of COVID-19, workers showing any symptoms of the virus are required to stay home resulting in new pressures on paramedics and fire districts. These pressures ultimately produce gaps in the workforce when aid and services are in highest demand in the community and prove difficult to replenish. Fire districts are experiencing an increase in the need for funding to decrease the deficits created by emergency situations such as pandemics and large fire outbreaks.⁴⁶

The number of wildfires across the United States is not declining which emphasizes the need for better preparation. According to Cal Fire, from January 2016, through December 2016, there

were 4,785 fires in the state of California alone. A year later, from January 2017, through April 2017, there was an increase of 67% with 7,117 fires within the state. Throughout the years, the duration of the fire season gets longer and much more severe, climate change plays a major factor. The risk of wildfires can come from variables that all have direct or indirect ties to climate change such as temperature, soil moisture, and the presence of trees and other potential fuels for fire such as shrubs.⁹ The number of fires has doubled in the western United States between 1984 and 2015 as a result of climate change, and California has had the worst fires nationwide. Due to understaffing, more so in California, the demand placed on firefighters in the United States continues to rise. Firefighters not only respond to fires but all emergency call types, causing understaffing issues to expand even in the off season of fires. To compensate for the limited resources, California's firefighters work overtime to meet rising community needs.

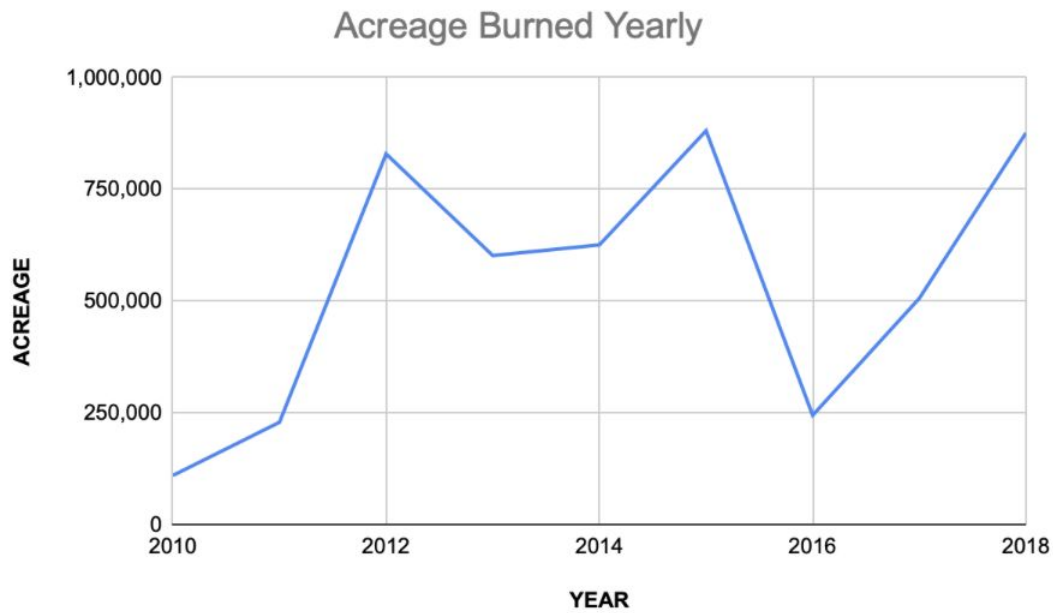
FIGURE 1: CALIFORNIA'S FIRE OUTBREAKS



Source: CalFire .

(2020, June 28). Wildfire Activity Profile.

FIGURE 2: CALIFORNIA’S YEARLY BURNED ACREAGE



Source: CalFire . (2020, June 28). *Wildfire Activity Profile*.

California

Common Issues

For California, its geography and topography create an additional challenge in terms of fire safety. The state is balanced between “both developed and relatively rural lands” whose fire districts are available mainly for structure and medical response.³³ In addition, there are areas considered to be wildland that are under the protection of state or federal agencies. Depending on the geographic location, federal, state, or municipal resources, determines who could be called into the current emergency.

To ensure that resources are at a maximum capacity, “the wildland fire protection system is built upon the premise that agencies will respond to incidents beyond their jurisdiction.”³⁶ The fire system in California tries to pull together all of the available labor, equipment, and funds to continue to provide protection across that state.

California has a well known history with wildfires; each include the factors of “firefighting, vegetation management, and land ownership are known to impact fire in complex ways.”⁵² Although these each play a part in fires, it is not proven which is more influential. Along with the terrain and vegetation, water resources are difficult to reproduce. With water resources at low levels, droughts begin to occur and the risk of wildfires increases as there becomes more and more dry brush.

Legislation

One of the most discussed reasons for the underfunding of public services is Proposition 13 (Prop 13). Prop 13 was passed in 1978 to maintain affordability for homeownership throughout California by modifying how increases in property values are assessed and how those property values are taxed. The key provisions of the Proposition that affect fire districts are:

- (a) It decreased available property tax revenue by basing property tax on the property's assessed value in 1976.
- (b) It slowed the rate of future increases in a property's assessed value to no more than 2% per year for any property not sold or having undergone major construction. If there is a change of ownership or the property undergoes construction changes, the property is reassessed. Following that reassessment, the annual maximum increase of the property's value will not exceed 2% per year of the assessed property value going forward.
- (c) The amount of tax assessed on a property can be a maximum amount of 1% per year of the assessed value of the property.
- (d) Prop 13 "includes homes, businesses and farms," which originally had no restriction on property value assessment and tax rate changes.⁷
- (e) A special tax proposed by a municipality requires a $\frac{2}{3}$ vote majority in local elections for local governments wishing to increase taxes.

Without Proposition 13, property taxes would have continued to rise much more quickly as the assessed values of homes for taxation purposes would have more closely reflected changes in the real market value of properties.

Fire districts use property taxes to fund services performed within the community. Once Prop 13 passed, each district "was proportionally allocated a share of the 1% property tax in the existing district area."³⁵ Although Prop 13 has been especially beneficial for homeowners such as seniors who live on a fixed income to afford their property taxes while California's housing market values continue to rapidly climb, it has simultaneously caused a reduction in revenue streams for municipal entities such as fire districts. Throughout these funding changes, communities still expect and require the same volume of services without funds for delivery.

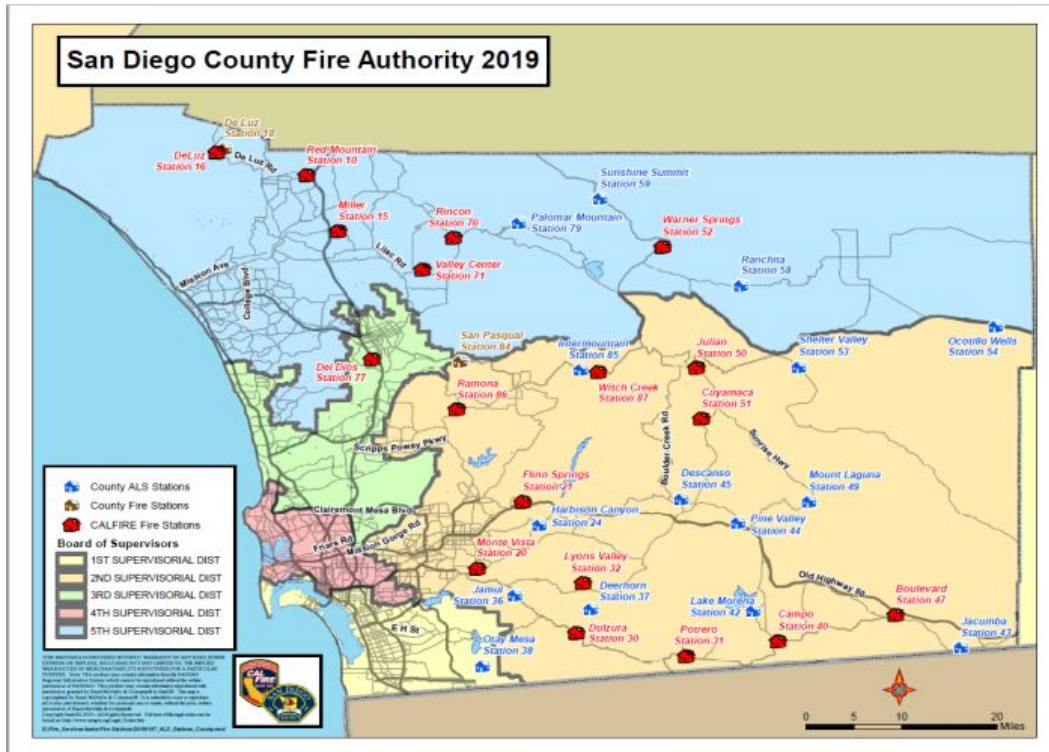
A different "Prop 13", which was called the "School and College Facilities Bond," was put before voters in March of 2020. It asked voters to approve a \$15 billion bond but did not pass. While its proposition number did create confusion in the mind of some voters, it would not have any effect on the Prop 13 that was passed in 1978.

San Diego County

Fire Districts Overview

Figure 3, illustrates San Diego’s fire stations that service the 40 communities across the County; 15 of these stations have been constructed within the past four years. Each station uses the same equipment and follows the same requirements to protect all 2.897 million acres of San Diego County ²¹ To fill the need for fire apparatus, these stations leverage the seven million dollars received from County General Fund, Tobacco Trust Funds, Community Development Block Grant Funds, and Indian Gaming Trust Funds.⁴⁶ Each station is a part of the Wildfire Resilience Program which aims to warn the public and plan for upcoming fires along with the help of the Working Group. The Working Group develops detailed risk assessments of physical, social, and economic vulnerabilities in the region, its communities and citizens. The participation in achieving the National Preparedness Goal and improving the National Planning Frameworks is part of the North County Fire Protection District's collective duties. Each station works to keep the County ahead of the next disaster and takes a proactive approach.

FIGURE 3: SAN DIEGO COUNTY TOTAL FIRE DISTRICTS IN 2019



Source: San Diego Fire Authority. (n.d.). Fire Stations.

North County Fire Protection District (NCFPD)

The NCFPD has a rich and long-standing history within the Fallbrook area. Starting as a ‘bucket brigade’ in 1888, the area utilized volunteers and donations to staff fire protection efforts in the area. Throughout the years, fire protection resources relied on a wide variety of equipment including a man-powered cart, Model A, biplane, and a 4x4 military truck. Officially established in 1953, it was originally named the Fallbrook Local Fire District, but in 1961 was reorganized into the Fallbrook Fire Protection District due to advantageous legislation. With the help of federal matched funds the district expanded throughout the years until it reached the five fire stations that serve the growing populations of Fallbrook, Bonsall, and Rainbow. Serving as a combination fire district, the modern-day NCFPD relies on both compensated staff and volunteer personnel to provide emergency services to the surrounding communities. Operations of the NCFPD include both EMS and fire prevention services although the primary services are medical approximating 80% of the area’s emergency calls.³⁸

Mission

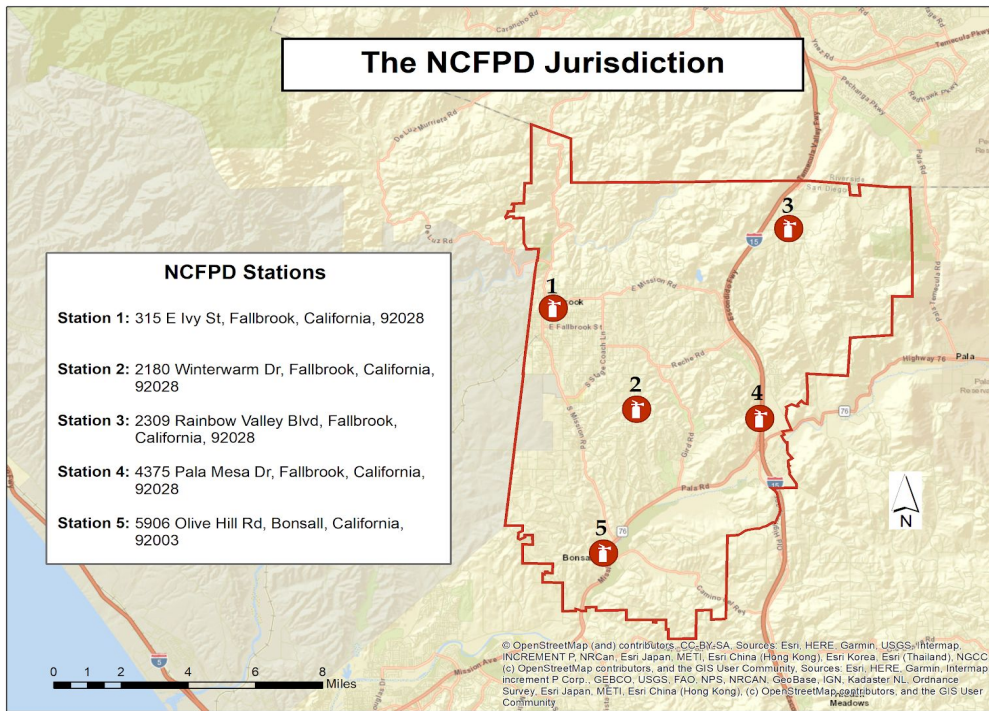
“ The Mission of North County Fire Protection District is to meet our community’s expectations through excellence in public safety and service. It is our shared vision to be a trusted and respected public safety leader, committed to ensuring the safest community possible through service, collaboration and innovation. We are dedicated to saving lives and protecting property.”³⁵

NCFPD Area

The NCFPD Jurisdiction spans across 86.65 square miles in North East San Diego County. Figure 4 is a Geographic Information Systems boundary file that defines the outline of the NCFPD jurisdiction. Each red icon represents the district’s five fire department locations. These departments are located throughout each of the towns within the district..

The shapefile in Figure 4 was constructed by creating a subset of SANDAG shapefiles using ArcGIS desktop software. This subset shapefile was uploaded onto ArcGIS Online, creating the region for data analysis of this report.

FIGURE 4: NORTH COUNTY FIRE PROTECTION DISTRICT JURISDICTION



Source: Arc GIS. (2020). [SANDAG Map of NCFPD Jurisdiction With Fire Department Location Flags].

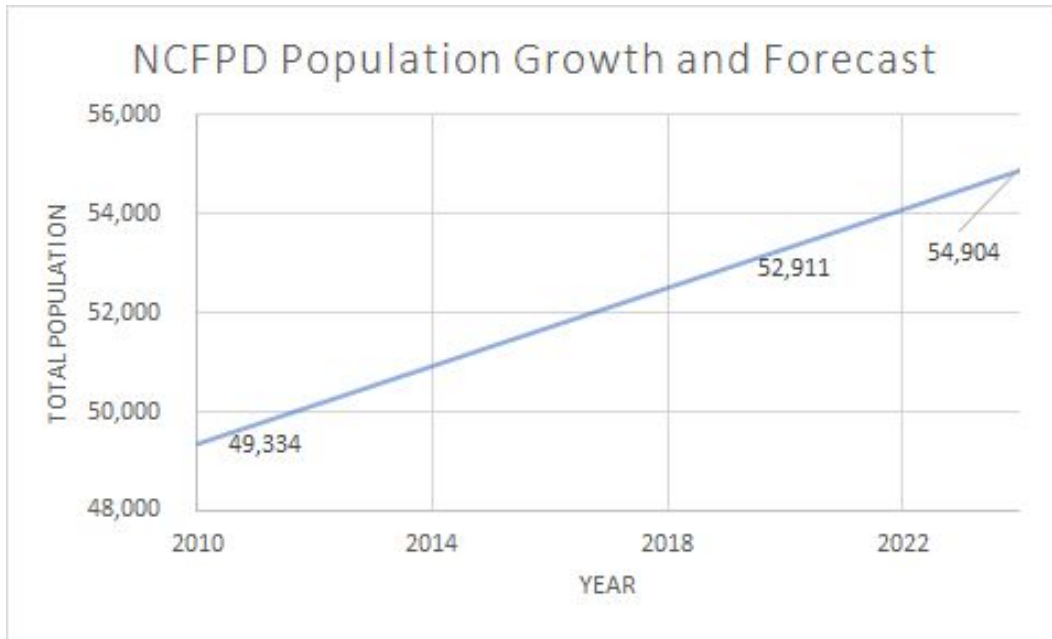
Size and Growth

The NCFPD report sourced data from GIS which provides U.S. Census information on population, housing trends, and changes from 2010 and 2019, basing calculations for a five-year projection into 2024. The five-year projection estimates are based on current and past trends to provide insight for future statistics and events.

Population Growth

Figure 5 shows the population within the NCFPD jurisdiction in 2010 totalling 49,334 people, while in 2019 it grew to 52,911 people. The population is projected to grow to 54,904 people by 2024. The line graph in Figure 5 indicates a positive slope for the total population at an estimated annual growth rate of 0.74% between 2019 and 2024. These figures illustrate the NCFPD jurisdiction's population is continually expanding and is expected to do so moving forward.

FIGURE 5: POPULATION OF NCFPD JURISDICTION

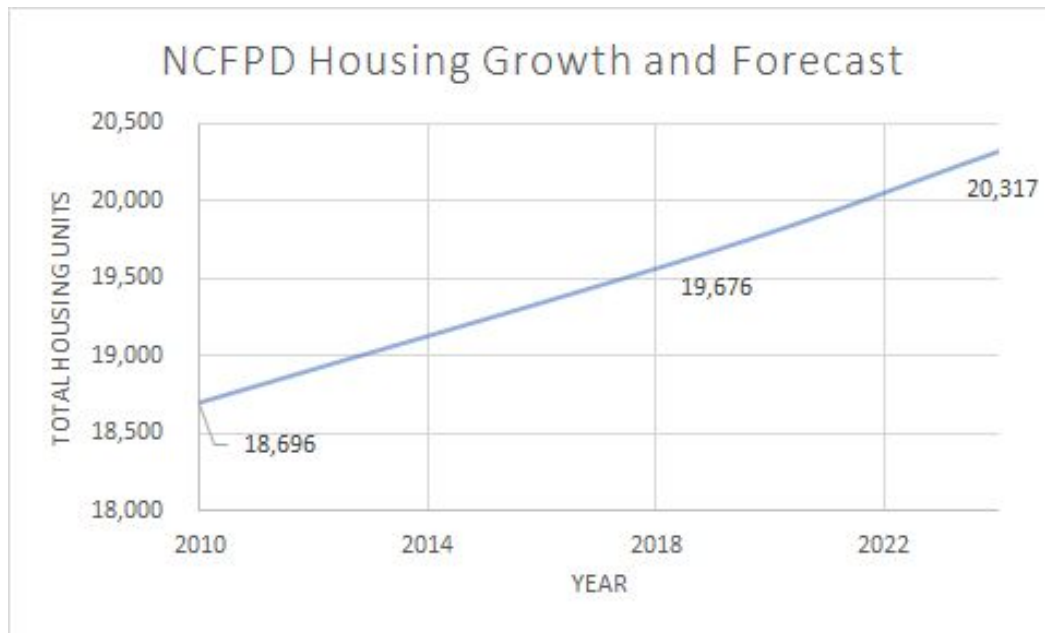


Source: ESRI. (2020, April 10). *Housing Profile*.

Housing Forecast

The NCFPD jurisdiction’s growth in housing is increasingly rising each year. Figure 6 depicts total housing units within the NCFPD jurisdiction. In 2010 there were 18,696 housing units, while in 2019 there were 19,676. Estimated projections for 2024 are set to rise to 20,317 total housing units. The positive slope in both Figure 5 and Figure 6 indicate the need for NCFPD services as population and housing rates continue to rise. However, the district will require more funding to provide needed services to the growing population within the community.

FIGURE 6: HOUSING UNITS OF NCFPD JURISDICTION



Source: ESRI . (2020, April 10). *Housing Profile*.

Revenue Stability and Growth

California, specifically in San Diego, is considered to be one of the most populated areas in the United States. According to ESRI, the annual growth rate of the population is 0.74% between 2019 to 2024 for the NCFPD jurisdiction. Not only is the population increasing, but housing values tend to gradually rise in parallel. The district’s population growth directly affects the necessary resources required to operate and protect boundaries.

Back in 2010, NCFPD’s population of 49,334 is expected to climb to 54,904 by 2024.²⁵ With more and more families or individuals building their household in the San Diego area, the larger number of taxes that are paid will allow for increased budgets and needed labor resources to maintain sustainability of the district. Another variable reported by ESRI is each household income will increase by 3.04% starting in 2019 and ending in 2024.²⁶ In only five years, population size, housing units, and household income will all increase for the North County Fire Protection District of San Diego County.

Property taxes for residential and commercial real estate, state funding, federal grants, and municipal budgets will individually contribute to the County’s preparation for population growth. A majority of San Diego County’s housing units are within an urban region, allowing resources to be allocated evenly in the dense areas and more sporadic in the rural areas.²³ Localized areas in the district can provide input as areas continue to change by the years.

Economic Impact

To measure the economic impact on San Diego, data indicating industry changes within a spending pattern were used to produce an IMPLAN® model which provides reproducible quantitative results displayed in three impact categories:

Direct Impacts result from the immediate expenditures associated with operating expenses and payroll for the five fire departments within the NCFPD.

Indirect Impacts result from the business to business transactions throughout the supply chain within the San Diego region. This includes supplier expenditures to manufacture goods and services purchased by the fire departments, as well as hiring the labor required to meet demand. These secondary impacts would not occur if it were not for the demand resulting from original fire department operations.

Induced Impacts result from the employees of the fire departments utilizing earnings to purchase goods and services at a household level. This represents initial change through respending that income into the economy.

For the purpose of this report, indirect and induced impacts from the IMPLAN® model were combined into a *multiplier effect*. A *multiplier effect* is a change in which an increase in spending produces an increase in income and consumption greater than the initial amount spent.

The total economic impact is composed of *direct* and *multipliers effects*. *Employment* represents full-time, part-time, and seasonal workers within the organization and supporting economy. *Labor income* refers to employee total compensation. *Value added* measures the economic impact of the NCFPD activities in San Diego County and is equivalent to the industry's contribution to the GDP. The *output* is the total annual value of all production activities generated by the NCFPD in San Diego County. See Figure 7 for the economic impact of the NCFPD.

FIGURE 7: ECONOMIC IMPACT OF 2020 NCFPD EXPENDITURES

North County Fire Protection District Economic Impact				
Impact Type	Employment	Labor Income (\$)	Valued Added (\$)	Output (\$)
Direct Effect	90	\$15,600,000	\$17,865,033	\$19,500,000
Multiplier Effect	44	\$2,675,476	\$4,583,696	\$7,646,369
Total Effect	134	\$18,275,476	\$22,448,729	\$27,146,369

Calculations for this report are based on a unique Fire Station Institutional Spending Pattern established by IMPLAN®. The spending pattern shows the percentage of spending allocated to each commodity and labor costs incurred by the fire district. Coefficients within the spending pattern were multiplied by total expenditures to encapsulate the commodity and labor expenditures by the fire department. Direct effects of employment, labor income, and direct output were manually modified to reflect known inputs. Total results were recalculated to reflect modifications.

Evaluation of Current Cost Recovery Methods

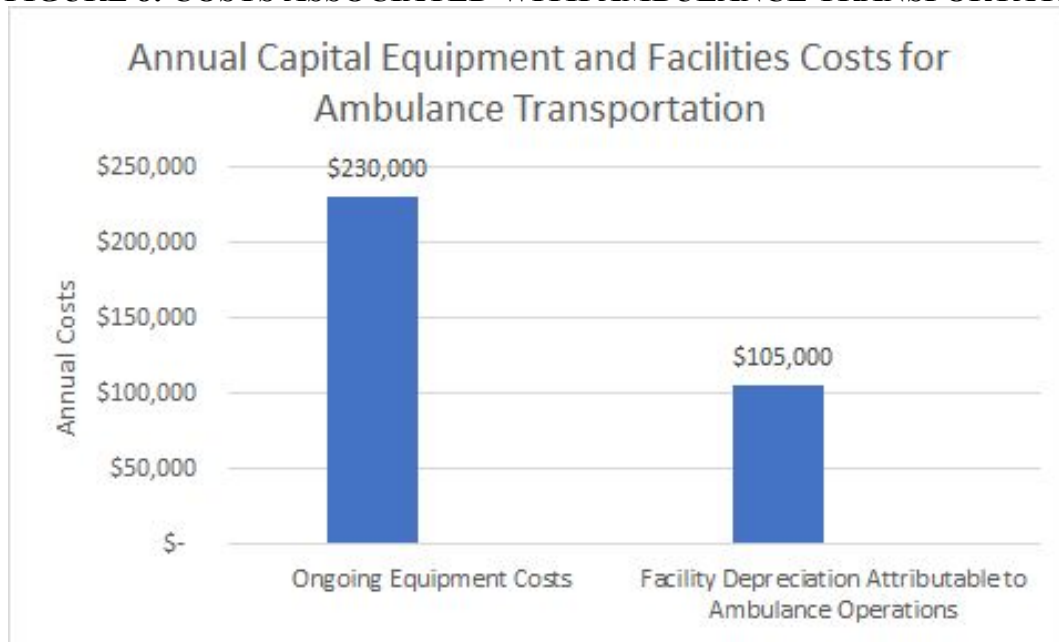
The NCFPD currently utilizes 11 cost recovery methods to independently diversify district revenue streams. A review of each measure is necessary in order to maximize efficiency and increase revenues from the respective stream.

Ambulance Transportation Revenue

The ambulance transportation program is currently operated by NCFPD as a cost recovery method and generates approximately \$2M annually in revenue. The rates charged, however, are below County-wide regional averages. Determining an approach to legally modify rates to fit within the regional average is the most effective approach in generating more cost recovery revenue from this source. The Federal Government for Medicare fees sets the Ambulance Inflation Factor (AIF) each year. The current ambulance inflation rate is 0.9% for 2020 and based on the NCFPD website the current ambulance fee structure was updated in 2018 where the AIF was 1.1%. Depreciation of capital equipment facilities and regional averages are vital in capturing the full potential for the ambulance transportation cost recovery. It is advisable to reconsider the current fee structure and confirm that it aligns with the current AIF rates as well as analyzing the loss of value of equipment and facilities. As shown in Figure 8, NCFPD data reflects \$230,000 per year of ongoing capital equipment costs consisting of debt service for ambulances, radios, gurneys, EKGs & Autopulse devices. Accumulated facility depreciation attributable to ambulance operations indicate costs of \$105,000 per year, comprising a portion of facilities used primarily for ambulance operations.

By taking a look at neighboring fire departments such as San Marcos Fire Department, it appears it is possible to increase ambulance rates to better capture cost recovery. A report conducted by Abaris Group, who was contracted by the County of San Diego, highlighted that in order to increase the rate there must be an increase in expenses and a manual review request must be submitted.¹ Appendix B on page - highlights the 2019 San Diego County Ambulance Rate Survey, provided by Chief S. Abbott via personal communication on July 08, 2020.

FIGURE 8: COSTS ASSOCIATED WITH AMBULANCE TRANSPORTATION



Source: NCFPD. (2020, July 7).

Ground Emergency Medical Transportation Quality Assurance Fee

The NCFPD takes part in the Ground Emergency Medical Transportation Quality Assurance Fee (GEMTQAF) program. Participation in this program increases Medi-Cal payments to the equivalent of Medicare rates. The Department of Health Care Services (DHCS) organized the Ground Emergency Medical Transport Quality Assurance Fee as a way to provide Medi-Cal payments to Ground Emergency Medical Transportation providers. The DHCS calculates an annual GEMTQAF rate that is imposed on all emergency transport the GEMTQAF provides. This program helps augment reimbursement to the Ground Emergency Medical Transportation providers by adding a charge to the fee-for-services fee for the emergency medical transport billing codes.⁵⁰

An intergovernmental transfer (IGT) program is an opportunity for local fire agencies to support the Emergency Medical Services Fund because those who participate can recover a greater amount of their transport fees. Currently, the IGT program transfers money from a city to the DHCS. The DHCS then uses these funds from local governments to increase rates paid to Medi-Cal Managed Care Health Plan Providers in the fiscal year prior. This in turn helps the DHCS receive federal funding from Medicare and Medicaid services so that Medi-Cal Managed Care Health Plan Providers receive those payments and pay it to the local governments who had initially transferred the funds. This results in the funding provided being reimbursed to local fire agencies. For example, the San Rafael Fire Department participates in the IGT program and has made approximately \$265,738 in net revenue for the 2016-2017 fiscal year.⁴⁹ Those who do not participate in the IGT program receive less than 10% of the cost of the emergency transport services reimbursed. Therefore, it would be beneficial for the NCFPD to participate in the IGT program so the city can collect emergency transport fees and receive a larger reimbursement.

The GEMT program has the opportunity to bring in more revenue by utilizing and exploring funds known as Headroom. Headroom is a funds account that has not been spent in the previous year and available to be claimed in the present year. These funds will continue to remain until they have been claimed. In many cases, cities have high Medi-Cal percentages and are low on commercial insurance percentages, however, the city of Fullerton has an average Medi-Cal percentage and has similar rates of commercial percentages. This will have a positive effect on the overall reimbursement for the city of Fullerton.¹⁶

First Responder Fees

First responders fees are a cost recovery method that the NCFPD does not actively implement but neighboring cities, such as the city of Vista does. This program helps recover expenses provided by fire departments related to first-response emergency medical services. A First Responder User Fee is allowed due to the California Health and Safety code section 13916. This safety code was created to allow paramedic services to recover costs. As of May 9, 2017, the rate in the city of Vista for a First Responder per call is \$154.86.³² According to the City of Vista's Website, "most medical insurances cover the First Responder User Fee and the Ambulance Fee to transfer a patient to the hospital." The First Responder User Fee is charged to anyone who receives services, on the occasion that no services are provided no fee will be assessed.

Tower Lease Agreement

The NCFPD owns a radio tower and leases it to cellular providers who utilize cellular antennas. One way to improve revenue streams from the radio tower is to modify leasing agreements. Some suggestions for the NCFPD can include adding antennas and radios so that they can be leased at a higher rate. Rent base should be calculated on the number of antennas a tower has and if it is in an urban or rural area. For example, an annual base fee on July 1, 2020, in an urban area with a facility for nine or more antennas is estimated at \$41,436 per year.⁵¹ Another way to enhance the radio towers can be to add devices to handle LTE traffic due to heavier data traffic in certain areas. Renegotiating contracts for a reasonable time period is also a modification that can be implemented. It is important to be cautious when charging the maximum price because leases include a termination clause that let's cellular providers quit at any time. If the cell provider decides to quit, the leaser is still adhered to the contract. In the case of a client wanting to terminate their lease, they can be charged a termination fee paid to the NCFPD.¹⁰

Incident Cost Recovery

The Vehicle Accident Cost Recovery Program charges insurance companies for services performed on vehicle accidents. An additional service fee can also correspondingly charge insurance companies for a response to hazardous materials incidents. Additional service fees are not currently collected. With revenue declines, the NCFPD has resorted to charging for accident responses as a method of incident cost recovery, otherwise known as “crash taxing.” Typically a crash tax is applied to persons who have been under the influence of alcohol and/or drugs or when hazardous materials have negligently been exposed to the point the problem requires an emergency response. NCFPD is the only fire district in San Diego County to impose complete accident response fees including vehicular accidents. Bills are fulfilled by the insurance companies of those in the accident. In 2010, the estimated revenue received from the crash tax was over \$140,000. There are five core levels of fees as shown below in Figure 8.

FIGURE 9: SAN DIEGO COUNTY ACCIDENT RESPONSE FEES

San Diego County Accident Response Fees			
Charge	North County Fire Protection District	San Miguel Consolidated Fire Protection District	National City
Charges Assigned to Responsible Parties	All at-fault parties	All at-fault parties	Only nonresidents for motor vehicle incidents and vehicle incidents and vehicle fires-all for hazardous material cleanup
Motor Vehicle Incidents	L1: \$345 (basic); L2: \$495; L3-Car Fire: \$605; L4: \$1,800; L5: \$2,100		(per hour) L1: \$435 (basic); L2: \$495; L3-Car Fire: \$605; L4: \$1,800; L5: \$2,200; L6:itemized
Motor Vehicle Incidents - Other Charge	\$0	\$0	\$0
Hazardous Material Cleanup	L1: \$700 (basic); L2: \$2,500; L3: \$5,900 (plus disposal fees)	\$416 initial cost; extra \$258 if duty chief comes out.	(per hour) L1: \$700 (basic); L2: \$2,500; L3: \$5,900
Hazardous Material Cleanup - Other Charges	\$300 for each additional hour of a HAZMAT team	\$300/hour + cost of damaged equipment \$200/hour if the duty chief remains there.	\$300 for each additional hour of a HAZMAT team.
Vehicle Fire	\$605	\$389 initial cost, extra \$258 if duty chief comes out.	\$605
Vehicle Fire - Other Charges	\$0	\$300/hour + cost of damaged equipment \$200/hour if duty chief remains there.	\$0

Source: San Diego County Taxpayers Association. (2011, April). Proposal on Restriction of Accident Response Fees.

Fire Prevention Related Permits

Fire prevention-related services allow for charging of fire prevention related permits for public events that call for a fire department on standby. Currently, the NCFPD only charges for permits at specific public events but is allowed to issue permits for a mixture of other operations.

Charging for all fire prevention-related services should be considered as it will help the NCFPD cover extra costs and will increase the safety of citizens in the community. The fire code allows fire departments to charge fees to cover costs for their permitting services. For instance, the city of Sonoma, CA has hourly based fees and a minimum established hourly number for their different types of fire prevention permits. The city of Sonoma charges \$204 per hour for residential construction fees, \$204 per hour for commercial construction fees, and an hourly rate of \$171 for operational permits and inspection fees.²⁵

Charging events depending on occupant load can help current cost recovery efforts instead of only charging events exceeding over a certain size.

Late payment penalties can be implemented if permits are not paid on time. The city of Riverside, CA, for instance, executes a 20% base fee when a fire prevention related permit payment is 30 days past due and a 100% base fee when payment is past due 60 days.¹⁷ Additional late fees for extended non-payment can also be considered.

Standby Fees

Standby fees are charged on particular public events that require the presence of a fire department, currently, the NCFPD does not charge for these services. Charging to have an ambulance on standby for a contracted event should be considered since it's vital for events to have first responder presence in case of an emergency and can also lead to increased revenue streams. These events can range from parades, fairs, concerts and graduations. For example, Sonoma Valley Fire rescue has a three-hour minimum for contracted events and charges \$116 per hour for basic life support.⁵³ The revenue received from these contracts could result in having enough funds to purchase extra vehicles to support demand.

Weed Abatement

The weed abatement program helps NCFPD recover costs associated with physically abating weeds and charging for repeated inspections. Services can be charged even if the fire district does not coercively abate the property. San Diego County land is covered by over 300,000 acres of brush which raises the issue of brush fire. To reduce risk of fire, weed abatement is an essential program enlisted by fire departments. Specifically in the Spring, the Fire Marshal determines which properties have overgrown weeds and supplies notices to property owners. Property owners are fully responsible for contractor fees and maintaining fire safety standards for the protection of neighbors and properties near-by. North County's fire ordinance can fine

property owners who do not follow the provisions up to \$500. Weed abatement is a simple cost recovery method that acts as a fire preventative measure and can help mitigate the threat of fire season and maximize community preparedness.³⁷

State Mandated Inspections

The NCFPD recently authorized cost recovery through state-mandated inspections for multifamily inspections. California state law requires local jurisdictions to ensure both utility and structural construction are safe and accessible to the public in new buildings. The Department of Building Safety is the authority in overseeing and maintaining new construction oversight. Residential inspections are not required by the Building Standards Commission but are enforced by the Department of Community Development and Housing. Jurisdictions adopt and amend the California building code dependent upon established requirements. Other local ordinances can enforce inspections such as public infrastructure, land use conditions, and life safety systems.⁸ Such inspections prove a key component of fire prevention measures.

Citation Program

The citation program is authorized by the fire code to issue citations for infractions, such as parking in a red zone, but the NCFPD has decided not to partake. The current fee structure for parking violations in the city of San Diego is \$47.50 for parking within 15ft of a fire hydrant, \$62.50 for red curb violation, and \$342.50 for disabled parking spot violation. One way of implementing the citation program gradually to the community is by starting to issue warning citations for parking in fire lanes or handicap spots without a permit. The city website should announce that citations can be issued by the fire department to help spread news about the citation program.

Mello Roos Fees

The NCFPD conducted a district-wide election to create a Mello Roos fee for facilities. The measure to make this happen was unsuccessful because of the $\frac{2}{3}$ majority vote needed for it to pass. Mello Roos are bonds that are received after the filing of a yearly fiscal status report with the Commission. In return, the bonds are issued which include limited tax obligation bonds, special tax bonds, certificates of participation, and bond anticipation notes. Any recipient of these bonds is responsible to comply with Section 53359.5 of the government code.⁵⁶ In past years, businesses were allocated a large sum of bond reserves ranging from \$1.5 million to \$9,480,000.00.¹¹

Proposed Future Cost Recovery Methods and Return On Investments For Future Funding

Proposed cost recovery methods reflect alternative recovery methods currently utilized by fire districts throughout California and Colorado. Alternative cost recovery methods proposed for the NCFPD jurisdiction underwent considerations such as state law, county law, and geographic makeup when proposing the application of each method.

Approximate return on investments (ROI) for proposed cost recovery methods are calculated using a basic formula. To identify the ratio between total increased revenue and cost of investment, the estimated net revenue is divided by the total cost of investment and then multiplied by one hundred. The answer is expressed as a percentage and can help guide future investments for the NCFPD.

Assumptions established and used to calculate each cost recovery ROI are documented in detail within Appendix A on page 38.

Inspection and Review Options

Short Term Rental Fire Inspections

Fire districts that implement short term rental inspections work with the city to design short term rental permit ordinances. Such ordinances require property inspections that follow life safety inspection items and work with code ordinances to review building codes. This inspection program only applies to a townhome, condo, or other residence where there is a short-term rental license and the property owner does not live on the premises.

A short term rental refers to any legally permitted residence unit for residence or sleeping purposes for a period up to no more than 30 consecutive days. This does not include hotels, motels, or timeshares.

The city of Oceanside partakes in this program and started enforcing the Short-Term Rentals Ordinance on November 1, 2019. They currently charge a permit fee of \$250 that must be renewed annually. The application for a short-term rental permit is also joined by a non-refundable application fee established by the city council. An initial property inspection fee is also charged at \$119.

The city of North Tahoe and Meeks Bay currently conduct a short term rental program. The purpose of this is to make sure smoke alarms, carbon monoxide alarms and fire extinguishers are installed in all short term rental/vacation home rental units. Requirements in the city of North Tahoe and Meeks Bay include a smoke alarm in each sleeping room, outside each sleeping room,

and on every story of the building. Carbon monoxide alarms should be included outside each sleeping room, on every story of the building, and in sleeping rooms with a fuel-burning appliance. Fire extinguishers should be located on every story of every building and within 75-foot reach. If these guidelines are not met, a \$140 re-inspection fee is charged.⁴⁰

FIGURE 10: ANNUAL SHORT TERM RETURN ON INVESTMENT

Short Term Rental Fire Inspection	
Total Estimated Annual Revenue	\$51,225
Total Estimated Annual Cost	(\$19,127.72)
Net Revenue	\$32,097.28
ROI (%)	168%

Residential Apartment Annual Inspection Program

Mandatory fees and inspections based upon the size of multifamily residents are required annually. Oceanside and Chula Vista conduct such programs but structure the costs per inspection differently. Figure 11 shows how the city of Oceanside not only structures the inspection costs on units but also on the hourly rate incurred. Figure 12 illustrates the fee schedule in Chula Vista that is a flat fee-based structure dependent upon the range of units. Comparing the two cities and the two different fee structures, the NCFPD may consider two approaches for costs. It is advisable to determine the costs it will take to perform these inspections and charge accordingly.

FIGURE 11: CITY OF OCEANSIDE FEE PER HOUR INSPECTION SCHEDULE

City of Oceanside Fee Schedule	
Units	Costs/ per Hour
3-10 units	\$119/ per 1 hour
11-30 units	\$179/ per 1.5 hours
31- 50 units	\$238/ 2 hours
50+ units	Additional \$10 for every 10 units/ hour

Source: Oceanside Fire Department. (n.d.). Residential Occupancy Inspection Program.

FIGURE 12: CHULA VISTA FLAT FEE INSPECTION SCHEDULE

City of Chula Vista Fee Schedule	
Units	Flat Fee
3-25 units	\$280
26-50 units	\$320
51-100 units	\$400
Additional groups of 100 units	Additional \$80 per group

Source: City of Chula Vista. (2019, June 1). New Apartment/ Condominium Fire Inspection Program.

FIGURE 13: HOURLY ANNUAL INSPECTIONS RETURN ON INVESTMENT

Hourly Residential Apartment Annual Inspections	
Total Estimated Annual Revenue	\$33,816
Total Estimated Annual Cost	(\$19,250.40)
Net Revenue	\$14,565.60
ROI (%)	76%

FIGURE 14: FLAT RATE ANNUAL INSPECTIONS RETURN ON INVESTMENT

Flat Rate Residential Apartment Annual Inspections	
Total Estimated Annual Revenue	\$60,731
Total Estimated Annual Costs	(\$19,250.40)
Net Revenue	\$41,480.60
ROI (%)	215%

Business License Inspections

The NCFPD cannot require a business license, but various hazardous fire-related processes require an inspection and permit. A hazardous material business licensing permit is required for businesses including industrial, residential, educational, licensed health care facilities, City Bus Yards, City Yards, and high-rise buildings or other facilities that use, handle, store, or dispose of hazardous materials. It helps these businesses and organizations ensure that all codes are followed like the Certified Unified Program Agency (CUPA) and items are properly disposed of for the safety of the community. According to the California Health & Safety Code, Division 20,

Chapter 6.5, hazardous waste is a waste or combination of wastes, which because of its quantity, concentration, or physical or chemical characteristics, can cause or significantly contribute to an increase in mortality or an increase in serious irreversible illness; or can pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, disposed of, or otherwise managed.³²

FIGURE 15: ANNUAL BUSINESS INSPECTIONS RETURN ON INVESTMENT

Business License Inspections	
Total Estimated Annual Revenue	\$103,525
Total Estimated Annual Costs	(\$99,846.19)
Net Revenue	\$3,678.81
ROI (%)	4%

Alternative Options

False Alarm Billing

False alarm billing refers to charging a fee for first responder services when a call is answered but services are not required for the situation. Currently, the Oceanside Fire Department has a false alarm program created to keep commercial alarm systems maintained and to make sure any malfunctioning alarms are repaired. If the Fire Department is dispatched for the first false alarm within 365 days there is no fee, if there is a second false alarm within 365 days the fee will be \$100. The third false alarm will have a fee of \$200 and the fourth false alarm will have a fee of \$500. If there is a fifth false alarm the fee will be \$1,000 and any false alarm after that would be charged \$1,000. Figure 16 illustrates the fee schedule for the city of Oceanside. The Vista Fire Department charges a fee of \$51 as a one-time alarm permit fee for the first false alarm and doesn't charge a fee for the second occurrence. For the third false alarm, the fee would be \$100 and \$200 for the fourth. For the fifth occurrence and any after the total charge would be \$500.

FIGURE 16: CITY OF OCEANSIDE FALSE ALARM BILLING

City of Oceanside False Alarm Billing Schedule (within 365 days)	
First False Alarm	No Fee
Second False Alarm	\$100
Third False Alarm	\$200
Fourth False Alarm	\$500

Fifth False Alarm	\$1000
Any Occurrence After	\$1000

Source: City of Oceanside. (2014). Consolidated Fee Schedule.

FIGURE 17: ANNUAL FALSE ALARM BILLING RETURN ON INVESTMENT

False Alarm Billing	
Total Estimated Annual Revenue	\$14,630
Total Estimated Annual Costs	(\$5,502.64)
Net Revenue	\$9,127.36
ROI (%)	166%

Fire Code Violations Billing

Fire code violation inspections rely on California Fire Code and municipal ordinances to enforce safety regulations. Application to commercial structures may provide the most effective as a cost recovery method for the NCFPD. The city of Riverside enacted commercial fire code inspections and billing in 2010 as a cost recovery method for the fire district. Various factors affect fee amounts and frequency of inspections including business occupancy, industry type, life safety standards, and complexity of the inspection. Common code violations include annually serviced fire extinguishers, improper use of extension cords, unsecured gas cylinders, etc. Initial reinspections are free of charge but successive re-inspection visit charges start at \$100 per visit.²⁶ Figure 18 illustrates the city of Riverside’s fee schedule and occupancy types relevant to the NCFPD jurisdiction. The far-right column converts Riverside’s inspection fees to the higher cost of living of the NCFPD jurisdiction. The percentage difference between each region reflects the cost of living equating to 1.47% in favor of the NCFPD jurisdiction.

FIGURE 18: CITY OF RIVERSIDE FIRE CODE INSPECTION TYPES

Fire Code Billing Fee Schedule		
Occupancy Type	Riverside Fee	Adjusted NCFPD Fee
Theatre and Concert Halls	\$190	\$279
Banquet Halls	\$90	\$132
Arcades, Churches, Bowling Alley's	\$90	\$132
Office/ Restaurant	0-299 Sq Ft. \$54 300-9,999 Sq Ft \$90 10,000 Sq Ft + \$161	0-299 Sq Ft. \$79 300-9,999 Sq Ft \$132 10,000 Sq Ft + \$236
Educational	1-100 Students \$106 101-500 Students \$190 501-1500 Students \$359	1-100 Students \$156 101-500 Students \$279 501-1500 Students \$527
Hotels	3-4 Rooms \$54 5-10 Rooms \$72 11-20 Rooms \$90 21-30 Rooms \$125 31- 50 Rooms \$161	3-4 Rooms \$79 5-10 Rooms \$106 11-20 Rooms \$132 21-30 Rooms \$183 31- 50 Rooms \$236
Factory Manufacturing	\$161	\$236
Institutional Jails	\$274	\$402
Retail	0-9,999 Sq Ft. \$90	\$132
Storage Facilities	\$161	\$236
Garages, Misc. Buildings	0-299 Sq Ft. \$54 300-10,000 SqFt. \$90 10,001 Sq Ft. + \$125	0-299 Sq Ft. \$79 300-10,000 SqFt. \$132 10,001 Sq Ft. + \$183

Source: City of Riverside Fire Department. (n.d.). Fire Safety Inspection Program and Fee Schedule.

FIGURE 19: ANNUAL FIRE CODE BILLING RETURN ON INVESTMENT

Fire Code Violations Billing	
Total Estimated Annual Revenue	\$103,746
Total Estimated Annual Costs	(\$91,507.88)
Net Revenue	\$12,238.12
ROI (%)	13%

Intergovernmental Agreements

Intergovernmental agreements (IGA) are when two or more governmental or quasi-governmental entities cooperate to solve mutual problems. Intergovernmental agreements are also used by governments and can include cooperative planning, resource sharing, joint planning, commissions, and more. Intergovernmental agreements are common legal agreements with their local jurisdiction to share fire, police, and fleet maintenance or to make use of bulk purchases for common resources. This can lead to price reductions if purchasing supplies in bulk. This may not work if purchasing uses federal funds.

The use of several intergovernmental agreements by local governments is also used to improve fire protection and emergency medical services. IGAs can range from simple agreements to more complex agreements that demand high levels of administrative and/or operational coordination. It is important for fire departments to partake in these agreements so that they are able to have access to additional and/or specialized resources to manage critical events. IGAs also result in building reliable and stable relationships with other fire departments and emergency medical services organizations.¹²

Intergovernmental agreements involve a multitude of factors and a wide variety of variables. Because of this, accurate calculations of ROI for this recovery method are difficult to assess. These agreements depend on what other municipalities' agreements decide to merge with. With this, there is a percentage breakdown based upon determinants such as population size, equalized value, and usage.

For example, the North Shore Fire Department takes part in an intergovernmental agreement and is consolidated with seven other cities near their community in the state of Wisconsin. North Shore Fire is connected with the City of Glendale, the Villages of Bayside, Brown Deer, Fox Point, River Hills, Shorewood, and Whitefish Bay. Percentage breakdowns for these municipalities are divided so that allocation and revenue can be provided fairly. Figure 20 identifies the cost breakdown that is dependent on each city's percentage based on population size and/or usage along with budgeted revenue and the budgeted expenditure summary.³⁹

FIGURE 20: 2018 BUDGET SUMMARY OVERVIEW

Amendment 8 Percentage Breakdown	
Village of Bayside	6.27%
Village of Brown Deer	18.12%
Village of Fox Point	9.59%
City of Glendale	28.09%
Village of River Hills	3.10%
Village of Shorewood	17.50%
Village of Whitefish Bay	17.33%
2018 Budgeted Revenue Summary	
2018 Operating Budget Community Allocation	\$12,302,449
Public charges (fees for service)	\$2,260,000
2% Dues/State Grants/Miscellaneous	\$400,000
2018 Capital Services Community Allocation Funding	\$157,563
2018 Debt Service Community Allocation Funding	\$533,174
Total 2018 Budgeted Revenues	\$15,653,186
2018 Budgeted Expenditure Summary	
Personnel Services	\$12,706,730
Other Expenses	\$2,255,720
Capital Fund/Outlay	\$157,563
Debt Service Fund/Outlay	\$533,174
Total 2018 Budgeted Expenditures	\$15,653,187

Source: North Shore Fire/ Rescue. (2018). 2018 North Shore Fire/ Rescue Budget.

First Responder Fees

A First Responder Fee is authorized under Section 13916 of the California Health and Safety Code. The First Responder Fee allows fire departments to recover non-transport costs when providing services to a patient on site. Currently the city of Vista has an active First Responder

Fee that charges \$154 per call, this rate was developed by using the standard rate formula provided by the California Office of Emergency Services (Cal OES) and adding the current per call dispatch fee charged by the North County Dispatch Joint Powers Authority (JPA). The Cal EOS rate is dependent on the jurisdiction's cost which consists of pay rates, benefits, etc and by equipment type. The Cal EOS rate is calculated on an hourly rate and is reviewed annually. The city of Vista First Responder Fee will be assessed if an individual is treated on scene, if the patient denies care no fee will be accessed. If the patient is treated and transported to the hospital there will be two fees accessed, it will be the First Responder Fee and the Ambulance Transport Fee. The city of Vista estimates that the First Responder Fee will increase revenue by \$90,000 per year.³²

FIGURE 21: ANNUAL FIRST RESPONDER FEES RETURN ON INVESTMENT

First Responder Fees	
Total Estimated Annual Revenue	\$743,600
Total Estimated Annual Costs	(\$437,072)
Net Revenue	\$306,528
ROI (%)	70%

Tax Options

Floating Mill Levy

A mill levy is a form of property tax applied to the property based on its assessed value. Mill levies are calculated by first establishing the revenue a jurisdiction needs to fund services for the upcoming year. To calculate a mill levy, the total needed revenue is divided by the total value of property within the area. This rate of taxation is expressed in “mills” and is common for jurisdictions to use an assessment ratio to express the percentage formula.

An example of a floating mill levy is as follows, if the jurisdiction area has \$100 million in property value and the NCFPD needs \$1.5 million, the needed funding amount is divided by the area property value (\$1.5 million/\$100 million). This equates to .015 or “15 mills,” If passed, this assessment ratio can be levied on all applicable real estate within the jurisdiction. This revenue option can be explored through the city tax authorities of Fallbrook, Bonsall, and Rainbow.

Apple Valley in San Bernardino County passed a special tax called Measure V in 1997 that increased district revenues for emergency services by approximately \$2.4M annually. This special tax rate was levied on all applicable real estate property within the district, imposed every year on July 1st. In 2017 Measure A acted to extend Measure V and continue funding emergency services. Election financing for the Measure A campaign totaled more than \$32,000 in campaign

expenses.⁵ Successfully passing a special tax such as Apple Valley will require capital intensive efforts and a 2/3 majority vote. The verbiage used by Apple Valley on the ballot is as follows,

“To reduce emergency/medical response times; reopen two closed neighborhood fire stations; and increase firefighter/paramedic staffing levels, improving response time to multiple emergencies at the same time; shall Apple Valley Fire Protection District's voter-approved fire protection/emergency response tax be continued at the rates set forth in the ordinance, providing \$4,800,000 annually, until ended by voters, requiring citizen's oversight, independent audits, no money for the State, all funds controlled locally?”²

Estes Valley Fire Protection District in Colorado has successfully implemented a floating mill levy in the fire jurisdiction of Estes Park.²⁸ Recently the fire district considered lobbying to propose a new initiative to increase the established floating mill levy. The below quote is the suggested verbiage to place on the ballot in order to increase preexisting special tax.

“Shall _____ Fire Protection District Taxes be increased \$0 in 2019, and shall the District's entire operating mill levy rate of X.XXX mills be subject to adjustment beginning in collection year 2020 and annually thereafter to offset revenue losses from refunds, abatement, and changes to the percentage of actual valuation used to determine assessed valuation?”²⁸

FIGURE 22: YEAR 1 FLOATING MILL LEVY RETURN ON INVESTMENT

Year 1 Floating Mill Levy	
Total Estimated Annual Revenue	\$997,361
Total Estimated Annual Costs	(\$254,000)
Net Revenue	\$743,361
ROI (%)	293%

FIGURE 23: YEAR 2 FLOATING MILL LEVY RETURN ON INVESTMENT

Year 2 Floating Mill Levy	
Total Estimated Annual Revenue	\$1,007,334
Total Estimated Annual Costs	(\$13,095.34)
Net Revenue	\$994,238.66
ROI (%)	7,592.30%

Nontraditional Methods

Enterprise Funds and Utility Rates

Some examples that benefit fire departments and EMS services are enterprise funds and utility rates. This is where city-provided services can set up “general funds to help pay for operating costs for general governmental services with police, fire, EMS and parks and recreation.”²⁷ Training private companies and individuals for a fee can become a good cash flow. This also allows for a safer community as training for CPR and first-aid certifications are cheaper to perform.

Fundraising Options

Non traditional fundraising ideas are areas to consider for cost recovery options. Such cost-recovery method options include raffles, 5k running events, and barbecue fundraisers, are all events that fire districts host within communities to solicit needed support on a continued basis.

A Philanthropic View of First Responders

The NCFPD protects a district of over 55,000 residents by preserving life, promoting public safety, and educating the public on available services. The district has experienced cutbacks while continuing to protect their community. Funding is a big problem and continues to limit the necessary services that the NCFPD provides. With the COVID-19 pandemic affecting the County, NCFPD continues to protect the district by attending calls and providing first responder services all while putting the safety of the community first. This dedication comes at a price, such as sacrificing time, typically dedicated to the summer fire prevention preparation. With limited funding, it is difficult for the fire district to cover all aspects of services, including fire prevention and training. Unfortunately, recognition for NCFPD's preventative efforts is not given until there is a dire emergency that faces the community.

Appendices

Appendix A: ROI Assumptions

Proposed cost recovery methods represent pre-existing methods in various regions throughout the United States. A cost of living adjustment was created and applied to each pre-existing method's fee schedule to best adjust pricing to reflect the NCFPD jurisdiction's price range. Cost of living adjustments are calculated using the average of median value home prices in Fallbrook, Rainbow, and Bonsall and then compared to the median value home price within the jurisdiction where the pre-existing fee schedule originates. By finding the percentage difference between each region's median Zillow home valuation, the difference is applied to each respective fee schedule to best reflect the NCFPD's regional cost of living. Average labor costs for both firefighters and administrative workers were provided by Chief S. Abbott (personal communication, July 08, 2020).

Short Term Rental Fire Inspections

As of May 21, 2020, the total Airbnb applicable units on the market within the NCFPD jurisdiction total 123 units. This number only involves units that are empty and do not include rooms that are rented inside a person's home. A cost of living adjustment was used to adjust Oceanside's short term rental program to the price adequate for the NCFPD jurisdiction. Figure 24 shows the flat rate inspection fee adjusted for the NCFPD jurisdiction to be \$275.

FIGURE 24: REGIONAL COST OF LIVING ADJUSTMENT

Average Property Value for 2020	
NCFPD Jurisdiction	Oceanside Jurisdiction
\$627,302	\$568,585
Flat Rate Fee: $\$627,302 / \$568,585 = 110\% \times \$250 = \275	
Reinspection Fees: $1.1 \times \$119 = \131	

Revenue Assumptions

To find total estimated revenue during the first year, the total number of Airbnb units are multiplied by the flat rate inspection fee and is also multiplied by the initial inspection fee of \$119. Both numbers are added to find the sum of total revenue.

FIGURE 25: REVENUE CALCULATIONS

Revenue Assumptions
Units x Flat Rate: 123 units x \$275 = \$33,825 Units x Initial Property Inspection Fee: 123 units x \$131 = \$16,113
Reinspection Costs: 13 units x \$99 = \$1,287
Total Annual Revenue: \$33,825 + \$16,113 + \$1,287 = \$51,225

Establishing a short term rental inspection program such as North Tahoe and Meeks Bay may include establishing requirements such as smoke alarms and fire extinguishers to be installed in rental units.⁴¹ A margin for error of rentals that do not meet the first inspection requirements is worth calculating into potential revenue estimates. An estimated percentage of the available Airbnb's that may not meet the inspection requirements the first time can be charged with additional fees. A conservative approximation of units not meeting these requirements is an estimate of 10%.

The cost of living adjustment between North Tahoe and the NCFPD jurisdiction is 71% (\$627,302 / \$883,479).⁵⁴ This percentage is multiplied by North Tahoe's re-inspection fee of \$140,⁴⁰ the adjusted re-inspection fee totals \$99. The estimate of 10% of total units needing reinspections equates to 13 units. Units not meeting these requirements can boost revenue to an estimated amount of \$1,287 when the \$99 one-time re-inspection fee is charged.

Adding the total estimated flat fee revenue with the initial property inspection fee and the revenue made from re-inspection fees totals \$51,225 of estimated revenue for the NCFPD jurisdiction for the first year.

Cost Assumptions

The NCFPD's labor costs for an administrative worker is \$30.38 per hour. Assuming there is one administrative person keeping record of the program, it is estimated this person will spend around 30 hours a year on administrative work. Total estimated administrative costs calculate to \$911.40 annually. Labor for an inspection per unit is based upon the NCFPD's labor costs per firefighter which totals \$32.96 per hour. Presuming it takes an hour to inspect each unit it will take two inspectors per job, therefore labor will cost \$65.92 an hour for inspections. An additional hour is added for both firefighters commuting to and from the location, adding an additional \$32.96 an hour of labor costs to each firefighter. This totals \$131.84 of labor costs per job. Cost for labor inspection fees are \$16,216.32, when combined with administrative costs, total annual costs equate to \$17,127.72.

An additional \$2,000 one-time estimated miscellaneous start-up cost will be added to equate to a total annual cost of \$19,127.72.

FIGURE 26: COST CALCULATIONS

Cost Assumptions	
Firefighter Annual Salary	Hourly Wage
\$68,556.80	\$32.96
Administrative Annual Salary	Hourly Wage
\$58,329.60	\$30.38
Total Firefighter Inspections Wage: \$131.84 x 123 = (\$16,216.32)	
Total Administrative Wage: \$30.38 x 30 = (\$911.40)	
Miscellaneous Start-Up Cost: (\$2,000)	
Total Annual Cost: \$911.40 + \$16,216.32 + \$2,000 = (\$19,127.72)	

ROI Calculation

Total ROI for short term rental inspections in the first year is 168%.

FIGURE 27: ROI CALCULATIONS

Short Term Rental Fire Inspection	
Total Estimated Annual Revenue	\$51,225
Total Estimated Annual Cost	(\$19,127.72)
Net Revenue	\$32,097.28
ROI (%)	168%

Residential Apartment Annual Inspection Program

Residential Apartment Annual Inspections are a yearly mandated inspection that must be performed under the California Health and Safety Code. According to ESRI Housing Profile for North County Fire Protection District, in the year 2024, there will be approximately 5,752 rental housing units.²³ An estimated that 90% of the total rental units are presumed to be apartments, resulting in a total of 5,176 rental apartment units.

Establishing a residential apartment annual inspection program such as the Oceanside Fire Department requires a cost of living adjustment as shown in Figure 28. The Oceanside Fire Department charges an hourly fee for the residential apartment annual inspection, the charge for a complex that has up to 30 apartment units is \$179 per 1.5 hours. The adjusted residential apartment annual inspection fee for NCFPD is \$196 per 1.5 hours. With an estimate that it will

take 1.5 hours to inspect an average of 30 apartment units, the total annual estimated revenue is \$33,712.

FIGURE 28: REGIONAL COST OF LIVING ADJUSTMENT

Average Property Value for 2020	
NCFPD Jurisdiction	Oceanside Jurisdiction
\$627,302	\$568,585
Residential Apartment Annual Inspection Hourly Fee: $\$627,302 / \$568,585 = 110\% \times \$179 = \196	
Total Annual Revenue: $5,176 / 30 = 172 \times \$196 = \$33,712$	

Revenue Assumptions

The 2020 average property value in in Chula Vista is \$569,273.¹³ The Chula Vista Fire Department charges a flat fee of \$320 for every 30 units inspected.¹² The adjusted flat rate fee for NCFPD is \$352 and assuming the inspections will average 30 units, the total revenue for this fee structure is \$60,544.

FIGURE 29: REVENUE CALCULATIONS

Average Property Value for 2020	
NCFPD Jurisdiction	Chula Vista Jurisdiction
\$627,302	\$569,273
Residential Apartment Annual Inspection Flat Fee: $\$627,302 / \$569,273 = 110\% \times \$320 = \352	
Total Annual Revenue: $5,176 / 30 = 172 \times \$352 = \$60,544$	

Cost Assumptions

According to the NCFPD, labor costs per firefighter totals to \$32.96 per hour. The total annual cost for two firefighters working 1.5 hours on 5,176 units is \$17,007.36. The NCFPD’s labor costs for an administrative worker is \$30.38 per hour. Assuming there is one administrative person keeping record of the program, it is estimated this person will spend around 8 hours annually on administrative work, the total administrative costs are \$243.04. In sum, the total cost with administrative fees and firefighter labor fees is \$17,250.40. Unlike other cost recovery methods, drive time to the inspection site is not incorporated into residential apartment inspection calculations as total units in buildings are not defined, thus the number of actual locations are not available.

An additional \$2,000 one-time estimated miscellaneous start-up cost will be added to equate a total annual cost of \$19,250.40.

FIGURE 30: COST CALCULATIONS

Annual Salary Break Down	
Firefighter Annual Salary	Hourly Wage
\$68,556.80	\$32.96
Administrative Annual Salary	Hourly Wage
\$58,329.60	\$30.38
Firefighters Wage Per 1.5 hr Inspection: \$49.44	
Firefighter Wage Total: $172 \times \\$49.44 \times 2 = (\\$17,007.36)$	
Administrative Wage Total: $\\$30.38 \times 8 = (\\$243.04)$	
Miscellaneous Start Up Cost: (\$2,000)	
Total Annual Cost: $\\$17,007.36 + \\$243.04 + \\$2,000 = (\\$19,250.40)$	

ROI Calculation

Total ROI for annual inspections based on an hourly rate program is 76% while the estimated ROI for a flat rate fee is 215%.

FIGURE 31: HOURLY ROI CALCULATIONS

Hourly Residential Apartment Inspections ROI	
Total Estimated Annual Revenue	\$33,816
Total Estimated Annual Costs	(\$19,250.40)
Net Revenue	\$14,565.60
ROI: $(\\$33,816 - \\$19,250.40) / \\$19,250.40 \times 100 = 76\%$	

FIGURE 32: FLAT RATE ROI CALCULATIONS

Flat Rate Residential Apartment Inspection ROI	
Total Estimated Annual Revenue	\$60,731
Total Estimated Annual Costs	(\$19,250.40)
Net Revenue	\$41,480.60
ROI: $(\\$60,731 - \\$19,250.40) / \\$19,250.40 \times 100 = 215\%$	

Business License Inspections

The average 2020 property value for the San Diego City Fire District is \$679,568⁴⁸ while the average property value of the NCFPD jurisdiction is \$627,302.²⁹ The rate for the annual inspection fee in San Diego City is \$111 by using the calculation in Figure 33 the cost of living percentage can be used to adjust pricing for the NCFPD jurisdiction. This adjustment estimates the fee to \$102 per hour for an annual inspection.

FIGURE 33: REGIONAL COST OF LIVING ADJUSTMENT

Average Property Value for 2020	
NCFPD Jurisdiction	San Diego City Fire District Jurisdiction
\$627,302	\$679,568
Annual Inspection Fee: $\\$627,302 / \\$679,568 = 92\% \times \\$111 = \\102	

Revenue Assumptions

According to the ESRI Business Summary report, there are an estimated 447 hazardous material businesses within the NCFPD jurisdiction. Assuming it takes an average of two hours per business inspection, the total revenue for the initial inspection would be \$91,188. The City of San Diego set a reinspection rate of \$300. The adjusted rate for a reinspection fee within the NCFPD jurisdiction is \$276. It is estimated that 10% of these businesses will encounter a reinspection, totaling 44.7 units. The \$276 fee will be multiplied by the estimated 44.7 businesses that require the reinspection fee totaling to \$12,337 additional revenue. Total annual revenue for hazardous materials business inspection equates to \$103,525.

FIGURE 34: REVENUE CALCULATIONS

Business License Inspections Revenue
Initial Inspection Revenue: $447 \times \$102 \times 2 = \$91,188$
Reinspection Rate: $\$300 \times .92 = \276
Reinspection Revenue: $276 \times 44.7 = \$12,337$
Total Annual Revenue: $\$103,525$

Cost Assumptions

The costs associated with inspections are primarily labor costs. Based on the NCFPD's labor costs per firefighter, the average hourly salary of a firefighter is \$32.96 and with two people expected to complete an inspection, at a rate of approximately 2 hours per job, estimated labor costs total \$131.84 per inspection. An additional hour is added for both firefighters commuting to and from the location, adding an additional \$32.96 an hour of labor costs to each firefighter. This equates to \$197.76 for labor costs per inspection job. Costs of inspection will be calculated by multiplying the 447 estimated hazardous business inspections by the \$197.76 labor costs, totaling \$88,398.72 annually. With the estimated 10% of businesses needing reinspections, the additional labor costs for reinspections will be \$8,839.87. When combined, the annual inspection costs are \$76,705. An estimated 20 hours of annual administrative labor are required to handle hazardous inspections. Administrative costs of \$607.60 are added based upon the NCFPD's labor costs per administrative worker of \$30.38 per hour. All costs bring the total to \$97,846.19.

An additional \$2,000 one-time estimated miscellaneous start-up cost will be added to equate a total annual cost of \$99,846.19.

FIGURE 35: COST CALCULATIONS

Business License Inspection Cost	
Firefighter Annual Salary	Hourly Wage
\$68,556.80	\$32.96
Administrative Annual Salary	Hourly Wage
\$58,329.60	\$30.38
Firefighters Inspection Wage Total: 447 x \$197.76 = \$88,398.72	
Firefighters Reinspection Wage Total: 44.7 x \$197.76 = \$8,839.87	
Administrative Wage Total: \$30.38 x 20 = \$607.60	
Miscellaneous Start-Up Cost: \$2,000	
Total Annual Cost: \$88,398.72 + \$8,839.87 + \$607.60 + \$2,000 = \$99,846.19	

ROI Calculation

Total ROI for business license inspections in the first year is 4%.

FIGURE 36: ROI CALCULATIONS

Business License Inspections ROI	
Total Estimated Annual Revenue	\$103,525
Total Estimated Annual Costs	(\$99,846.19)
Net Revenue	\$3,678.81
ROI: (\$103,525 - \$99,846.19) / \$99,846.19 x 100 = 4%	

Figure 37 was sourced from the ESRI business summary and reflects hazardous industries within NCFPD jurisdiction.

FIGURE 37: HAZARDOUS INDUSTRIES WITHIN THE NCFPD JURISDICTION

Types of Industries Within Region	
NCFPD Hazardous Industries	Number of Businesses in Region
Agriculture & Mining	80
Auto Dealers, Gas Stations, Auto Aftermarket	34
Construction	165
Manufacturing	56
Transportation	29
Utility	4
Wholesale Trade	79
Total:	447

Source: ESRI . (2020, May 20). Business Summary.

False Alarm Billing

False Alarm billing is a cost recovery method that allows fire departments to recover costs when responding to a false alarm. Currently, the Oceanside Fire Department has a false alarm billing program created to keep commercial alarm systems maintained and make sure any malfunctioning alarms are repaired. In 2019 the NCFPD serviced a total of 5,500 calls with 133 of those calls false alarms considered billable according to Chief S. Abott (personal communication, July 16, 2020).

FIGURE 38: REGIONAL COST OF LIVING ADJUSTMENT

Average Property Value for 2020	
NCFPD Jurisdiction	Oceanside Jurisdiction
\$627,302	\$568,585
False Alarm Fee: $\$627,302 / \$568,585 = 110\% \times \$100 = \110	
Total Annual Revenue: $225 \times \$110 = \$24,750$	

Revenue Assumptions

The Oceanside Fire Department does not currently charge a fee for the first occurrence of a false alarm within 365 days. If there is a second occurrence the fee is \$100. If the NCFPD charged \$100 on the second false alarm call it could generate additional revenue. All calculations are based upon false alarm fees charged at a rate of the second occurrence. Any additional occurrences after the second false alarm will generate additional revenues for the district. Shown in Figure 38, the adjusted fee schedule for the False Alarm Billing in the NCFPD jurisdiction is \$110. The estimated total annual revenue for NCFPD when the False Alarm Fee is implemented is \$14,630

Cost Assumptions

The NCFPD’s labor costs per firefighter totals \$32.96 per hour. It’s estimated that a total of two firefighters would respond to a call. False alarm calls typically result in an average of 15 minutes on site, costing approximately \$8.24 per firefighter. This totals \$16.48 of labor costs per false alarm call. NCFPD administrative costs equate to \$30.38 an hour, documentation of each false alarm will take approximately 15 minutes per call, costing \$7.60 per job. If the false alarm billing is implemented, all data held constant, the labor total costs equal \$5,418.

An additional \$2,000 one-time estimated miscellaneous start-up cost will be added to equate a total annual cost of \$3,502.64.

FIGURE 39: COST CALCULATIONS

Annual Salary Break Down	
Firefighter Annual Salary	Hourly Wage
\$68,556.80	\$32.96
Administrative Annual Salary	Hourly Wage
\$58,329.60	\$30.38
Firefighter Wage Per Call: $\\$8.24 \times 2 = \\16.48	
Firefighter Wage Total: $\\$16.48 \times 133 = \\$2,191.84$	
Administrative Wage Per Job: $\\$7.60$	
Administrative Wages Total: $\\$7.60 \times 133 = \\$1,010.80$	
Miscellaneous Start-Up Cost: $\\$2,000$	
Total Annual Cost: $\\$2,191.84 + \\$1,010.80 + \\$2,000 = \\$5,502.64$	

ROI Calculation

Total ROI for false alarm billing in the first year is 233%.

FIGURE 40: ROI CALCULATIONS

False Alarm Billing ROI	
Total Estimated Annual Revenue	\$14,630
Total Estimated Annual Costs	(\$5,502.64)
Net Revenue	\$9,127.36
ROI (%)	166%
ROI Calculation: $(\\$14,630 - \\$5,502.64) / \\$5,502.64 \times 100 = 166\%$	

Fire Code Violations Billing

Fire code violations billing is a cost recovery method that promotes fire prevention measures for the community. According to ESRI Business Summary, there are 611 business units that correspond with fire code occupancy types the city of Riverside has established within their preexisting city fire code violation policy.²⁰ Figure 41 illustrates the various occupancy types and the assumptions made to estimate specific business units within the NCFPD jurisdiction. To

ensure conservative estimation, for occupancy types with price ranges dependent on size, the median range is utilized for calculations.

FIGURE 41: TYPES OF INDUSTRIES WITHIN NCFPD JURISDICTION

Occupancy Types and Assumptions			
Occupancy Type	Adjusted NCFPD Fee	Total Business Units in NCFPD Jurisdiction	Revenue Generated per Occupancy Type
Theatre and Concert Halls	\$209	11 (25% of 47 entertainment units)	\$3,069
Banquet Halls	\$99	4 (Based on google search)	\$528
Arcades, Churches, Bowling Alley's	\$99	32 (15% of 211 other services units)	\$4,224
Office/ Restaurant	0-299 Sq Ft. \$59 300-9,999 Sq Ft \$99 10,000 Sq Ft + \$177	85 restaurants	\$11,220
Educational	1-100 Students \$116 101-500 Students \$209 501-1500 Students \$395	49 educational services	\$13.671
Hotels	3-4 Rooms \$59 5-10 Rooms \$79 11-20 Rooms \$99 21-30 Rooms \$137 31- 50 Rooms \$177	6 hotels and lodging	\$792
Factory Manufacturing	\$177	56	\$13,216
Institutional Jails	\$301	1	\$402
Retail	\$99	317	\$41,844
Storage Facilities	\$177	20 (10% of 200 unclassified establishments)	\$4,720
Garages, Misc. Buildings	0-299 Sq Ft. \$59 300-10,000 SqFt. \$99 10,001 Sq Ft. + \$137	30 (15% of 200 unclassified establishments)	\$3,960
Total Units			611
Total Revenue			\$97,646

Source: ESRI . (2020, May 20). Business Summary.

Revenue Assumptions

As seen in Figure 39, the sum of annual revenue generated per occupancy type equates to \$97,646. Currently, the city of Riverside does not charge for the first reinspection fee but does so for the third inspection at a cost of \$100. Assuming that 10% of the 611 businesses will require a third inspection (61 businesses), a conservative estimate of revenue generated from reinspection fees is \$6,100. Combining the inspection fees leaves a total of \$103,746 annual revenue generated in the first year.

FIGURE 42: REVENUE CALCULATIONS

Fire Code Violations Billing Revenue
Revenue: $10\% \times 611 \text{ business} = 61 \text{ business} \times \$100 = \$6,100$
Total Revenue: $\$97,646 + \$6,100 = \$103,746$

Cost Assumptions

Costs for fire code violations primarily revolve around labor. The NCFPD's salary for administrative work is \$30.38 per hour. Assuming it takes an annual amount of 30 hours to manage filing and paperwork for this billing structure, the total cost for administrative work is \$911.40 per year.

An estimated two firefighters are assigned to inspect each job for fire code violations with an average time to complete the inspection of one hour. Based on the NCFPD's labor costs, hourly salary for a firefighter equates to \$32.96 per hour. An additional hour is added for both firefighters commuting to and from the location, totaling \$131.84 of labor costs per job. The total number of jobs including reinspections equates to 672 inspections. With each job taking an hour with two inspectors, the annual labor costs are \$88,596.48, when combined with administrative costs, total annual costs equates to \$89,507.88

An additional \$2,000 one-time estimated miscellaneous start-up cost will be added to equate to a total annual cost of \$91,507.88.

FIGURE 43: COST CALCULATIONS

Fire Code Violations Billing Cost	
Firefighter Annual Salary	Hourly Wage
\$68,556.80	\$32.96
Administrative Annual Salary	Hourly Wage
\$58,329.60	\$30.38
Firefighter Wage Total: 672 hours x \$131.84 = (\$88,596.48)	
Administrative Wage Total: \$30.38 x 30 = (\$911.40)	
Miscellaneous Cost: (\$2000)	
Total Annual Cost: \$911.40 + \$88,596.48 + \$2,000 = (\$91,507.88)	

ROI Assumptions

Total ROI for fire code violation billing in the first year is 13%.

FIGURE 44: ROI CALCULATIONS

Fire Code Violations Billing	
Total Estimated Annual Revenue	\$103,746
Total Estimated Annual Costs	(\$91,507.88)
Net Revenue	\$12,238.12
ROI (%)	13%
ROI: (\$103,746 - \$91,507.88) / \$91,507.88 x 100 = 13%	

First Responder Fees

First Responder Fees are a cost recovery method that allows fire departments to recover non-transport costs when providing services to a patient on-site. According to Chief Abbott, in 2019 the North County Fire Protection District serviced a total of 5,500 calls. Approximately 80% of calls are emergency medical situations.³⁵ In order to calculate the amount of emergency medical calls, 5,500 multiplied by 80 percent to get the adjusted call amount of 4,400. Based on the number of service calls, a return on investment from implementing first responder fees can be calculated

Revenue Assumptions

The Vista Fire Department currently charges a \$154 fee per call if a firefighter attends the patient on-site.³¹ The fee will not be accessed if the patient denies service. According to Zillow, the average property value in 2020 in Vista is \$565,638.⁵⁹ The average property value of the NCFPD jurisdiction is \$627,302.²⁹ As shown in Figure 45, the adjusted rate for First Responder Fee charges within the NCFPD jurisdiction is \$169. If the first responder fee was implemented in 2019 the total revenue would have been \$743,600.

FIGURE 45: REGIONAL COST OF LIVING ADJUSTMENT

Average Property Value for 2020	
NCFPD Jurisdiction	Vista Jurisdiction
\$627,302	\$565,638
First Responder Fee: $\$627,302 / \$565,638 = 110\% \times \$154 = \169	
Total Annual Revenue: $4,400 \times \$169 = \$743,600$	

Cost Assumptions

A firefighter’s hourly salary according to the NCFPD totals to \$32.96. If there are three firefighters responding to calls lasting a total of one hour, the estimated cost for firefighter wages per call is \$98.88. If the first responder fee was implemented in 2019 the total cost would have been \$435,072.

An additional \$2,000 one-time estimated miscellaneous start-up cost will be added to equate to a total annual cost of \$437,072.

FIGURE 46: COST CALCULATIONS

First Responder Fee Cost	
Firefighter Annual Salary	Hourly Wage
\$68,556.80	\$32.96
Firefighter Wage Per Response: $\$32.96 \times 3 \times 1 = (\$98.88)$	
Firefighter Wage Total: $\$98.88 \times 4,400 = (\$435,072)$	
One-Time Miscellaneous Start-Up Cost: (\$2,000)	
Total Annual Cost: $\$435,072 + \$2,000 = (\$437,072)$	

ROI Calculation

Total ROI for the implementation of first responder fees is 70%.

FIGURE 47: ROI CALCULATIONS

First Responder Fee Cost/ROI	
Total Estimated Annual Revenue	\$743,600
Total Estimated Annual Costs	(\$437,072)
Net Revenue	\$306,528
ROI (%)	70%
ROI%: $(\\$743,600 - \\$437,072) / 437,072 \times 100 = 70\%$	

Floating Mill Levy

According to 2018 US Census data, the median assessed valuation for a home in the NCFPD jurisdiction is \$545,400.⁵⁷ The assessed property value can be used to extrapolate the jurisdiction's return on investment for a floating mill levy. According to ESRI, the total housing within the jurisdiction is 20,317 units. Based on these numbers the area's estimated property valuation is \$11,080,891,800. If the NCFPD needs \$100 million added to their budget, this results in a 9 mill levy. The 9 mills can be applied to all real estate, including land and buildings.

Revenue Assumptions

If successfully passed on a ballot, the mill levy can be applied to the 1% taxable amount of a property's assessed value. For the average property valuation of \$545,400, the taxable rate would equate to \$5,454. When applying the mill levy (9 mills) the average tax amount collected per housing unit within the NCFPD jurisdiction would be \$49.09. To understand the total impact, multiply the average tax amount per unit by total housing units in 2024 this approximates to \$997,361 of additional revenues collected for the fire district in the first year. Calculations for the second year reflect a 1% increase in annual property taxes.

FIGURE 48: REVENUE CALCULATIONS

Floating Mill Levy Revenue
NCFPD Jurisdiction Assessed Property Value
\$545,400
Total Estimated Land Evaluation: \$545,400 x 20,317 units = \$11,080,891,800
Amount of Mills: 100,000,000 / \$11,080,891,800 = .009 or 9 Mills
Year 1 Application of Mill Levy (at 1%): \$5,454 x .009 = \$49.09
Year 1 Total Mill Levy Impact: \$49.09 x 20,317 = \$997,361
Year 2 Application of Mill Levy (1% Increase): \$5,508 x .009 = \$49.57
Year 2 Total Mill Levy Impact: \$49.57 x 20,317 = \$1,007,114

Cost Assumptions

To achieve a 2/3 vote, lobbying for education and public approval are required and will be the most capital-intensive aspect. According to Chief Abbott, the NCFPD spent \$254,000 on campaign costs for Prop A in 2019 (personal communication, July 08, 2020). For moderate estimation, calculations are based upon the assumption that it will cost \$254,000 for funding ballot initiatives. Only the first year ROI will account for the \$254,000 in start up costs. The second year’s floating mill ROI will account for Prop 13’s 1% increase in annual property tax. According to Chief S. Abbott (personal communication, July 12, 2020) the Assessors Office charges a fee of 1.3% based on the taxes collected.

FIGURE 49: COST CALCULATIONS

Floating Mill Costs	
Year 1	Year 2
\$266,965.69	\$13,095.34
NCFPD Estimated Campaign Cost: (\$254,000)	
Year 1 Assessor’s Office Fee (1.3%): \$997,361 x 1.3% = (\$12,965.69)	
Year 2 Assessor’s Office Fee (1.3%): \$1,007,334 x 1.3% = (\$13,095.34)	

ROI Calculations

Total ROI for the implementation of a successful mill levy at these assumptions in year 1 is 293% while in year 2 the ROI is 7,529%.

FIGURE 50: ROI CALCULATIONS

Year 1 Floating Mill Levy	
Total Estimated Annual Revenue	\$997,361
Total Estimated Annual Costs	(\$254,000)
Net Revenue	\$743,361
ROI (%)	293%
Year 1 ROI: $(\\$997,361 - \\$254,000) = \\$743,361 / \\$254,000 \times 100 = 293\%$	

FIGURE 51: ROI CALCULATIONS

Year 2 Floating Mill Levy	
Total Estimated Annual Revenue	\$1,007,334
Total Estimated Annual Costs	(\$13,095.34)
Net Revenue	\$994,238.66
ROI (%)	7,592.30%
Year 2 ROI: $(\\$1,007,334 - \\$13,095.34) = \\$994,238.66 / \\$13,095.34 \times 100 = 7,592.30\%$	

Appendix B: 2019 Ambulance Rate Survey

2019 San Diego County Ambulance Rate Survey																	
Units	ALS2		ALS		BLS		Treat and Release		Aid ons				First Responder Fee	Notes			
	Resident	Non-Resident	Resident	Non-Resident	Resident	Non-Resident	Resident	Non-Resident	Mileage	O2	Meals	Supplies			EKG	Night Charge	CPR Non-Transf
Alpine	\$ 3,287.00	\$ 3,387.00	\$ 3,026.00	\$ 3,026.00	\$ 2,452.00	\$ 2,452.00	\$ -	\$ -	\$ 43.00	\$ 118.00	-	-	-	-	-	-	EKG charge for Medical
Bonita*	\$ 1,458.61	\$ 1,458.61	\$ 1,458.61	\$ 1,558.61	\$ 1,458.61	\$ 1,458.61	\$ -	\$ -	\$ 182.34	\$ 24.32	\$ 91.18	Cost	\$ 33.96	-	-	-	
Bonita	\$ 2,161.07	\$ 2,161.07	\$ 1,962.98	\$ 1,962.98	\$ 1,076.11	\$ 1,076.11	\$ -	\$ -	\$ 43.33	\$ 156.54	-	-	-	-	-	-	
Bonita Springs	\$ 2,270.00	\$ 2,270.00	\$ 2,270.00	\$ 2,270.00	\$ 2,270.00	\$ 2,270.00	\$ -	\$ -	\$ 180.00	\$ 105.00	-	-	-	\$ 71.00	-	-	
Carlsbad	\$ 1,268.75	\$ 1,370.25	\$ 1,167.25	\$ 1,268.75	\$ 952.33	\$ 952.33	\$ -	\$ -	\$ 203.00	\$ 76.13	-	-	-	-	-	-	
Chula Vista	\$ 3,147.57	\$ 3,147.57	\$ 2,967.48	\$ 2,967.48	\$ 1,076.11	\$ 1,076.11	\$ 165.00	\$ 165.00	\$ 165.00	\$ 156.54	-	-	-	\$ 155.09	-	-	
Coronado	\$ 1,141.00	\$ 1,141.00	\$ 1,141.00	\$ 1,141.00	\$ 1,016.00	\$ 1,016.00	\$ -	\$ -	\$ 25.00	\$ 93.00	Variable	Varies	-	-	-	-	
El Cajon	\$ 2,602.52	\$ 2,602.52	\$ 2,343.43	\$ 2,343.43	\$ 1,319.81	\$ 1,319.81	\$ -	\$ -	\$ 46.18	\$ 203.17	-	-	-	-	-	-	
Escondido	\$ 1,608.00	\$ 1,608.00	\$ 1,608.00	\$ 1,608.00	\$ 1,608.00	\$ 1,608.00	\$ -	\$ -	\$ 150.00	\$ 80.00	Variable	\$ 28.00	-	\$ 30.00	-	\$ 100.00	Documentation Fee \$14.00
Imperial Beach	\$ 2,500.42	\$ 2,500.42	\$ 2,392.33	\$ 2,392.33	\$ 1,487.05	\$ 1,487.05	\$ -	\$ -	\$ 60.39	\$ 228.91	-	-	-	\$ 155.09	-	-	
La Mesa	\$ 3,833.21	\$ 3,833.21	\$ 4,147.69	\$ 4,147.69	\$ 2,066.88	\$ 2,066.88	\$ -	\$ -	\$ 83.77	\$ 317.49	-	-	-	-	-	-	
Lemon Grove	\$ 4,643.15	\$ 4,643.15	\$ 4,147.69	\$ 4,147.69	\$ 2,066.88	\$ 2,066.88	\$ -	\$ -	\$ 39.90	\$ 179.36	-	-	-	-	-	-	
Marina del Rey	\$ 3,056.43	\$ 3,056.43	\$ 2,660.93	\$ 2,660.93	\$ 857.65	\$ 857.65	\$ -	\$ -	\$ 24.00	\$ 73.33	\$ 664.54	-	-	\$ 43.41	\$ 621.13	-	
N. County Fire	\$ 1,320.11	\$ 1,549.89	\$ 1,308.41	\$ 1,504.78	\$ 475.41	\$ 589.10	\$ -	\$ -	\$ 150.00	\$ 34.80	Cost + 100%	Varies	\$ 20.00	-	-	\$ 30.00	Single Bunch - \$50, Bunch 1 - \$60 (New/used), Single Bunch - CPAP, Bunch 2 - \$60 (New/used), Bunch 3 - \$60 (New/used), Bunch 4 - \$60 (New/used), Bunch 5 - \$60 (New/used), Bunch 6 - \$60 (New/used), Bunch 7 - \$60 (New/used), Bunch 8 - \$60 (New/used), Bunch 9 - \$60 (New/used), Bunch 10 - \$60 (New/used), Bunch 11 - \$60 (New/used), Bunch 12 - \$60 (New/used), Bunch 13 - \$60 (New/used), Bunch 14 - \$60 (New/used), Bunch 15 - \$60 (New/used), Bunch 16 - \$60 (New/used), Bunch 17 - \$60 (New/used), Bunch 18 - \$60 (New/used), Bunch 19 - \$60 (New/used), Bunch 20 - \$60 (New/used)
Oceanside	\$ 1,320.00	\$ 1,840.00	\$ 1,180.00	\$ 1,680.00	\$ 980.00	\$ 1,480.00	\$ 100.00	\$ 100.00	\$ 48.00	\$ 127.00	Cost + 100%	Varies	\$ 45.00	\$ 50.00	-	-	
Pala	\$ 3,166.00	\$ 3,166.00	\$ 2,900.00	\$ 2,900.00	\$ 2,228.00	\$ 2,228.00	\$ -	\$ -	\$ 18.00	\$ 66.00	Cost + 100%	Varies	\$ 50.00	-	-	-	
Poway	\$ 1,039.00	\$ 1,039.00	\$ 1,029.00	\$ 1,029.00	\$ 866.00	\$ 1,196.00	\$ 150.00	\$ 150.00	\$ 19.00	\$ 94.00	-	Bus Cost + 150% Mile-Rate @ 1.37%	\$ 50.00	\$ 43.00	-	-	CO charge for Res - \$71
Ranoma	\$ 1,635.00	\$ 1,824.00	\$ 1,523.00	\$ 1,712.00	\$ 1,479.00	\$ 1,668.00	\$ 138.00	\$ 138.00	\$ 48.00	\$ 127.00	-	-	-	-	-	-	
Ranoma	\$ 3,166.00	\$ 3,166.00	\$ 2,900.00	\$ 2,900.00	\$ 2,228.00	\$ 2,228.00	\$ -	\$ -	\$ 48.00	\$ 127.00	-	-	-	-	-	-	
Ranoma	\$ 2,671.34	\$ 2,671.34	\$ 2,396.98	\$ 2,396.98	\$ 2,022.71	\$ 2,022.71	\$ 202.74	\$ 202.74	\$ 41.32	\$ 33.65	-	-	-	-	-	-	
San Diego	\$ 1,255.00	\$ 1,255.00	\$ 1,255.00	\$ 1,255.00	\$ 915.00	\$ 915.00	\$ 150.00	\$ 150.00	\$ 24.00	\$ 65.00	Cost + 100%	Varies	\$ 20.00	\$ 50.00	\$ 150.00	\$ 100.00	Cost+ (Disposable 1 - \$50.00/Disposable 2 - \$50, Intubation - \$60.00/Leads - \$60
San Marcos	\$ 4,451.94	\$ 4,451.94	\$ 3,967.94	\$ 3,967.94	\$ 1,613.83	\$ 1,613.83	\$ -	\$ -	\$ 63.87	\$ 241.94	-	-	-	-	-	-	
San Miguel	\$ 2,100.00	\$ 2,100.00	\$ 2,100.00	\$ 2,100.00	\$ 865.00	\$ 865.00	\$ -	\$ -	\$ 21.50	\$ 100.00	\$ 15.00	-	\$ 85.00	-	\$ 125.00	-	
System	\$ 3,166.00	\$ 3,166.00	\$ 2,900.00	\$ 2,900.00	\$ 2,228.00	\$ 2,228.00	\$ -	\$ -	\$ 45.00	\$ 127.00	-	-	-	-	-	-	
Valley Center	\$ 3,287.00	\$ 3,287.00	\$ 3,026.00	\$ 3,026.00	\$ 2,452.00	\$ 2,452.00	\$ -	\$ -	\$ 45.00	\$ 118.00	-	-	-	-	-	-	EKG charge for Medical
Vegas	\$ 1,697.00	\$ 1,829.00	\$ 1,580.00	\$ 1,709.00	\$ 1,000.00	\$ 1,117.00	\$ 154.00	\$ 154.00	\$ 27.00	\$ 65.00	Cost + 55%	Varies	\$ 20.00	-	\$ 154.00	\$ 150.00	Disposable Bundle I - \$65.00 / Disposable Bundle II - \$150.00
Vista	\$ 2,787.00	\$ 2,787.00	\$ 2,526.00	\$ 2,526.00	\$ 2,207.00	\$ 2,207.00	\$ -	\$ -	\$ 48.00	\$ 118.00	-	-	-	-	-	-	
Zone 2	\$ 2,594.34	\$ 2,510.61	\$ 2,207.53	\$ 2,232.05	\$ 1,493.95	\$ 1,540.23	\$ 152.47	\$ 175.17	\$ 39.92	\$ 122.81	-	\$ 71.54	\$ 39.35	\$ 74.70	\$ 957.04	\$ 101.80	\$ 203.83
County Service Area Ambulances (Over subsidized with a discount tax, currently \$37.26 per dwelling occupancy per year)																	
CSA 11 -	\$ 400.00	\$ 1,050.00	\$ 400.00	\$ 1,050.00	\$ 400.00	\$ 1,050.00	\$ -	\$ -	\$ 150.00	\$ 20.00	-	-	-	\$ 40.00	-	-	Oxygen / Night Charge only charged to Non-Pes
Trabasso /	\$ 900.00	\$ 1,050.00	\$ 900.00	\$ 1,050.00	\$ 900.00	\$ 1,050.00	\$ -	\$ -	\$ 150.00	\$ 20.00	-	-	-	\$ 40.00	-	-	Oxygen / Night Charge only charged to Non-Pes
Santee	\$ 3,339.00	\$ 3,409.88	\$ 2,837.11	\$ 3,435.75	\$ 1,506.42	\$ 1,506.42	\$ 153.47	\$ 171.58	\$ 37.61	\$ 118.83	\$ 339.77	\$ 71.54	\$ 39.35	\$ 67.76	\$ 957.04	\$ 101.80	\$ 203.83
Average Rates with CSA's																	
Evident Ambulance Services that do not bill for transports																	
Camp Pendleton	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Do not bill for services

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