nyhart
part of FuturePlan by Ascensus®

Community Fire Protection District Defined Benefit Pension Plan

Cost Analysis for Plan Design Changes

October 19, 2021

Certification

This report has been prepared for the primary purpose of summarizing financial information related to potential costs if Community Fire Protection District changes the plan design. To the best of our knowledge, the information summarized herein present fair positions of the funded status of the plan in accordance with the Actuarial Standards of Practice as described by the American Academy of Actuaries, and are based on the plan provisions and assumptions summarized in the valuation report dated May 19, 2021.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such facts as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or other additional cost or contribution requirement based on the plan's funded status); and changes in plan provisions of applicable law. The scope of our assignment did not include an analysis of the potential range of future measurements.

Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report. To the extent that this report or any attachment concerns tax matters, it is not intended to be used and cannot be used by a taxpayer for the purpose of avoiding penalties that may be imposed by law.

The undersigned is compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States.

Nyhart

Heath W Merlak

Heath W. Merlak, FSA, FCA, EA, MAAA

October 19, 2021

About This Material

This report provides the cost of plan design changes to the Community Fire Protection District Defined Benefit Pension Plan. If the District would choose to move forward with making the change to the plan, certain information is required to be provided for review for 45 days before the plan can be amended for such changes. The information required for this notice is included in this report.

Note the cost projections shown in this report is under one specific economic scenario and is meant to be used for illustration purposes only. Actual results will vary from projections shown in this report due to actual participant data, actual asset returns, and any assumption changes that may be warranted in the future.

Missouri State Law Requirements

1) Chapter 105.684 of the Missouri Revised Statutes requires that, in order for a local public employee retirement system to increase benefits:

    a) the Plan is at least 80% funded prior to adopting the change; and
    b) the Plan is at least 75% funded after adopting the change

2) Chapter 105.675 requires that cost information be provided for at least 45 days before the plan can be amended

Current Plan Provisions

Benefit Component	Description
Formula (per year of Credited Service)	60% of Average Monthly Earnings (AME) with 20 years of service.
Normal Retirement Date	Age 60 with 20 years or Age 62
Early Retirement Date	Age 55 with 30 years of service 60% of AME is reduced 3% for each year the participant retires prior to age 60
Vesting	100% vested after 5 years of service
Average Monthly Earnings (AME)	The highest average of a participant's compensation for any 3 consecutive plan years, divided by 12.
Bridge Benefit	None

Proposed Plan Design

Category	Description
Proposed Design	Maximum benefit would be increased from 60% of AME to 65% of AME for a participant with at least 20 years of service. Add a Bridge benefit equal to 20% of AME payable from retirement to age 62 for participants with 20 years of service. For service less than 20 years, the Bridge benefit would be prorated. Note the 65% of AME and the 20% of AME Bridge benefit is reduced by 3% for each year a participant retires early. For example, if a participant with 30 years of service retires at age 58, the main benefit would be 59% of AME (65% - 6%) and the Bridge benefit payable from retirement to age 62 would be 14% (20% - 6%).

Proposed Plan Design

Assumption Update	Description
Retirement Age Assumption	To reflect it is more likely for participants to retire prior to age 60 with the proposed plan changes, the cost analysis reflects an updated retirement age assumption. The table provides the current and proposed retirement age assumption:

Age	Current Provisions	Proposed Provisions
58	0%	25%
59	0%	50%
60	50%	75%
61	25%	25%
62	100%	100%
Weighted Retirement Age	60.9	59.3

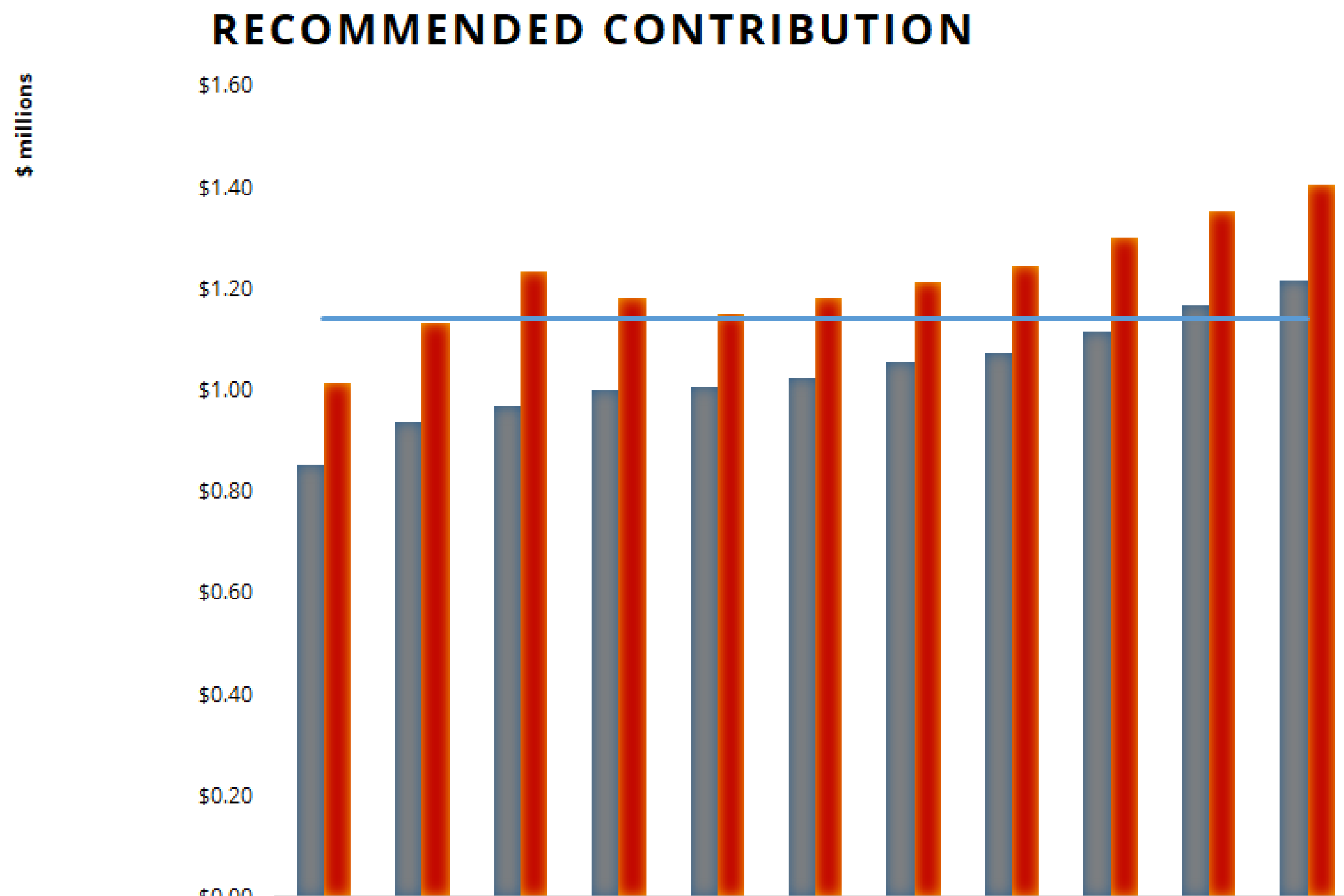
Plan Design

	1/1/2021 Valuation	1/1/2021 Valuation with Plan Changes and updated Retirement Age Assumption
Accrued Liability	$32,037,785	$34,803,760
Actuarial Value of Assets	34,380,586	34,380,586
Unfunded Liability, 1/1/2021	$(2,342,801)	$423,174
Funded Ratio	107.3%	98.8%
Market Value of Assets	$33,630,373	$33,630,373
Funded Ratio (Market)	105.0%	96.6%
Employer Normal Cost	$798,137	$912,206
Amortization	0	37,331
Interest	55,870	66,468
Recommended Contribution	$854,007	$1,016,005
Recommended Contribution, as a % of Payroll	*12.1%*	*14.4%*
Active Members	63	63
Total Payroll	$7,040,512	$7,040,512

Projection Assumptions

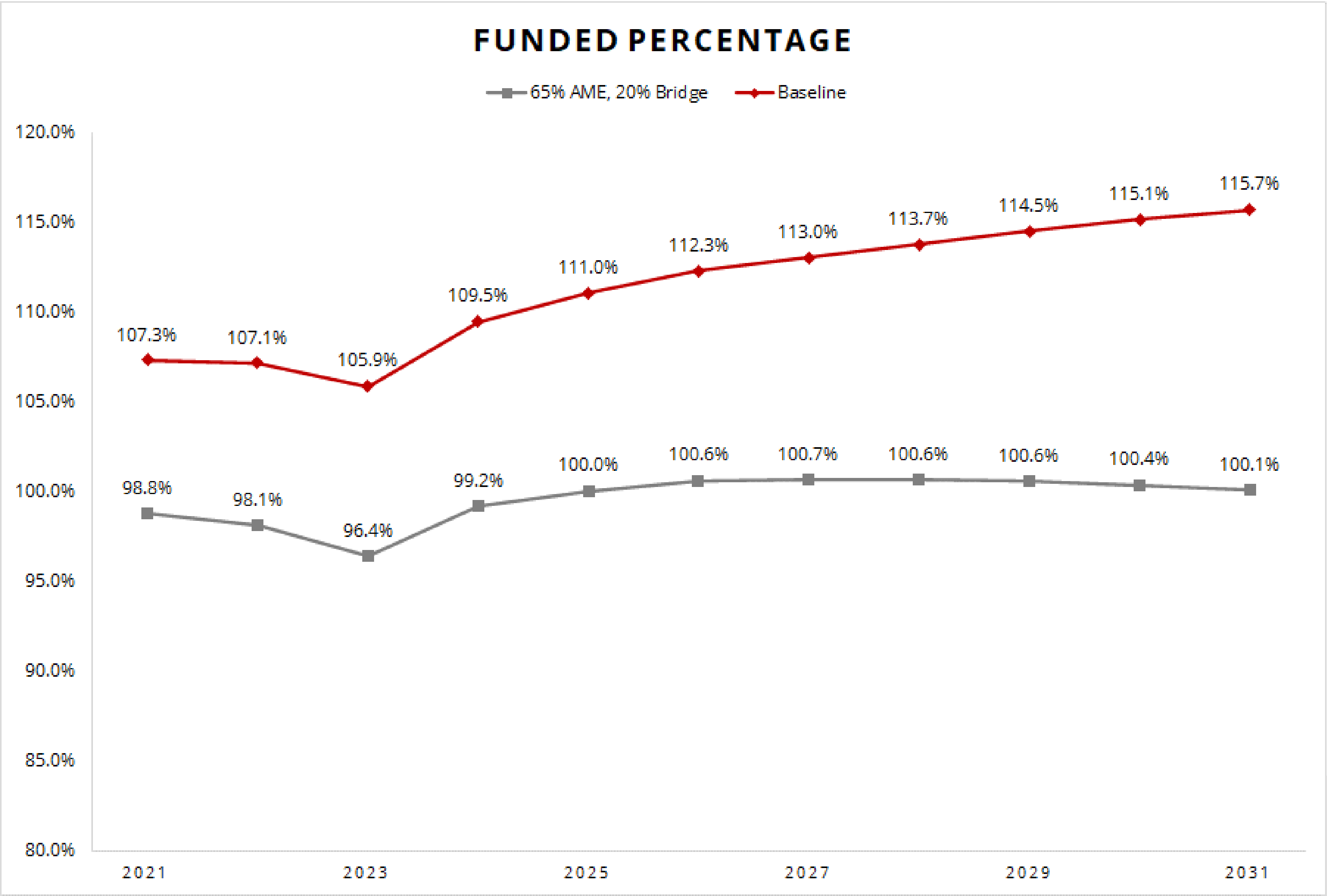
Assumption/Method	Description
Asset Return	10.00% in 2021, 7.00% thereafter
Contributions	Contributions are assumed to be made at a constant rate of $1,143,380 per year (2021 estimated pension tax revenue).
Data and other assumptions	All calculations shown in this report are based on data, methods, and assumptions shown in the January 1, 2021 Valuation Report unless noted differently in this report.
Assumed date of benefit change	The plan change date is expected to occur effective January 1, 2022. For this analysis, it is assumed the benefit change is effective January 1, 2021 for ease of comparison against the current provisions.
Population Growth	The active population is assumed to remain flat throughout the projection period.
New Entrants	New entrants are based on information for new hires during 2020.

Plan Design



	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Baseline	$0.85	$0.94	$0.97	$1.00	$1.01	$1.02	$1.06	$1.08	$1.12	$1.17	$1.22
65% AME, 20% Bridge	$1.01	$1.13	$1.23	$1.18	$1.15	$1.18	$1.21	$1.24	$1.30	$1.35	$1.41
Expected Contribution (Tax Revenue)	$1.14	$1.14	$1.14	$1.14	$1.14	$1.14	$1.14	$1.14	$1.14	$1.14	$1.14

Plan Design


FUNDED PERCENTAGE
65% AME, 20% Bridge
Baseline
120.0%
115.0%
110.0%
105.0%
100.0%
95.0%
90.0%
85.0%
80.0%
107.3%
107.1%
105.9%
109.5%
111.0%
112.3%
113.0%
113.7%
114.5%
115.1%
115.7%
98.8%
98.1%
96.4%
99.2%
100.0%
100.6%
100.7%
100.6%
100.6%
100.4%
100.1%
2021
2023
2025
2027
2029
2031

Projection Results

Baseline

Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Funding Liability	32,037,786	33,459,217	35,033,234	36,704,246	38,411,484	40,168,637	41,837,312	43,397,936	44,883,658	46,416,287	48,093,725
Actuarial Value of Assets	34,380,586	35,849,013	37,088,823	40,176,553	42,652,364	45,101,810	47,282,200	49,359,648	51,380,305	53,445,106	55,640,058
Market Value of Assets	33,630,373	36,500,859	38,539,480	40,674,942	42,849,501	45,101,810	47,282,200	49,359,648	51,380,305	53,445,106	55,640,058
Funded %	107.31%	107.14%	105.87%	109.46%	111.04%	112.28%	113.01%	113.74%	114.47%	115.14%	115.69%
Unfunded Accrued Liability (UAL)	(2,342,800)	(2,389,796)	(2,055,589)	(3,472,307)	(4,240,880)	(4,933,173)	(5,444,888)	(5,961,712)	(6,496,647)	(7,028,819)	(7,546,333)
Normal Cost with admin. Expenses	854,007	937,862	970,715	1,000,759	1,005,949	1,024,877	1,056,508	1,075,316	1,115,906	1,167,911	1,218,525
as a % of Total Salary	12.13%	13.15%	13.16%	13.08%	12.77%	12.68%	12.82%	12.79%	12.98%	13.17%	13.25%
Amortization of UAL	-	-	-	-	-	-	-	-	-	-	-
as a % of Total Salary	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Actuarial Recommended Contribution	854,007	937,862	970,715	1,000,759	1,005,949	1,024,877	1,056,508	1,075,316	1,115,906	1,167,911	1,218,525
as a % of Total Salary	12.13%	13.15%	13.16%	13.08%	12.77%	12.68%	12.82%	12.79%	12.98%	13.17%	13.25%
Total Salary	7,040,512	7,132,100	7,377,288	7,649,386	7,875,744	8,083,902	8,243,423	8,404,336	8,597,472	8,868,250	9,194,420

Proposed Plan Design

Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Funding Liability	34,803,760	36,465,248	38,260,375	40,078,881	41,913,792	43,647,524	45,259,146	46,799,978	48,422,220	50,284,580	52,338,108
Actuarial Value of Assets	34,380,586	35,773,451	36,883,806	39,740,055	41,930,564	43,916,182	45,556,933	47,098,404	48,690,597	50,463,540	52,369,149
Market Value of Assets	33,630,373	36,424,458	38,333,833	40,238,024	42,127,491	43,916,182	45,556,933	47,098,404	48,690,597	50,463,540	52,369,149
Funded %	98.78%	98.10%	96.40%	99.15%	100.04%	100.62%	100.66%	100.64%	100.55%	100.36%	100.06%
Unfunded Accrued Liability (UAL)	423,174	691,797	1,376,569	338,826	(16,772)	(268,658)	(297,787)	(298,426)	(268,377)	(178,960)	(31,041)
Normal Cost with admin. Expenses	976,060	1,072,879	1,109,940	1,147,602	1,151,881	1,182,536	1,213,843	1,244,816	1,301,883	1,354,142	1,407,498
as a % of Total Salary	13.86%	15.09%	15.12%	15.16%	14.81%	14.92%	15.02%	15.04%	15.26%	15.30%	15.33%
Amortization of UAL	37,331	61,967	124,028	35,862	-	-	-	-	-	-	-
as a % of Total Salary	0.53%	0.87%	1.69%	0.47%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Actuarial Recommended Contribution	1,013,391	1,134,846	1,233,968	1,183,464	1,151,881	1,182,536	1,213,843	1,244,816	1,301,883	1,354,142	1,407,498
as a % of Total Salary	14.39%	15.96%	16.81%	15.64%	14.81%	14.92%	15.02%	15.04%	15.26%	15.30%	15.33%
Total Salary	7,040,512	7,112,088	7,339,962	7,568,588	7,778,072	7,927,341	8,079,241	8,276,150	8,530,496	8,851,489	9,180,069

Key Takeaways

- The plan is over 80% funded before the implementation of plan changes, and at least 75% funded after the implementation of plan changes.
- The proposed change would not in any way impair the ability of the plan to meet the obligations in effect at this time.
- Additional contributions to the plan are not mandated for the 2021 plan year. Future contributions will be higher in future years compared to the current plan design.
- Actual asset returns will have the largest impact on future plan costs for the current plan provisions and the proposed plan provisions.
- The assumptions used for the valuation and related projections produced results which, in aggregate, are reasonable.
- The District is currently paying the total contribution rate which includes normal cost plus any amortization of the unfunded accrued liability.

Community Fire Protection District Defined Benefit Pension Plan

January 1, 2021

Actuarial Valuation Report

Table of Contents

Actuarial Certification

At the request of the plan sponsor, this report summarizes the actuarial results of the Community Fire Protection District Defined Benefit Pension Plan as of January 1, 2021. The purpose of this report is to communicate the following results of the valuation:

• Funded Status;
• and Determine Recommended Contribution;

This report has been prepared in accordance with the applicable Federal and State laws. Consequently, it may not be appropriate for other purposes. Please contact Nyhart prior to disclosing this report to any other party or relying on its content for any purpose other than that explained above. Failure to do so may result in misrepresentation or misinterpretation of this report.

The results in this report were prepared using information provided to us by other parties. The census and asset information has been provided to us by the employer. We have reviewed the provided data for reasonableness when compared to prior information provided, but have not audited the data. Where relevant data may be missing, we have made assumptions we believe to be reasonable. We are not aware of any significant issues with and have relied on the data provided. Any errors in the data provided may result in a different result than those provided in this report. A summary of the data used in the valuation is included in this report.

In preparing these results, Nyhart used ProVal valuation software developed by Winklevoss Technologies, LLC. This software is widely used for the purpose of performing pension valuations. We coded the plan provisions, assumptions, methods, and participant data summarized in this report, and reviewed the liability and cost outputs for reasonableness. We are not aware of any weaknesses or limitations in the software, and have determined it is appropriate for performing this valuation.

The actuarial assumptions and methods were chosen by the employer. In our opinion, all actuarial assumptions and methods are individually reasonable and in combination represent our best estimate of anticipated experience of the plan. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following:

• plan experience differing from that anticipated by the economic or demographic assumptions;
• changes in economic or demographic assumptions;
• increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and
• changes in plan provisions or applicable law.

We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement. This report has been prepared in accordance with generally accepted actuarial principles and practice.

Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report. To the extent that this report or any attachment concerns tax matters, it is not intended to be used and cannot be used by a taxpayer for the purpose of avoiding penalties that may be imposed by law.

Actuarial Certification

The undersigned are compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States and are available for any questions.

Nyhart

Jen Turk, FSA, EA, MAAA	Heath Merlak, FSA, EA, MAAA
Enrolled Actuary No. 20-07346	Enrolled Actuary No. 20-05967

May 19, 2021
Date

Executive Summary

The actuarial report provides the plan sponsor with several ways to measure the funded status of the pension plan. The following detail is included in the report:

- Recommended Contribution
- Asset Performance
- Plan Demographics

This report is filled with actuarial terminology. However, the ultimate objective of the valuation is to provide a rational method of funding the plan. It is necessary to fund the benefit promised by the employer in a manner that is logical and employer friendly, yet safeguards the participants' interest. The actuarially derived contribution, however, is not the true cost of the pension plan. The true cost is illustrated by the following formula:

Ultimate Pension Cost = Benefits Paid - Investment Income + Plan Expenses

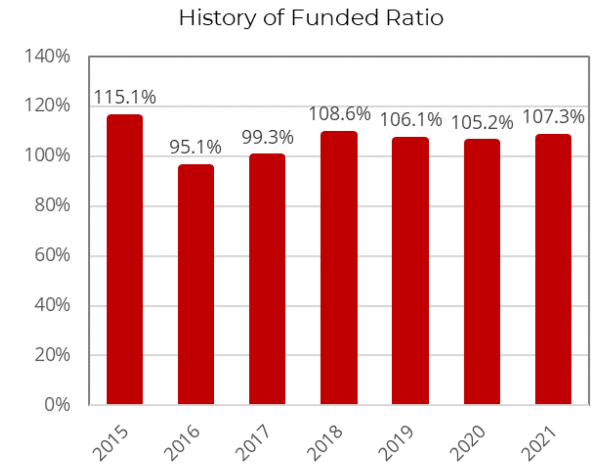
While the plan's liability and normal cost determine the current contribution recommendations, the true cost is controlled only by the "defined" benefit and investment income generated by the underlying assets. The actuarial process only controls the timing of costs.

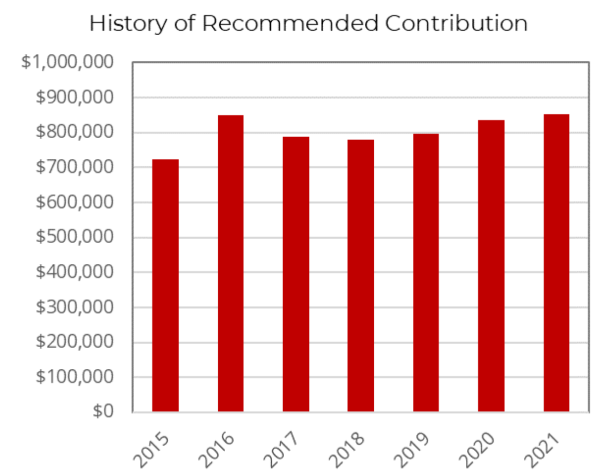
We suggest that a plan sponsor treat the actuarial report as you would treat a scorecard. It is simply a measure of progress toward the ultimate goal of paying all pension benefits when participants retire.

Summary Results

The actuarial valuation's primary purpose is to produce a scorecard measure displaying the funding progress of the plan toward the ultimate goal of paying benefits at retirement. The accrued liability is based on an entry age level percentage of pay.

	January 1, 2020	January 1, 2021
Funded Status Measures		
Accrued Liability	$30,625,119	$32,037,785
Actuarial Value of Assets	$32,230,906	$34,380,586
Unfunded Actuarial Accrued Liability (UAAL)	($1,605,787)	($2,341,801)
Funded Percentage (AVA)	105.2%	107.3%
Funded Percentage (MVA)	102.3%	105.0%
Cost Measures		
Recommended Contribution for Year Beginning	$836,751	$854,007
Recommended Contribution (as a percentage of payroll)	12.6%	12.1%
Asset Performance		
Market Value of Assets (MVA)	$31,315,893	$33,630,373
Actuarial Value of Assets (AVA)	$32,230,906	$34,380,586
Actuarial Value/Market Value	102.9%	102.2%
Market Value Rate of Return	19.56%	8.69%
Actuarial Value Rate of Return	3.83%	7.92%
Participant Information		
Active Participants	63	63
Terminated Vested Participants	2	2
Retirees and Beneficiaries	22	26
Total	87	91
Expected Payroll	$6,616,063	$7,040,512





nyhart part of FuturePlan by Ascensus

Changes since Prior Valuation and Key Notes

The mortality assumption for healthy lives has been updated from PubS-2010 Mortality Table with generational improvements from 2010 based on improvement scale MP-2019 to the PubS-2010 Mortality Table with generational improvements from 2010 based on improvement scale MP-2020. This change results in a decrease in liability and normal cost.

The mortality assumption for survivors has been updated from Pub-2010 Continuing Survivor Mortality Table with generational improvements from 2010 based on improvement scale MP-2019 to the Pub-2010 Continuing Survivor Mortality Table with generational improvements from 2010 based on improvement scale MP-2020. This change results in a decrease in liability and normal cost.

Five Year Valuation Summary

	01/01/2017	01/01/2018	01/01/2019	01/01/2020	01/01/2021
Funding					
Accrued Liability	$27,022,230	$27,261,970	$29,235,236	$30,625,119	$32,037,785
Actuarial Value of Assets	$26,842,748	$29,617,608	$31,020,749	$32,230,906	$34,380,586
Unfunded Actuarial Accrued Liability	$179,482	($2,355,638)	($1,785,513)	($1,605,787)	($2,341,801)
Funded Percentage	99.34%	108.64%	106.1%	105.2%	107.3%
Normal Cost (NC)	$687,527	$698,190	$714,741	$752,010	$768,137
NC as a Percent of Covered Payroll	11.18%	11.09%	10.90%	11.4%	10.9%
Actual Contribution	$1,199,015	$1,169,269	$1,288,540	$1,194,019	TBD
Recommended Contribution	$787,660	$779,163	$796,873	$836,571	$854,007
Recommended Contribution (% of Pay)	12.8%	12.4%	12.1%	12.6%	12.1%
Interest Rate	7.00%	7.00%	7.00%	7.00%	7.00%
Expense Load Assumption	$30,000	$30,000	$30,000	$30,000	$30,000
Rate of Return					
Actuarial Value of Assets	6.31%	9.01%	3.23%	3.83%	7.92%
Market Value of Assets	29.51%	13.78%	-20.01%	19.56%	8.69%
Demographic Information					
Active Participants	60	62	60	63	63
Terminated Vested Participants	1	2	4	2	2
Retired Participants	17	15	15	21	25
Beneficiaries	0	1	1	1	1
Disabled Participants	0	0	0	0	0
Total Participants	78	80	80	87	91
Covered Payroll	$6,148,992	$6,296,595	$6,559,049	$6,616,063	$7,040,512
Average Covered Pay	$102,483	$101,558	$109,317	$105,017	$111,754

Identification of Risks

The results presented in this report are shown as single point values. However, these values are derived using assumptions about future markets and demographic behavior. If actual experience deviates from our assumptions, the actual results for the plan will consequently deviate from those presented in this report. Therefore, it is critical to understand the risks facing this pension plan. The following table shows the risks we believe are most relevant to the Community Fire Protection District Defined Benefit Pension Plan. The risks are generally ordered with those we believe to have the most significance at the top. Also shown are possible methods by which a more detailed assessment of the risk can be performed.

Type of Risk	Method to Assess Risk
Investment Return	Scenario Testing; Asset Liability Study
Salary Growth	Experience Study; Annual Monitoring
Retirement Risk	Stress Testing
Contribution Risk	Stress Testing; Scenario Testing
Participant Longevity	Stress Testing; Scenario Testing

Plan Maturity Measures - January 1, 2021

Each pension plan has a distinct life-cycle. New plans promise future benefits to active employees and then accumulate assets to pre-fund those benefits. As the plan matures, benefits are paid and the pre-funded assets begin to decumulate until ultimately, the plan pays out all benefits. A plan's maturity has a dramatic influence on how risks should be viewed. The following maturity measures illustrate where the Community Fire Protection District Defined Benefit Pension Plan falls in its life-cycle.

Duration of Liabilities: 13.4

Duration is the most common measure of plan maturity. It is defined as the sensitivity of the liabilities to a change in the interest rate assumption. The metric also approximates the weighted average length of time, in years, until benefits are expected to be paid. A plan with high duration is, by definition, more sensitive to changes in interest rates. A plan with low duration is more susceptible to risk if asset performance deviates from expectations as there would be less time to make up for market losses in adverse market environments while more favorable environments could result in trapped surplus from gains. Conversely, high duration plans can often take on more risk when investing, and low duration plans are less sensitive to interest rate fluctuations.

Demographic Distribution - Ratio of Actively Accruing Participants to All Participants: 69.2%

A plan with a high ratio is more sensitive to fluctuations in salary (if a salary-based plan) and statutory changes. A plan with a low ratio is at higher risk from demographic experience. Such a plan should pay close attention to valuation assumptions as there will be less opportunity to realize future offsetting gains or losses when current experience deviates from assumptions. Plans with a low ratio also have limited opportunities to make alterations to plan design to affect future funded status.

Asset Leverage - Ratio of Payroll for Plan Participants to Market Value of Assets: 20.9%

Younger plans typically have a large payroll base from which to draw in order to fund the plan while mature plans often have a large pool of assets dedicated to providing benefits to a population primarily consisting of members no longer on payroll. Plans with low asset leverage will find it more difficult to address underfunding, as the contributions needed to make up the deficit will represent a higher percentage of payroll than for a plan with high asset leverage.

Benefit Payment Percentage - Ratio of Annual Benefit Payments to Market Value of Assets: 4.6%

As a plan enters its decumulation phase, a larger percentage of the pre-funded assets are paid out each year to retirees. A high percentage is not cause for alarm as long as the plan is nearly fully funded. However, such a plan is more sensitive to negative asset performance, especially if cash contributions are not an option to make up for losses.

Assets and Liabilities

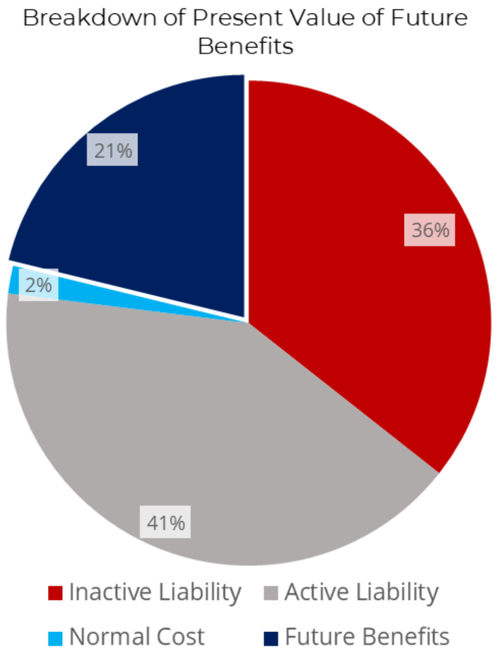
The basic building blocks of the actuarial report are contained in this section. These include:

- Actuarial Accrued Liabilities
- Asset Information
- Summary of Contributions

Present Value of Future Benefits

The Present Value of Future Benefits represents the future benefits payable to the existing participants.

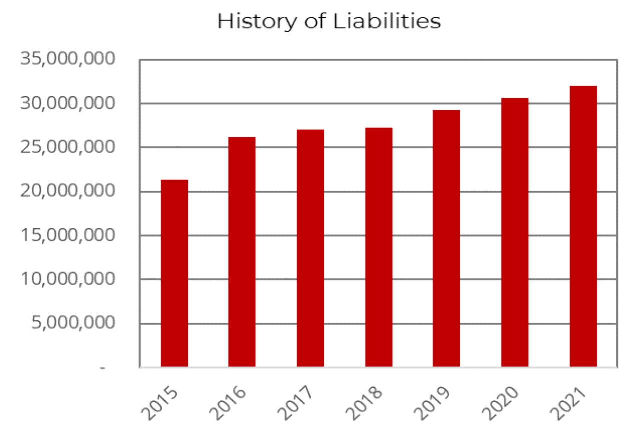
	January 1, 2021
Present Value of Future Benefits	
Active participants	
Retirement	$26,360,164
Death	$246,615
Termination	$294,031
Total active	$26,900,810
Inactive participants	
Retired participants	$13,450,943
Beneficiaries	$212,030
Terminated vested participants	$1,164,609
Total inactive	$14,827,582
Total	$41,728,392
Present value of future payrolls	$81,960,648

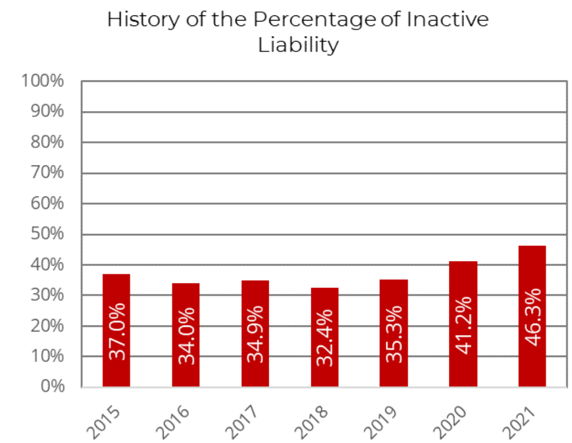


Actuarial Accrued Liability

The Actuarial Accrued Liability measures the present value of benefits earned as of the valuation date, using a specified set of actuarial assumptions.

	January 1, 2021
Active participants	
Retirement	$17,227,663
Death	$137,144
Termination	($154,604)
Total Active	$17,210,203
Inactive participants	
Retired participants	$13,450,943
Beneficiaries	$212,030
Terminated vested participants	$1,164,609
Total Inactive	$14,827,582
Total Actuarial Accrued Liability	$32,037,785
Normal Cost	$768,137
Interest Rate	7.00%





Reconciliation of Actuarial Accrued Liabilities

A plan's Actuarial Accrued Liability will change from one year to the next. It increases due to benefit accruals (Normal Cost) and interest, and it decreases as benefits are paid. Demographic experience, assumptions changes, and plan changes can cause increases or decreases.

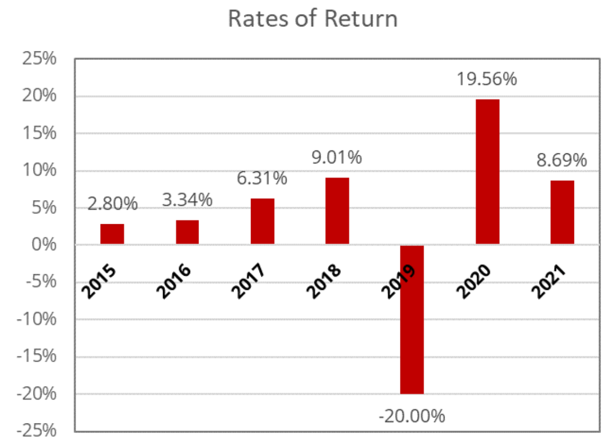
		January 1, 2021
1.	**Actuarial Accrued Liability prior year**	$30,625,119
2.	**Increases or decreases due to:**	
	(a) Normal Cost	$752,010
	(b) Interest Adjustment	$2,143,631
	(c) Benefits Paid	(1,533,590)
	(d) Demographic Experience	139,012
	(e) Interest Rate Changes	$0
	(f) Mortality Changes	$(88,397)
	(g) Other Assumption Changes	$0
	(h) Plan Changes	$0
	(i) Other Changes	$0
3.	**Actuarial Accrued Liability current year**	$32,037,785

Assets and Liabilities

Asset Information

The amount of assets backing the pension promise is the most significant driver of volatility and future costs within a pension plan. The investment performance of the assets directly offsets the ultimate cost.

	January 1, 2021
Market Value Reconciliation	
Market value of assets, beginning of prior year	$31,315,893
Contributions	
Employer contributions	634,226
Employee contributions	0
Total	$634,226
Investment income	$2,679,932
Benefit payments	(1,533,590)
Administrative expenses	(25,881)
Market value of assets, beginning of current year (without receivable contributions)	$33,070,580
Discounted receivable contributions	$559,793
Market value of assets, beginning of current year (with discounted receivables)	$33,630,373
Historical Rates of Return	
Rate of return for 2020	8.7%
Rate of return for 2019	19.6%
Rate of return for 2018	-20.0%
Rate of return for 2017	9.0%
Actuarial Value of Assets	
Value at beginning of current year	$34,380,586



Monitoring the pension plan's investment performance is crucial to eliminating surprises.

Asset Information (continued) – 20% Phase in

Plan Assets are used to develop funded percentages and contribution requirements.

	January 1, 2021
Investment Gain or (Loss)	
1. Prior year's market value of assets	$31,315,893
2. Employer contributions for the prior plan year	1,194,019
3. Employee contributions for the prior plan year	0
4. Benefit payments during the prior plan year	(1,533,590)
5. Administrative expenses during the prior plan year	(25,881)
6. Expected earnings at 7.00% to the end of the plan year on	
(a) Market value of assets	$2,192,113
(b) Contributions	21,822
(c) Benefit payments	(52,768)
(d) Administrative expenses	(1,812)
(e) Total expected earnings, (a) + (b) + (c) + (d)	$2,159,355
7. Expected market value of assets, (1) + (2) + (3) + (4) + (5) + (6e)	$33,109,796
8. Actual market value of assets	$33,630,373
9. Investment Gain or (Loss), (8) – (7)	$520,577
Actuarial Value of Assets	
10. Market value of assets	$33,630,373
11. Deferred Investment gains or (losses)	
(a) Current year (80%)	$416,462
(b) First prior year (60%)	1,953,047
(c) Second prior year (40%)	(3,502,156)
(d) Third prior year (20%)	382,434
(e) Total	(750,213)
12. Preliminary actuarial value of assets, (10 – (11e))	$34,380,586
13. 80% Market value of assets	$26,904,299
14. 120% Market value of assets	$40,356,447
15. Final actuarial value of assets	$34,380,586
16. Return on actuarial value of assets	7.92%

Funding Results

The basic building blocks of the actuarial report are contained in this section. These include:

- Reconciliation of Gain/Loss
- Recommended Contribution

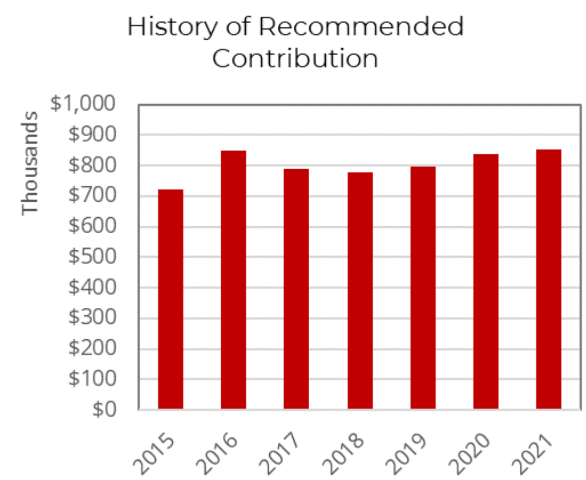
Reconciliation of Gain/Loss

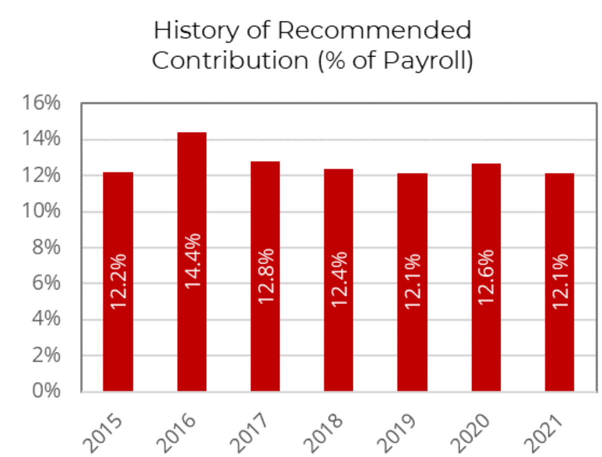
	January 1, 2021
Liability (Gain)/Loss	
1. Actuarial liability, beginning of prior year	$30,625,119
2. Normal cost for prior year	752,010
3. Benefit payments	(1,533,590)
4. Expected Interest	2,143,631
5. Change in Assumptions	(88,397)
6. Change in Plan Provisions	0
7. Expected actuarial liability, beginning of current year	$31,898,773
8. Actual actuarial liability	$32,037,785
9. Liability Gain/(Loss), (7) – (8)	$(139,012)
Asset Gain/(Loss)	
10. Actuarial value of assets, beginning of prior year	$32,230,906
11. Contributions	1,194,019
12. Benefit payments	(1,533,590)
13. Administrative expenses	(25,881)
14. Expected Investment return	2,243,589
15. Expected actuarial value of assets, beginning of current year	$34,109,043
16. Actual actuarial value of assets, beginning of current year	$34,380,586
17. Asset Gain/(Loss), (16) – (15)	$271,543
Total Gain/(Loss), (17) + (9)	$132,531

Development of Recommended Contribution

The recommended contribution is the annual amount necessary to fund the plan according to funding policies and/or applicable laws.

Recommended Contribution	
1. Accrued Liability	
(a) Active	$17,210,203
(b) Terminated Vested Benefits	1,164,609
(c) Receiving Benefits	13,662,973
(d) Total, (a)+(b)+(c)+(d)	$32,037,785
2. Actuarial value of assets	$34,380,586
3. Unfunded accrued liability, (1)-(2)	($2,342,801)
4. Level dollar amortization of (3)	$0
5. Normal Cost	$768,137
6. Administrative Expenses	$30,000
7. Recommended Contribution, (4)+(5)+(6)	$798,137
8. Interest to end of year, Max[0,7.00%x(8)]	55,870
9. Recommended Contribution, (8) + (9)	$854,007
10. Expected Participating Payroll	$7,040,512
11. Percent of Participating Payroll, (10) / (11)	12.1%





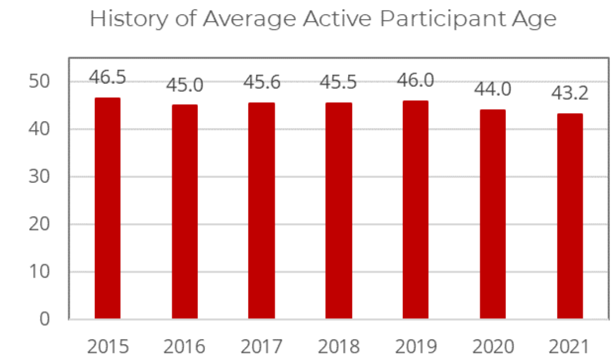
Data, Assumptions, and Plan Provisions

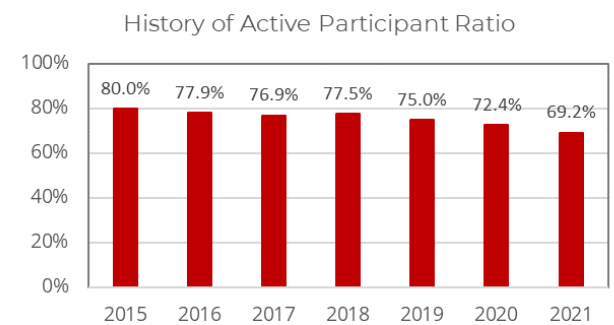
- Demographic Information
- Plan Provisions
- Assumptions and Methods

Demographic Information

The foundation of a reliable actuarial report is the participant information provided by the plan sponsor. Monitoring trends in demographic information is crucial for long-term pension planning.

	January 1, 2020	January 1, 2021
Participant Counts		
Active Participants	63	63
Retired Participants	21	25
Beneficiaries	1	1
Disabled Participants	0	0
Terminated Vested Participants	2	2
Total Participants	87	91
Active Participant Demographics (Ongoing)		
Average Age	44.0	43.2
Average Service	15.6	14.7
Average Compensation	$105,017	$111,754
Total Covered Payroll	$6,616,063	$7,040,512





Demographic Information (continued)

	January 1, 2020	January 1, 2021
Retiree Statistics		
Average Age	66.3	66.1
Average Monthly Benefit	$3,667	$3,847
Beneficiary Statistics		
Average Age	65.6	66.6
Average Monthly Benefit	$5,028	$5,028
Disabled Participant Statistics		
Average Age	N/A	N/A
Average Monthly Benefit	N/A	N/A
Terminated Vested Participant Statistics		
Average Age	58.6	59.6
Average Monthly Benefit	$4,596	$4,596

Monitoring the average age of the population is important due to the relationship of actuarial cost to age. Generally speaking, an older population generates a higher actuarial cost.

Changes in the ratio of active to retired participants can be a significant driver of costs in a volatile asset market.

Participant Reconciliation

	Active	Terminated Vested	Retired	Beneficiaries	Totals
Prior Year	63	2	21	1	87
Active					
To Death	0	0	0	0	0
To Terminated Vested	0	0	0	0	0
To Lump Sum Cash-Out	0	0	0	0	0
To Retired	(4)	0	4	0	0
Terminated Vested					
To Active	0	0	0	0	0
To Non-Participating	0	0	0	0	0
To Retired	0	0	0	0	0
To Survivor	0	0	0	0	0
To Lump Sum Cash-Out	0	0	0	0	0
To Death	0	0	0	0	0
Retired					
To Death	0	0	0	0	0
Survivor					
To Death	0	0	0	0	0
Additions	4	0	0	0	4
Departures	0	0	0	0	0
Current Year	63	2	25	1	91

Active Participant Schedule

Active participant information grouped based on age and service.

Age Group	Years of Service									Total
	0 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 & Up	
Under 25										
25 to 29	9	2								11
30 to 34	3	4	1							8
35 to 39	3	7	1	1						12
40 to 44			3	1	1					5
45 to 49		2	1	2		1				6
50 to 54				2	1	2	3			8
55 to 59			1		2		3	2		8
60 to 64							1		2	3
65 to 69			1						1	2
70 & up										
Total	15	15	8	6	4	3	7	2	3	63

Plan Effective Date

The Plan was last restated effective January 1, 2016.

Plan Status

The plan is open to new participants and all participants are eligible to accrue additional benefits.

Eligibility for Participation

Employees of the District automatically become a plan participant on the first day of the month on or immediately following date of hire.

Accrual of Benefits

A participant shall accumulate a benefit payable at Normal Retirement Date based on compensation as of the date of determination of the accrued benefit and benefit service as of the date of determination

Benefits

Normal Retirement

Eligibility	Age 60 and 20 Years of Service or Age 62
Benefit	60% of Average Monthly Earnings reduced by Years of Service less than 20 years, offset by retirement or termination distributions that were made from the prior plan. 70% of the QDRO distributions that were made from the prior plan will be accumulated with interest at 5.0% per year and reduce the benefit under this plan.
Minimum Benefit, subject to vesting	On January 1, 2009, the account balance of each participant in the Community Fire Protection District Defined Contribution Plan was converted to benefits under the defined benefit plan. The Converted Account Balance will be accumulated with interest at 5.0% per year compounded annually.

Early Retirement

Eligibility	Age 55 and 30 Years of Service
Benefit	60% factor of the Normal Retirement Benefit is reduced 3% for each year the Early Retirement Date precedes the Normal Retirement Date.

Disability None

Death before Retirement

Eligibility	(1) Active participant married with vested benefit
	(2) Unmarried, vested participant with a child or children under age 21
Benefit	Present value of accrued benefit payable in any non-spousal optional form as elected by spouse or designated beneficiary.

Severance

Eligibility	5 Years of Credited Service
Benefit	Normal Retirement Benefit multiplied by a fraction equal to the Credited Service completed to date and divided by Credited Service that the participant would complete at Normal Retirement Date. The Vested Benefit is due and payable commencing at Normal Retirement Age.

Credited Service

Years and full months from date of hire.

Average Compensation

The highest average of participant's compensation for any three (3) consecutive plan years, divided by 12. In no event shall participants' compensation exceed the limitation specified in Section 401(a)(17) of the Internal Revenue Code.

Employee Contributions

Participants shall not be required or permitted to make contributions under the Plan.

Payment Forms

Normal Form

Life Annuity

Optional Forms

10-year certain and life annuity; or 50%, 75%, or 100% joint and survivor annuity with pop-up feature.
Lump Sum Benefit may be payable for a portion of the retirement benefit equal to the Accumulated Converted Account Balance

Actuarial Equivalence

Actuarial Equivalence will be computed using 7.50% interest and the mortality table in the 1994 Group Annuity Mortality Table for males set back 6 years for co-annuitants

Plan Provisions Not Included

We are not aware of any plan provisions not included in the valuation.

Adjustments Made for Subsequent Events

We are not aware of any event following the measurement date and prior to the date of this report that would materially impact the results of this report.

Data, Assumptions, and Plan Provisions

Except where otherwise indicated, the following assumptions were selected by the plan sponsor with the concurrence of the actuary. Prescribed assumptions are based on the requirements of the relevant law, the Internal Revenue Code, and applicable regulation. The actuary was not able to evaluate the prescribed assumptions for reasonableness for the purpose of the measurement.

Valuation Date	January 1, 2021
Participant and Asset Information Collected as of	January 1, 2021
Cost Method	Entry Age Normal Level Percent of Pay Method
Amortization Method	20-year closed level dollar amortization of Unfunded Actuarial Accrued Liability
Asset Valuation Method	Market value of assets with a 5-year phase in of gains and losses, subject to a 20% corridor
Interest Rates *(CO)*	7.00% This rate has been set by the plan sponsor in conjunction with their asset advisor. Detailed evaluation of this assumption was outside the scope of our engagement.
Expense and/or Contingency Loading *(FE)*	$30,000
Annual Pay Increases *(FE)*	4.00%
Future Service Accrual *(FE)*	Active participants are assumed to earn an annual service credit each year up until their Normal Retirement Date
Mortality Rates *(FE)*	
Healthy	PubS-2010 with generational improvements from 2010 based on improvement scale MP-20
Beneficiaries	Pub-2010 Continuing Survivor table with generational improvements from 2010 based on improvement scale MP-20
Disabled	Pub-2010 Disabled Retiree table with generational improvements from 2010 based on improvement scale MP-20
	As the plan is not large enough to have credible experience, mortality assumptions are set to r general population trends.

part of FuturePlan by Ascensus

Marital Status and Ages *(FE)*	100% of Participants assumed to be married.
Payment Form Election *(FE)*	100% Single Life Annuity at Normal Retirement
Retirement Rates *(FE)*	50% or employees were assumed to retire at age 60, 25% of employees were assumed to retire at age 61, and 100% of employees were assumed to retire at age 62 Retirement rates are based on professional judgment and expectation for the general population adjusted as necessary for the specific provisions of the plan.
Disability Rates *(FE)*	None
Withdrawal Rates *(FE)*	T-1 Actuary's Table. Sample rates:

Age	Rate
20	5.4417%
30	3.7056%
40	1.1306%
50+	0.0000%

As the plan is not large enough to have credible experience, withdrawal assumptions reflect the withdrawal assumption that, in our professional judgment, best reflects the anticipated experience of the plan.

FE indicates an assumption representing an estimate of future experience
MD indicates an assumption representing observations of estimates inherent in market data
CO indicates an assumption representing a combination of an estimate of future experience and observations of market data

Projected Cash Flows

The following projections are as of January 1, 2021 and are based on the plan provisions and actuarial assumptions described in this report. The contribution amount includes accrued contributions of $559,793 made in January 2021. The earnings are calculated assuming contributions are made at the end of each year, benefit payments are made mid-year, $30,000 is paid for administrative expenses at the end of each year, and investment earnings will be 7.0% per annum.

Date	Beginning Asset Balance	Contributions	Distributions	Earnings	Ending Asset Balance
12/31/2020	31,315,893	1,194,019	(1,533,590)	2,654,051	33,630,373
12/31/2021	33,630,373	1,194,019	(1,583,009)	2,269,658	35,511,041
12/31/2022	35,511,041	1,194,019	(1,612,641)	2,400,285	37,492,704
12/31/2023	37,492,704	1,194,019	(1,656,977)	2,537,476	39,567,222
12/31/2024	39,567,222	1,194,019	(1,763,691)	2,679,020	41,676,570
12/31/2025	41,676,570	1,194,019	(1,835,683)	2,824,198	43,859,104
12/31/2026	43,859,104	1,194,019	(2,057,627)	2,969,338	45,964,834
12/31/2027	45,964,834	1,194,019	(2,304,452)	3,108,247	47,962,648
12/31/2028	47,962,648	1,194,019	(2,499,561)	3,241,380	49,898,486
12/31/2029	49,898,486	1,194,019	(2,593,119)	3,373,670	51,873,056
12/31/2030	51,873,056	1,194,019	(2,606,322)	3,511,435	53,972,188
12/31/2031	53,972,188	1,194,019	(2,652,259)	3,656,794	56,170,742
12/31/2032	56,170,742	1,194,019	(2,761,589)	3,806,931	58,410,103
12/31/2033	58,410,103	1,194,019	(2,805,918)	3,962,161	60,760,365
12/31/2034	60,760,365	1,194,019	(2,914,258)	4,122,952	63,163,078
12/31/2035	63,163,078	1,194,019	(3,034,551)	4,287,002	65,609,548