WORK SESSION MEETING
AGENDA
CITY OF CREVE COEUR
CITY COUNCIL, EMPLOYEE PENSION BOARD, AND FINANCE
300 NORTH NEW BALLAS RD
OCTOBER 24, 2022
6:00 PM

CALL TO ORDER

ROLL CALL

DISCUSSION ITEMS

1. **Approval of September 28, 2022 City Council Work Session Minutes**
2. **Retirement Plan for Employees of the City of Creve Coeur Actuarial Valuation Report & COLA Discussion for Retirees**

ADJOURNMENT

Pursuant to Section 610.022 RSMo., the City Council could, at any time during the meeting, vote to close the public meeting and move to closed session to discuss matters relating to litigation, legal actions and/or communications from the City Attorney as provided under Section 610.021(1) RSMo. and/or personnel matters under Section 610.021(13) RSMo. And/or employee matters under Section 610.021(3) RSMo. and/or real estate matters under Section 610.021(2) or other matters as permitted by Chapter 610.

Posted by: ______________________

Date/Time posted: ______________________

If you need special accommodations to attend a meeting, services may be arranged by contacting the Office of the City Administrator in advance.

WORK SESSION MEETING
MINUTES
CITY OF CREVE COEUR
CITY COUNCIL
300 NORTH NEW BALLAS RD
SEPTEMBER 28, 2022
6:00 PM

CALL TO ORDER

A work session of the City Council of the City of Creve Coeur was called to order by Mayor Robert Hoffman at the City Council Chamber, 300 North New Ballas Rd, City of Creve Coeur Government Center, Creve Coeur, MO 63141 on Wednesday, September 28, 2022 at 6:00 PM.

ROLL CALL

Mayor Robert Hoffman
Council Member, Ward 1 Mark Manlin
Council Member, Ward 1 Heather Silverman
Council Member, Ward 2 Tim Carney
Council Member, Ward 2 Nicole Greer
Council Member, Ward 3 Sari Neudorf
Council Member, Ward 3 David Hoffman
Council Member, Ward 4 Joseph Martinich
Council Member, Ward 4 Dan Tierney

Staff Present: City Administrator Mark Perkins, City Attorney Carl Lumley, Director of Community Development Jason Jaggi, Director of Finance Lori Obermoeller, Director of Public Works Jim Heines, Chief of Police Jeff Hartman, IT Systems Coordinator Chris Tumbarello, and City Clerk Kellie Henke.

Also Present: Sadaf Khosravifar with IMS Infrastructure Management Services

DISCUSSION ITEMS

1. Approval of September 12, 2022 City Council Work Session Meeting Minutes

The vote on the motion being 8 ayes and 0 nays, motion carried.

RESULT:	**ACCEPTED [UNANIMOUS]**
MOVER:	Dan Tierney, Council Member, Ward 4
SECONDER:	Nicole Greer, Council Member, Ward 2
AYES:	Manlin, Silverman, Carney, Greer, Neudorf, Hoffman, Martinich, Tierney

2. Street Pavement Condition Review

Sadaf Khosravifar with IMS Infrastructure Management Services provided a presentation regarding the pavement review of all city streets through a comprehensive pavement condition survey (See Exhibit A). Ms. Khosravifar discussed how the pavement condition survey was conducted and how the pavement condition index (PCI) was determined. Additionally, Ms. Khosravifar discussed the condition data results and stated the current network average condition for the city is 75; approximately ten years ago the average was 63. The average PCI of IMS clients is 60-65.

Council Member Martinich asked how much has been spent annually on pavement related activities, to which Director of Public Works Jim Heines stated approximately $1.1 million. Mr. Heines stated the cost of material is rising but the net worth of the streets may continue climbing in the next five years if preventative maintenance, crack sealing and microsurfacing, remains routine. Ms. Khosravifar agreed and stated the city has been taking the right steps for preventative maintenance and is in a good position to increase the PCI.

City Administrator Mark Perkins asked if the recommended budget proposed includes any cost factors for inflation, to which Ms. Khosravifar stated five percent has been included.

Council Member Silverman thanked Public Works for their great work and efforts put into increasing the quality of the streets.

RESULT:	**ITEM DISCUSSED**

ADJOURN

Adjourn

The vote on the motion being 8 ayes and 0 nays, motion carried.

The meeting ended at 6:55 PM

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	David Hoffman, Council Member, Ward 3
SECONDER:	Nicole Greer, Council Member, Ward 2
AYES:	Manlin, Silverman, Carney, Greer, Neudorf, Hoffman, Martinich, Tierney

Submitted by:

Kellie Henke
City Clerk

Robert Hoffman
Mayor

2022 – "State of the Streets"
Creve Coeur, MO

Project funding provided by:
City of Creve Coeur, MO

Sadaf Khosravifar, PhD, PE
IMS Infrastructure Management Services, LP
Date: 9/28/2022

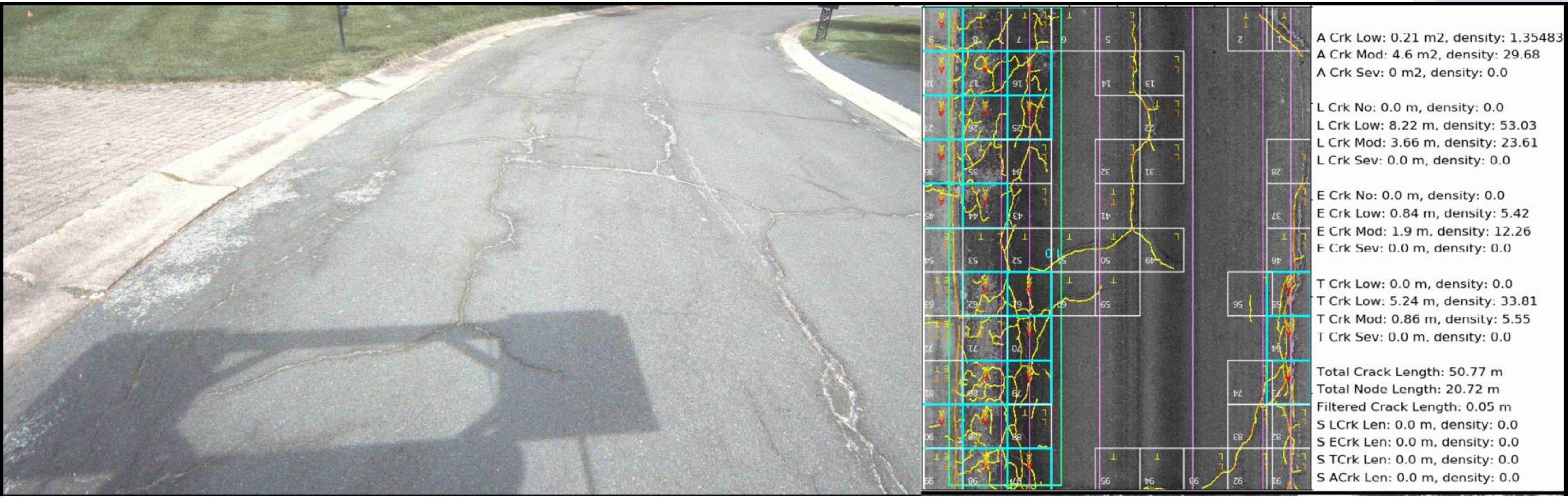
Infrastructure Management Services

Project Goals

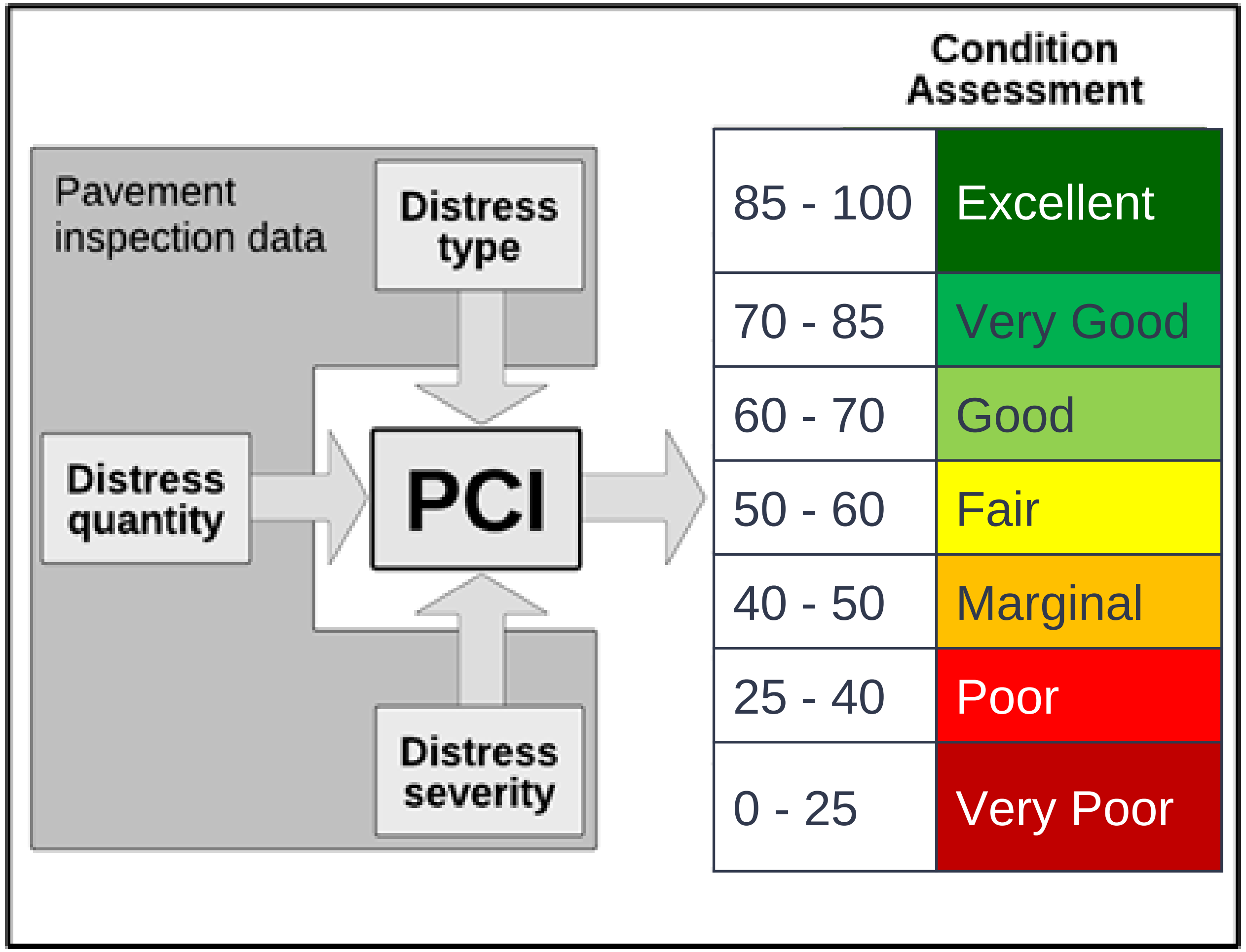
- Implement Easy Street Analysis (ESA) pavement management system
- Perform a comprehensive pavement condition survey
- Evaluate the impact of the City’s existing funding level on future pavement conditions over the next 5 years
- Determine funding levels required to:
  - ✓ Maintain current pavement conditions
  - ✓ Increase overall pavement conditions
  - ✓ Eliminate the City’s existing rehabilitation and reconstruction backlog
- Recommend pavement preservation and rehabilitation projects

Pavement Condition Survey

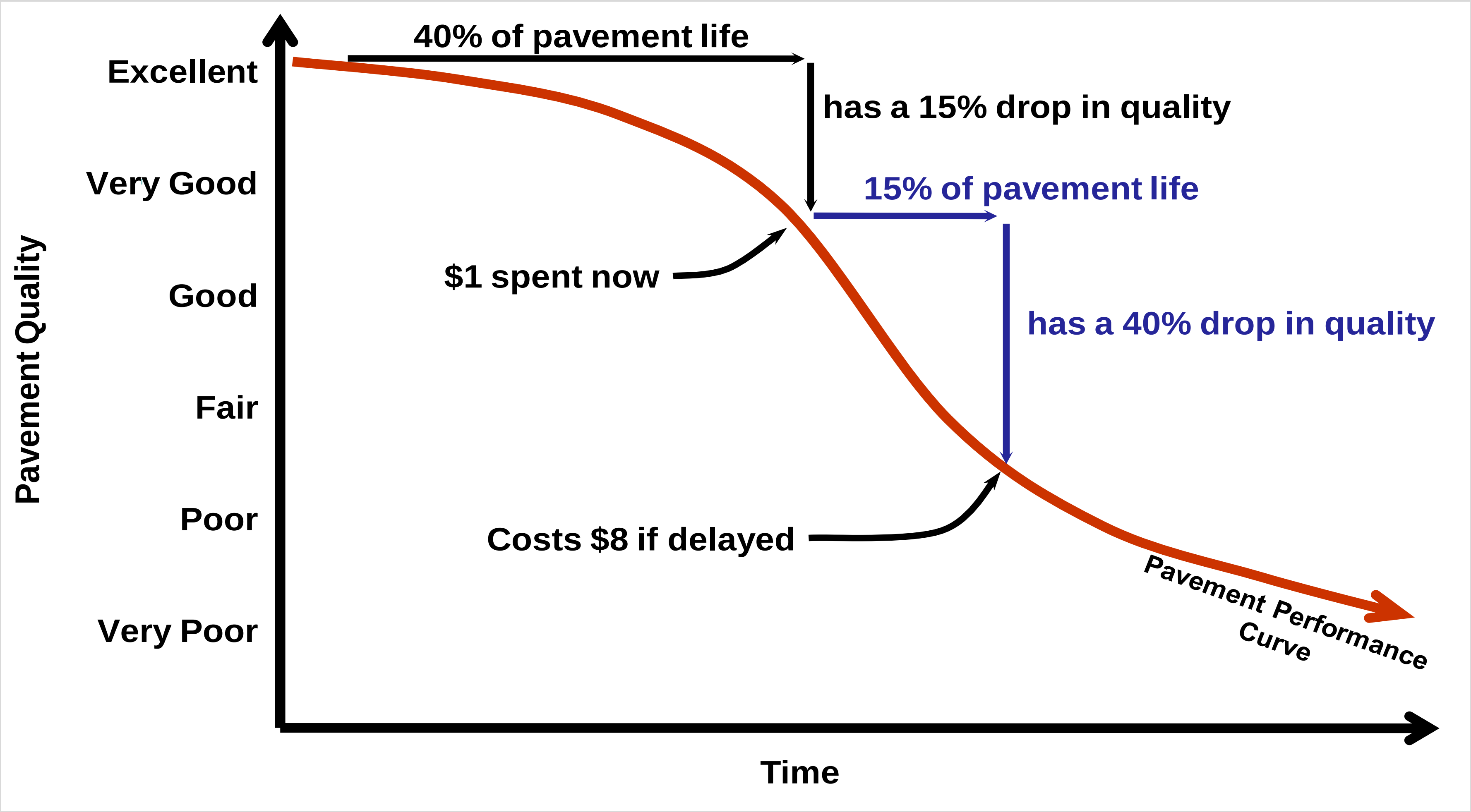
Pavement Condition Survey



Pavement Condition Index (PCI)

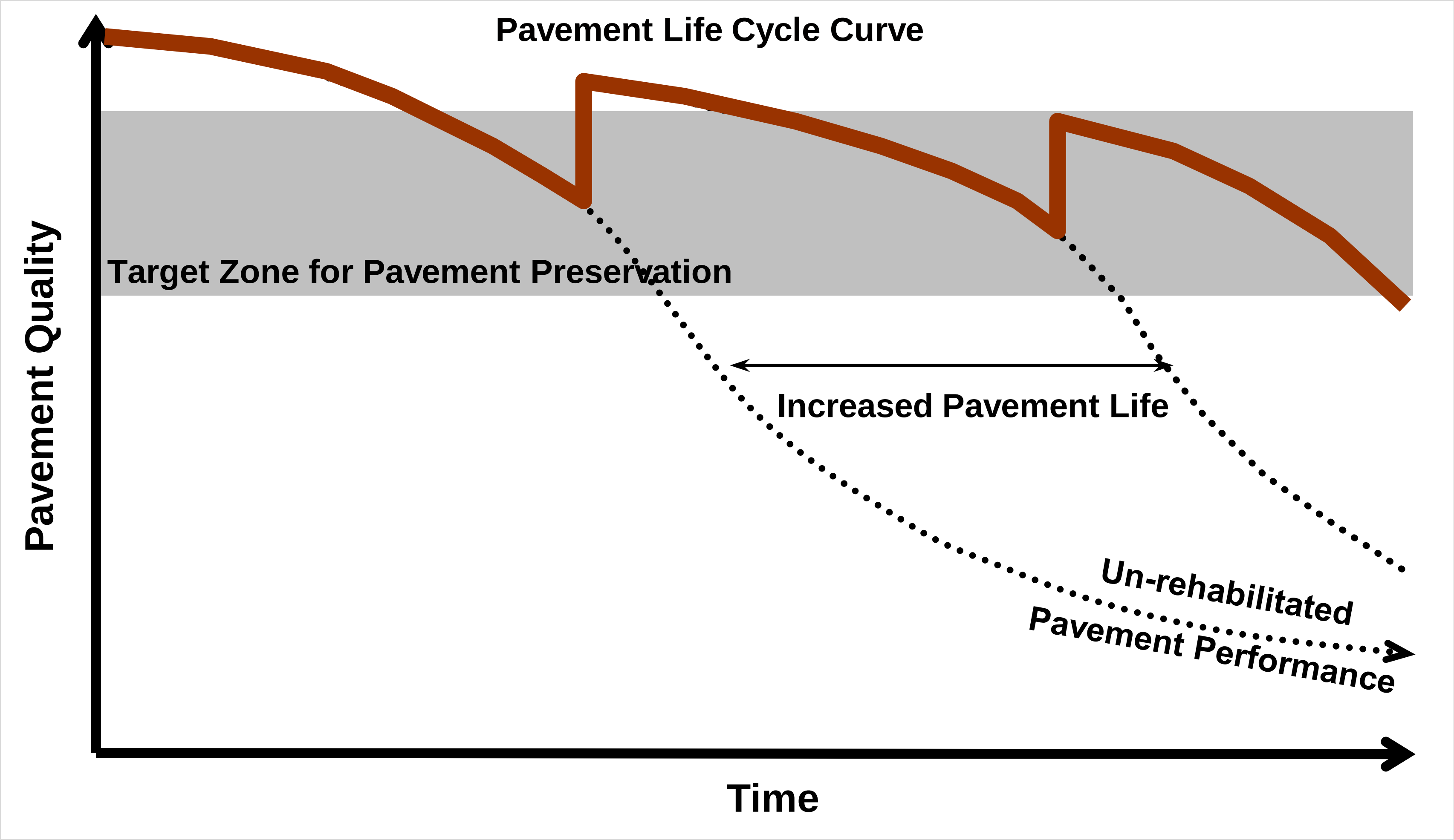


Pavement Management Concepts



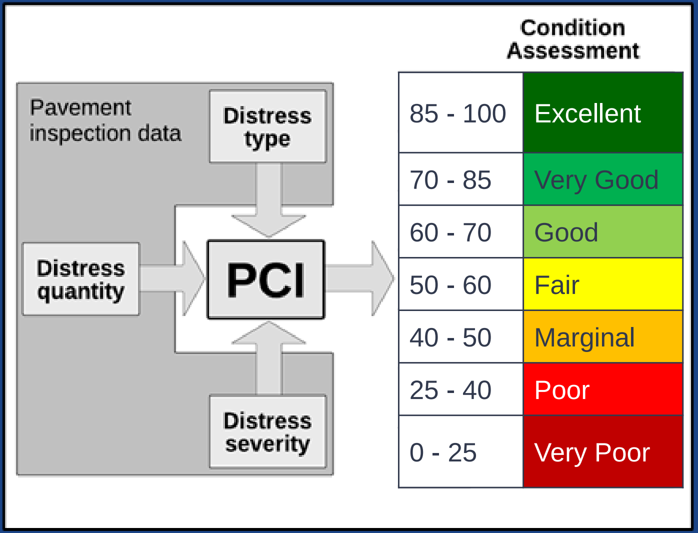
IMS
Infrastructure Management Services

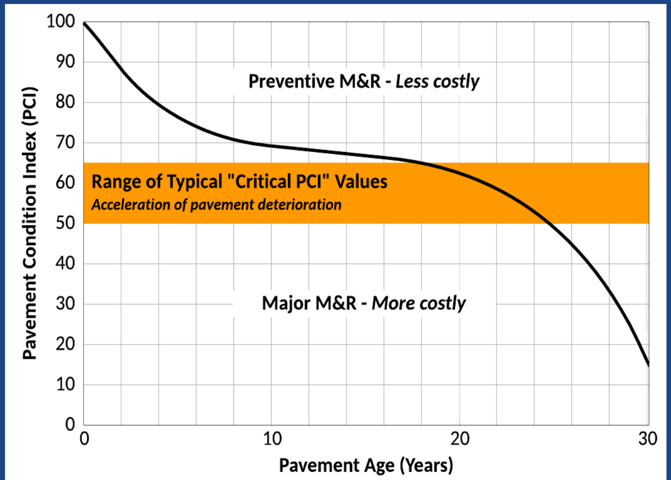
Pavement Management Concepts



Infrastructure Management Services

Condition Data Results



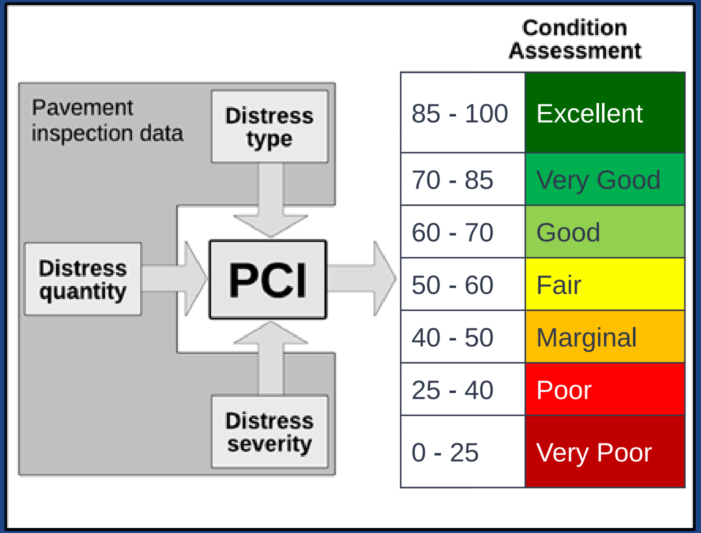


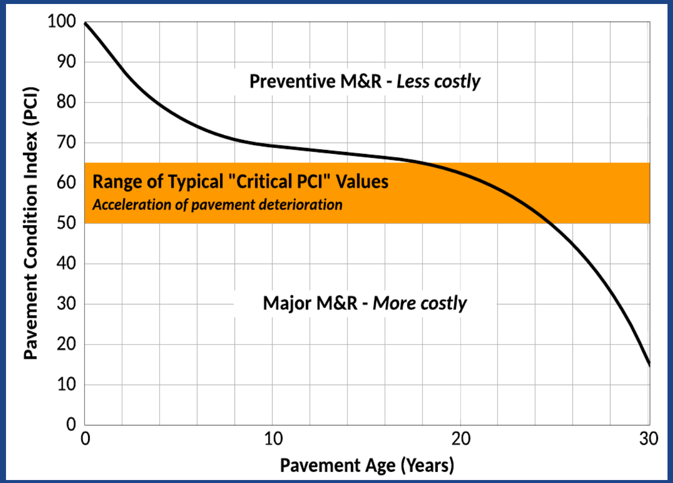
Condition = **Excellent (85-100)** | PCI = 100
Distress: No Distresses
Recommended Activity: Routine maintenance

GISID 1763
From: LADUE HEIGHTS DR
To: HIBLER DR

WEYBRIDGE DR

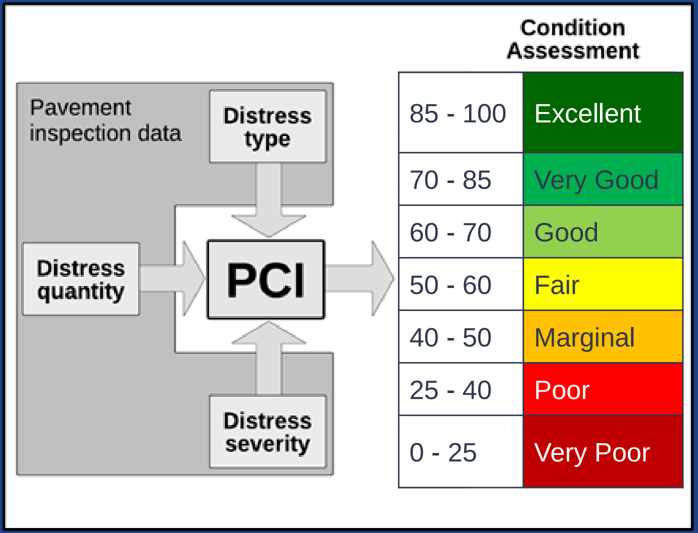
Condition Data Results

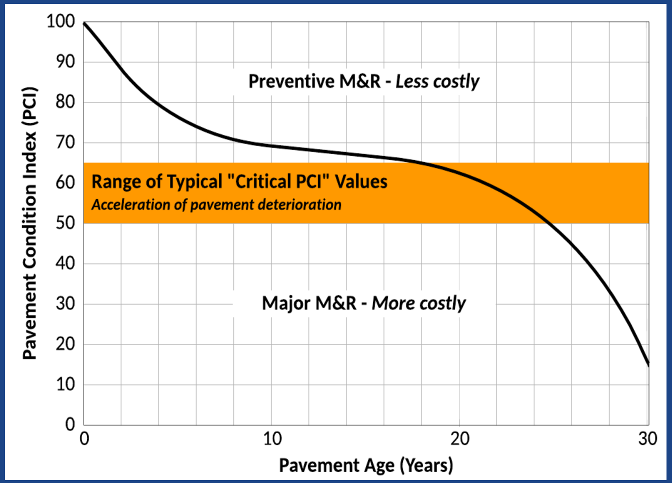




Condition = **Very Good (70-85)** | PCI = 80
Distress: Linear Cracks
Recommended Activity: Crack Sealing

Condition Data Results





Condition = **Good (60-70)** | PCI = 66

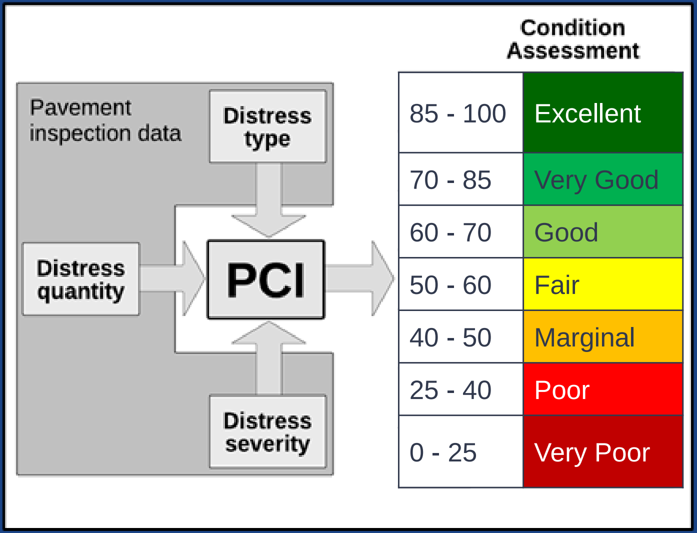
Distress: Low & Moderate Longitudinal and Transverse Cracking and Edge Cracking

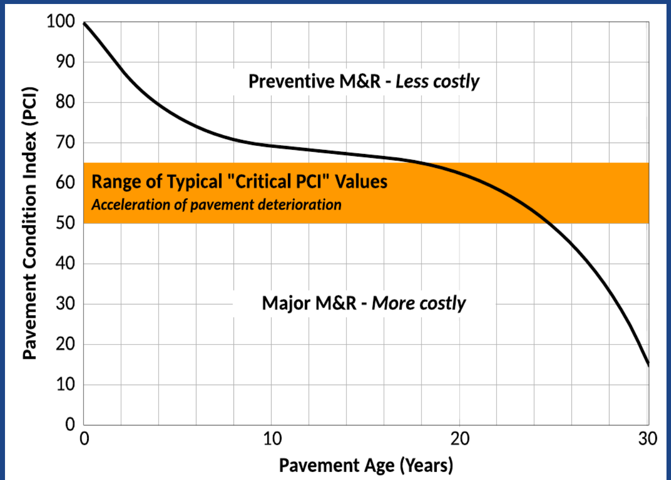
Recommended Activity: Microsurfacing with crack seal and edge patch

GISID 1528
From: CHALET CT
To: LANGDON WAY CT

GRAESER RD

Condition Data Results





Condition = **Fair (50-60)** | PCI = 54

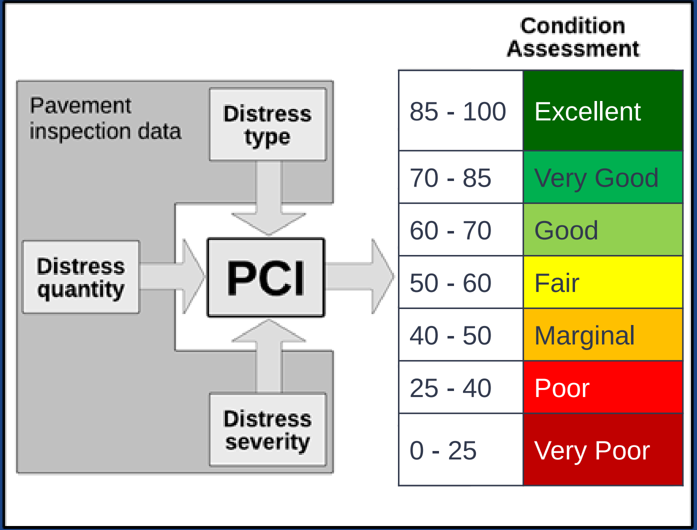
Distress: Low & Moderate Longitudinal and Transverse Cracking, Edge Cracking, and Alligator Cracking

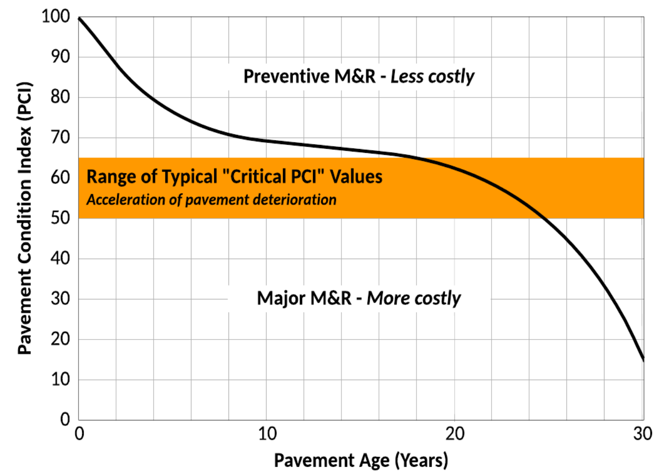
Recommended Activity: Moderate (2-3") Mill and Overlay

GISID 1594
From: CHASSELLE LN
To: EOP

COULANGE CT

Condition Data Results



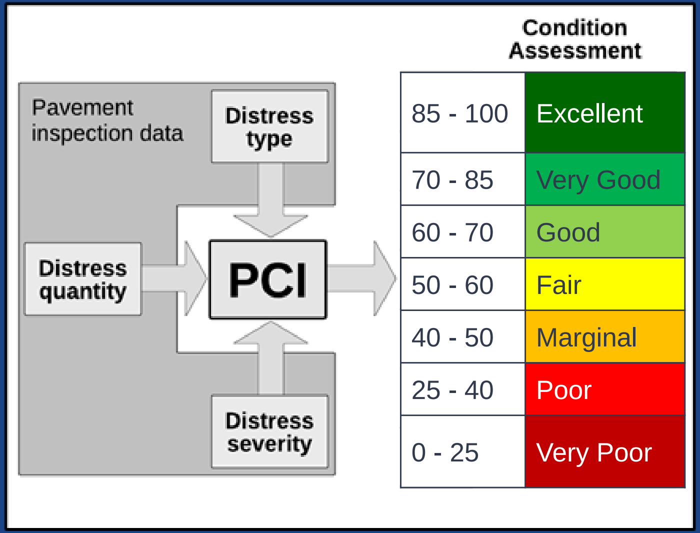


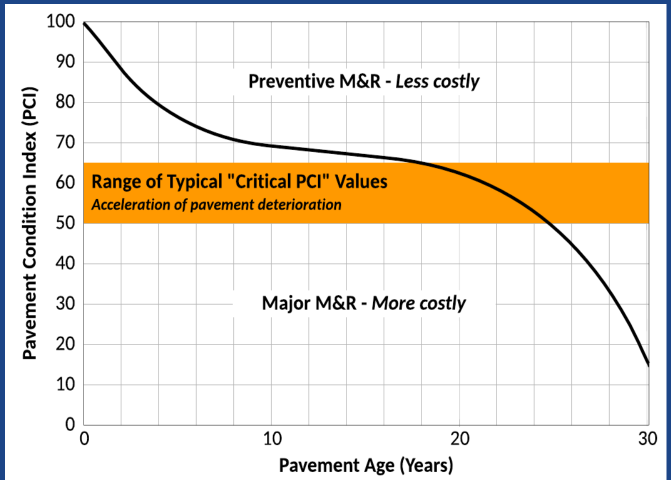
Condition = **Marginal (40-50)** | PCI = 42
Distress: Longitudinal and Transverse Cracking, Alligator Cracking
Recommended Activity: Thick (>3”) mill and overlay

GISID 1886
From: ROBINVIEW CT
To: MEADOW GREEN PL

FALAISE DR

Condition Data Results





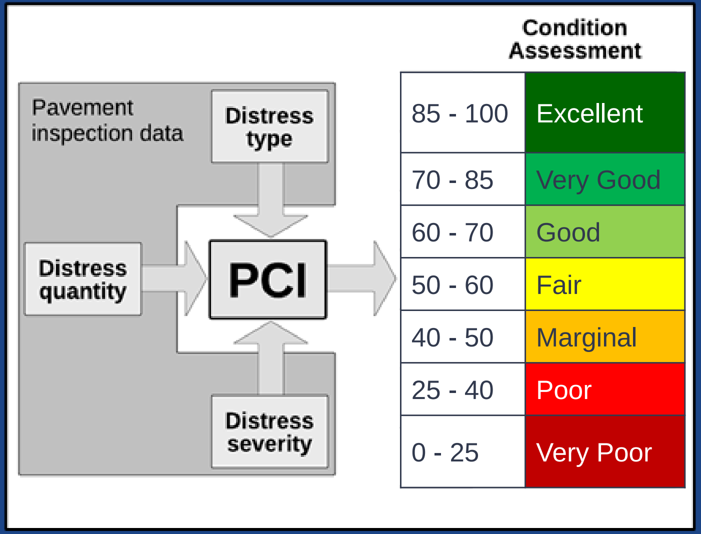
Condition = **Poor (25-40)** | PCI = 33
Distress: Alligator Cracking, Edge Cracking
Activity: Surface Reconstruction with Base Repairs

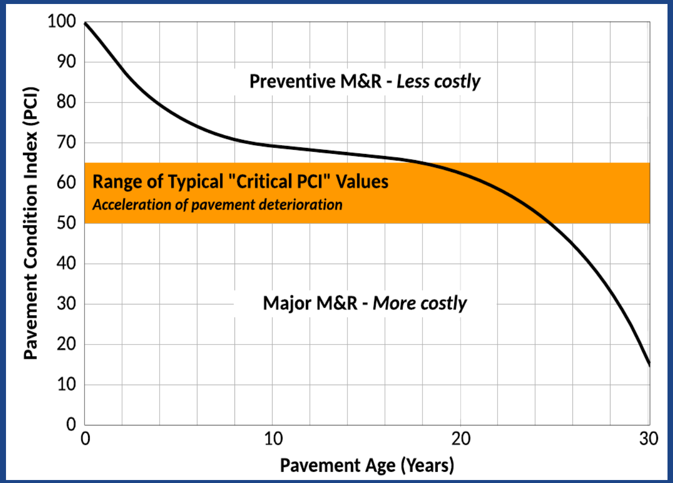
GISID 1733
From: HIBLER DR
To: EOP

HIBLER CT

Condition Data Results

Condition = **Very Poor (0-25)** | PCI = 21
Distress: Rutting, Raveling, Alligator Cracking, Edge Cracking, Patching
Activity: Full Reconstruction

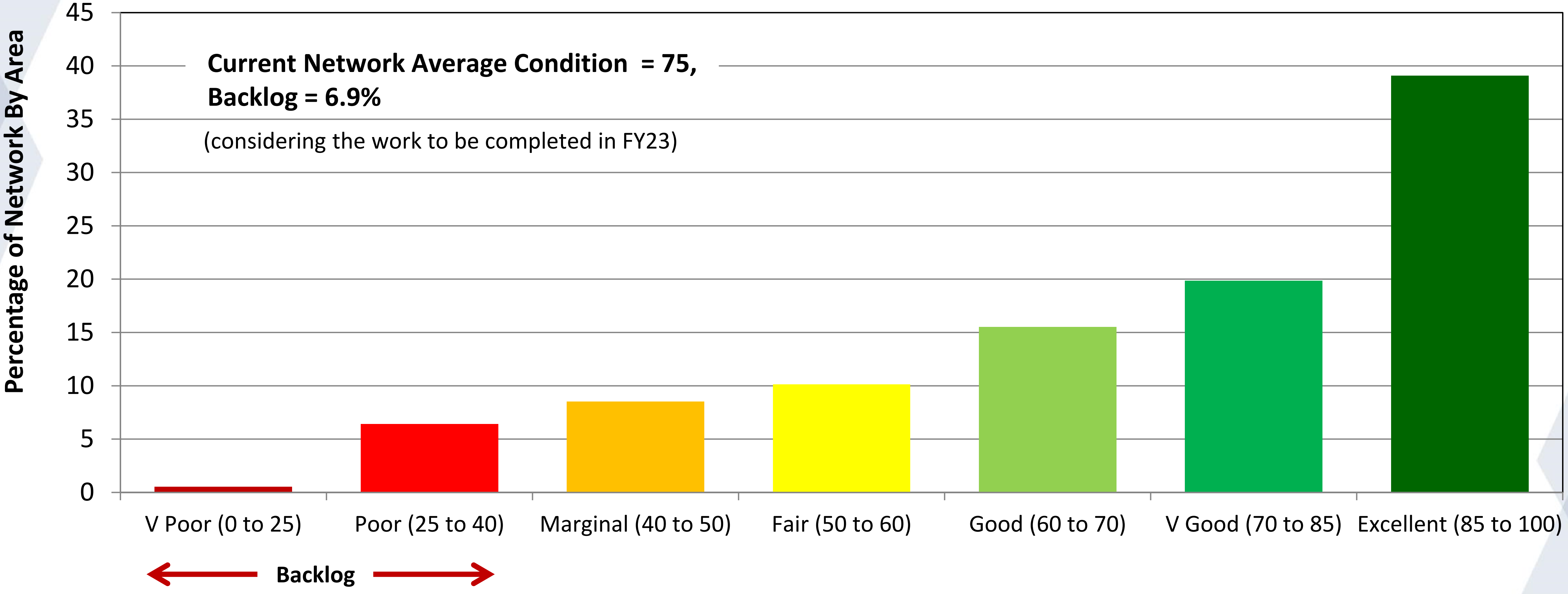




GISID 1350
From: EOP
To: OLIVE BLVD

RUE DE LA BANQUE ST

Condition Data Results



Current PCI Date = 9/28/22

Creve Coeur Budget

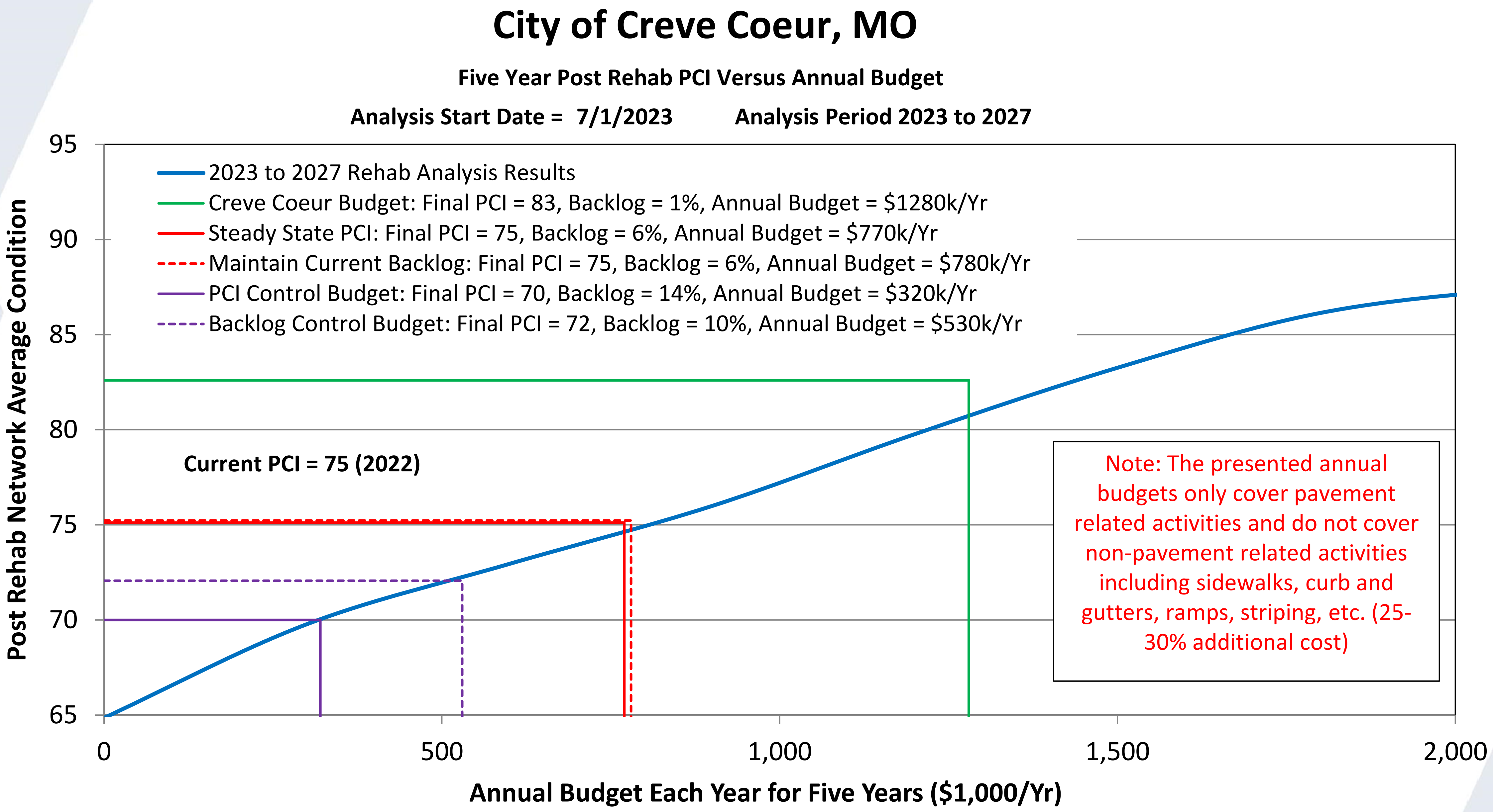
Breakdown of FY23 budget

Street & Sidewalk Maintenance Program	
-Street Maintenance	$1,150,000
-Sidewalk Maintenance – Not considered in analysis	$ 150,000
-Striping – Not considered in analysis	$ 100,000
Street Reconstruction/Rehabilitation	$ 300,000
Grant money (80% of this is reimbursable)	
-Federal TAP Grant (New Ballas Sidewalk) – Not considered in analysis	$ 210,000
-Federal STP Grant (New Ballas Road Improvement)	$1,136,000
-State Cost-Share, STP Grant (Lindbergh& Olive)	$ 460,000
-STP Grant (Craig Road improvements)	$ 150,000

Assumed budget for the current budget plan (pavement related activities) = ~$1.28M/Yr on Average

-Year 1: $1.8M ($1.45M street maintenance and rehabilitation, and $1.8M grant projects after 80% reimbursement on grant projects)
-Years 2 to 5: $1.15M per year

Analysis Results



Final Remarks and Recommendations

1. Network Average Pavement Condition Index is currently about 75 (considering the work to be completed in FY23)

2. The current budget level allows for a continued improvement of the pavement conditions in the network

3. Continue preservation techniques such as crack sealing, patching, and micro-surfacing

4. Update pavement management system
    - Enter work history annually
    - Perform routine pavement condition inspections, every 2-3 years
    - Update inputs (rehab strategies and unit costs, deterioration models, etc.)

MEMORANDUM

DATE: October 19, 2022

TO: Mark Perkins, City Administrator

FROM: Lori Obermoeller, Director of Finance

SUBJECT: Cost of Living Adjustment (COLA) for Legacy Pension Plan Retirees

The Pension Board and Finance Committee have been invited to join City Council in a Joint Work Session on Monday, October 24, 2022. The main purpose of this session is to review the Actuarial report prepared by William Winningham from Milliman for the Retirement Plan for Employees of the City of Creve Coeur ("the Plan"). Discussion of a COLA for the Plan retirees is another item on the Joint Work Session Agenda.

The City's Legacy Pension Plan does not include a provision for a COLA. The last time a COLA was provided to retirees was in 2001. Retirees have requested a COLA from time to time and several retirees submitted letters in 2020 and 2021. The City Council considered a COLA in 2021 during the FY 2022 budget process, but did not feel it was a good time due to a number of issues, including concerns about whether the cost would result in dropping the plan's funding ratio below the required 80%, mortality table revisions, and the continued financial uncertainty of the pandemic.

The discussion of a COLA came up again during the FY 2023 Budget process and that is when the Finance Committee suggested to City Council (letter attached) that this may be the year to review a COLA for the Plan retirees. Milliman has provided a cost analysis for both a 1/2% and a 1% COLA per year of retirement since 7/1/2001 (draft analysis attached). This analysis was presented at the October 18, 2022 Pension Board meeting and will be discussed during the Joint Work Session.

I would be happy to respond to any questions.

Finance Committee

May 24, 2022

Mayor and City Council
City of Creve Coeur Missouri
Creve Coeur MO 63141

Re: FY 2023 Operating Budget Review

Honorable Mayor and City Council:

The Finance Committee studied the preliminary budget (dated 4/22/2022) at meetings in April and May 2022. A $2,171,800 surplus is budgeted for all funds. In regards to just the General Fund budget, the FY 2023 revenues are $1,842,626 more than the FY 2023 expenditures, primarily due to the ARPA funds that will be received in FY 2023.

Subject to the following comment, we recommend the budget to the City Council for finalization.

The committee wishes to note that because the Legacy Pension Plan has done so well and there is a large surplus in the General Fund, now is the time to look at a COLA for the Plan retirees. LAGERS has a COLA built into their plan, where the Legacy Pension Plan does not, and it has been 20 years since the last COLA was offered. Now is great time to consider a COLA.

Sincerely,

Paul Gallant

Paul Gallant, Chair

500 North Broadway, Suite 1750
St. Louis, MO 63102
Tel +1 314 231.3031
Fax +1 314 231.0249
www.milliman.com

October 14, 2022

Lori Obermoeller
Director of Finance
City of Creve Coeur
300 N. New Ballas Road
Creve Coeur, MO 63141

RE: Retirement Plan for Employees of the City of Creve Coeur - Preliminary Review of Potential Ad hoc Retiree COLA

Dear Lori:

As requested, enclosed is the plan change analysis for the Retirement Plan for Employees of the City of Creve Coeur, including estimations of the recommended contribution requirements and the Plan's funded status for a number of scenarios. The following is a summary of the scenarios modeled in the attached exhibits.

Scenario 1 – July 1, 2022 Valuation

The first column of Exhibit 1 contains the results of the most recently completed valuation as of July 1, 2022. We have also included a multi-year projection of the pension funded status and Actuarially Determined Contribution (ADC) in Exhibit 2. This information is included for comparative purposes.

Scenario 2 – 1% COLA per Year of Retirement Since 7/1/2001

This scenario includes a 1% COLA for each full year of retirement since 7/1/2001. The COLA increase is assumed to be a one-time increase for members who retired on or before 7/1/2021. The COLA does not change the benefit of any active or deferred vested members. As shown in Exhibit 1, the total cost of the COLA is $2,140,279 (line 5b). Assuming that the cost is amortized over a closed 15 year period, the ADC would increase by $220,369 to $1,235,546 per year. The projected impact of the 1% COLA is represented by the green bars and line on Exhibit 2.

Scenario 3 – 0.5% COLA per Year of Retirement Since 7/1/2001

Scenario 3 is the same as Scenario 2 except that the COLA per year of retirement is assumed to be 0.5% instead of 1.0%. As shown in Exhibit 1, the total cost of the COLA is $1,125,362 (line 5b). Assuming that the cost is amortized over a closed 15 year period, the ADC would increase by $110,185 to $1,125,362 per year. The projected impact of the 0.5% COLA is represented by the orange bars and line on Exhibit 2.

For the purpose of this study, we have assumed that the benefit increases are effective, July 1, 2022. Unless stated otherwise, all actuarial assumptions and methods are the same as those used in the July 1, 2022 Actuarial Valuation Report. Note that if the City shows a pattern of COLA increases over time, it may become necessary to include liability for future COLAs in future Actuarial Valuations and GASB 67/68 reports.

Please note that before the plan can be amended to increase benefits, an actuarial cost statement under Missouri Revised Statute Section 105.665 must be filed with the Joint Committee on Public Employee Retirement (JCPER). The Section 105.665 requires additional information not contained in this preliminary report.

Milliman is not a law firm and cannot provide legal advice. We recommend that the City consult with its benefits attorney prior to taking any action.

Certification

These estimates are subject to the uncertainties of a regular actuarial valuation; the costs are inexact because they are based on assumptions that are themselves necessarily inexact, even though we consider them reasonable. Thus, the emerging costs may vary from those presented in this letter to the extent actual experience differs from the actuarial assumptions.

Milliman's work is prepared solely for the internal business use of the City of Creve Coeur. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

(a) The City may provide a copy of Milliman's work, in its entirety, to the Plan's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the Plan.

(b) The City may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

These estimates have been prepared for the internal use of and are only to be relied upon by the City. No portion of this report may be disclosed to any other party without Milliman's prior written consent. In the event such consent is given, the report must be provided in its entirety, unless prior written consent is obtained from Milliman.

Best Regards,

William D. Winningham, EA, MAAA, FCA
Consulting Actuary

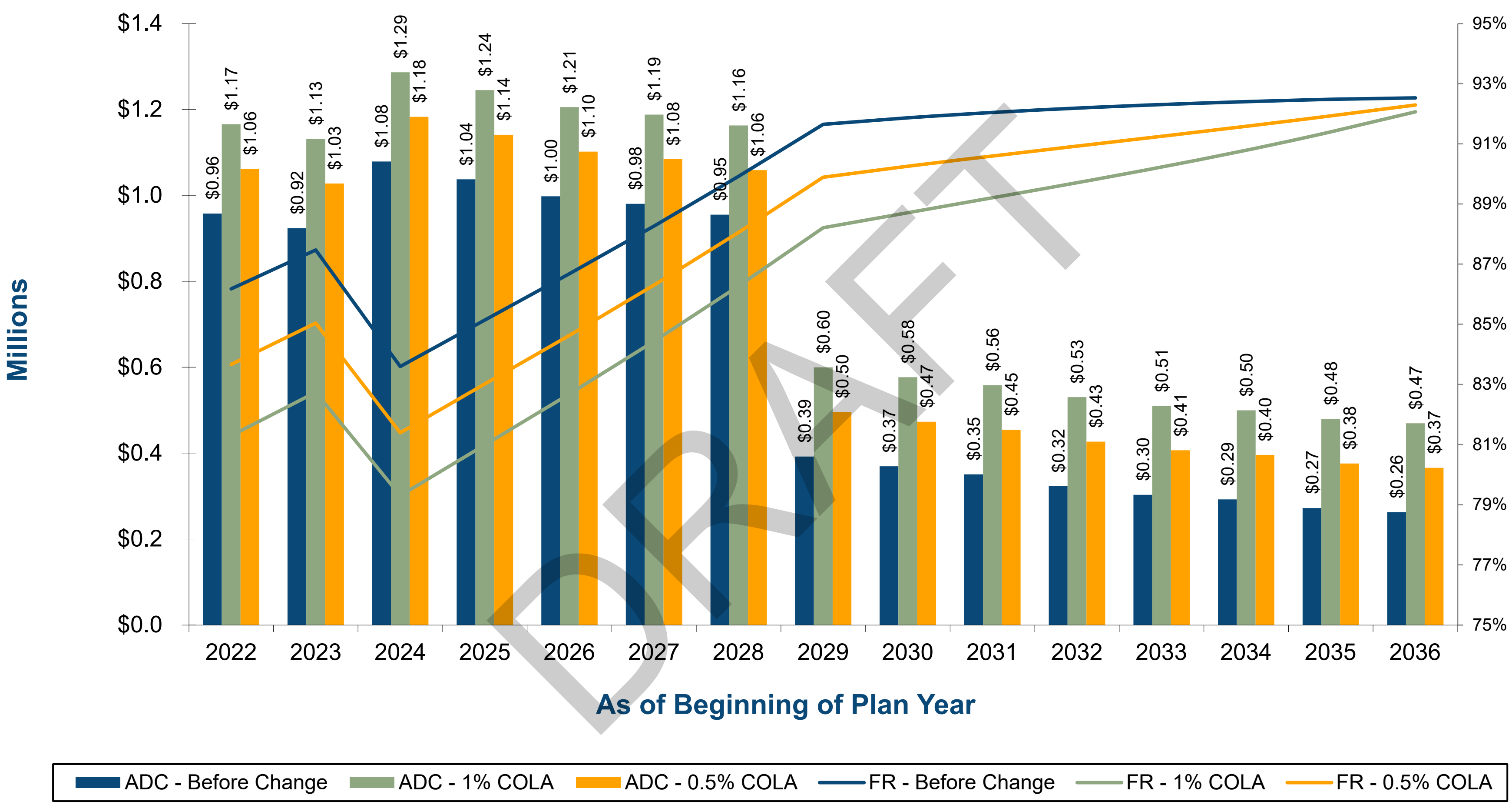
WDW

Enclosures

Development of Actuarially Determined Contribution (Proposed Retiree COLA)

	Baseline	1% COLA	0.5% COLA
1. Accrued Liability			
a. Active Participants	$10,348,958	$10,348,958	$10,348,958
b. Terminated Vested Participants	1,837,911	1,837,911	1,837,911
c. Retired Participants	23,465,255	25,605,534	24,535,395
d. Total	35,652,124	37,792,403	36,722,264
2. Actuarial Value of Assets	30,722,983	30,722,983	30,722,983
3. Funded Ratio: (2) / (1d)	86.2%	81.3%	83.7%
4. Covered Payroll	2,367,957	2,367,957	2,367,957
5. Unfunded Actuarial Liability (UAL)	4,929,141	7,069,420	5,999,281
a. Outstanding UAL from July 1, 2015	3,011,670	3,011,670	3,011,670
b. Outstanding UAL after July 1, 2022 - COLA	**0**	**2,140,279**	**1,070,140**
c. Outstanding UAL after July 1, 2015	1,917,471	1,917,471	1,917,471
6. Normal Cost:			
a. Entry Age Normal Cost	302,596	302,596	302,596
b. Expected Employee Contributions	94,718	94,718	94,718
i. As a percentage of Covered Payroll: (6b) / (4)	4.0%	4.0%	4.0%
c. Employer Normal Cost without Expenses: (6a) - (6b)	207,878	207,878	207,878
ii. As a percentage of Covered Payroll: (6c) / (4)	8.8%	8.8%	8.8%
d. Assumed Administrative Expenses	54,626	54,626	54,626
e. Employer Normal Cost including Expenses: (6c) + (6d)	262,504	262,504	262,504
7. 14-Year Amortization of UAL from July 1, 2015 (7 years remaining)	508,958	508,958	508,958
8. 15-Year Amortization of Additional UAL after July 1, 2022 - COLA	0	207,895	103,948
9. 15-Year Amortization of Additional UAL after July 1, 2015	186,253	186,253	186,253
10. Employer Cost			
a. Actuarially Determined Contribution: (6e) + (7) + (8) + (9)	957,715	1,165,610	1,061,663
b. Payable as of the end of the plan year: (10a) x 1.06	1,015,177	1,235,546	1,125,362
c. As a percentage of Covered Payroll: (10a) / (4)	40.4%	49.2%	44.8%
11. Increase in Actuarially Determined Contribution (as of end of plan year)	**0**	**220,369**	**110,185**

Retirement Plan for Employees of the City of Creve Coeur
2022 Projections (Proposed Retiree COLA)



1. Assumptions are the same as 2022 valuation plus:
   - Administrative expenses remain the same
   - Employer contributes Actuarially Determined Contribution each year
2. Potential variability of results discussed in ASOP 51 section of the 2022 actuarial valuation

ADC = Actuarially Determined Contribution FR = Funded Ratio

Milliman

RETIREMENT PLAN FOR EMPLOYEES OF THE CITY OF CREVE COEUR

Actuarial Valuation Report
July 1, 2022

Prepared by

William Winningham, EA, MAAA
Consulting Actuary

Michael A. Sudduth, FSA
Consulting Actuary

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St. Louis, MO 63102 USA
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Fax +1 314 231 0249
milliman.com

October 13, 2022

Table of Contents

Introduction and Purpose

In this report, we present the results of the July 1, 2022 actuarial valuation for the Retirement Plan for Employees of the City of Creve Coeur.

Purposes of the Valuation

The actuarial valuation of the Plan is intended to accomplish several purposes:

(a) In general, the determination of current levels of employer contributions which, together with prior funding, will accumulate monies sufficient to meet benefit payments when due under the terms of the Plan;

(b) review plan experience for the year ended on the valuation date to ascertain whether the assumptions and methods employed for valuation purposes are reflective of actual events and remain appropriate for prospective application; and

(c) assessment of the relative funded position of the plan on an ongoing basis, i.e., through a comparison of plan assets and projected plan liabilities.

Actuarial Certification

As requested, we have performed an actuarial valuation of the Retirement Plan for Employees of the City of Creve Coeur as of July 1, 2022 for the Plan Year ending June 30, 2023. Our findings are set forth in this actuary's report. This report reflects the benefit provisions in effect on July 1, 2022.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the the Plan's Administrative Staff. This information includes, but is not limited to, statutory plan provisions, employee data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

The valuation results were developed using models intended for valuations that use standard actuarial techniques. In addition, Milliman has developed certain models to develop the expected long term rate of return on assets used in this analysis. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice. The models, including all input, calculations, and output may not be appropriate for any other purpose.

All costs, liabilities, rates of interest, and other factors for the Plan have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the Plan and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience affecting the Plan. Further, in our opinion, each actuarial assumption used is reasonably related to the experience of the Plan and to reasonable expectations which, in combination, represent our best estimate of anticipated experience under the Plan.

This valuation report is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

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 or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The City has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in this report.

Actuarial Certification

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the Fund. The calculations in the enclosed report have been made on a basis consistent with our understanding of the Fund's funding requirements and goals. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report.

Milliman's work is prepared solely for the internal business use of the City of Creve Coeur and its employees (for their use in administering the Plan). To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

(a) The System may provide a copy of Milliman's work, in its entirety, to the System's professional advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.

(b) The System may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the City. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and has been prepared in accordance with generally recognized accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

We respectfully submit the following report, and we look forward to discussing it with you.

William Winningham, EA, MAAA
Consulting Actuary

Michael A. Sudduth, FSA
Consulting Actuary

Discussion of Valuation Results

Actuarially Determined Contribution

The results of this valuation are used to actuarially determine contribution amounts to the Fund for the July 1, 2022 - June 30, 2023 fiscal year. A comparison of actuarially determined contribution amounts for the current and immediately preceding valuation are summarized below:

	Actuarial Valuation as of	
	July 1, 2021	**July 1, 2022**
Actuarially Determined Employer Contribution*	$977,511	$957,715
Actuarially Determined Employer Contribution**	$1,036,162	$1,015,177
Actual Employer Contribution	$1,287,117	N/A

* Assuming payment as of first day of plan year
**Assuming payment as of last day of plan year

Plan Assets

The market value of plan assets decreased from $33,098,397 at July 1, 2021 to $29,039,366 at June 30, 2022. A balance sheet and statement of income and disbursements are presented on pages 7 and 8. Investment income (net of expense) was $(3,327,696) for a return of (10.2)%. During the prior year, investment return was 28.2%. Contributions to the fund were $1,369,843 and benefit payments totaled $2,057,704.

Valuation assets are defined to be actuarial value using an asset smoothing method. On an actuarial value basis, fund assets are $30,722,983 on July 1, 2022, compared to $29,800,918 on July 1, 2021. Net investment income was $1,653,400 for return of 5.6%. The development of the actuarial value of assets is shown on page 9.

Actuarial Assumptions, Methods and Plan Provisions

The mortality projection scale was updated from MP-2020 to MP-2021.

All other actuarial assumptions and methods remained the same as the prior valuation. Descriptions of all actuarial assumptions, methods, and Plan provisions can be found on pages 13-16.

Plan Population

The number of active participants decreased from 31 on July 1, 2021 to 27 on July 1, 2022. The number of retirees/beneficiaries/disableds increased from 86 to 89, and the number of deferred vested participants increased from 18 to 19.

Discussion of Valuation Results

Plan Experience

Prior to assumption changes, plan experience resulted in an overall experience loss for the plan year ending June 30, 2022. This is primarily due to a loss on Actuarial Value of Assets.

GASB 67/68

Results under GASB 67 and 68 are presented in a separate report.

Funded Status - Accrued Benefit Basis

Another measure of a plan's funded status is the relationship of the market value of plan assets to the present value of benefits accrued to date. The amounts for the current and prior year are shown in the following table:

	Valuation Date **July 1, 2021**	Valuation Date **July 1, 2022**
a) Present Value of Vested Accrued Benefits	$33,417,805	$33,910,533
b) Present Value of All Accrued Benefits	$33,744,681	$34,221,386
c) Market Value of Assets	$33,098,397	$29,039,366
d) Ratio: (c)/(a)	99.0%	85.6%
e) Ratio: (c)/(b)	98.1%	84.9%

The interest discount utilized for this purpose was 6.00% in 2021 and 6.00% in 2022. The discount rate that is required to value plan liabilities on a settlement basis is typically lower than the "ongoing basis" discount rate. Therefore, these amounts should not be used to assess the plan's funded status on a settlement basis.

Funded Status - Actuarial Accrued Liability Basis

The most common measure of a public sector plan's funded status is dividing the Plan Assets by the Actuarial Accrued Liability. As of the valuation date, this ratio is 86.2% using Actuarial Value of Assets and 81.5% using the Market Value of Assets.

Summary of Valuation Results

	Valuation Date July 1, 2021	Valuation Date July 1, 2022
Participant Data		
Number of Participants		
Active participants	31	27
Terminated vested participants	18	19
Retirees and beneficiaries	86	89
Total	135	135
Covered Payroll	2,510,196	2,367,957
Assets		
Market Value of Assets	33,098,397	29,039,366
Investment Yield	28.2%	-10.2%
Actuarial Value of Assets	29,800,918	30,722,983
Investment Yield	11.8%	5.6%
Actuarial Present Values		
Accrued Liability	35,171,396	35,652,124
- Actuarial Value of Assets	29,800,918	30,722,983
Unfunded Accrued Liability	5,370,478	4,929,141
Funded Ratio (Market Value Basis)	94.1%	81.5%
Funded Ratio (Actuarial Value Basis)	84.7%	86.2%
Costs and Contributions		
Normal Cost	324,322	302,596
% of Covered Payroll	12.9%	12.8%
Actuarially Determined Contribution (ADC)	977,511	957,715
% of Covered Payroll*	38.9%	40.4%
Funded Status of Accumulated Benefits		
Present Value of Accrued Benefits	33,744,681	34,221,386
Funded Ratio (Market Value Basis)	98.1%	84.9%
Funded Ratio (Actuarial Value Basis)	88.3%	89.8%

*Since the Plan has been closed to new members since 2006, Active Participant headcount as well as Covered Payroll have steadily declined (in line with expectations). Coupled with the aggressive funding policy (14-year amortization of the pre-2015 UAL), the ADC when expressed as a % of payroll is sharply increased. In dollar terms, the ADC has remained relatively flat and is expected to remain so through 2028. At that time, the pre-2015 UAL will be fully amortized and the ADC will decrease significantly.

Statement of Assets

	July 1, 2021	July 1, 2022
Assets		
Cash and cash equivalents	$264,515	$251,537
Receivables and prepaid expenses:		
Receivable contributions	0	0
Receivable investment income	34,451	35,211
Receivables from brokers for unsettled trades	0	0
Prepaid expenses	0	0
Total receivables	34,451	35,211
Investments:		
Fixed income	9,029,376	8,102,328
Stocks	23,770,055	20,650,290
Short-term investments	0	0
Real estate	0	0
Alternative investments	0	0
Total investments	32,799,431	28,752,618
Invested securities lending cash collateral	0	0
Capital assets net of accumulated depreciation	0	0
Total assets	33,098,397	29,039,366
Liabilities		
Accrued expenses and benefits payable	0	0
Securities lending cash collateral	0	0
Payable to brokers for unsettled trades	0	0
Total liabilities	0	0
Net Assets	$33,098,397	$29,039,366

Statement of Income and Disbursements

	July 1, 2022
Additions	
Member contributions	$82,726
Employer contributions	1,287,117
Total contributions	1,369,843
Investment income (loss):	
Interest and dividends	869,148
Net increase in fair value of investments	(4,156,794)
Less investment expenses:	
Direct investment expense	40,050
Net investment income	(3,327,696)
Other income	0
Total additions	(1,957,853)
Deductions	
Service benefits	2,057,704
Disability benefits	N/A
Death benefits	N/A
Refunds of member contributions	N/A
Administrative expenses	43,474
Total deductions	2,101,178
Net increase (decrease)	(4,059,031)
Market Value of Assets	
Beginning of year (July 1, 2021)	33,098,397
End of year (June 30, 2022)	$29,039,366
Net Rate of Return	-10.2%

Development of Actuarial Value of Assets

1. Actuarial Value Beginning of Year	$29,800,918
2. Market Value End of Year	29,039,366
3. Market Value Beginning of Year	33,098,397
4. Non-Investment Cash Flows [(1)]	(731,335)
5. Investment Income	
a. Market Total: (2) - (3) - (4)	(3,327,696)
b. Assumed Rate of Return	6.00%
c. Expected Investment Return [(2)]	1,963,964
d. Gain/(Loss): (5a) - (5c)	(5,291,660)
6. Phased-In Recognition of Investment Income	
a. Current Year: (1/3) x (5d)	(1,763,887)
b. (1/3) of Gain/(Loss) during plan year ending June 30, 2021	1,844,159
c. (1/3) of Gain/(Loss) during plan year ending June 30, 2020	(390,836)
d. Phased-In Investment Gain to be Recognized in Current Year: (6a) + (6b) + (6c)	(310,564)
7. Actuarial Value End of Year: (1) + (4) + (5c) + (6d)	$30,722,983
8. Excess of Market Value over Actuarial Value: (2) - (7)	(1,683,617)
9. Approximate Rate of Return on Actuarial Value	5.6%
10. Ratio of Actuarial Value of Assets to Market Value of Assets: (7) / (2)	105.8%

[(1)] Contributions less benefit payments
[(2)] Assumed Rate times (3) + (4) times Assumed Rate/2

Statement of Accrued Benefits

	July 1, 2021	July 1, 2022
1. Accumulated Plan Benefits		
a. Actuarial Present Value of Vested Benefits		
i. Participants currently receiving payments	22,962,084	23,465,255
ii. Active Participants	8,772,561	8,607,367
iii. Deferred Vested Participants	1,683,160	1,837,911
iv. Total Vested Benefis	33,417,805	33,910,533
b. Actuarial Present Value of Non-Vested Benefits	326,876	310,853
c. Total Actuarial Present Value of Accumulated Plan Benefits: (aiv) + (b)	33,744,681	34,221,386
2. Net Assets (Market Value) available for benefits	33,098,397	29,039,366
3. Funded Ratio		
a. Vested Benefits: (2) / (1aiv)	99.0%	85.6%
b. Accumulated Benefits: (2) / (1c)	98.1%	84.9%
4. Net Assets (Actuarial Value) available for benefits	29,800,918	30,722,983
5. Funded Ratio		
a. Vested Benefits: (4) / (1aiv)	89.2%	90.6%
b. Accumulated Benefits: (4) / (1c)	88.3%	89.8%

Development of Actuarially Determined Contribution

	July 1, 2022
1. Accrued Liability	
a. Active Participants	$10,348,958
b. Terminated Vested Participants	1,837,911
c. Retired Participants	23,465,255
d. Total	35,652,124
2. Actuarial Value of Assets	30,722,983
3. Funded Ratio: (2) / (1d)	86.2%
4. Covered Payroll	2,367,957
5. Unfunded Actuarial Liability (UAL)	4,929,141
a. Outstanding UAL from July 1, 2015	3,011,670
b. Outstanding UAL after July 1, 2015	1,917,471
6. Normal Cost:	
a. Entry Age Normal Cost	302,596
b. Expected Employee Contributions	94,718
i. As a percentage of Covered Payroll: (6b) / (4)	4.0%
c. Employer Normal Cost without Expenses: (6a) - (6b)	207,878
ii. As a percentage of Covered Payroll: (6c) / (4)	8.8%
d. Assumed Administrative Expenses	54,626
e. Employer Normal Cost including Expenses: (6c) + (6d)	262,504
7. 14-Year Amortization of UAL from July 1, 2015 (7 years remaining)	508,958
8. 15-Year Amortization of Additional UAL after July 1, 2015	186,253
9. Employer Cost	
a. Actuarially Determined Contribution: (6e) + (7) + (8)	957,715
b. Payable as of the end of the plan year: (9a) x 1.06	1,015,177
c. As a percentage of Covered Payroll: (9a) / (4)	40.4%

Historical Investment Returns on Market Value Basis

Year Ended June 30	Annual	Cumulative	Rate of Return Last 5 Years	Last 10 Years	Last 20 Years
1995	8.09%	8.09%	N/A	N/A	N/A
1996	14.35%	11.18%	N/A	N/A	N/A
1997	18.08%	13.43%	N/A	N/A	N/A
1998	17.31%	14.39%	N/A	N/A	N/A
1999	8.46%	13.18%	13.18%	N/A	N/A
2000	9.27%	12.52%	13.42%	N/A	N/A
2001	-5.76%	9.70%	9.12%	N/A	N/A
2002	-10.64%	6.93%	3.20%	N/A	N/A
2003	1.59%	6.32%	0.28%	N/A	N/A
2004	13.39%	7.01%	1.17%	7.01%	N/A
2005	6.21%	6.93%	0.60%	6.82%	N/A
2006	8.62%	7.07%	3.50%	6.27%	N/A
2007	16.67%	7.78%	9.17%	6.14%	N/A
2008	-8.15%	6.56%	6.99%	3.58%	N/A
2009	-18.25%	4.69%	0.21%	0.69%	N/A
2010	12.16%	5.14%	1.31%	0.95%	N/A
2011	19.62%	5.94%	3.28%	3.39%	N/A
2012	0.23%	5.62%	0.19%	4.58%	N/A
2013	12.87%	5.99%	4.41%	5.69%	N/A
2014	17.86%	6.55%	12.34%	6.10%	6.55%
2015	1.99%	6.33%	10.22%	5.67%	6.24%
2016	1.15%	6.09%	6.58%	4.92%	5.59%
2017	11.43%	6.32%	8.87%	4.44%	5.29%
2018	7.69%	6.37%	7.85%	6.12%	4.84%
2019	5.50%	6.34%	5.48%	8.86%	4.69%
2020	2.30%	6.18%	5.55%	7.86%	4.35%
2021	28.20%	6.92%	10.67%	8.61%	5.97%
2022	-10.20%	6.26%	6.00%	7.42%	5.99%

Actuarial Methods

Following are brief descriptions of the actuarial cost and asset valuation methods used in the valuation.

Actuarial Cost Method

Entry Age Normal

The Entry Age Normal Cost Method on an individual basis is used. Normal costs are computed as a level percentage of pay.

The Unfunded Entry Age Accrued Liability as of July 1, 2015 is amortized over a 10 year period. Each year, the amortization period will decrease by 1 until it reaches 0 years as of July 1, 2025. This period was extended as of July 1, 2021 for an additional 4 years. The amortization period will end as of July 1, 2029. Any subsequent Unfunded Entry Age Accrued Liability is amortized over an open 15 year period.

Asset Valuation Method

A three-year smoothed value, with difference between actual investment return and expected investment return recognized in equal installments over a three-year period.

Actuarial Assumptions

Following are the primary actuarial assumptions used in performing the valuation.

Interest Rates 6.00% per annum (effective July 1, 2021), net of investment expenses

Annual Pay Increases 4.00% per year

Mortality Pub-2010 General Amount-Weighted Mortality tables for Employees, Healthy Retirees, Disabled Retirees and Contingent Survivors, male and female rates, with generational projection from 2010 using Scale MP-2020 (improvement scale updates published annually) (effective July 1, 2021)

Turnover Rates are as follows:

Age	Percentage
25	10%
35	8%
45	4%
55	0%

Rate of Disability None assumed.

Retirement

Non-Uniformed: Participants are assumed 60% retirement at their Unreduced Early Retirement Age, if it is prior to their Normal Retirement Age. Retirement rates of 5% are assumed between their Unreduced Early Retirement Age and age 65, at which a retirement rate of 100% is assumed.

Uniformed: Retirement rates are as follows:

Age	Percentage
55	60%
56 - 61	5%
62	100%

Administrative Expenses Average of last two years of actual administrative expenses (effective July 1, 2019)

Marriage For retired members, actual marital status and spouse birth date is used. For active members, 100% are assumed married with males assumed three years older than their spouses.

Form of Payment It is assumed that all employees will elect a life annuity with 120 months guaranteed.

Summary of Plan Provisions

A summary of the current primary provisions of the Plan are described below. A complete description of the provisions can be found in the local statutes.

Effective Date

Last restated effective July 1, 2013. Reflects subsequent Ordinance 5656 and Retirement Board resolution dated September 25, 2019.

Eligibility

Full-time employees enter the Plan on the July 1 on or immediately following their completion of two years of continuous employment and attainment of age 21. No Employees hired after May 23, 2006 may enter the Plan.

Employee Contributions

Participants are required to contribute 4% of salary (effective July 1, 2019). Contributions accumulate at an interest rate of 5%.

Credited Service

Elapsed time, in years and completed months, from date of hire.

Final Average Compensation

Average of the high 60 consecutive months in the last 120 months.

Normal Retirement Age

Age 55 for a uniformed participant and age 65 for a non-uniformed participant.

Normal Retirement Benefit

A benefit equal to Final Average Compensation times 1.7% times Credited Service not to exceed 30 years. If a participant elected not to participate in the City's defined contribution plan, then the multiplier would be 2.0%.

Normal Form of Payment

The benefit is payable for 120 months guaranteed and for the member's lifetime, thereafter.

Unreduced Early Retirement Eligibility

The participant will be eligible to retire with an unreduced benefit prior to their Normal Retirement Age when the sum of their age and Credited Service equals 85.

Early Retirement Age

Age 50 with at least 20 years of Credited Service.

Early Retirement Benefit

The actuarial equivalent of a benefit calculated in the same manner as the Normal Retirement Benefit with Final Average Compensation and Credited Service determined as of the Early Retirement Date.

Late Retirement Benefit

If a member remains employed after his Normal Retirement Date, he will receive a monthly benefit equal to the benefit computed using service and pay as of his late retirement date. Benefits commence on the first day of the month following actual retirement.

Summary of Plan Provisions

Pre-Retirement Death Benefit

The Surviving Spouse of a Participant who is actively employed and has satisfied Early or Normal Retirement eligibility requirements is entitled to a Death Benefit determined as if the Participant had retired on his date of death, selected a Joint & 2/3 Survivor Annuity and died the next day.

The Surviving Spouse of any other actively employed vested participant is entitled to a Death Benefit determined as follows:

i) assume the Participant separated from service on date of death
ii) survived to the earliest possible retirement eligibility date
iii) retired with a Joint and 2/3 Survivor Annuity, and
iv) dies the next day

Vested Termination

Members who terminate employment are eligible for a monthly benefit calculated in the same manner as the Normal Retirement Benefit, multiplied by the applicable vesting percentage:

Sum of Attained Age & Years of Service	Vesting Percentage
50	50%
51	60%
52	70%
53	80%
54	90%
55 and after	100%

However, if a participant has at least 8 years of Credited Service, then they are fully vested.

Refund of Contributions

If a participant terminates employment without a vested benefit, then the participant will receive a refund of contributions with interest. If the sum of benefit payments received by a retiree or beneficiary is less than the sum of contributions with interest, then the difference may be paid to their beneficiary as an additional death benefit.

Optional Forms of Payment

Life Annuity
Joint & 50% Survivor Annuity
Joint & (2/3)% Survivor Annuity
Joint & 100% Survivor Annuity
Joint & 50% Survivor Annuity with Pop-Up
Joint & (2/3)% Survivor Annuity with Pop-Up
Joint & 100% Survivor Annuity with Pop-Up

Distribution of Active Members by Age and by Years of Service

Number of Participants by Age-Service Groups

Attained Age	Years of Service: Under 1		1 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and up		Total	
	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp
Under 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 to 44	0	0	0	0	0	0	0	0	1	N/A	1	0	0	0	0	0	0	0	0	0	2	N/A
45 to 49	0	0	0	0	0	0	0	0	2	N/A	2	N/A	1	N/A	0	0	0	0	0	0	5	99,062
50 to 54	0	0	0	0	0	0	0	0	3	N/A	1	N/A	3	N/A	0	0	0	0	0	0	7	87,976
55 to 59	0	0	0	0	0	0	0	0	2	N/A	2	N/A	2	N/A	2	N/A	0	0	0	0	8	87,676
60 to 64	0	0	0	0	0	0	0	0	0	N/A	1	N/A	1	N/A	1	N/A	1	N/A	0	0	4	N/A
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N/A
70 and up	0	0	0	0	0	0	0	0	1	N/A	0	0	0	0	0	0	0	0	0	0	1	N/A
Total	0	0	0	0	0	0	0	0	9	78,045	7	114,502	7	89,120	3	N/A	1	N/A	0	0	27	90,514

Average Age 54.4

Average Service 23.7

Inactive Participants - Summary by Age

Deferred Vested Participants

Age Group	No. of	Total Monthly Benefit Amount	Average Monthly Benefit Amount
Less than 30	0	$0	$0
30 - 34	0	0	0
35 - 39	0	0	0
40 - 44	2	1,542	771
45 - 49	5	3,435	687
50 - 54	2	1,951	976
55 - 59	2	1,731	866
60 and over	8	8,611	1,076
Total	19	17,270	909

Retired Participants

Age Group	No. of	Total Monthly Benefit Amount	Average Monthly Benefit Amount
Less than 55	2	$3,548	$1,774
55 - 59	7	17,217	2,460
60 - 64	11	29,954	2,723
65 - 70	21	53,972	2,570
70 - 75	22	41,761	1,898
75 - 80	8	8,081	1,010
80 and over	18	20,059	1,114
Total	89	174,592	1,962

Summary of Changes in Member Data

	Active Participants	Retired Participants	Terminated Vested Participants	Total
Count as of July 1, 2021	31	86	18	135
New Entrants	0	0	0	0
Rehired	0	0	0	0
Retired	(3)	3	0	0
Lump Sum Payouts	0	0	0	0
Died with Beneficiary	0	0	0	0
New Alternate Payees	0	1	0	1
New Beneficiaries	0	0	0	0
Died without Beneficiary	0	(1)	0	(1)
Certain Period Expired	0	0	0	0
Terminated with Vesting	(1)	0	1	0
Terminated without Vesting	0	0	0	0
Data Corrections	0	0	0	0
Total Changes	(4)	3	1	0
Count as of July 1, 2022	27	89	19	135

Actuarial Standard of Practice 51 (ASOP 51)

The purpose of this section is to identify, assess, and provide illustrations of risks that are significant to the Plan, and in some cases to the Plan's participants.

The results of the actuarial valuation are based on one set of reasonable assumptions. However, it is almost certain that future experience will not exactly match the assumptions. As an example, investments may perform better or worse than assumed in any single year and over any longer time horizon. It is therefore important to consider the potential impacts of these potential differences when making decisions that may affect the future financial health of the Plan, or of the Plan's participants.

In addition, as plans mature they accumulate larger pools of assets and liabilities. This increases the potential risk to plan funding and the finances of those who are responsible for plan funding. As an example, it is more difficult for a plan sponsor to deal with the effects of a 10% investment loss on a plan with $1 Billion in assets and liabilities than if the same plan sponsor is responsible for a 10% investment loss on a plan with $1 Million in assets and liabilities. Since pension plans make long-term promises and rely on long-term funding, it is important to consider how mature the plan is today, and how mature it may become in the future.

Actuarial Standard of Practice No. 51 (ASOP 51) addresses these issues by providing actuaries with guidance for assessing and disclosing the risk associated with measuring pension liabilities and the determination of pension plan contributions. Specifically, it directs the actuary to:

- Identify risks that may be significant to the plan.
- Assess the risks identified as significant to the plan.
- Disclose plan maturity measures and historical information that are significant to understanding the plan's risks.

ASOP 51 states that if in the actuary's professional judgment, a more detailed assessment would be significantly beneficial in helping the individuals responsible for the plan to understand the risks identified by the actuary, then the actuary should recommend that such an assessment be performed.

This appendix uses the framework of ASOP 51 to communicate important information about: significant risks to the Plan, the Plan's maturity, and relevant historical Plan data.

Actuarial Standard of Practice 51 (ASOP 51)

Maturity Risk

Definition: This is the potential for total plan liabilities to become more heavily weighted toward inactive liabilities over time.

Identification: The Plan is subject to maturity risk because as Plan assets and liabilities continue to grow, the impact of any gains or losses on the assets or liabilities also becomes larger.

Assessment: Currently assets are equal to 21 times last year's contributions indicating a one-year asset loss of 10% would be equal to 2.1 times last year's contributions.

Retirement Risk

Definition: This is the potential for participants to retire and receive subsidized benefits more valuable than expected.

Identification: This plan has valuable early retirement benefits. If participants retire at earlier ages than anticipated by the actuarial assumptions, it is expected that additional funding will be required.

Investment Risk

Definition: The potential that investment returns will be different than expected.

Identification: To the extent that actual investment returns differ from the assumed investment return, the plan's future assets, funding contributions and funded status may differ significantly from those presented in this valuation.

Interest Rate Risk

Definition: The potential that interest rates will be different than expected.

Identification: The pension liabilities reported herein have been calculated by computing the present value of expected future benefit payments using the interest rate(s) described in the report. If interest rate(s) in future valuations are different from those used in this valuation, future pension liabilities, funding contributions and funded status may differ significantly from those presented in this valuation. As a general rule, using a higher interest rate to compute the present value of future benefit payments will result in a lower pension liability, and vice versa. One aspect that can be used to estimate the impact of different interest rates is the plan's

Assessment: If the interest rate changes by 1%, the estimated percentage change in pension liability is approximately 11%.

Actuarial Standard of Practice 51 (ASOP 51)

Demographic Risks

Definition: The potential that mortality or other demographic experience will be different than expected.

Identification: The pension liabilities reported herein have been calculated by assuming that participants will follow patterns of demographic experience (e.g. mortality, withdrawal, disability, retirement, form of payment election, etc.) as described in the appendix. If actual demographic experience or future demographic assumptions are different from what is assumed to occur in this valuation, future pension liabilities, funding contributions and funded status may differ significantly from those presented in this valuation.

Glossary of Terms

Actuarial Liability The difference between the actuarial present value of all Fund benefits and the actuarial value of future normal costs. Also referred to as "actuarial accrued liability."

Actuarial Assumptions Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method A mathematical budgeting procedure of allocating the dollar amount of the actuarial present value of retirement fund benefit between future normal cost and actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

Experience Gain (Loss) The difference between actual experience and anticipated experience based on the actuarial assumptions during the period between two actuarial valuation dates.

Actuarial Present Value The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest and by probabilities of payment.

Amortization Paying off an interest-discounted amount with periodic payments of interest and principal, as opposed to paying off with a lump sum payment.

Normal Cost The actuarial present value of retirement fund benefits allocated to the current year by the actuarial cost method.

Unfunded Actuarial Liability The difference between actuarial liability and the valuation assets.

Most retirement systems have unfunded actuarial liability. They arise each time new benefits are added, each time an actuarial loss is realized and when actuarial assumptions are modified.

Accumulated Benefits Sometimes referred to as Accrued Benefits. These are the benefits that have been earned by all plan members as of the valuation date.

Actuarially Determined Contribution This is the annual contribution determined in accordance with a plan's funding policy - typically the sum of the Normal Cost and an Amortization payment towards the Unfunded Actuarial Liability.

RETIREMENT PLAN FOR EMPLOYEES OF THE CITY OF CREVE COEUR

GASB 67 and 68 DISCLOSURE
Fiscal Year: July 1, 2021 to June 30, 2022

Prepared by

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Consulting Actuary

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October 7, 2022

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Certification

Actuarial computations presented in this report under Statements No. 67 and 68 of the Governmental Accounting Standards Board are for purposes of assisting the City of Creve Coeur in fulfilling its financial accounting requirements. No attempt is being made to offer any accounting opinion or advice. This report is for fiscal year July 1, 2021 to June 30, 2022. The reporting date for determining plan assets and obligations is June 30, 2022. The calculations enclosed in this report have been made on a basis consistent with our understanding of the plan provisions. Determinations for purposes other than meeting financial reporting requirements may be significantly different than the results contained in this report. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security or meeting employer funding requirements.

In preparing this report, we relied, without audit, on information as of June 30, 2022 and June 30, 2022 furnished by the City of Creve Coeur. This information includes, but is not limited to, statutory provisions, member census data, and financial information. Please see Milliman's funding valuation report dated October 5, 2022 for more information on the plan's participant group as of June 30, 2022 as well as a summary of the plan provisions and a summary of the actuarial methods and assumptions used for funding

We performed a limited review of the census and financial information used directly in our analysis and have found them to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

We hereby certify that, to the best of our knowledge, this report, including all costs and liabilities based on actuarial assumptions and methods, is complete and accurate and determined in conformance with generally recognized and accepted actuarial principles and practices, which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions and supporting Recommendations of the American Academy of Actuaries.

Each of the assumptions used in this valuation with the exception of those set by law was set based on industry standard published tables and data, the particular characteristics of the plan, relevant information from the plan sponsor or other sources about future expectations, and our professional judgment regarding future plan experience. We believe the assumptions are reasonable for the contingencies they are measuring, and are not anticipated to produce significant cumulative actuarial gains or losses over the measurement period.

This valuation report is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Certification

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, 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 additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of such future measurements.

The valuation results were developed using models intended for valuations that use standard actuarial techniques. In addition, Milliman has developed certain models to develop the expected long term rate of return on assets used in this analysis. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice. The models, including all input, calculations, and output may not be appropriate for any other purpose.

Milliman's work is prepared solely for the internal use and benefit of the City of Creve Coeur. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions: (a) the Plan Sponsor may provide a copy of Milliman's work, in its entirety, to the Plan Sponsor's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the City of Creve Coeur; and (b) the Plan Sponsor may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and has been prepared in accordance with generally recognized accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

William Winningham, EA, MAAA
Consulting Actuary

Michael A. Sudduth, FSA, MAAA
Consulting Actuary

Overview of GASB 67 and GASB 68

The Governmental Accounting Standards Board (GASB) released accounting standards for public pension plans and participating employers in 2012. These standards, GASB Statements No. 67 and 68, have substantially revised the accounting requirements previously mandated under GASB Statements No. 25 and 27. The most notable change is the distinct separation of funding from financial reporting. The Annual Required Contribution (ARC) has been eliminated under GASB 67 and 68 and is no longer relevant for financial reporting purposes. As a result, plan sponsors have been encouraged to establish a formal funding policy that is separate from financial reporting calculations.

GASB 67 applies to financial reporting for public pension plans and is required to be implemented for plan fiscal years beginning after June 15, 2013. Note that a plan's fiscal year might not be the same as the employer's fiscal year. Even if the plan does not issue standalone financial statements, but rather is considered a pension trust fund of a government, it is subject to GASB 67. Under GASB 67, enhancements to the financial statement disclosures are required, along with certain required supplementary information.

GASB 68 governs the specifics of accounting for public pension plan obligations for participating employers and is required to be implemented for employer fiscal years beginning after June 15, 2014. GASB 68 requires a liability for pension obligations, known as the Net Pension Liability, to be recognized on the balance sheets of participating employers. Changes in the Net Pension Liability will be immediately recognized as Pension Expense on the income statement or reported as deferred inflows/outflows of resources depending on the nature of the change.

Executive Summary

Relationship Between Valuation Date, Measurement Date, and Reporting Date

The Valuation Date is June 30, 2022. This is the date as of which the actuarial valuation is performed. The Measurement Date is June 30, 2022. This is the date as of which the net pension liability is determined. The Reporting Date is June 30, 2022. This is the plan's and/or employer's fiscal year ending date.

Significant Changes

Given the substantial uncertainty regarding the impact of COVID-19 on plan costs, including whether the pandemic will increase or decrease costs during the term of our projections, we have chosen not to make an adjustment in the expected plan costs. It is possible that the COVID-19 pandemic could have a material impact on the projected costs.

Participant Data as of June 30, 2022

Actives	27
Terminated vested & other inactives	19
Retirees and beneficiaries	89
Total	135

Schedule of Employer Contributions

Fiscal Year Ending June 30	Actuarially Determined Contribution	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as a % of Covered Payroll
2013	$1,204,193	$1,261,350	($57,157)	$4,016,528	31.40%
2014	1,088,415	1,444,717	(356,302)	3,822,287	37.80%
2015	910,670	1,254,457	(343,787)	3,866,480	32.44%
2016	1,220,627	1,270,404	(49,777)	3,816,272	33.29%
2017	1,139,751	1,200,992	(61,241)	3,557,984	33.75%
2018	1,159,936	1,188,826	(28,890)	3,224,888	36.86%
2019	1,262,474	1,307,755	(45,281)	2,611,428	50.08%
2020	1,252,981	1,303,058	(50,077)	2,532,924	51.44%
2021	1,230,482	1,271,253	(40,771)	2,510,196	50.64%
2022	977,511	1,287,117	(309,606)	2,367,957	54.36%

Actuarial Methods and Assumptions Used for Funding Policy

The following actuarial methods and assumptions were used in the June 30, 2022 funding valuation. Please see the valuation report dated October 5, 2022 for further details.

Valuation Timing	Actuarially determined contribution rates are calculated as of June 30
Actuarial Cost Method	Entry Age Normal
Amortization Method	
Level percent or level dollar	Level dollar
Closed, open, or layered periods	Closed, 14 year term for UAL as of 07/01/2015
Amortization period at 06/30/2022	Open, 15 year period for any UAL arising after 07/01/2015
Asset Valuation Method	
Smoothing period	3 years
Corridor	None
Inflation	2.35%
Salary Increases	4.00%
Investment Rate of Return	6.00%
Retirement Age	Retirement rates are summarized in the 2022 Actuarial Valuation
Turnover	Turnover rates are summarized in the 2022 Actuarial Valuation
Mortality	Pub-2010 General Amount-Weighted Mortality tables for Employees, Healthy Retirees, Disabled Retirees and Contingent Survivors, male and female rates, with generational projection from 2010 using Scale MP-2021 (improvement scale updates published annually)

Statement of Fiduciary Net Position

	June 30, 2021	June 30, 2022
Assets		
Cash and cash equivalents	$264,515	$251,537
Receivables and prepaid expenses:		
Receivable contributions	0	0
Receivable investment income	34,451	35,211
Receivables from brokers for unsettled trades	0	0
Prepaid expenses	0	0
Total receivables	34,451	35,211
Investments:		
Fixed income	9,029,376	8,102,328
Stocks	23,770,055	20,650,290
Short-term investments	0	0
Real estate	0	0
Alternative investments	0	0
Total investments	32,799,431	28,752,618
Invested securities lending cash collateral	0	0
Capital assets net of accumulated depreciation	0	0
Total assets	33,098,397	29,039,366
Liabilities		
Accrued expenses and benefits payable	0	0
Securities lending cash collateral	0	0
Payable to brokers for unsettled trades	0	0
Total liabilities	0	0
Net position restricted for pensions	$33,098,397	$29,039,366

Statement of Changes in Fiduciary Net Position

	June 30, 2022
Additions	
Member contributions	$82,726
Employer contributions	1,287,117
Total contributions	1,369,843
Investment income (loss):	
Interest and dividends	869,148
Net increase in fair value of investments	(4,156,794)
Less investment expenses:	
Direct investment expense	40,050
Net investment income	(3,327,696)
Other income	0
Total additions	(1,957,853)
Deductions	
Service benefits	2,057,704
Disability benefits	N/A
Death benefits	N/A
Refunds of member contributions	N/A
Administrative expenses	43,474
Total deductions	2,101,178
Net increase (decrease)	(4,059,031)
Net position restricted for pensions	
Beginning of year (June 30, 2021)	33,098,397
End of year (June 30, 2022)	$29,039,366

Money-Weighted Rate of Return

Fiscal Year Ending June 30	Net Money-Weighted Rate of Return
2013	12.87%
2014	17.86%
2015	1.99%
2016	1.15%
2017	11.43%
2018	7.83%
2019	5.69%
2020	2.46%
2021	27.90%
2022	-10.04%

Calculation of Money-Weighted Rate of Return

The money-weighted rate of return considers the changing amounts actually invested during a period and weights the amount of pension plan investments by the proportion of time they are available to earn a return during that period. External cash flows are determined on a monthly basis and are assumed to occur at the beginning of each month. External cash inflows are netted with external cash outflows, resulting in a net external cash flow in each month. The money-weighted rate of return is calculated net of investment expenses.

	Net External Cash Flows	Periods Invested	Period Weight	Net External Cash Flows With Interest
Beginning Value - July 1, 2021	$33,098,397	12.00	1.00	$29,775,445
Monthly net external cash flows:				
July	542,705	12.00	1.00	488,220
August	(163,077)	11.00	0.92	(147,952)
September	(162,546)	10.00	0.83	(148,881)
October	416,682	9.00	0.75	384,896
November	(166,824)	8.00	0.67	(155,408)
December	(188,735)	7.00	0.58	(177,502)
January	(164,185)	6.00	0.50	(155,725)
February	(164,401)	5.00	0.42	(157,256)
March	(164,302)	4.00	0.33	(158,665)
April	(165,613)	3.00	0.25	(161,290)
May	(166,476)	2.00	0.17	(163,509)
June	(184,563)	1.00	0.08	(183,007)
Ending Value - June 30, 2022	29,039,366			29,039,366
Money-Weighted Rate of Return	-10.04%			

Long-Term Expected Rate of Return

The assumption for the long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation. The capital market assumptions are per Milliman as of June 30, 2022.

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
US Core Fixed Income (Aggregate)	24.00%	1.95%
US Interm (1-10 Yr) Credit Bonds	12.00%	2.41%
US Broad Equity Market	35.00%	5.70%
Non-US Equity	15.00%	7.90%
Emerging Markets Equity	6.00%	9.44%
Infrastructure - Public	4.00%	5.13%
Hedge Funds - Equity Hedge	4.00%	4.93%
Assumed Inflation - Mean		2.35%
Long-Term Expected Rate of Return		**6.00%**

Depletion Date Projection

GASB 67 and 68 generally require that a blended discount rate be used to measure the Total Pension Liability (the Actuarial Accrued Liability calculated using the Individual Entry Age Normal Cost Method). The long-term expected return on plan investments may be used to discount liabilities to the extent that the plan's Fiduciary Net Position (fair market value of assets) is projected to cover benefit payments and administrative expenses. A 20-year high quality (AA/Aa or higher) municipal bond rate must be used for periods where the Fiduciary Net Position is not projected to cover benefit payments and administrative expenses. Determining the discount rate under GASB 67 and 68 will often require that the actuary perform complex projections of future benefit payments and asset values. GASB 67 and 68 (paragraph 29) do allow for alternative evaluations of projected solvency, if such evaluation can reliably be made. GASB does not contemplate a specific method for making an alternative evaluation of sufficiency; it is left to professional judgment.

The following circumstances justify an alternative evaluation of sufficiency for the City of Creve Coeur:

- The City of Creve Coeur has at least a 5-year history of paying at least 100% of the Actuarially Determined Contribution (previously termed the Annual Required Contribution).

- The Actuarially Determined Contribution is based on a closed amortization period for the majority of the unfunded liability and a 15 year amortization for unfunded liability realized since July 1, 2015.

- GASB 67 and 68 specify that the projections regarding future solvency assume that plan assets earn the assumed rate of return and there are no future changes in the plan provisions or actuarial methods and assumptions, which means that the projections would not reflect any adverse future experience which might impact the plan's funded position.

Based on these circumstances, it is our professional opinion that the detailed depletion date projections outlined in GASB 67 and 68 will show that the Fiduciary Net Position is always projected to be sufficient to cover benefit payments and administrative expenses.

Net Pension Liability

Net Pension Liability	June 30, 2021	June 30, 2022
Total pension liability	$35,171,396	$35,652,124
Fiduciary net position	33,098,397	29,039,366
Net pension liability	2,072,999	6,612,758
Fiduciary net position as a % of total pension liability	94.11%	81.45%
Covered payroll	2,510,196	2,367,957
Net pension liability as a % of covered payroll	82.58%	279.26%

The total pension liability was determined by an actuarial valuation as of the measurement date, calculated based on the discount rate and actuarial assumptions below.

Discount Rate

Discount rate	6.00%	6.00%
Long-term expected rate of return, net of investment expense	6.00%	6.00%
Municipal bond rate	N/A	N/A

The plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the discount rate for calculating the total pension liability is equal to the long-term expected rate of return.

Other Key Actuarial Assumptions

The plan has not had a formal actuarial experience study performed.

Valuation date	June 30, 2021	June 30, 2022
Measurement date	June 30, 2021	June 30, 2022
Actuarial cost method	Entry Age Normal	Entry Age Normal
Inflation	2.30%	2.35%
Salary increases including inflation	4.00%	4.00%
Mortality	Pub-2010 General Amount-Weighted Mortality tables for Employees, Healthy Retirees, Disabled Retirees and Contingent Survivors, male and female rates, with generational projection from 2010 using Scale MP-2020 (improvement scale updates published annually)	Pub-2010 General Amount-Weighted Mortality tables for Employees, Healthy Retirees, Disabled Retirees and Contingent Survivors, male and female rates, with generational projection from 2010 using Scale MP-2021 (improvement scale updates published annually)

Please see Milliman's funding valuation report dated October 5, 2022 for more detail.

Changes in Net Pension Liability

Changes in Net Pension Liability	Increase (Decrease) Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances as of June 30, 2021	$35,171,396	$33,098,397	$2,072,999
Changes for the year:			
Service cost	324,322		324,322
Interest on total pension liability	2,068,911		2,068,911
Effect of plan changes	0		0
Effect of economic/demographic gains or losses	89,780		89,780
Effect of assumptions changes or inputs	55,419		55,419
Benefit payments	(2,057,704)	(2,057,704)	0
Employer contributions		1,287,117	(1,287,117)
Member contributions		82,726	(82,726)
Net investment income		(3,327,696)	3,327,696
Administrative expenses		(43,474)	43,474
Balances as of June 30, 2022	35,652,124	29,039,366	6,612,758

Sensitivity Analysis

The following presents the net pension liability of the City of Creve Coeur, calculated using the discount rate of 6.00%, as well as what the City of Creve Coeur's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (5.00%) or 1 percentage point higher (7.00%) than the current rate.

	1% Decrease 5.00%	Current Discount Rate 6.00%	1% Increase 7.00%
Total pension liability	$39,501,248	$35,652,124	$32,380,341
Fiduciary net position	29,039,366	29,039,366	29,039,366
Net pension liability	10,461,882	6,612,758	3,340,975

Schedule of Changes in Net Pension Liability and Related Ratios

	Fiscal Year Ending June 30									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Total Pension Liability										
Service cost	$324,322	$267,260	$272,815	$291,592	$255,915	$409,425	$424,445	$371,341	$447,610	N/A
Interest on total pension liability	2,068,911	2,118,808	2,132,606	2,124,982	2,089,956	2,059,465	1,994,674	1,918,318	1,827,698	N/A
Effect of plan changes	0	(2,229)	(120,161)	0	0	0	0	0	0	N/A
Effect of economic/demographic gains or losses	89,780	(200,891)	(344,009)	(208,439)	187,078	(279,360)	21,701	64,357	3,949	N/A
Effect of assumption changes or inputs	55,419	2,846,555	0	0	793,015	0	0	1,832,668	0	N/A
Benefit payments	(2,057,704)	(1,929,682)	(2,343,780)	(1,817,650)	(1,657,854)	(1,544,910)	(1,457,024)	(1,392,018)	(1,508,007)	N/A
Net change in total pension liability	480,728	3,099,821	(402,529)	390,485	1,668,110	644,620	983,796	2,794,666	771,250	N/A
Total pension liability, beginning	35,171,396	32,071,575	32,474,104	32,083,619	30,415,509	29,770,889	28,787,093	25,992,427	25,221,177	N/A
Total pension liability, ending (a)	35,652,124	35,171,396	32,071,575	32,474,104	32,083,619	30,415,509	29,770,889	28,787,093	25,992,427	N/A
Fiduciary Net Position										
Employer contributions	$1,287,117	$1,271,253	$1,303,058	$1,307,755	$1,188,826	$1,200,992	$1,270,402	$1,254,457	$1,444,717	N/A
Member contributions	82,726	89,838	96,152	86,614	99,041	107,272	112,251	93,099	74,183	N/A
Net investment income	(3,327,696)	7,359,276	630,154	1,464,646	1,893,838	2,499,524	251,339	426,117	3,245,642	N/A
Benefit payments	(2,057,704)	(1,929,682)	(2,343,780)	(1,817,650)	(1,657,854)	(1,544,910)	(1,457,024)	(1,392,017)	(1,508,007)	N/A
Administrative expenses	(43,474)	(65,777)	(31,015)	(52,266)	(44,133)	0	0	0	0	N/A
Net change in plan fiduciary net position	(4,059,031)	6,724,908	(345,431)	989,099	1,479,718	2,262,878	176,968	381,656	3,256,535	N/A
Fiduciary net position, beginning	33,098,397	26,373,489	26,718,920	25,729,821	24,250,103	21,987,225	21,810,257	21,428,601	18,172,066	N/A
Fiduciary net position, ending (b)	29,039,366	33,098,397	26,373,489	26,718,920	25,729,821	24,250,103	21,987,225	21,810,257	21,428,601	N/A
Net pension liability, ending = (a) - (b)	$6,612,758	$2,072,999	$5,698,086	$5,755,184	$6,353,798	$6,165,406	$7,783,664	$6,976,836	$4,563,826	N/A
Fiduciary net position as a % of total pension liability	81.45%	94.11%	82.23%	82.28%	80.20%	79.73%	73.85%	75.76%	82.44%	N/A
Covered payroll	$2,367,957	$2,510,196	$2,532,924	$2,611,428	$3,224,888	$3,557,984	$3,816,272	$3,866,480	$3,822,287	N/A
Net pension liability as a % of covered payroll	279.26%	82.58%	224.96%	220.38%	197.02%	173.28%	203.96%	180.44%	119.40%	N/A

This schedule is presented to illustrate the requirement to show information for 10 years. However, recalculations of prior years are not required, and if prior years are not reported in accordance with the current GASB standards, they should not be reported.

Pension Expense

Pension Expense	July 1, 2020 to June 30, 2021	July 1, 2021 to June 30, 2022
Service cost	$267,260	$324,322
Interest on total pension liability	2,118,808	2,068,911
Effect of plan changes	(2,229)	0
Administrative expenses	65,777	43,474
Member contributions	(89,838)	(82,726)
Expected investment return net of investment expenses	(1,759,150)	(1,964,283)
Recognition of Deferred Inflows/Outflows of Resources		
Recognition of economic/demographic gains or losses	(252,820)	35,259
Recognition of assumption changes or inputs	2,189,658	707,278
Recognition of investment gains or losses	(1,076,391)	175,718
Pension Expense	1,461,075	1,307,953

As of June 30, 2022, the deferred inflows and outflows of resources are as follows:

Deferred Inflows / Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources
Differences between expected and actual experience	$0	$8,162
Changes of assumptions	0	5,038
Net difference between projected and actual earnings	0	1,381,166
Contributions made subsequent to measurement date	0	0
Total	0	1,394,366

Amounts currently reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended June 30:	
2023	$231,033
2024	166,568
2025	(61,630)
2026	1,058,395
2027	0
Thereafter*	0

* Note that additional future deferred inflows and outflows of resources may impact these numbers.

Schedule of Deferred Inflows and Outflows of Resources

	Original Amount	Date Established	Original Rec. Period*	Amount Recognized in Pension Expense for FYE 06/30/2022	Amount Recognized in Pension Expense through 06/30/2022	Balance of Deferred Inflows as of 06/30/2022	Balance of Deferred Outflows as of 06/30/2022
Economic/ demographic gains or losses	$89,780	6/30/2022	1.1	$81,618	$81,618	$0	$8,162
	(200,891)	6/30/2021	1.3	(46,359)	(200,891)	0	0
		Total		35,259	(119,273)	0	8,162
Assumption changes or inputs	55,419	6/30/2022	1.1	50,381	50,381	0	5,038
	2,846,555	6/30/2021	1.3	656,897	2,846,555	0	0
		Total		707,278	2,896,936	0	5,038
Investment gains or losses	5,291,979	6/30/2022	5.0	1,058,396	1,058,396	0	4,233,583
	(5,600,126)	6/30/2021	5.0	(1,120,025)	(2,240,050)	(3,360,076)	0
	1,140,985	6/30/2020	5.0	228,197	684,591	0	456,394
	256,329	6/30/2019	5.0	51,266	205,064	0	51,265
	(210,580)	6/30/2018	5.0	(42,116)	(210,580)	0	0
		Total		175,718	(502,579)	(3,360,076)	4,741,242
Total for economic/demographic gains or losses and assumption changes or inputs						0	13,200
Net deferred (inflows)/outflows for investment gains or losses						0	1,381,166
Total deferred (inflows)/outflows						0	1,394,366
Total net deferrals							1,394,366

* Investment (gains)/losses are recognized in pension expense over a period of five years; economic/demographic (gains)/losses and assumption changes or inputs are recognized over the average remaining service life for all active and inactive members.

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Deferred (Inflows)	Deferred Outflows	Net Investment (Inflows)/ Outflows	Net Deferrals	Net Pension Liability plus Net Deferrals	Annual Expense
Balances as of June 30, 2021	($35,171,396)	$33,098,397	($2,072,999)	($46,359)	$656,897	($3,735,095)	($3,124,557)	($5,197,556)	
Service cost	(324,322)		(324,322)						324,322
Interest on total pension liability	(2,068,911)		(2,068,911)						2,068,911
Effect of plan changes	0		0						0
Effect of liability gains or losses	(89,780)		(89,780)		89,780		89,780		
Effect of assumption changes or inputs	(55,419)		(55,419)		55,419		55,419		
Benefit payments	2,057,704	(2,057,704)	0						
Administrative expenses		(43,474)	(43,474)						43,474
Member contributions		82,726	82,726						(82,726)
Expected net investment income		1,964,283	1,964,283						(1,964,283)
Investment gains or losses		(5,291,979)	(5,291,979)			5,291,979	5,291,979		
Employer contributions		1,287,117	1,287,117					1,287,117	
Recognition of liability gains or losses				46,359	(81,618)		(35,259)		35,259
Recognition of assumption changes or inputs					(707,278)		(707,278)		707,278
Recognition of investment gains or losses						(175,718)	(175,718)		175,718
Annual expense								(1,307,953)	1,307,953
Balances as of June 30, 2022	(35,652,124)	29,039,366	(6,612,758)	0	13,200	1,381,166	1,394,366	(5,218,392)	

Glossary

Actuarially Determined Contribution	A target or recommended contribution to a defined benefit pension plan for the reporting period, determined based on the funding policy and most recent measurement available when the contribution for the reporting period was adopted.
Deferred Inflows/Outflows of Resources	Portion of changes in net pension liability that is not immediately recognized in Pension Expense. These changes include differences between expected and actual experience, changes in assumptions, and differences between expected and actual earnings on plan investments.
Discount Rate	Single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the sum of: 1) The actuarial present value of benefit payments projected to be made in future periods where the plan assets are projected to be sufficient to meet benefit payments, calculated using the Long-Term Expected Rate of Return. 2) The actuarial present value of projected benefit payments not included in (1), calculated using the Municipal Bond Rate.
Fiduciary Net Position	Equal to market value of assets.
Long-Term Expected Rate of Return	Long-term expected rate of return on pension plan investments expected to be used to finance the payment of benefits, net of investment expenses.
Money-Weighted Rate of Return	The internal rate of return on pension plan investments, net of investment expenses.
Municipal Bond Rate	Yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.
Net Pension Liability	Total Pension Liability minus the Plan's Fiduciary Net Position (unfunded accrued liability).
Projected Benefit Payments	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and expected future service.
Service Cost	The portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
Total Pension Liability	The portion of actuarial present value of projected benefit payments that is attributable to past periods of member service using the Entry Age Normal cost method based on the requirements of GASB 67 and 68.

CITY OF CREVE COEUR
OTHER POST-EMPLOYMENT BENEFITS PROGRAM

GASB 75 DISCLOSURE
Fiscal Year: July 1, 2021 to June 30, 2022

Prepared by

William Winningham, EA, MAAA
Consulting Actuary

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October 11, 2022

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Certification

Actuarial computations presented in this report under Statements No. 74 and 75 of the Governmental Accounting Standards Board are for purposes of assisting the City in fulfilling its financial accounting requirements. No attempt is being made to offer any accounting opinion or advice. This report is for fiscal year July 1, 2021 to June 30, 2022. The measurement date for determining plan assets and obligations is June 30, 2022. The calculations enclosed in this report have been made on a basis consistent with our understanding of the plan provisions. Determinations for purposes other than meeting financial reporting requirements may be significantly different than the results contained in this report. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security or meeting employer funding requirements.

In preparing this report, we relied, without audit, on information furnished by the City. This information includes, but is not limited to, statutory provisions, member census data, and financial information.

We performed a limited review of the census and financial information used directly in our analysis and have found them to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

The valuation results were developed using models intended for valuations that use standard actuarial techniques.

We hereby certify that, to the best of our knowledge, this report, including all costs and liabilities based on actuarial assumptions and methods, is complete and accurate and determined in conformance with generally recognized and accepted actuarial principles and practices, which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Code of Professional Conduct, amplifying Opinions and supporting Recommendations of the American Academy of Actuaries.

Each of the assumptions used in this valuation with the exception of those set by law was set based on industry standard published tables and data, the particular characteristics of the plan, relevant information from the plan sponsor or other sources about future expectations, and our professional judgment regarding future plan experience. We believe the assumptions are reasonable for the contingencies they are measuring, and are not anticipated to produce significant cumulative actuarial gains or losses over the measurement period. Assumptions related to the claims costs and healthcare trend (cost inflation) rates for the retiree healthcare program discussed in this report were determined by Milliman actuaries qualified in such matters.

This valuation report is only an estimate of the plan's financial condition as of a single date. It can neither predict the plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of plan benefits, only the timing of plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Certification

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, 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 additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of such future measurements.

Milliman's work is prepared solely for the internal use and benefit of the City of Creve Coeur. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions: (a) the Plan Sponsor may provide a copy of Milliman's work, in its entirety, to the Plan Sponsor's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the City; and (b) the Plan Sponsor may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and has been prepared in accordance with generally recognized accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

William Winningham, EA, MAAA
Consulting Actuary

Overview of GASB 74 and GASB 75

The Governmental Accounting Standards Board (GASB) released new accounting standards for public postemployment benefit plans other than pension (OPEB) and participating employers in 2015. These standards, GASB Statements No. 74 and 75, have substantially revised the accounting requirements previously mandated under GASB Statements No. 43 and 45. The most notable change is the that the Annual Required Contribution (ARC) has been eliminated and the Net OPEB Liability will be an item on the employer's financial statement rather than a footnote entry.

GASB 74 applies to financial reporting for public OPEB plans funded by OPEB trusts and is required to be implemented for plan fiscal years beginning after June 15, 2016. Note that a plan's fiscal year might not be the same as the employer's fiscal year. Even if the plan does not issue standalone financial statements, but rather is considered a trust fund of a government, it is subject to GASB 74. Under GASB 74, enhancements to the financial statement disclosures are required, along with certain required supplementary information.

GASB 75 governs the specifics of accounting for public OPEB plan obligations for participating employers and is required to be implemented for employer fiscal years beginning after June 15, 2017. GASB 75 requires a liability for OPEB obligations, known as the Net OPEB Liability (Total OPEB Liability for unfunded plans), to be recognized on the balance sheets of participating employers. Changes in the Net OPEB Liability (Total OPEB Liability for unfunded plans) will be immediately recognized as OPEB Expense on the income statement or reported as deferred inflows/outflows of resources depending on the nature of the change.

Executive Summary

Relationship Between Valuation Date, Measurement Date, and Reporting Date

The Valuation Date is June 30, 2022. This is the date as of which the actuarial valuation is performed. The Measurement Date is June 30, 2022. This is the date as of which the total OPEB liability is determined. The Reporting Date is June 30, 2022. This is the plan's and/or employer's fiscal year ending date.

Significant Changes

Given the substantial uncertainty regarding the impact of COVID-19 on plan costs, including whether the pandemic will increase or decrease costs during the term of our projections, we have chosen not to make an adjustment in the expected plan costs. It is possible that the COVID-19 pandemic could have a material impact on the projected costs.

Participant Data as of June 30, 2022

Actives	98
Retirees	12
Spouses of Retirees	5
Total	115

Total OPEB Liability

Total OPEB Liability	June 30, 2021	June 30, 2022
Total OPEB liability	$2,796,210	$2,329,286
Covered payroll	N/A	N/A
Total OPEB liability as a % of covered payroll	N/A	N/A

The total OPEB liability was determined by an actuarial valuation as of the measurement date, calculated based on the discount rate and actuarial assumptions below.

Discount Rate

Discount rate	2.16%	3.54%
20 Year Bond GO Index	2.16%	3.54%

The discount rate was based on the 20 Year Bond GO Index.

Other Key Actuarial Assumptions

The plan has not had a formal actuarial experience study performed.

Valuation date	June 30, 2020	June 30, 2022
Measurement date	June 30, 2021	June 30, 2022
Actuarial cost method	Entry Age Normal	Entry Age Normal
Inflation	2.30%	2.40%
Mortality Rate	Pub-2010 Mortality for Employees and Healthy Annuitants, with generational projection per Scale MP-2019	Pub-2010 Mortality for Employees and Healthy Annuitants, with generational projection per Scale MP-2021
Salary increases including inflation	4.00%	4.00%

Changes in Total OPEB Liability

Changes in Total OPEB Liability	Increase (Decrease) Total OPEB Liability
Balance as of June 30, 2021	$2,796,210
Changes for the year:	
Service cost	79,160
Interest on total OPEB liability	60,168
Effect of plan changes	0
Effect of economic/demographic gains or losses	(249,807)
Effect of assumptions changes or inputs	(175,824)
Benefit payments	(180,621)
Balance as of June 30, 2022	2,329,286

Sensitivity Analysis

The following presents the total OPEB liability of the City, calculated using the discount rate of 3.54%, as well as what the City's total OPEB liability would be if it were calculated using a discount rate that is 1 percentage point lower (2.54%) or 1 percentage point higher (4.54%) than the current rate.

	1% Decrease 2.54%	Discount Rate 3.54%	1% Increase 4.54%
Total OPEB liability	$2,456,576	$2,329,286	$2,208,816

The following presents the total OPEB liability of the City, calculated using the current healthcare cost trend rates as well as what the City's total OPEB liability would be if it were calculated using trend rates that are 1 percentage point lower or 1 percentage point higher than the current trend rates.

	1% Decrease	Current Trend Rate	1% Increase
Total OPEB liability	$2,180,989	$2,329,286	$2,494,888

Schedule of Changes in Total OPEB Liability and Related Ratios
(in 1,000s)

	Fiscal Year Ending June 30									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Total OPEB Liability										
Service cost	$79	$83	$60	$62	$61	N/A	N/A	N/A	N/A	N/A
Interest on total OPEB liability	60	67	106	115	109	N/A	N/A	N/A	N/A	N/A
Effect of plan changes	0	(197)	0	0	0	N/A	N/A	N/A	N/A	N/A
Effect of economic/demographic gains or (losses)	(250)	0	(205)	0	0	N/A	N/A	N/A	N/A	N/A
Effect of assumption changes or inputs	(176)	8	219	67	(56)	N/A	N/A	N/A	N/A	N/A
Benefit payments	(181)	(206)	(185)	(206)	(186)	N/A	N/A	N/A	N/A	N/A
Net change in total OPEB liability	(467)	(245)	(6)	38	(72)	N/A	N/A	N/A	N/A	N/A
Total OPEB liability, beginning	2,796	3,041	3,047	3,009	3,081	N/A	N/A	N/A	N/A	N/A
Total OPEB liability, ending (a)	2,329	2,796	3,041	3,047	3,009	N/A	N/A	N/A	N/A	N/A
Covered payroll	N/A	N/A	N/A	$7,758	$7,011	N/A	N/A	N/A	N/A	N/A
Total OPEB liability as a % of covered payroll	N/A	N/A	N/A	39.27%	42.92%	N/A	N/A	N/A	N/A	N/A

This schedule is presented to illustrate the requirement to show information for 10 years. However, recalculations of prior years are not required, and if prior years are not reported in accordance with the current GASB standards, they should not be reported.

OPEB Expense

OPEB Expense	July 1, 2020 to June 30, 2021	July 1, 2021 to June 30, 2022
Service cost	$82,938	$79,160
Interest on total OPEB liability	66,788	60,168
Effect of plan changes	(197,042)	0
Recognition of Deferred Inflows/Outflows of Resources		
Recognition of economic/demographic gains or losses	(24,959)	(55,914)
Recognition of assumption changes or inputs	29,069	7,282
OPEB Expense	(43,206)	90,696

As of June 30, 2022, the deferred inflows and outflows of resources are as follows:

Deferred Inflows / Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources
Differences between expected and actual experience	($349,390)	$0
Changes of assumptions	(174,946)	179,006
Total	(524,336)	179,006

Amounts currently reported as deferred outflows of resources and deferred inflows of resources related to other postemployment benefits will be recognized in OPEB expense as follows:

Year ended June 30:	
2023	($48,632)
2024	(48,632)
2025	(48,632)
2026	(41,845)
2027	(49,950)
Thereafter*	(107,639)

* Note that additional future deferred inflows and outflows of resources may impact these numbers.

Schedule of Deferred Inflows and Outflows of Resources

	Original Amount	Date Established	Original Rec. Period*	Amount Recognized in Expense for FYE 06/30/2022	Amount Recognized in Expense through 06/30/2022	Balance of Deferred Inflows 06/30/2022	Balance of Deferred Outflows 06/30/2022
Economic/ demographic (gains) or losses	($249,807)	6/30/2022	8.07	($30,955)	($30,955)	($218,852)	$0
	0	6/30/2021	0.00	0	0	0	0
	(205,415)	6/30/2020	8.23	(24,959)	(74,877)	(130,538)	0
	0	6/30/2019	0.00	0	0	0	0
	0	6/30/2018	0.00	0	0	0	0
		Total		(55,914)	(105,832)	(349,390)	0
Assumption changes or inputs	(175,824)	6/30/2022	8.07	(21,787)	(21,787)	(154,037)	0
	7,688	6/30/2021	8.23	934	1,868	0	5,820
	219,317	6/30/2020	8.23	26,648	79,944	0	139,373
	67,457	6/30/2019	8.02	8,411	33,644	0	33,813
	(55,529)	6/30/2018	8.02	(6,924)	(34,620)	(20,909)	0
		Total		7,282	59,049	(174,946)	179,006
Total deferred (inflows)/outflows						(524,336)	179,006
Total net deferrals						(345,330)	

* Economic/demographic (gains)/losses and assumption changes or inputs are recognized over the average remaining service life for all active and inactive members.

	Total OPEB Liability	Deferred Inflows	Deferred Outflows	Net Deferrals	Total OPEB Liability plus Net Deferrals	Annual Expense
Balances as of June 30, 2021	($2,796,210)	($183,330)	$214,999	$31,669	($2,764,541)	
Service cost	(79,160)					79,160
Interest on total OPEB liability	(60,168)					60,168
Effect of plan changes	0					0
Effect of liability gains or losses	249,807	(249,807)		(249,807)		
Effect of assumption changes or inputs	175,824	(175,824)		(175,824)		
Benefit payments	180,621				180,621	
Recognition of liability gains or losses		55,914		55,914		(55,914)
Recognition of assumption changes or inputs		28,711	(35,993)	(7,282)		7,282
Annual expense					(90,696)	90,696
Balances as of June 30, 2022	(2,329,286)	(524,336)	179,006	(345,330)	(2,674,616)	

Glossary

Deferred Inflows/Outflows of Resources
Portion of changes in net OPEB liability that is not immediately recognized in OPEB Expense. These changes include differences between expected and actual experience, changes in assumptions, and differences between expected and actual earnings on plan investments.

Discount Rate
Single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the sum of:

1) The actuarial present value of benefit payments projected to be made in future periods where the plan assets are projected to be sufficient to meet benefit payments, calculated using the Long-Term Expected Rate of Return.
2) The actuarial present value of projected benefit payments not included in (1), calculated using the Municipal Bond Rate.

Municipal Bond Rate
Yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.

Projected Benefit Payments
All benefits estimated to be payable through the OPEB plan to current active and inactive employees as a result of their past service and expected future service.

Service Cost
The portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.

Total OPEB Liability
The portion of actuarial present value of projected benefit payments that is attributable to past periods of member service using the Entry Age Normal cost method based on the requirements of GASB 74 and 75.

Summary of Census Data

The following were included in our analysis as of June 30, 2022 on information provided by the City.

Number of members	
Active	98
Retired	12
Spouses of retirees	5
Total	115

Average age	
Active	43.1
Retired	60.4

Attained	Years of credited service										
Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
Under 25	3	2	0	0	0	0	0	0	0	0	5
25 to 29	7	10	1	0	0	0	0	0	0	0	18
30 to 34	3	1	2	0	0	0	0	0	0	0	6
35 to 39	0	8	1	4	1	0	0	0	0	0	14
40 to 44	2	1	2	2	1	1	0	0	0	0	9
45 to 49	1	1	4	1	2	2	1	0	0	0	12
50 to 54	0	0	1	2	4	1	3	0	0	0	13
55 to 59	3	1	2	3	2	2	2	2	0	0	17
60 to 64	1	1	0	0	0	1	1	1	1	0	6
65 to 69	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	1	0	0	0	0	0	1
Total	20	25	13	11	11	7	7	3	1	0	98

Summary of Claims Cost

Milliman's Health Cost Guidelines were used to develop the expected relationship of the true cost of medical insurance benefits across age and gender. Expected medical claims are based in part on historical premium, enrollment and expense information provided by the City. Representative factors are shown below.

MEDICAL (Monthly)

	Retiree		Spouse	
Age	Male	Female	Male	Female
55	$986.61	$1,081.90	$850.16	$962.59
56	$1,021.96	$1,101.82	$884.23	$984.42
57	$1,058.57	$1,122.11	$919.65	$1,006.75
58	$1,103.21	$1,152.79	$963.09	$1,035.81
59	$1,149.73	$1,184.32	$1,008.58	$1,065.71
60	$1,198.21	$1,216.71	$1,056.22	$1,096.47
61	$1,248.74	$1,249.98	$1,106.10	$1,128.12
62	$1,301.40	$1,284.17	$1,158.35	$1,160.69
63	$1,378.63	$1,321.31	$1,227.09	$1,194.26
64	$1,460.44	$1,359.52	$1,299.90	$1,228.80

Appendix A: Actuarial Assumptions

Discount Rate (Adopted 6/30/2022)

The interest rate for discounting liabilities is 3.54% per annum based on the 20 year bond GO index at the fiscal year end. The rate for the prior fiscal year was 2.16%.

Medical/Retiree Premium Inflation Rate

Year	Medical	Year	Medical
2022	5.30%	2035	4.40%
2023	5.00%	2040	4.30%
2024	4.90%	2045	4.30%
2025	4.80%	2050	4.30%
2026	4.70%	2055	4.30%
2027	4.60%	2060	4.30%
2028	4.50%	2065	4.20%
2029	4.40%	2070	3.90%
2030	4.40%	2072+	3.80%

The healthcare trends used in this valuation are based on long term healthcare trends generated by the Getzen Model. The Getzen Model is the result of research sponsored by the Society of Actuaries and completed by a committee of economists and actuaries. This model is the current industry standard for projecting long term medical trends. Inputs to the model are consistent with the assumptions used in deriving the discount rate used in the valuation.

Salary Increase

Salary is assumed to increase at a rate of 4.00% per annum.

Healthy Mortality (Adopted 6/30/2022)

Pub-2010 Mortality for Employees and Healthy Annuitants, with generational projection per Scale MP-2021

Turnover

Rates are as follows:
Creve Coeur Retirement Plan (Hired prior to June 1, 2006):

Age	Percentage
25	10%
35	8%
45	4%
55	0%

Appendix A: Actuarial Assumptions

Turnover (continued)

LAGERS plan:

Male Employees (General)				Female Employees (General)			
Select rates 0-4 Years of Service		Ultimate Rates after 4 years of service		Select rates 0-4 Years of Service		Ultimate Rates after 4 years of service	
Years	Rate	Age	Rate	Years	Rate	Age	Rate
0	19.0%	25	7.3%	0	22.0%	25	10.8%
1	17.0%	30	6.5%	1	20.0%	30	8.9%
2	15.0%	35	5.0%	2	17.0%	35	7.4%
3	13.0%	40	3.7%	3	14.0%	40	5.7%
4	11.0%	45	3.0%	4	13.0%	45	4.2%
		50	2.4%			50	3.3%
		55	1.8%			55	2.5%
		60	1.0%			60	1.2%
		65	0.0%			65	0.0%

Police Employees (Male and Female)			
Select rates 0-4 Years of		Ultimate Rates after 4 years of	
Years	Rate	Age	Rate
0	18.00%	25	9.80%
1	17.00%	30	7.80%
2	16.00%	35	6.10%
3	13.00%	40	4.40%
4	12.00%	45	3.20%
		50	1.80%
		55	1.00%
		60	0.00%

Retirement

Creve Coeur Retirement Plan (Hired prior to June 1, 2006):

Non-Uniformed		Uniformed	
Age	**Rate**	**Age**	**Rate**
60	60%	55	60%
61-64	5%	55-61	5%
65	100%	62	100%

Appendix A: Actuarial Assumptions

Retirement (continued)

LAGERS Plan:

	General		Police
Age	Men	Women	All
50-54	N/A	N/A	2.50%
55	3%	3%	10%
56	3%	3%	10%
57	3%	3%	10%
58	3%	3%	10%
59	3%	3%	10%
60	10%	10%	10%
61	10%	10%	10%
62	25%	15%	25%
63	20%	15%	20%
64	20%	15%	20%
65	25%	25%	100%

Future Retiree Coverage

For retirees hired prior to 6/1/2001: 80% of employees who retire prior to age 65 are assumed to elect medical coverage under the plan.

For retirees hired after 6/1/2001: 40% of employees who retire prior to age 65 are assumed to elect medical coverage under the plan.

Medicare eligible retirees:
Medical coverage is not provided for Medicare eligible retirees.

Future Dependent Coverage (Adopted 6/30/2021)

Current active members are assumed to elect spouse coverage at retirement as follows. All female spouses are assumed to be 3 years younger than males.

Male	**Female**
40%	40%

No dependent children are assumed to be covered in retirement.

1 in 6 spouses of active employees are assumed to elect coverage while also having coverage available through their own employer. These spouses are required to pay an additional $200 per month.

1 in 3 spouses of retirees that are currently covered by the plan are assumed to have coverage available through their own employer. These spouses are required to pay an additional $200 per month.

Appendix B: Plan Provisions

Eligibility

Creve Coeur Retirement Plan (Hired prior to 6/1/2006):Employees who are eligible for Normal or Early retirement are eligible for OPEB benefits. Normal Retirement age is the earlier of age 65 (55 for Uniformed participants) or age plus service equal to 85 points ("Rule of 85"). Early retirement is age 50 with 20 years of service.

LAGERS Plan: Employees who are eligible for Normal or Early retirement are eligible for OPEB benefits. General employees are eligible for normal retirement at age 60 with 5 years of service or early retirement at age 55 with 5 years of service. Police employees are are eligible for normal retirement at age 55 with 5 years of service or early retirement at age 50 with 5 years of service.

Dependents

Retirees may cover spouses and eligible dependent children. Surviving spouses can continue coverage after retiree's death.

OPEB Benefits

Medical including prescription drugs. Retirees coverage is not offered past Medicare eligibility age (age 65).

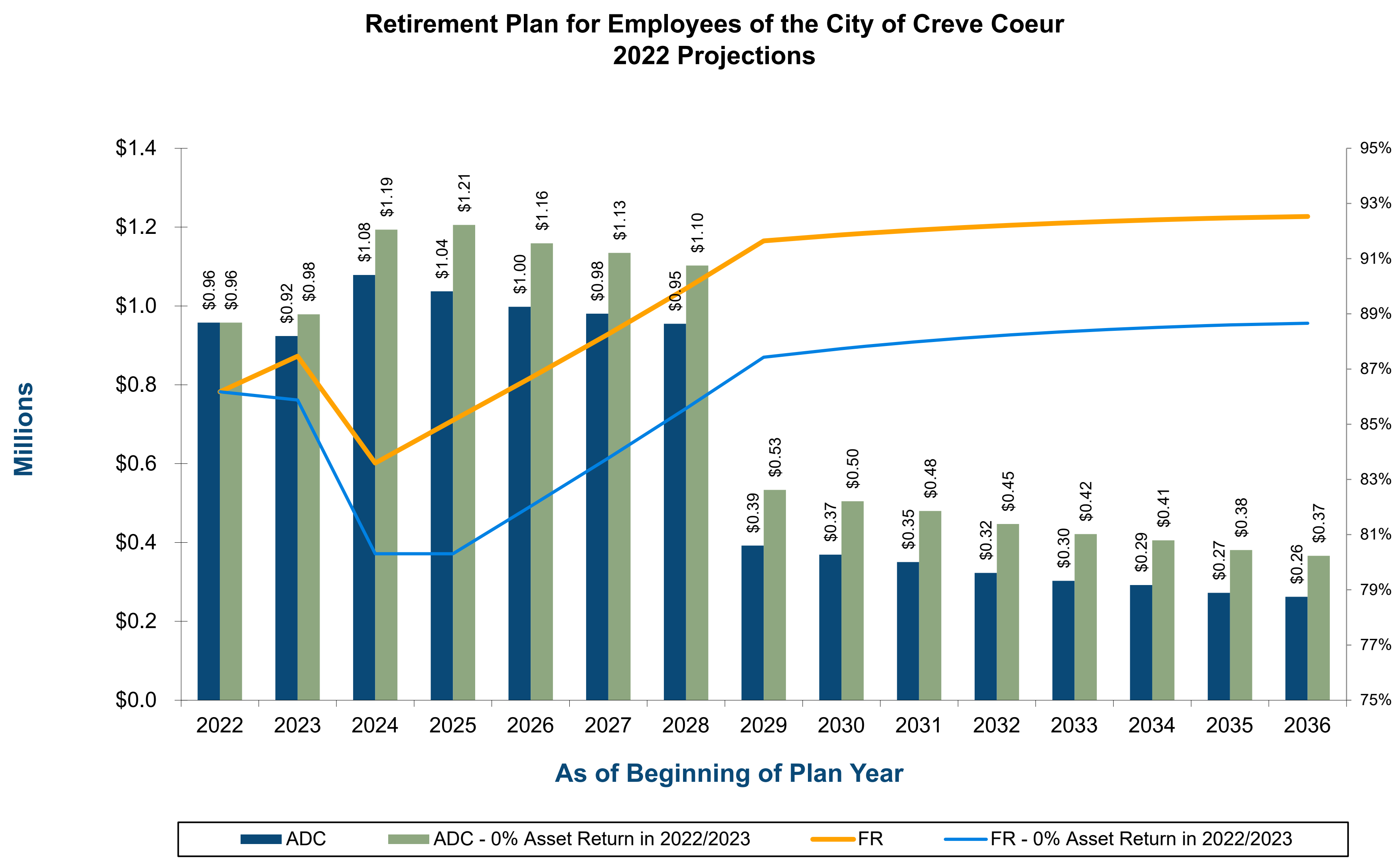
Cost Sharing

Retiree medical contributions effective 7/1/2021 are as follows:

	Hired prior to 7/1/2001	Hired after 7/1/2001
Retiree	$91.84	$612.28
Retiree + Spouse*	226.56	1,285.84
Retiree +Children	202.06	1,163.39
Family*	324.52	1,775.67

*Effective January 1, 2021, spouse medical premiums are increased by $200 for each spouse that could attain coverage through their own employer's medical plan.

This summary is intended only to describe our understanding of the essential features of the benefits that will be provided to future retirees based on information provided by the City. All eligibility requirements and benefit amounts shall be determined in strict accordance with the relevant plan documents. To the extent that this summary does not accurately reflect the plan provisions, then the results of this valuation may not be accurate.



1. Assumptions are the same as 2022 valuation plus:
   Administrative expenses remain the same
   Employer contributes Actuarially Determined Contribution each year
2. Potential variability of results discussed in ASOP 51 section of the 2022 actuarial valuation

ADC = Actuarially Determined Contribution FR = Funded Ratio