

1750 Creekside Oaks Drive, Suite 200, Sacramento, CA 95833
(800) 541-4591 Fax (916) 244-1199 https://www.planjpa.org/

# FINANCE COMMITTEE MEETING <br> AGENDA 

Wednesday, March 20, 2024
2:00 p.m.

## Zoom

Please Contact Katie Sullivan for Videoconference Information

All or portions of this meeting will be conducted by teleconferencing in accordance with Government Code Section 54953(b). Teleconference locations are as follows: Sedgwick, 1750 Creekside Oak Drive, Suite 200, Sacramento, CA 95833; City of Burlingame, 501 Primrose Road, Burlingame, CA 94010; Town of Hillsborough, 1600 Floribunda Avenue, Hillsborough, CA 94010; City of Milpitas, 455 E. Calaveras Boulevard, Milpitas, CA 95035; and Town of Woodside, 2955 Woodside Road, Woodside, CA 94062.

Each location is accessible to the public, and members of the public may address the Finance Committee from any teleconference location.

In compliance with the Americans with Disabilities Act, if you need a disability-related modification or accommodation to participate in this meeting, please contact Katie Sullivan at katie.sullivan@sedgwick.com (916) 244-1164 or (916) 244-1199 (fax). Requests must be made as early as possible, and at least one full business day before the start of the meeting.

Documents and materials relating to an open session agenda item that are provided to the Pooled Liability Assurance Network Joint Powers Authority (PLAN JPA) Finance Committee less than 72 hours prior to a regular meeting will be available for public inspection at 1750 Creekside Oaks Dr., Suite 200, Sacramento, CA 95833.

## Page 1. CALL TO ORDER

## 2. INTRODUCTIONS

3. APPROVAL OF AGENDA AS POSTED (OR AMENDED)
4. PUBLIC COMMENTS - This time is reserved for members of the public to address the Committee relative to matters of the PLAN JPA not on the agenda. No action may be taken on non-agenda items unless authorized by law. Comments will be limited to five minutes per person and twenty minutes in total.
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## 5. CONSENT CALENDAR

If a Committee member would like to discuss any item listed, it may be pulled from the Consent Calendar.
*A. Minutes from the March 9, 2023, Finance Committee Meeting
Recommendation: Staff recommends the Committee approve the Consent Calendar.

## 6. FINANCIAL MATTERS

*A. Review of PLAN JPA's Investment Performance Report and Updates to PLAN JPA's Investment Policy

Recommendation: Staff recommends the Finance Committee recommend approval of the PLAN JPA Investment Policy to the Executive Committee.
*B. Liability Program Updates and Preliminary Actuarial Data Recommendation: None.
*C. Property Program Updates and Preliminary Actuarial Data Recommendation: None
*D. Review of the 2024/25 Draft Preliminary Operating Budget Recommendation: None.
E. Report from PLAN JPA's Finance Manager

Recommendation: Staff recommends the Finance Committee provide direction.

## 7. CLOSING COMMENTS

This time is reserved for comments by Finance Committee members and/or staff and to identify matters for future Finance Committee business.
A. Finance Committee
B. Staff

## 8. ADJOURNMENT

## NOTICES:

$>$ The next Executive Committee Meeting will be held on April 25, 2024. Location TBD.
$>$ The next Board of Directors Meeting will be held on June 20, 2024. Location TBD.

## CONSENT CALENDAR

SUBJECT: Consent Calendar

## BACKGROUND AND HISTORY:

The Consent Calendar consists of items that require approval or acceptance but are selfexplanatory and require no discussion. If a Committee member would like to discuss any item listed, it may be pulled from the Consent Calendar.

## STAFF RECOMMENDATION:

Staff recommends the Committee approve the Consent Calendar.
REFERENCE MATERIALS ATTACHED:
A. Minutes from the March 9, 2023, Finance Committee Meeting

# POOLED LIABILITY ASSURANCE NETWORK JOINT POWERS AUTHORITY (PLAN JPA) 

## MINUTES OF THE FINANCE COMMITTEE <br> MEETING OF MARCH 9, 2023

A regular meeting of the Finance Committee was held on March 9, 2023, via videoconference.
MEMBERS PRESENT: Pak Lin, Chair, Colma
Jan Cooke, Hillsborough
Cindy Safe, Woodside

MEMBERS ABSENT: None

OTHERS PRESENT: Eric Dahlen, General Manager
Katie Sullivan, Assistant General Manager
John Burdette, Administrative Assistant
Min Su , Finance Manager
Olawale Kajopaiye, PFM Asset Management
Miguel Baes, Sedgwick
Tony Pasquarello, Sedgwick

## 1. CALL TO ORDER:

The Regular Meeting of the PLAN JPA Finance Committee meeting was called to order at 10:02 a.m.

## 2. INTRODUCTIONS:

Roll call was taken and it was determined there was a quorum present.
3. APPROVAL OF THE AGENDA AS POSTED (OR AMENDED):

Cindy Safe moved to approve the agenda as posted. Pak Lin seconded the motion. A roll call vote was taken and the motion passed unanimously by Pak Lin, Jan Cooke, and Cindy Safe.

## 4. PUBLIC COMMENTS:

None.

## 5. CONSENT CALENDAR:

Jan Cooke moved to approve the following items: A) Minutes from the March 10, 2022, Finance Committee Meeting. Cindy Safe seconded the motion. A roll call vote was taken and the motion passed unanimously by Pak Lin, Jan Cooke, and Cindy Safe.

## 6. FINANCIAL MATTERS:

## A. Review of PLAN JPA's Investment Performance Report and Updates to the PLAN JPA's Investment Policy

Olawale Kajopaiye, Senior Managing Consultant with PFM Asset Management LLC (PFM), was present to provide a thorough review of the Quarterly Investment Report and updates to the Investment Policy.

In a memorandum provided to Min Su , Finance Manager, Mr. Kajopaiye stated the Investment Policy is in compliance with the sections of California Government Code (Code) that govern the investment of public funds; however, there were minor recommended changes to the policy. He reviewed the updates with the Committee, advising the updates pertained to recent Code updates and newly implement Senate Bill modifications.

Mr. Su noted funds from LAIF were moved to CAMP for a higher yield and the market value was in the positive and outperformed for the first time in a while.

Cindy Safe moved to recommend approval of the PLAN JPA Investment Policy to the Executive Committee. Cindy Safe seconded the motion. A roll call vote was taken and the motion passed unanimously by Pak Lin, Jan Cooke, and Cindy Safe.

## B. Liability-Property Loan Program Structure

In 1992, PLAN JPA (formerly ABAG PLAN Corporation) began pooling its Pooled Property Program insurance coverage for what is currently twenty-eight member cities in the Bay Area. Since then, PLAN JPA's self-insured retention (SIR) for the Property Program has increased from $\$ 100 \mathrm{k}$ per occurrence to $\$ 225 \mathrm{k}$ in program years 2017-18 to

2020-21, with a Pool Annual Aggregate Deductible (PAAD) of \$1M. Once PLAN JPA met the PAAD for those program years, claims were subject to a pool maintenance deductible of $\$ 10$ k. In 2021-22, the Property Program SIR was increased from $\$ 250 \mathrm{k}$ to $\$ 500 \mathrm{k}$ per occurrence, with the elimination of PAAD.

Mr. Su reminded the Committee as reported in the June 30, 2022, financial audit report, the Pooled Property Program is in a deficit for $\$ 352,252$. At the October 27, 2022, Executive Committee meeting, staff presented options to bring the Property Program into the positive. These options included Property equity building, higher confidence level funding, a paper transaction between the Liability and Property Programs, and/or risk grant fund balance transfer. With this topic affecting all PLAN JPA members, the Executive Committee felt it was best staff bring this topic to the Board of Directors. During the December 8, 2022, Strategic Planning Session and Board of Directors meeting, staff was instructed to develop a loan structure between the Liability and Property Programs. The loan was subject to the following components:

- Three-year repayment loan structure;
- Equity building by way of increased confidence level funding to $85 \%$ in three years; and
- Risk Grant Fund usage for loan repayment.

Discussion ensued around what PLAN JPA would need to do if they were to go back into a deficit after the three years as the repayment loan was not intended to become a regular best practice. Mr. Su advised by funding at the $85 \%$ confidence level would lower the risk of returning to a deficit; however, the option to fund higher is always recommended.

Staff also request the Committee discuss the need to update the governing documents to memorialize the repayment loan. The Committee agreed not to update the governing documents and to memorialize the loan via a resolution as it's a temporary solution.

## C. Review of the 2023/24 Preliminary Operating Budget

Mr. Su reviewed the 2023/24 Preliminary Operating Budget with the Committee. He noted the funding model is similar to what PLAN JPA has approved in the past. Mr. Su detailed the budget, as follows:

- For the Liability Program, member contributions are presented at the $60 \%$ confidence level, with a $2 \%$ discount factor. PLAN JPA's SIR is up to $\$ 1 \mathrm{M}$ above each member's SIR. PLAN JPA joined CARMA in 2021/22 at the \$9M excess \$1M layer. Above

CARMA's pooled layer, PLAN JPA purchases reinsurance and excess above $\$ 10 \mathrm{M}$; these coverage layers are conservatively estimated at $20 \%$ over 2022/23 actuals.

- For the Property Program, member contributions are presented at the increased $75 \%$ confidence level with a $2 \%$ discount factor. The proposed coverage is losses pooled from member's SIR up to $\$ 500,000$ per occurrence with zero aggregate deductible and excess coverage purchased up to $\$ 1$ billion. In addition, valuation increases continue into the 2023/24 fiscal year, a direct result of factors such as the supply chain crisis, higher costs for construction materials like lumber and steel, general inflation, and real estate pricing escalation in California. This equates to an estimated $35.6 \%$ increase in the risk sharing layer and a $24.9 \%$ increase for excess property.
- As discussed in Agenda Item 6.B, Loan Program Structure, Year 1 (of 3) repayment plan is included as part of the Property Program member contributions.

Mr. Sur reviewed the major components of the budget, stating overall claims expense for Program Year 2023/24 is budgeted at the expected confidence level and expected to increase by $20.9 \%$ over $2022 / 23$ and total insurance expense is projected to increase by $21.1 \%$ over prior year budget.

## 7. CLOSING COMMENTS:

## A. Finance Committee

None.

## B. Staff

None.

## 8. ADJOURNMENT

The Regular Meeting of the PLAN JPA Finance Committee was adjourned at 11:14 a.m.


Katie Sullivan, Assistant Board Secretary

Agenda Item 6.A.

## FINANCIAL MATTERS

## SUBJECT: Review of PLAN JPA's Investment Performance Report and Updates to PLAN JPA's Investment Policy

## BACKGROUND AND HISTORY:

## Investment Performance Report

Michael Kronbetter, Relationship Manager with PFM Asset Management LLC (PFM), will be present to provide a thorough overview of PLAN JPA's December 31, 2023, Quarterly Investment Performance Report.

## PLAN JPA Investment Policy

An annual review of PLAN JPA's Investment Policy (Policy) is recommended under California Government Code 53646 (a) (2). Furthermore, annual approval of the Policy fulfills the annual delegation of investment authority to PLAN JPA's Treasurer. In addition, under section 5.0 Delegation of Authority of the Policy, PLAN JPA's Treasurer may delegate investment decision making and execution authority to an investment advisor. PLAN JPA's Investment Policy was last approved on March 9, 2023.

The Policy has been reviewed by Mr. Kronbetter whose recommended changes are detailed in his memorandum to Min Su, PLAN JPA Finance Manager.

Staff has reviewed the proposed amended Policy and agrees with the suggested changes.
Mr. Kronbetter will guide the Committee through the suggested changes.

## STAFF RECOMMENDATION:

Staff recommends the Finance Committee recommend approval of the PLAN JPA Investment Policy to the Executive Committee.

## REFERENCE MATERIALS ATTACHED:

- Investment Performance Report for the Quarter Ended December 31, 2023
- PLAN JPA Investment Policy Memo
- PLAN JPA Investment Policy - Redlined, Revised March 14, 2024


# Pooled Liability Assurance Network JPA 

Investment Performance Review<br>For the Quarter Ended December 31, 2023

Michael Kronbetter, Relationship Manager
Lesley Murphy, Director
Allison Kaune, Senior Analyst

1 California Street Ste. 1000 San Francisco, CA 94111-5411

415-393-7270

213 Market Street
Harrisburg, PA 17101-2141
717-232-2723

## Agenda

- Market Summary
- Account Summary
- Portfolio Review


## Market Summary

## Summary

- The fourth quarter was characterized by economic resilience but expectations for a modest slowdown, cooling inflation that remains above the target set by the Federal Reserve (Fed), the labor market coming into better balance, and consumers that continue to support U.S. economic growth through spending.
- The Fed kept the overnight target rate at its current range of $5.25 \%$ to $5.50 \%$ at its December 13 meeting and indicated that the historic 2022-23 hiking cycle had likely come to an end. The Fed also messaged a more dovish policy stance for 2024 as its updated "dot plot" showed three 25 basis points (bps) rate cuts for the year, which was more than previously projected. Yields fell significantly as a result, and Q4 was defined by a strong rally in both equities and bonds.
- With the Fed pivoting to easier monetary policy and a soft-landing scenario coming into focus, yields on U.S. Treasury maturities from one to 30 years declined 65 to 80 bps in Q4, while the S\&P 500 Index jumped 11.7\% and the technology-heavy NASDAQ was higher by $13.8 \%$.


## Economic Snapshot

- Real gross domestic product (GDP) increased at an annual rate of $2.1 \%$ in Q2 2023. Although slightly U.S. inflation (as measured by CPI) continued to trend lower in Q4 as both headline and core inflation (which excludes food and energy) continued to decline from their peaks in mid-2022. Shelter costs - the average household's biggest expense - accounted for nearly $70 \%$ of the total increase in core CPI over the past year as home prices remain elevated.
- Real GDP expanded at an annualized pace of 4.9\% in Q3 2023, after a $2.1 \%$ increase in Q2. The increase in Q3 reflected upticks in most segments, underscoring the resiliency of the U.S. economy. Estimates for 2024 indicate quarterly expectations on average of less than $1 \%$, although positive, a confirmation of a slower pace of growth for the foreseeable future.
- The U.S. labor market remained strong, providing a continuing tailwind for the economy, although that strength has begun to moderate. In Q4, the U.S. economy added 494,000 new jobs compared to 663,000 from Q3, which represented the lowest quarterly increase since Q4 of 2019. Labor force participation dipped at year-end, while the unemployment rate of $3.7 \%$ was a few tenths of a percent off the generational low reached early in 2023. While still low from a historic perspective, this remains in line with the Fed's projections for the headline unemployment rate to trend slightly higher over the next 12 months.
- Mortgage rates also descended from multi-decade highs, mirroring changes in overall yields, although they remained near the highest level of the past 20 years, ending the quarter around $6.6 \%$. Despite lower mortgage rates, housing activity remained low, as existing home sales fell to the lowest level in over 20 years and Q4 new home sales declined 15\% through November.


## Interest Rates

- After peaking in October, a more dovish Fed and increased likelihood that the overnight target rate has reached its cycle-high drove interest rates lower through Q4. By the end of the year, the yield on a 2-year U.S. Treasury reached a 7-month low of $4.25 \%$, while the 10 -year U.S. Treasury note ended the year at $3.88 \%$.
- Over the quarter, the yield on 2-, 5-, and 10-year U.S. Treasuries declined 79 bps, 76 bps , and 69 bps , respectively. Even the yield on a 3-month U.S. Treasury Bill declined by 11 bps , reflecting how aggressively markets have begun pricing in potential Fed rate cuts in the first half of 2024.
- As a result of notably lower yields, bond markets posted one of the best quarters over the past several decades. The ICE BofA 2-, 5-, and 10-year U.S. Treasury indices returned $2.44 \%, 4.41 \%$, and $6.60 \%$ respectively.


## Sector Performance

- Market optimism also drove yield spreads on investment-grade (IG) corporates and other "spread sectors" lower in Q4, which resulted in strong excess returns across most non-government fixed income sectors. Diversification benefited portfolios during Q4 with longer duration and lower quality adding the most incremental value.
- Federal agency, municipal, and supranational spreads drifted slightly lower in Q4, having remained in a narrow range for most of the past year. As a result, these sectors posted positive excess returns relative to Treasuries, mostly from their modest incremental income. Excess returns of callable agencies outperformed bullet agencies as spreads tightened more as yields fell.
- IG corporates were one of the best performing fixed-income sectors for both Q4 and calendar year 2023. After a brief sell-off in late September and most of October, the IG corporate sector did an about-face and finished the year with spreads rallying to their lowest spread levels in over nine months. As a result, the combination of elevated incremental income and spread contraction helped buoy portfolio performance.
- The asset-backed securities (ABS) sector also generated positive excess returns in Q4, although they trailed the performance of IG corporates. While spreads tightened into year-end, the relatively muted rally vs. corporates underscores the potential for modestly weaker consumer fundamentals moving forward. Incremental income from ABS remains attractive and our fundamental outlook for the economy is supportive for the sector.
- Mortgage-backed securities (MBS) were one of the best performing IG sectors in Q4, despite a volatile roller coaster ride. After widening in October to their highest levels since the spring of 2020, MBS yield spreads proceeded to rally into year-end, finishing near nine-month lows. Agency commercial MBS performed particularly well.


## Economic Snapshot



1. Data as of Second Quarter 2023.
2. Data as of Third Quarter 2022.

Note: YoY = year-over-year, QoQ = quarter-over-quarter, SAAR = seasonally adjusted annual rate, WTI = West Texas Intermediate crude oil. Source: Bloomberg.

## Interest Rate Overview

U.S. Treasury Note Yields

U.S. Treasury Yields

| Maturity | Dec '23 | Sep '23 | Change over <br> Quarter | Dec '22 | Change over <br> Year |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 3-Month | $5.34 \%$ | $5.45 \%$ | $(0.11 \%)$ | $4.37 \%$ | $0.97 \%$ |
| 1-Year | $4.77 \%$ | $5.46 \%$ | $(0.69 \%)$ | $4.71 \%$ | $0.06 \%$ |
| 2-Year | $4.25 \%$ | $5.05 \%$ | $(0.80 \%)$ | $4.43 \%$ | $(0.18 \%)$ |
| 5-Year | $3.85 \%$ | $4.61 \%$ | $(0.76 \%)$ | $4.01 \%$ | $(0.16 \%)$ |
| 10-Year | $3.88 \%$ | $4.57 \%$ | $(0.69 \%)$ | $3.88 \%$ | $0.00 \%$ |
| 30-Year | $4.03 \%$ | $4.70 \%$ | $(0.67 \%)$ | $3.97 \%$ | $0.06 \%$ |

Source: Bloomberg.
U.S. Treasury Yield Curve



## ICE BofAML Index Returns

|  | As of 12/31/2023 |  | Returns for Periods ended 12/31/2023 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| December 31, 2023 | Duration | Yield | 3 Month | 1 Year | 3 Years |
| 1-3 Year Indices |  |  |  |  |  |
| U.S. Treasury | 1.83 | 4.34\% | 2.49\% | 4.26\% | (0.04\%) |
| Federal Agency | 1.60 | 4.44\% | 2.53\% | 4.69\% | 0.11\% |
| U.S. Corporates, A-AAA rated | 1.80 | 5.02\% | 2.98\% | 5.33\% | 0.46\% |
| Agency MBS (0 to 3 years) | 1.77 | 5.11\% | 3.23\% | 4.83\% | (1.06\%) |
| Taxable Municipals | 1.49 | 4.75\% | 2.39\% | 4.86\% | 1.10\% |
| 1-5 Year Indices |  |  |  |  |  |
| U.S. Treasury | 2.59 | 4.17\% | 3.10\% | 4.30\% | (0.76\%) |
| Federal Agency | 1.97 | 4.36\% | 2.81\% | 4.68\% | (0.55\%) |
| U.S. Corporates, A-AAA rated | 2.51 | 4.92\% | 3.82\% | 5.89\% | (0.25\%) |
| Agency MBS (0 to 5 years) | 2.63 | 4.94\% | 4.90\% | 4.88\% | (1.38\%) |
| Taxable Municipals | 2.29 | 4.65\% | 2.99\% | 5.30\% | 0.07\% |
| Master Indices (Maturities 1 Year or Greater) |  |  |  |  |  |
| U.S. Treasury | 6.43 | 4.11\% | 5.72\% | 3.87\% | (4.04\%) |
| Federal Agency | 3.35 | 4.33\% | 3.86\% | 4.90\% | (1.63\%) |
| U.S. Corporates, A-AAA rated | 6.94 | 4.95\% | 7.62\% | 7.43\% | (3.55\%) |
| Agency MBS (0 to 30 years) | 5.44 | 4.73\% | 7.37\% | 4.98\% | (2.96\%) |
| Taxable Municipals | 9.15 | 4.92\% | 8.45\% | 8.35\% | (4.30\%) |

Returns for periods greater than one year are annualized.
Source: ICE BofAML Indices.

## Disclosures

PFM Asset Management LLC ("PFMAM") is an investment adviser registered with the U.S. Securities and Exchange Commission and a subsidiary of U.S. Bancorp Asset Management, Inc. ("USBAM"). USBAM is a subsidiary of U.S. Bank National Association ("U.S. Bank"). U.S. Bank is a separate entity and subsidiary of U.S. Bancorp. U.S. Bank is not responsible for and does not guarantee the products, services or performance of PFMAM.

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## Account Summary

## Sector Allocation Analytics



For informational/analytical purposes only and is not provided for compliance assurance. Includes accrued interest.
*Sector Limit for Analysis is as derived from our interpretation of your most recent Investment Policy as provided.

## Certificate of Compliance

During the reporting period for the quarter ended December 31, 2023, the account(s) managed by PFM Asset Management ("PFMAM") were in compliance with the applicable investment policy and guidelines as furnished to PFMAM.

Acknowledged : PFM Asset Management LLC

## Portfolio Review

## Portfolio Snapshot - CAMP-PLAN INVESTMENT PORTFOLIO¹

## Portfolio Statistics

| Total Market Value | $\$ 35,638,820.29$ |
| :--- | ---: |
| Managed Account Sub-Total | $\$ 35,411,233.51$ |
| Accrued Interest | $\$ 186,375.28$ |
| Pool | $\$ 41,211.50$ |
| Portfolio Effective Duration | 2.51 years |
| Benchmark Effective Duration | 2.53 years |
| Yield At Cost | $3.24 \%$ |
| Yield At Market | $4.41 \%$ |
| Portfolio Credit Quality | AA |

Credit Quality - S\&P


## Sector Allocation



Duration Distribution


1. Total market value includes accrued interest and balances invested in CAMP, as of December 31, 2023.

Yield and duration calculations exclude balances invested in CAMP
The portfolio's benchmark is the ICE BofA 1-5 Year U.S. Treasury Index. Source: Bloomberg.
An average of each security's credit rating was assigned a numeric value and adjusted for its relative weighting in the portfolio.

## Account Summary

|  | Pooled Liability Assurance Network JPA - PLAN - Investment Account - 4011-002 |
| :--- | :--- |
| Portfolio Values | December 31, 2023 |

1. Yield at market, yield on cost, and portfolio duration only include investments held within the separately managed account(s), excludes balances invested in overnight funds.
2. The current 7-day yield is the net change, exclusive of capital changes and income other than investment income, in the value of a hypothetical fund account with a balance of one share over the seven-day base period including the statement date, expressed as a percentage of the value of one share (normally $\$ 1.00$ per share) at the beginning of the seven-day period. This resulting net change in account value is then annualized by multiplying it by 365 and dividing the result by 7 . The yields quoted should not be considered a representation of the yield of the fund in the future, since the yield is not fixed.

## Portfolio Activity - CAMP-PLAN INVESTMENT PORTFOLIO

Net Activity by Sector
(\$ millions)


| Sector | Net Activity |
| :--- | ---: |
| Agency CMBS | $\$ 899,178$ |
| U.S. Treasury | $\$ 471,454$ |
| Corporate | $\$ 275,072$ |
| ABS | $(\$ 29,760)$ |
| Supranational | $(\$ 489,461)$ |
| Municipal | $(\$ 801,491)$ |
| Total Net Activity | $\$ 324,992$ |

Based on total proceeds (principal and accrued interest) of buys, sells, maturities, and principal paydowns. Detail may not add to total due to rounding.

## Sector Allocation Review - CAMP-PLAN INVESTMENT PORTFOLIO

| Security Type | Mar-23 | \% of Total | Jun-23 | \% of Total | Sep-23 | \% of Total | Dec-23 | \% of Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasury | \$16.5 | 48.1\% | \$14.8 | 43.3\% | \$9.4 | 27.3\% | \$10.2 | 28.6\% |
| Federal Agency | \$2.3 | 6.7\% | \$2.2 | 6.4\% | \$2.2 | 6.4\% | \$2.3 | 6.4\% |
| Agency CMBS | \$1.1 | 3.1\% | \$2.2 | 6.5\% | \$5.3 | 15.3\% | \$6.3 | 17.9\% |
| Supranational | \$0.8 | 2.3\% | \$0.8 | 2.3\% | \$0.8 | 2.4\% | \$0.3 | 0.9\% |
| Municipal | \$3.1 | 8.9\% | \$3.1 | 8.9\% | \$2.6 | 7.7\% | \$1.9 | 5.3\% |
| Negotiable CD | \$0.4 | 1.0\% | \$0.4 | 1.1\% | \$1.0 | 2.8\% | \$1.0 | 2.7\% |
| Corporate | \$8.3 | 24.0\% | \$7.6 | 22.1\% | \$8.6 | 25.1\% | \$9.2 | 25.9\% |
| ABS | \$1.9 | 5.5\% | \$3.2 | 9.2\% | \$4.3 | 12.5\% | \$4.3 | 12.2\% |
| Joint Powers Authority | \$0.1 | 0.4\% | \$0.1 | 0.2\% | \$0.2 | 0.5\% | \$0.0 | 0.1\% |
| Total | \$34.4 | 100.0\% | \$34.2 | 100.0\% | \$34.3 | 100.0\% | \$35.5 | 100.0\% |




Portfolio Performance


1. The lesser of 10 years or since inception is shown. Since inception returns for periods one year or less are not shown. Performance inception date is September 30, 2018.
2. Interest earned calculated as the ending accrued interest less beginning accrued interest, plus net interest activity.
3. Returns for periods one year or less are presented on a periodic basis. Returns for periods greater than one year are presented on an annualized basis
4. The portfolio's benchmark is the ICE BofA 1-5 Year U.S. Treasury Index. Source: Bloomberg.

## Accrual Basis Earnings - CAMP-PLAN INVESTMENT PORTFOLIO



1. The lesser of 10 years or since inception is shown. Performance inception date is September 30, 2018.
2. Interest earned calculated as the ending accrued interest less beginning accrued interest, plus net interest activity.
3. Realized gains / (losses) are shown on an amortized cost basis.

## Portfolio Holdings and Transactions

## Issuer Diversification

| Security Type / Issuer M | Market Value (\%) | S\&P / Moody's / Fitch |
| :---: | :---: | :---: |
| U.S. Treasury | 28.6\% |  |
| UNITED STATES TREASURY | 28.6\% | AA / Aaa / AA |
| Federal Agency | 6.3\% |  |
| FANNIE MAE | 4.6\% | AA / Aaa / AA |
| FREDDIE MAC | 1.8\% | AA / Aaa / AA |
| Agency CMBS | 17.9\% |  |
| FANNIE MAE | 1.2\% | AA / Aaa / AA |
| FREDDIE MAC | 16.7\% | AA / Aaa / AA |
| Supranational | 0.9\% |  |
| INTER-AMERICAN DEVELOPMENT BANK | 0.9\% | AAA / Aaa / AAA |
| Municipal | 5.3\% |  |
| FLORIDA STATE BOARD OF ADMIN FIN CORP | - 1.1\% | AA / Aa / AA |
| LOS ANGELES COMMUNITY COLLEGE DISTRICT | 0.4\% | AA / Aaa / NR |
| LOS ANGELES UNIFIED SCHOOL DISTRICT | 0.2\% | NR / Aa / AAA |
| NEW YORK ST URBAN DEVELOPMENT CORP | 1.0\% | NR / NR / AA |
| SAN DIEGO COUNTY WATER AUTHORITY | 0.4\% | AAA / Aa / AA |
| SAN RAMON VALLEY UNIFIED SCHOOL DISTRICT | 0.4\% | AA / Aa / NR |
| STATE OF CONNECTICUT | 0.7\% | AA / Aa / AA |
| STATE OF MINNESOTA | 0.3\% | AAA / Aaa / AAA |
| STATE OF WISCONSIN | 0.7\% | AAA / NR / AA |
| Negotiable CD | 2.8\% |  |
| NATIXIS NY BRANCH | 0.7\% | A/A / A |
| RABOBANK NEDERLAND | 1.0\% | A / Aa / AA |
| TORONTO-DOMINION BANK | 1.0\% | A / A / NR |


| Security Type / Issuer | Market Value (\%) | S\&P / Moody's / Fitch |
| :---: | :---: | :---: |
| Corporate | 26.0\% |  |
| AMAZON.COM INC | 1.1\% | AA / A / AA |
| AMERICAN EXPRESS CO | 0.7\% | BBB / A / A |
| AMERICAN HONDA FINANCE | 0.8\% | A/A/A |
| ANALOG DEVICES INC | 0.6\% | A/A/A |
| ASTRAZENECA PLC | 0.7\% | A/A/A |
| BANK OF AMERICA CO | 1.5\% | A/Aa / AA |
| BRISTOL-MYERS SQUIBB CO | 0.4\% | A/A / NR |
| CHEVRON CORPORATION | 0.7\% | AA / Aa / NR |
| CITIGROUP INC | 1.7\% | A/A / A |
| DEERE \& COMPANY | 0.7\% | A/A/A |
| GOLDMAN SACHS GROUP INC | 0.8\% | BBB / A / A |
| HOME DEPOT INC | 0.4\% | A/A / A |
| HONEYWELL INTERNATIONAL | 0.4\% | A/A/A |
| INTEL CORPORATION | 0.7\% | A/A/A |
| JP MORGAN CHASE \& CO | 1.2\% | A/A/AA |
| LOCKHEED MARTIN CORP | 0.3\% | A/A/A |
| MASTERCARD INC | 0.8\% | A / Aa/NR |
| MERCK \& CO INC | 0.3\% | A / A / NR |
| Meta Platforms Inc | 0.5\% | AA / A / NR |
| NATIONAL AUSTRALIA BANK LTD | 1.5\% | AA / Aa / NR |
| NATIONAL RURAL UTILITIES CO FINANCE CORP | 0.7\% | A/A/A |
| NORTHERN TRUST | 0.5\% | A/A/A |
| PACCAR FINANCIAL CORP | 0.5\% | A/A/NR |
| PEPSICO INC | 0.2\% | A / A / NR |
| PNC FINANCIAL SERVICES GROUP | 0.7\% | A/A/A |
| STATE STREET CORPORATION | 1.1\% | A / A / AA |

Ratings shown are calculated by assigning a numeral value to each security rating, then calculating a weighted average rating for each security type / issuer category using all available security ratings, excluding Not-Rated (NR) ratings. For security type / issuer categories where a rating from the applicable NRSRO is not available, a rating of NR is assigned. Includes accrued interest and excludes balances invested in overnight funds.

## Issuer Diversification

| Security Type / Issuer | Market Value (\%) S\&P / Moody's / Fitch |  |
| :--- | :---: | :---: |
| Corporate | $\mathbf{2 6 . 0 \%}$ |  |
| TARGET CORP | $0.6 \%$ | A / A / A |
| THE BANK OF NEW YORK MELLON | $0.5 \%$ | A / A / AA |
| CORPORATION |  |  |
| TOYOTA MOTOR CORP | $0.7 \%$ | A / A / A |
| TRUIST FIN CORP | $0.7 \%$ | A / A A |
| UNITEDHEALTH GROUP INC | $0.7 \%$ | A / A A |
| US BANCORP | $1.0 \%$ | A / A A |
| WAL-MART STORES INC | $0.7 \%$ | AA / Aa / AA |
| WELLS FARGO \& COMPANY | $1.6 \%$ | A / Aa / AA |
| ABS | $\mathbf{1 2 . 2 \%}$ |  |
| ALLY AUTO RECEIVABLES TRUST | $0.4 \%$ | NR / Aaa / AAA |
| AMERICAN EXPRESS CO | $0.4 \%$ | AAA / NR / AAA |
| BANK OF AMERICA CO | $1.3 \%$ | AAA / Aaa / AAA |
| BMW VEHICLE OWNER TRUST | $0.4 \%$ | AAA / Aaa / AAA |
| CAPITAL ONE FINANCIAL CORP | $1.6 \%$ | AAA / NR / AAA |
| CARMAX AUTO OWNER TRUST | $0.8 \%$ | AAA / NR / AAA |
| CHASE ISSURANCE | $0.8 \%$ | AAA / NR / AAA |
| Daimler Trucks Retail Trust | $0.6 \%$ | NR / Aaa / AAA |
| DISCOVER FINANCIAL SERVICES | $1.7 \%$ | AAA / Aaa / AAA |
| FIFTH THIRD AUTO TRUST | $0.7 \%$ | AAA / Aaa / NR |
| FORD CREDIT AUTO OWNER TRUST | $0.3 \%$ | AAA / NR / AAA |
| GM FINANCIAL CONSUMER AUTOMOBILE | $0.4 \%$ | AAA / Aaa / AAA |
| TRUST |  |  |
| HONDA AUTO RECEIVABLES | $0.8 \%$ | AAA / NR / AAA |
| HYUNDAI AUTO RECEIVABLES | $0.8 \%$ | AAA / NR / AAA |
| MERCEDES-BENZ AUTO RECEIVABLES | $0.8 \%$ | AAA / Aaa / NR |
| NISSAN AUTO RECEIVABLES | $0.2 \%$ | NR / Aaa / AAA |


| Security Type / Issuer | Market Value (\%) S\&P / Moody's / Fitch |  |
| :--- | :---: | :---: |
| ABS | $\mathbf{1 2 . 2 \%}$ |  |
| WORLD OMNI AUTO REC TRUST | $0.2 \%$ | AAA / NR / AAA |
| Total | $100.0 \%$ |  |
|  |  |  |

Ratings shown are calculated by assigning a numeral value to each security rating, then calculating a weighted average rating for each security type / issuer category using all available security ratings, excluding Not-Rated (NR) ratings. For security type / issuer categories where a rating from the applicable NRSRO is not available, a rating of NR is assigned. Includes accrued interest and excludes balances invested in overnight funds.

# Managed Account Detail of Securities Held 

| Security Type/Description Dated Date/Coupon/Maturity | CUSIP | Par | S\&P Rating | Moody's Rating | Trade Date | Settle Date | Original Cost | $\begin{aligned} & \text { YTM } \\ & \text { at Cost } \end{aligned}$ | Accrued Interest | Amortized Cost | Market Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasury |  |  |  |  |  |  |  |  |  |  |  |
| US TREASURY NOTES DTD 08/15/2021 0.375\% 08/15/2024 | 91282CCT6 | 250,000.00 | AA+ | Aaa | 9/1/2021 | 9/3/2021 | 249,824.22 | 0.40 | 354.11 | 249,962.95 | 242,773.45 |
| US TREASURY NOTES DTD 01/31/2018 2.500\% 01/31/2025 | 9128283V0 | 300,000.00 | AA+ | Aaa | 2/3/2020 | 2/5/2020 | 316,394.53 | 1.36 | 3,138.59 | 303,563.25 | 292,968.75 |
| US TREASURY NOTES <br> DTD 02/15/2022 1.500\% 02/15/2025 | 91282CDZ1 | 90,000.00 | AA+ | Aaa | 5/2/2022 | 5/4/2022 | 86,575.78 | 2.93 | 509.92 | 88,617.53 | 86,850.00 |
| US TREASURY NOTES DTD 05/15/2022 2.750\% 05/15/2025 | 91282CEQ0 | 160,000.00 | AA+ | Aaa | 7/1/2022 | 7/6/2022 | 159,431.25 | 2.88 | 568.13 | 159,727.61 | 156,175.01 |
| US TREASURY NOTES <br> DTD 05/15/2022 2.750\% 05/15/2025 | 91282CEQ0 | 150,000.00 | AA+ | Aaa | 9/18/2023 | 9/19/2023 | 144,216.80 | 5.21 | 532.63 | 145,212.58 | 146,414.07 |
| US TREASURY NOTES DTD 09/30/2023 5.000\% 09/30/2025 | 91282CJB8 | 350,000.00 | AA+ | Aaa | 11/30/2023 | 12/7/2023 | 351,626.95 | 4.73 | 4,446.72 | 351,568.16 | 353,609.38 |
| US TREASURY NOTES <br> DTD 12/31/2020 0.375\% 12/31/2025 | 91282CBC4 | 825,000.00 | AA+ | Aaa | 5/5/2021 | 5/7/2021 | 811,625.98 | 0.73 | 8.50 | 819,253.66 | 764,671.88 |
| US TREASURY NOTES DTD 01/31/2021 0.375\% 01/31/2026 | 91282CBH3 | 725,000.00 | AA+ | Aaa | 9/1/2021 | 9/3/2021 | 715,172.85 | 0.69 | 1,137.74 | 720,357.88 | 669,718.75 |
| US TREASURY NOTES <br> DTD 01/31/2021 0.375\% 01/31/2026 | 91282CBH3 | 275,000.00 | AA+ | Aaa | 7/2/2021 | 7/7/2021 | 269,714.85 | 0.80 | 431.55 | 272,590.17 | 254,031.25 |
| US TREASURY NOTES <br> DTD 02/28/2021 0.500\% 02/28/2026 | 91282CBQ3 | 125,000.00 | AA+ | Aaa | 3/31/2021 | 4/5/2021 | 122,612.30 | 0.90 | 211.20 | 123,947.54 | 115,507.81 |
| US TREASURY NOTES <br> DTD 03/31/2021 0.750\% 03/31/2026 | 91282CBT7 | 425,000.00 | AA+ | Aaa | 4/9/2021 | 4/12/2021 | 422,742.19 | 0.86 | 809.94 | 423,979.38 | 394,453.13 |
| US TREASURY NOTES DTD 05/31/2021 0.750\% 05/31/2026 | 91282CCF6 | 250,000.00 | AA+ | Aaa | 6/2/2021 | 6/4/2021 | 249,453.13 | 0.79 | 163.93 | 249,735.57 | 230,781.25 |
| US TREASURY NOTES <br> DTD 06/30/2021 0.875\% 06/30/2026 | 91282CCJ8 | 130,000.00 | AA+ | Aaa | 4/1/2022 | 4/5/2022 | 120,859.38 | 2.64 | 3.13 | 124,617.26 | 120,229.69 |
| US TREASURY NOTES DTD 07/31/2021 0.625\% 07/31/2026 | 91282CCP4 | 375,000.00 | AA+ | Aaa | 1/3/2022 | 1/5/2022 | 363,427.73 | 1.32 | 980.81 | 368,464.58 | 343,476.56 |
| US TREASURY NOTES <br> DTD 08/15/2016 1.500\% 08/15/2026 | 9128282A7 | 250,000.00 | AA+ | Aaa | 5/2/2022 | 5/4/2022 | 234,853.52 | 3.02 | 1,416.44 | 240,731.98 | 233,984.38 |


| Security Type/Description Dated Date/Coupon/Maturity | CUSIP | Par | $\begin{gathered} \text { S\&P } \\ \text { Rating } \end{gathered}$ | Moody's Rating | Trade Date | Settle Date | Original Cost | YTM at Cost | Accrued Interest | Amortized Cost | Market Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasury |  |  |  |  |  |  |  |  |  |  |  |
| US TREASURY NOTES <br> DTD 09/30/2021 0.875\% 09/30/2026 | 91282CCZ2 | 215,000.00 | AA+ | Aaa | 10/1/2021 | 10/6/2021 | 214,328.13 | 0.94 | 478.02 | 214,629.73 | 197,531.25 |
| US TREASURY NOTES DTD 10/31/2021 1.125\% 10/31/2026 | 91282CDG3 | 275,000.00 | AA+ | Aaa | 2/11/2022 | 2/14/2022 | 265,256.84 | 1.92 | 526.96 | 269,142.77 | 253,773.44 |
| US TREASURY NOTES <br> DTD 10/31/2021 1.125\% 10/31/2026 | 91282CDG3 | 270,000.00 | AA+ | Aaa | 11/1/2021 | 11/3/2021 | 268,744.93 | 1.22 | 517.37 | 269,288.13 | 249,159.37 |
| US TREASURY NOTES DTD 11/30/2021 1.250\% 11/30/2026 | 91282CDK4 | 440,000.00 | AA+ | Aaa | 12/1/2021 | 12/3/2021 | 441,254.69 | 1.19 | 480.87 | 440,732.30 | 406,862.50 |
| US TREASURY NOTES <br> DTD 02/15/2017 2.250\% 02/15/2027 | 912828 V 98 | 260,000.00 | AA+ | Aaa | 7/1/2022 | 7/6/2022 | 252,342.19 | 2.94 | 2,209.65 | 254,814.50 | 246,837.50 |
| US TREASURY NOTES DTD 02/15/2017 2.250\% 02/15/2027 | 912828 V 98 | 350,000.00 | AA+ | Aaa | 8/1/2022 | 8/5/2022 | 342,849.61 | 2.73 | 2,974.52 | 345,070.34 | 332,281.25 |
| US TREASURY NOTES <br> DTD 02/15/2017 2.250\% 02/15/2027 | 912828V98 | 530,000.00 | AA+ | Aaa | 6/2/2022 | 6/6/2022 | 514,037.89 | 2.94 | 4,504.28 | 519,380.31 | 503,168.75 |
| US TREASURY NOTES DTD 05/15/2017 2.375\% 05/15/2027 | $912828 \times 88$ | 325,000.00 | AA+ | Aaa | 12/5/2022 | 12/7/2022 | 306,147.46 | 3.81 | 996.65 | 310,686.03 | 308,699.24 |
| US TREASURY NOTES DTD 08/15/2017 2.250\% 08/15/2027 | 9128282R0 | 75,000.00 | AA+ | Aaa | 3/1/2023 | 3/3/2023 | 68,809.57 | 4.31 | 637.40 | 69,966.94 | 70,734.38 |
| US TREASURY NOTES DTD 08/31/2020 0.500\% 08/31/2027 | 91282CAH4 | 600,000.00 | AA+ | Aaa | 12/5/2022 | 12/7/2022 | 515,789.06 | 3.77 | 1,013.74 | 534,795.00 | 530,250.00 |
| US TREASURY NOTES DTD 10/31/2020 0.500\% 10/31/2027 | 91282CAU5 | 200,000.00 | AA+ | Aaa | 1/3/2023 | 1/5/2023 | 169,828.12 | 3.97 | 170.33 | 176,016.78 | 175,875.00 |
| US TREASURY NOTES DTD 11/15/2017 2.250\% 11/15/2027 | 9128283F5 | 625,000.00 | AA+ | Aaa | 1/30/2023 | 1/31/2023 | 585,522.46 | 3.70 | 1,815.76 | 593,083.91 | 587,793.00 |
| US TREASURY NOTES DTD 12/31/2022 3.875\% 12/31/2027 | 91282CGC9 | 165,000.00 | AA+ | Aaa | 5/1/2023 | 5/4/2023 | 166,637.11 | 3.64 | 17.57 | 166,404.34 | 164,819.52 |
| US TREASURY NOTES DTD 02/28/2021 1.125\% 02/29/2028 | 91282CBP5 | 425,000.00 | AA+ | Aaa | 5/18/2023 | 5/24/2023 | 377,818.36 | 3.68 | 1,615.64 | 383,831.18 | 380,109.38 |
| US TREASURY NOTES DTD 04/30/2021 1.250\% 04/30/2028 | 91282CBZ3 | 150,000.00 | AA+ | Aaa | 6/1/2023 | 6/5/2023 | 133,265.62 | 3.76 | 319.37 | 135,227.78 | 134,343.75 |
| US TREASURY NOTES DTD 07/31/2021 1.000\% 07/31/2028 | 91282CCR0 | 600,000.00 | AA+ | Aaa | 11/30/2023 | 12/7/2023 | 517,523.44 | 4.29 | 2,510.87 | 518,737.76 | 527,906.28 |


| Security Type/Description Dated Date/Coupon/Maturity | CUSIP | Par | S\&P <br> Rating | Moody's Rating | Trade Date | Settle Date | Original Cost | $\begin{aligned} & \text { YTM } \\ & \text { at Cost } \end{aligned}$ | Accrued Interest | Amortized Cost | Market Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Treasury |  |  |  |  |  |  |  |  |  |  |  |
| US TREASURY NOTES <br> DTD 11/15/2018 3.125\% 11/15/2028 | 9128285M8 | 700,000.00 | AA+ | Aaa | 12/4/2023 | 12/7/2023 | 665,109.38 | 4.25 | 2,824.52 | 665,592.63 | 676,593.75 |
| Security Type Sub-Total |  | ,885,000.00 |  |  |  |  | 10,423,796.32 | 2.52 | 38,326.86 | 10,509,730.53 | 10,152,383.72 |
| Supranational |  |  |  |  |  |  |  |  |  |  |  |
| INTER-AMERICAN DEVELOPMENT BANK NOTES DTD 01/16/2020 1.750\% 03/14/2025 | 4581X0DK1 | 340,000.00 | AAA | Aaa | 2/19/2021 | 2/23/2021 | 357,442.00 | 0.47 | 1,768.47 | 345,161.89 | 328,408.72 |
| Security Type Sub-Total |  | 340,000.00 |  |  |  |  | 357,442.00 | 0.47 | 1,768.47 | 345,161.89 | 328,408.72 |

Negotiable CD

| TORONTO DOMINION BANK NY CERT DEPOS <br> DTD 10/31/2022 5.600\% 10/27/2025 | 89115B6K1 | 360,000.00 | A | A1 | 10/27/2022 | 10/31/2022 | 360,000.00 | 5.58 | 3,808.00 | 360,000.00 | 366,906.64 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| COOPERAT RABOBANK UA/NY CERT DEPOS <br> DTD 07/20/2023 5.080\% 07/17/2026 | 21684LGS5 | 350,000.00 | A+ | Aa2 | 7/17/2023 | 7/20/2023 | 350,000.00 | 5.08 | 7,951.61 | 350,000.00 | 343,277.55 |
| NATIXIS NY BRANCH CERT DEPOS DTD 09/20/2023 5.610\% 09/18/2026 | 63873QP65 | 250,000.00 | A | A1 | 9/18/2023 | 9/20/2023 | 250,000.00 | 5.61 | 4,012.71 | 250,000.00 | 255,455.00 |
| Security Type Sub-Total |  | 960,000.00 |  |  |  |  | 960,000.00 | 5.41 | 15,772.32 | 960,000.00 | 965,639.19 |

Municipal

| NY ST URBAN DEV CORP TXBL REV BONDS <br> DTD 12/23/2020 0.870\% 03/15/2025 | 650036DT0 | 360,000.00 | NR | NR | 12/16/2020 | 12/23/2020 | 360,000.00 | 0.87 | 922.20 | 360,000.00 | 341,586.00 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SAN DEIGO CNTY WTR AUTH, CA TXBL REV BON DTD 07/22/2020 0.743\% 05/01/2025 | 797412DM2 | 155,000.00 | AAA | Aa2 | 7/9/2020 | 7/22/2020 | 155,000.00 | 0.74 | 191.94 | 155,000.00 | 146,833.05 |
| FL ST BOARD OF ADMIN TXBL REV BONDS <br> DTD 09/16/2020 1.258\% 07/01/2025 | 341271AD6 | 100,000.00 | AA | Aa3 | 9/3/2020 | 9/16/2020 | 100,663.00 | 1.12 | 629.00 | 100,207.35 | 94,965.00 |


| Security Type/Description Dated Date/Coupon/Maturity | CUSIP | Par | S\&P Rating | Moody's Rating | Trade Date | Settle Date | Original Cost | $\begin{aligned} & \text { YTM } \\ & \text { at Cost } \end{aligned}$ | Accrued Interest | Amortized Cost | Market Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Municipal |  |  |  |  |  |  |  |  |  |  |  |
| WI DEPT OF TRANS TXBL REV BONDS DTD 07/30/2020 0.774\% 07/01/2025 | $977123 \times 78$ | 280,000.00 | AAA | NR | 7/10/2020 | 7/30/2020 | 280,000.00 | 0.77 | 1,083.60 | 280,000.00 | 264,177.20 |
| FL ST BOARD OF ADMIN TXBL REV BONDS <br> DTD 09/16/2020 1.258\% 07/01/2025 | 341271AD6 | 220,000.00 | AA | Aa3 | 9/3/2020 | 9/16/2020 | 220,000.00 | 1.26 | 1,383.80 | 220,000.00 | 208,923.00 |
| FL ST BOARD OF ADMIN TXBL REV BONDS <br> DTD 09/16/2020 1.258\% 07/01/2025 | 341271AD6 | 85,000.00 | AA | Aa3 | 9/3/2020 | 9/16/2020 | 85,600.95 | 1.11 | 534.65 | 85,187.95 | 80,720.25 |
| MN ST TXBL GO BONDS DTD 08/25/2020 0.630\% 08/01/2025 | 60412AVJ9 | 125,000.00 | AAA | Aaa | 8/11/2020 | 8/25/2020 | 125,000.00 | 0.63 | 328.13 | 125,000.00 | 117,506.25 |
| SAN RAMON VALLEY USD, CA TXBL GO BONDS DTD 10/20/2020 0.740\% 08/01/2025 | 799408Z85 | 155,000.00 | AA+ | Aa1 | 10/2/2020 | 10/20/2020 | 155,000.00 | 0.74 | 477.92 | 155,000.00 | 145,983.65 |
| LOS ANGELES CCD, CA TXBL GO BONDS <br> DTD 11/10/2020 0.773\% 08/01/2025 | 54438CYK2 | 155,000.00 | AA+ | Aaa | 10/30/2020 | 11/10/2020 | 155,000.00 | 0.77 | 499.23 | 155,000.00 | 145,682.95 |
| CT ST TXBL GO BONDS DTD 09/13/2018 3.743\% 09/15/2025 | 20772KEW5 | 250,000.00 | AA- | Aa3 | 11/17/2020 | 11/19/2020 | 284,407.50 | 0.83 | 2,755.26 | 262,172.56 | 246,050.00 |
| LOS ANGELES USD, CA TXBL GO BONDS <br> DTD 11/10/2021 1.455\% 07/01/2026 | 544647FC9 | 95,000.00 | NR | Aa3 | 10/28/2021 | 11/10/2021 | 95,000.00 | 1.46 | 691.13 | 95,000.00 | 88,300.60 |
| Security Type Sub-Total |  | 1,980,000.00 |  |  |  |  | 2,015,671.45 | 0.90 | 9,496.86 | 1,992,567.86 | 1,880,727.95 |

Joint Powers Authority

| CAMP Pool |  | 41,211.50 | AAAm | NR |  |  | 41,211.50 |  | 0.00 | 41,211.50 | 41,211.50 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Security Type Sub-Total |  | 41,211.50 |  |  |  |  | 41,211.50 |  | 0.00 | 41,211.50 | 41,211.50 |
| Federal Agency |  |  |  |  |  |  |  |  |  |  |  |
| FANNIE MAE NOTES DTD 04/24/2020 0.625\% 04/22/2025 | 3135G03U5 | 275,000.00 | AA+ | Aaa | 6/2/2020 | 6/4/2020 | 276,529.00 | 0.51 | 329.43 | 275,409.05 | 261,432.33 |
| FREDDIE MAC NOTES <br> DTD 07/23/2020 0.375\% 07/21/2025 | 3137EAEU9 | 205,000.00 | AA+ | Aaa | 7/21/2020 | 7/23/2020 | 203,979.10 | 0.48 | 341.67 | 204,682.65 | 192,628.46 |

$\left.\begin{array}{lllllllll}\begin{array}{l}\text { Security Type/Description } \\ \text { Dated Date/Coupon/Maturity }\end{array} & \text { CUSIP } & \text { Par } & \begin{array}{c}\text { S\&P } \\ \text { Rating }\end{array} & \begin{array}{c}\text { Moody's } \\ \text { Rating }\end{array} & \begin{array}{c}\text { Trade } \\ \text { Date }\end{array} & \begin{array}{c}\text { Settle } \\ \text { Date }\end{array} & \begin{array}{c}\text { Original } \\ \text { Cost }\end{array} & \begin{array}{c}\text { YTM } \\ \text { at Cost }\end{array} \\ \hline \text { Federal Agency } & & & & & & \begin{array}{c}\text { Accrued } \\ \text { Interest }\end{array} \\ \hline \text { Value }\end{array}\right]$

| Security Type/Description <br> Dated Date/Coupon/Maturity | CUSIP |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| Security Type/Description Dated Date/Coupon/Maturity | CUSIP | Par | $\begin{gathered} \text { S\&P } \\ \text { Rating } \end{gathered}$ | Moody's Rating | Trade Date | Settle Date | Original Cost | $\begin{aligned} & \text { YTM } \\ & \text { at Cost } \end{aligned}$ | Accrued Interest | Amortized Cost | Market Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Corporate |  |  |  |  |  |  |  |  |  |  |  |
| JOHN DEERE CAPITAL CORP CORPORATE NOTES DTD 01/10/2022 1.700\% 01/11/2027 | 24422EWA3 | 175,000.00 | A | A2 | 1/11/2022 | 1/13/2022 | 174,013.00 | 1.82 | 1,404.86 | 174,401.52 | 161,648.03 |
| TARGET CORP CORP NOTES (CALLABLE) <br> DTD 01/24/2022 1.950\% 01/15/2027 | 87612EBM7 | 50,000.00 | A | A2 | 1/19/2022 | 1/24/2022 | 49,915.00 | 1.99 | 449.58 | 49,948.07 | 46,659.10 |
| TARGET CORP CORP NOTES (CALLABLE) <br> DTD 01/24/2022 1.950\% 01/15/2027 | 87612EBM7 | 170,000.00 | A | A2 | 1/21/2022 | 1/25/2022 | 170,372.30 | 1.90 | 1,528.59 | 170,225.05 | 158,640.94 |
| BANK OF NY MELLON CORP <br> (CALLABLE) CORPOR <br> DTD 01/26/2022 2.050\% 01/26/2027 | 06406RBA4 | 200,000.00 | A | A1 | 1/26/2022 | 1/28/2022 | 200,242.00 | 2.02 | 1,765.28 | 200,147.12 | 186,029.00 |
| HONEYWELL INTERNATIONAL (CALLABLE) CORP DTD 08/16/2021 1.100\% 03/01/2027 | 438516CE4 | 175,000.00 | A | A2 | 3/1/2022 | 3/3/2022 | 166,824.00 | 2.09 | 641.67 | 169,822.76 | 158,736.20 |
| TRUIST FINANCIAL CORP NOTES (CALLABLE) <br> DTD 03/02/2021 1.267\% 03/02/2027 | 89788MAD4 | 270,000.00 | A- | A3 | 3/10/2022 | 3/14/2022 | 253,692.00 | 2.57 | 1,130.80 | 259,607.47 | 247,113.72 |
| NORTHERN TRUST CORP NOTE (CALLABLE) <br> DTD 05/10/2022 4.000\% 05/10/2027 | 665859AW4 | 175,000.00 | A+ | A2 | 5/10/2022 | 5/12/2022 | 176,690.50 | 3.79 | 991.67 | 176,126.06 | 172,623.68 |
| UNITEDHEALTH GROUP INC CORP NOTES (CALLA <br> DTD 05/20/2022 3.700\% 05/15/2027 | 91324PEG3 | 55,000.00 | A+ | A2 | 5/17/2022 | 5/20/2022 | 54,970.30 | 3.71 | 260.03 | 54,979.94 | 53,670.65 |
| UNITEDHEALTH GROUP INC CORP NOTES (CALLA DTD 05/20/2022 3.700\% 05/15/2027 | 91324PEG3 | 200,000.00 | A+ | A2 | 6/2/2022 | 6/6/2022 | 201,632.00 | 3.52 | 945.55 | 201,103.95 | 195,166.00 |
| NATIONAL AUSTRALIA BK/NY CORPORATE NOTES DTD 06/09/2022 3.905\% 06/09/2027 | 63254ABE7 | 270,000.00 | AA- | Aa3 | 6/9/2022 | 6/13/2022 | 267,659.10 | 4.10 | 644.33 | 268,387.58 | 264,149.37 |
| BANK OF AMERICA CORP CORP NOTES (CALLABL <br> DTD 04/22/2021 1.734\% 07/22/2027 | 06051GJS9 | 190,000.00 | A- | A1 | 6/2/2023 | 6/6/2023 | 169,573.10 | 4.62 | 1,455.12 | 172,406.03 | 174,236.27 |
| INTEL CORP NOTES (CALLABLE) DTD 08/05/2022 3.750\% 08/05/2027 | 458140BY5 | 250,000.00 | A | A2 | 8/9/2022 | 8/11/2022 | 248,852.50 | 3.85 | 3,802.08 | 249,172.79 | 244,721.25 |


| Security Type/Description <br> Dated Date/Coupon/Maturity | cusIP |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| Security Type/Description Dated Date/Coupon/Maturity | CUSIP | Par | S\&P Rating | Moody's Rating | Trade Date | Settle Date | Original Cost | YTM at Cost | Accrued Interest | Amortized Cost | Market Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Corporate |  |  |  |  |  |  |  |  |  |  |  |
| TOYOTA MOTOR CREDIT CORP CORPORATE NOTES DTD 09/11/2023 5.250\% 09/11/2028 | 89236TLB9 | 120,000.00 | A+ | A1 | 9/6/2023 | 9/11/2023 | 119,791.20 | 5.29 | 1,925.00 | 119,802.54 | 123,837.96 |
| CITIBANK NA CORP NOTES <br> (CALLABLE) <br> DTD 09/29/2023 5.803\% 09/29/2028 | 17325FBB3 | 325,000.00 | A+ | Aa3 | 9/26/2023 | 9/29/2023 | 325,000.00 | 5.80 | 4,819.71 | 325,000.00 | 338,356.53 |
| ANALOG DEVICES INC (CALLABLE) CORPORATE <br> DTD 10/05/2021 1.700\% 10/01/2028 | 032654AU9 | 250,000.00 | A- | A2 | 10/30/2023 | 11/1/2023 | 209,735.00 | 5.48 | 1,062.50 | 211,102.58 | 221,968.50 |
| Security Type Sub-Total |  | 9,367,000.00 |  |  |  |  | 9,289,338.48 | 3.65 | 90,163.52 | 9,291,075.64 | 9,165,970.88 |
| Agency CMBS |  |  |  |  |  |  |  |  |  |  |  |
| FANNIEMAE-ACES <br> DTD 04/01/2014 3.346\% 03/01/2024 | 3136AJB54 | 64,815.23 | AA+ | Aaa | 12/13/2019 | 12/18/2019 | 67,964.85 | 2.14 | 180.73 | 64,938.34 | 64,398.52 |
| FHLMC MULTIFAMILY STRUCTURED POOL <br> DTD 11/01/2017 3.064\% 08/01/2024 | 3137FBTA4 | 275,720.57 | AA+ | Aaa | 5/25/2022 | 5/31/2022 | 276,086.77 | 3.00 | 704.01 | 275,818.93 | 271,538.42 |
| FHMS K043 A2 <br> DTD 03/01/2015 3.062\% 12/01/2024 | 3137 BGK 24 | 290,755.83 | AA+ | Aaa | 3/19/2020 | 3/25/2020 | 305,157.33 | 1.95 | 741.91 | 293,573.88 | 284,935.44 |
| FHMS K046 A2 <br> DTD 06/17/2015 3.205\% 03/01/2025 | 3137BJP64 | 200,000.00 | AA+ | Aaa | 8/3/2022 | 8/8/2022 | 198,507.81 | 3.51 | 534.17 | 199,322.46 | 195,689.73 |
| FHMS K733 A2 <br> DTD 11/09/2018 3.750\% 08/01/2025 | $3137 \mathrm{FJXQ7}$ | 352,677.97 | AA+ | Aaa | 8/10/2023 | 8/15/2023 | 342,905.27 | 5.24 | 1,102.12 | 344,799.84 | 346,553.63 |
| FHMS K734 A2 <br> DTD 04/18/2019 3.208\% 02/01/2026 | 3137FLN34 | 340,000.00 | AA+ | Aaa | 8/11/2023 | 8/16/2023 | 325,284.38 | 5.08 | 908.93 | 327,540.78 | 330,848.89 |
| FHMS K058 A2 <br> DTD 11/09/2016 2.653\% 08/01/2026 | 3137BSP72 | 335,000.00 | AA+ | Aaa | 4/12/2023 | 4/17/2023 | 319,754.88 | 4.14 | 740.63 | 323,039.81 | 319,834.53 |
| FHMS K061 A2 <br> DTD 01/30/2017 3.347\% 11/01/2026 | 3137BTUM1 | 234,648.75 | AA+ | Aaa | 5/19/2023 | 5/24/2023 | 227,425.97 | 4.31 | 654.47 | 228,701.59 | 227,809.88 |
| FHMS K063 A2 <br> DTD 03/01/2017 3.430\% 01/01/2027 | $3137 B V Z 82$ | 340,000.00 | AA+ | Aaa | 5/19/2023 | 5/24/2023 | 329,707.03 | 4.34 | 971.83 | 331,440.75 | 330,572.60 |
| FHMS K064 A2 <br> DTD 05/15/2017 3.224\% 03/01/2027 | 3137BXQY1 | 365,000.00 | AA+ | Aaa | 8/16/2023 | 8/18/2023 | 344,297.66 | 4.98 | 980.63 | 346,478.54 | 352,613.94 |


| Security Type/Description Dated Date/Coupon/Maturity | CUSIP | Par | S\&P Rating | Moody's Rating | Trade Date | Settle Date | Original Cost | YTM at Cost | Accrued Interest | Amortized Cost | Market Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agency CMBS |  |  |  |  |  |  |  |  |  |  |  |
| FHLMC MULTIFAMILY STRUCTURED P DTD 07/01/2017 3.243\% 04/01/2027 | 3137F1G44 | 355,000.00 | AA+ | Aaa | 6/8/2023 | 6/13/2023 | 340,175.98 | 4.44 | 959.39 | 342,333.37 | 342,641.16 |
| FHMS K743 A2 <br> DTD 06/30/2021 1.770\% 05/01/2028 | 3137H14B9 | 385,000.00 | AA+ | Aaa | 8/10/2023 | 8/15/2023 | 336,965.24 | 4.73 | 567.88 | 340,844.86 | 345,892.04 |
| FHMS KJ46 A1 <br> DTD 07/01/2023 4.777\% 06/01/2028 | 3137HAD45 | 279,245.89 | AA+ | Aaa | 7/19/2023 | 7/27/2023 | 279,238.89 | 4.78 | 1,111.63 | 279,239.51 | 280,466.15 |
| FHMS K505 A2 <br> DTD 07/01/2023 4.819\% 06/01/2028 | 3137HACX2 | 340,000.00 | AA+ | Aaa | 7/13/2023 | 7/20/2023 | 343,395.92 | 4.59 | 1,365.38 | 343,080.78 | 345,575.65 |
| FNA 2023-M6 A2 <br> DTD 07/01/2023 4.190\% 07/01/2028 | $3136 B Q D E 6$ | 350,000.00 | AA+ | Aaa | 7/18/2023 | 7/31/2023 | 344,066.41 | 4.58 | 1,222.08 | 344,574.91 | 347,538.64 |
| FHMS KJ47 A1 <br> DTD 09/01/2023 5.272\% 08/01/2028 | 3137HAMN3 | 184,296.98 | AA+ | Aaa | 9/19/2023 | 9/28/2023 | 184,296.06 | 5.27 | 809.68 | 184,296.11 | 188,781.62 |
| FHMS K508 A2 <br> DTD 10/01/2023 4.740\% 08/01/2028 | 3137HAQ74 | 325,000.00 | AA+ | Aaa | 10/11/2023 | 10/19/2023 | 317,870.80 | 5.26 | 1,283.75 | 318,136.45 | 329,910.02 |
| FHMS K506 A2 <br> DTD 09/01/2023 4.650\% 08/01/2028 | 3137HAMH6 | 350,000.00 | AA+ | Aaa | 9/7/2023 | 9/14/2023 | 344,822.45 | 4.99 | 1,356.25 | 345,103.05 | 354,046.19 |
| FHMS K507 A2 <br> DTD 09/01/2023 4.800\% 09/01/2028 | 3137HAMS2 | 325,000.00 | AA+ | Aaa | 9/20/2023 | 9/28/2023 | 321,115.28 | 5.07 | 1,300.00 | 321,295.87 | 330,970.88 |
| FHMS K509 A2 <br> DTD 10/01/2023 4.850\% 09/01/2028 | 3137HAST4 | 255,000.00 | AA+ | Aaa | 10/25/2023 | 10/31/2023 | 246,869.84 | 5.60 | 1,030.63 | 247,118.97 | 260,117.79 |
| FHMS K510 A2 <br> DTD 11/01/2023 5.069\% 10/01/2028 | 3137HB3D4 | 125,000.00 | AA+ | Aaa | 11/14/2023 | 11/21/2023 | 124,638.63 | 5.14 | 528.02 | 124,645.92 | 128,539.73 |
| FHMS K511 A2 <br> DTD 12/01/2023 4.860\% 10/01/2028 | 3137HB3G7 | 185,000.00 | AA+ | Aaa | 11/28/2023 | 12/7/2023 | 184,468.50 | 4.93 | 749.25 | 184,475.08 | 188,919.51 |
| FHMS K512 A2 <br> DTD 12/01/2023 5.000\% 11/01/2028 | 3137HBCF9 | 170,000.00 | AA+ | Aaa | 12/11/2023 | 12/21/2023 | 171,587.46 | 4.78 | 708.33 | 171,578.88 | 174,676.82 |
| Security Type Sub-Total |  | 6,427,161.22 |  |  |  |  | 6,276,603.41 | 4.56 | 20,511.70 | 6,282,378.68 | 6,342,871.78 |


| Security Type/Description Dated Date/Coupon/Maturity | CUSIP | Par | S\&P Rating | Moody's Rating | Trade Date | Settle Date | Original Cost | YTM at Cost | Accrued Interest | Amortized Cost | Market Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ABS |  |  |  |  |  |  |  |  |  |  |  |
| GMCAR 2020-3 A3 <br> DTD 08/19/2020 0.450\% 04/16/2025 | 362590AC5 | 5,709.56 | NR | Aaa | 8/11/2020 | 8/19/2020 | 5,708.26 | 0.46 | 1.07 | 5,709.20 | 5,691.62 |
| HART 2021-A A3 <br> DTD 04/28/2021 0.380\% 09/15/2025 | 44933LAC7 | 21,690.17 | AAA | NR | 4/20/2021 | 4/28/2021 | 21,687.89 | 0.38 | 3.66 | 21,689.28 | 21,394.07 |
| HAROT 2021-3 A3 <br> DTD 08/25/2021 0.410\% 11/18/2025 | 43815EAC8 | 59,252.32 | AAA | NR | 8/17/2021 | 8/25/2021 | 59,251.45 | 0.41 | 8.77 | 59,251.93 | 57,652.98 |
| CARMX 2021-1 A3 <br> DTD 01/27/2021 0.340\% 12/15/2025 | 14316NAC3 | 12,181.16 | AAA | NR | 1/20/2021 | 1/27/2021 | 12,178.76 | 0.34 | 1.84 | 12,180.20 | 11,961.25 |
| CARMX 2021-2 A3 <br> DTD 04/21/2021 0.520\% 02/17/2026 | 14314QAC8 | 46,028.65 | AAA | NR | 4/13/2021 | 4/21/2021 | 46,018.73 | 0.52 | 10.64 | 46,024.27 | 45,008.10 |
| BMWOT 2022-A A3 <br> DTD 05/18/2022 3.210\% 08/25/2026 | 05602RAD3 | 97,628.67 | AAA | Aaa | 5/10/2022 | 5/18/2022 | 97,623.59 | 3.21 | 52.23 | 97,625.52 | 95,981.52 |
| WOART 2021-D A3 <br> DTD 11/03/2021 0.810\% 10/15/2026 | 98163KAC6 | 73,104.27 | AAA | NR | 10/26/2021 | 11/3/2021 | 73,094.32 | 0.81 | 26.32 | 73,098.66 | 70,983.93 |
| HART 2022-A A3 <br> DTD 03/16/2022 2.220\% 10/15/2026 | 448977ADO | 189,363.08 | AAA | NR | 3/9/2022 | 3/16/2022 | 189,355.79 | 2.22 | 186.84 | 189,358.65 | 184,853.91 |
| COMET 2021-A3 A3 <br> DTD 11/30/2021 1.040\% 11/15/2026 | 14041NFY2 | 250,000.00 | AAA | NR | 11/18/2021 | 11/30/2021 | 249,965.55 | 1.04 | 115.56 | 249,980.05 | 241,185.23 |
| GMCAR 2022-1 A3 <br> DTD 01/19/2022 1.260\% 11/16/2026 | 380146AC4 | 62,546.46 | AAA | NR | 1/11/2022 | 1/19/2022 | 62,541.02 | 1.26 | 32.84 | 62,543.22 | 60,683.41 |
| DTRT 2023-1 A3 <br> DTD 09/27/2023 5.900\% 03/15/2027 | 233868AC2 | 205,000.00 | NR | Aaa | 9/20/2023 | 9/27/2023 | 204,996.86 | 5.90 | 537.56 | 204,997.08 | 207,216.30 |
| CARMX 2022-3 A3 DTD 07/20/2022 3.970\% 04/15/2027 | 14318MAD1 | 245,000.00 | AAA | NR | 7/12/2022 | 7/20/2022 | 244,994.22 | 3.97 | 432.29 | 244,995.99 | 241,662.24 |
| DCENT 2022-A3 A3 <br> DTD 08/09/2022 3.560\% 07/15/2027 | 254683CW3 | 190,000.00 | AAA | Aaa | 8/2/2022 | 8/9/2022 | 189,976.42 | 3.56 | 300.62 | 189,983.10 | 186,335.01 |
| MBART 2022-1 A3 <br> DTD 11/22/2022 5.210\% 08/16/2027 | 58768PAC8 | 295,000.00 | AAA | Aaa | 11/15/2022 | 11/22/2022 | 294,941.65 | 5.21 | 683.09 | 294,955.33 | 295,346.06 |
| HAROT 2023-3 A3 <br> DTD 08/22/2023 5.410\% 02/18/2028 | 43815QAC1 | 220,000.00 | AAA | NR | 8/15/2023 | 8/22/2023 | 219,954.64 | 5.42 | 429.79 | 219,958.29 | 223,057.63 |
| BMWOT 2023-A A3 <br> DTD 07/18/2023 5.470\% 02/25/2028 | 05592XAD2 | 60,000.00 | AAA | NR | 7/11/2023 | 7/18/2023 | 59,989.37 | 5.47 | 54.70 | 59,990.42 | 60,759.55 |
| DCENT 2023-A1 A <br> DTD 04/11/2023 4.310\% 03/15/2028 | 254683CY9 | 255,000.00 | NR | Aaa | 4/4/2023 | 4/11/2023 | 254,985.21 | 4.31 | 488.47 | 254,987.39 | 253,215.79 |

$\left.\begin{array}{lllllllll}\begin{array}{l}\text { Security Type/Description } \\ \text { Dated Date/Coupon/Maturity }\end{array} & \text { CUSIP } & \text { Par } & \begin{array}{c}\text { S\&P } \\ \text { Rating }\end{array} & \begin{array}{c}\text { Moody's } \\ \text { Rating }\end{array} & \begin{array}{c}\text { Trade } \\ \text { Date }\end{array} & \begin{array}{c}\text { Settle } \\ \text { Date }\end{array} & \begin{array}{c}\text { Original } \\ \text { Cost }\end{array} & \begin{array}{c}\text { YTM } \\ \text { at Cost }\end{array} \\ \hline \text { ABS } \\ \text { Ralue }\end{array}\right\}$

Quarterly Portfolio Transactions

| Trade Date | Settle Date | Par (\$) | CUSIP | Security Description | Coupon | Maturity Date | Transact Amount (\$) | Yield at Market | Realized G/L (BV) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BUY |  |  |  |  |  |  |  |  |  |
| 10/11/2023 | 10/19/2023 | 325,000.00 | 3137HAQ74 | FHMS K508 A2 | 4.74\% | 8/1/2028 | 318,641.05 | 5.26\% |  |
| 10/18/2023 | 10/25/2023 | 70,000.00 | 65480MAD5 | NAROT 2023-B A3 | 5.93\% | 3/15/2028 | 69,985.79 | 5.94\% |  |
| 10/25/2023 | 10/31/2023 | 255,000.00 | 3137HAST4 | FHMS K509 A2 | 4.85\% | 9/1/2028 | 247,900.47 | 5.60\% |  |
| 10/30/2023 | 11/1/2023 | 250,000.00 | 032654AU9 | ANALOG DEVICES INC (CALLABLE) CORPORATE | 1.70\% | 10/1/2028 | 210,089.17 | 5.48\% |  |
| 11/8/2023 | 11/10/2023 | 65,000.00 | 713448FW3 | PEPSICO INC CORPORATE NOTES (CALLABLE) | 5.12\% | 11/10/2026 | 64,982.45 | 5.13\% |  |
| 11/14/2023 | 11/21/2023 | 125,000.00 | 3137HB3D4 | FHMS K510 A2 | 5.06\% | 10/1/2028 | 124,990.64 | 5.14\% |  |
| 11/28/2023 | 12/7/2023 | 185,000.00 | $3137 \mathrm{HB3G7}$ | FHMS K511 A2 | 4.86\% | 10/1/2028 | 184,618.35 | 4.93\% |  |
| 11/30/2023 | 12/7/2023 | 600,000.00 | 91282CCR0 | US TREASURY NOTES | 1.00\% | 7/31/2028 | 519,626.70 | 4.29\% |  |
| 11/30/2023 | 12/7/2023 | 350,000.00 | 91282CJB8 | US TREASURY NOTES | 5.00\% | 9/30/2025 | 354,878.32 | 4.73\% |  |
| 12/4/2023 | 12/7/2023 | 700,000.00 | 9128285M8 | US TREASURY NOTES | 3.12\% | 11/15/2028 | 666,431.50 | 4.25\% |  |
| 12/11/2023 | 12/21/2023 | 170,000.00 | 3137HBCF9 | FHMS K512 A2 | 5.00\% | 11/1/2028 | 172,059.68 | 4.78\% |  |
| Total BUY |  | 3,095,000.00 |  |  |  |  | 2,934,204.12 |  | 0.00 |
| INTEREST |  |  |  |  |  |  |  |  |  |
| 10/1/2023 | 10/1/2023 | 160,000.00 | 46625HQW3 | JP MORGAN CORP (CALLABLE) NOTES | 3.30\% | 4/1/2026 | 2,640.00 |  |  |
| 10/1/2023 | 10/25/2023 | 353,235.54 | $3137 \mathrm{FJXQ7}$ | FHMS K733 A2 | 3.75\% | 8/1/2025 | 1,103.86 |  |  |
| 10/1/2023 | 10/25/2023 | 335,000.00 | $3137 \mathrm{BSP72}$ | FHMS K058 A2 | 2.65\% | 8/1/2026 | 740.63 |  |  |
| 10/1/2023 | 10/25/2023 | 105,327.61 | 3137 BTU 25 | FHMS K724 A2 | 3.06\% | 11/1/2023 | 268.76 |  |  |

## Quarterly Portfolio Transactions

| Trade <br> Date | Settle <br> Date | Par (\$) | CUSIP | Security Description | Coupon | Maturity <br> Date |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| INTEREST |  |  |  | Realized <br> G/L (BV) |  |  |
| $10 / 1 / 2023$ | $10 / 25 / 2023$ | $235,000.00$ | 3137 BTUM1 | FHMS K061 A2 | Market |  |
| ars) |  |  |  |  |  |  |

## Quarterly Portfolio Transactions

| $\begin{aligned} & \text { Trade } \\ & \text { Date } \end{aligned}$ | Settle Date | Par (\$) | CUSIP | Security Description | Coupon | Maturity Date | Transact Amount (\$) | Yield at Market | Realized G/L (BV) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| INTEREST |  |  |  |  |  |  |  |  |  |
| 10/15/2023 | 10/15/2023 | 250,000.00 | 14041NFY2 | COMET 2021-A3 A3 | 1.04\% | 11/15/2026 | 216.67 |  |  |
| 10/15/2023 | 10/15/2023 | 32,583.46 | 44933LAC7 | HART 2021-A A3 | 0.38\% | 9/15/2025 | 10.32 |  |  |
| 10/15/2023 | 10/15/2023 | 190,000.00 | 254683CW3 | DCENT 2022-A3 A3 | 3.56\% | 7/15/2027 | 563.67 |  |  |
| 10/15/2023 | 10/15/2023 | 295,000.00 | 58768PAC8 | MBART 2022-1 A3 | 5.21\% | 8/16/2027 | 1,280.79 |  |  |
| 10/15/2023 | 10/15/2023 | 60,254.12 | 14314QAC8 | CARMX 2021-2 A3 | 0.52\% | 2/17/2026 | 26.11 |  |  |
| 10/15/2023 | 10/15/2023 | 165,000.00 | 254683CZ6 | DCENT 2023-A2 A | 4.93\% | 6/15/2028 | 677.87 |  |  |
| 10/15/2023 | 10/15/2023 | 16,900.28 | 14316NAC3 | CARMX 2021-1 A3 | 0.34\% | 12/15/2025 | 4.79 |  |  |
| 10/15/2023 | 10/15/2023 | 205,000.00 | 233868AC2 | DTRT 2023-1 A3 | 5.90\% | 3/15/2027 | 604.75 |  |  |
| 10/15/2023 | 10/15/2023 | 340,000.00 | 05522RDF2 | BACCT 2022-A2 A2 | 5.00\% | 4/15/2028 | 1,416.67 |  |  |
| 10/15/2023 | 10/15/2023 | 330,000.00 | 14041NGD7 | COMET 2023-A1 A | 4.42\% | 5/15/2028 | 1,215.50 |  |  |
| 10/15/2023 | 10/15/2023 | 240,000.00 | 31680EAD3 | FITAT 2023-1 A3 | 5.53\% | 8/15/2028 | 1,106.00 |  |  |
| 10/15/2023 | 10/15/2023 | 255,000.00 | 254683CY9 | DCENT 2023-A1 A | 4.31\% | 3/15/2028 | 915.88 |  |  |
| 10/15/2023 | 10/15/2023 | 125,000.00 | 02007WAC2 | ALLYA 2023-1 A3 | 5.46\% | 5/15/2028 | 568.75 |  |  |
| 10/15/2023 | 10/15/2023 | 88,749.89 | 98163KAC6 | WOART 2021-D A3 | 0.81\% | 10/15/2026 | 59.91 |  |  |
| 10/15/2023 | 10/15/2023 | 130,000.00 | 02582JJZ4 | AMXCA 2023-1 A | 4.87\% | 5/15/2028 | 527.58 |  |  |
| 10/15/2023 | 10/15/2023 | 100,000.00 | 344930AD4 | FORDO 2023-B A3 | 5.23\% | 5/15/2028 | 435.83 |  |  |
| 10/15/2023 | 10/15/2023 | 195,000.00 | 448977ADO | HART 2022-A A3 | 2.22\% | 10/15/2026 | 360.75 |  |  |

# Quarterly Portfolio Transactions 

| Trade Date | Settle Date | Par (\$) | CUSIP | Security Description | Coupon | Maturity Date | Transact Amount (\$) | Yield at Market | Realized G/L (BV) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| INTEREST |  |  |  |  |  |  |  |  |  |
| 10/15/2023 | 10/15/2023 | 115,000.00 | 05522RDG0 | BACCT 2023-A1 A1 | 4.79\% | 5/15/2028 | 459.04 |  |  |
| 10/15/2023 | 10/15/2023 | 2,225.67 | 89237VAB5 | TAOT 2020-C A3 | 0.44\% | 10/15/2024 | 0.82 |  |  |
| 10/15/2023 | 10/15/2023 | 75,000.00 | 44933XAD9 | HART 2023-B A3 | 5.48\% | 4/17/2028 | 342.50 |  |  |
| 10/15/2023 | 10/15/2023 | 1,760.59 | 14315FAD9 | CARMX 2020-3 A3 | 0.62\% | 3/17/2025 | 0.91 |  |  |
| 10/15/2023 | 10/15/2023 | 280,000.00 | 161571HT4 | CHAIT 2023-A1 A | 5.16\% | 9/15/2028 | 1,204.00 |  |  |
| 10/16/2023 | 10/16/2023 | 74,314.63 | 380146AC4 | GMCAR 2022-1 A3 | 1.26\% | 11/16/2026 | 78.03 |  |  |
| 10/16/2023 | 10/16/2023 | 17,538.69 | 362590AC5 | GMCAR 2020-3 A3 | 0.45\% | 4/16/2025 | 6.58 |  |  |
| 10/16/2023 | 10/16/2023 | 70,000.00 | 36267KAD9 | GMCAR 2023-3 A3 | 5.45\% | 6/16/2028 | 317.92 |  |  |
| 10/18/2023 | 10/18/2023 | 220,000.00 | 43815QAC1 | HAROT 2023-3 A3 | 5.41\% | 2/18/2028 | 991.83 |  |  |
| 10/18/2023 | 10/18/2023 | 76,603.13 | 43815EAC8 | HAROT 2021-3 A3 | 0.41\% | 11/18/2025 | 26.17 |  |  |
| 10/20/2023 | 10/20/2023 | 1,319.47 | 92290BAA9 | VZOT 2020-B A | 0.47\% | 2/20/2025 | 0.52 |  |  |
| 10/22/2023 | 10/22/2023 | 275,000.00 | 3135G03U5 | FANNIE MAE NOTES | 0.62\% | 4/22/2025 | 859.38 |  |  |
| 10/25/2023 | 10/25/2023 | 100,000.00 | 05602RAD3 | BMWOT 2022-A A3 | 3.21\% | 8/25/2026 | 267.50 |  |  |
| 10/25/2023 | 10/25/2023 | 60,000.00 | 05592XAD2 | BMWOT 2023-A A3 | 5.47\% | 2/25/2028 | 273.50 |  |  |
| 10/25/2023 | 10/25/2023 | 360,000.00 | 89115B6K1 | TORONTO DOMINION BANK NY CERT DEPOS | 5.60\% | 10/27/2025 | 20,104.00 |  |  |
| 10/31/2023 | 10/31/2023 | 200,000.00 | 91282CAU5 | US TREASURY NOTES | 0.50\% | 10/31/2027 | 500.00 |  |  |
| 10/31/2023 | 10/31/2023 | 545,000.00 | 91282CDG3 | US TREASURY NOTES | 1.12\% | 10/31/2026 | 3,065.63 |  |  |

# Quarterly Portfolio Transactions 

| $\begin{aligned} & \text { Trade } \\ & \text { Date } \end{aligned}$ | Settle Date | Par (\$) | CUSIP | Security Description | Coupon | Maturity Date | Transact Amount (\$) | Yield at Market | Realized G/L (BV) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| INTEREST |  |  |  |  |  |  |  |  |  |
| 10/31/2023 | 10/31/2023 | 150,000.00 | 91282CBZ3 | US TREASURY NOTES | 1.25\% | 4/30/2028 | 937.50 |  |  |
| 11/1/2023 | 11/1/2023 | 250,000.00 | 693475AY1 | PNC BANK NA CORP NOTES (CALLABLE) | 2.20\% | 11/1/2024 | 2,750.00 |  |  |
| 11/1/2023 | 11/1/2023 | 155,000.00 | 797412DM2 | SAN DEIGO CNTY WTR AUTH, CA TXBL REV BON | 0.74\% | 5/1/2025 | 575.83 |  |  |
| 11/1/2023 | 11/1/2023 | 35,000.00 | 605581MZ7 | MS ST TXBL GO BONDS | 0.56\% | 11/1/2024 | 98.88 |  |  |
| 11/1/2023 | 11/25/2023 | 325,000.00 | 3137HAQ74 | FHMS K508 A2 | 4.74\% | 8/1/2028 | 1,283.75 |  |  |
| 11/1/2023 | 11/25/2023 | 350,000.00 | 3136BQDE6 | FNA 2023-M6 A2 | 4.19\% | 7/1/2028 | 1,222.08 |  |  |
| 11/1/2023 | 11/25/2023 | 355,000.00 | 3137F1G44 | FHLMC MULTIFAMILY STRUCTURED P | 3.24\% | 4/1/2027 | 959.39 |  |  |
| 11/1/2023 | 11/25/2023 | 235,000.00 | 3137BTUM1 | FHMS K061 A2 | 3.34\% | 11/1/2026 | 655.45 |  |  |
| 11/1/2023 | 11/25/2023 | 350,000.00 | 3137HAMH6 | FHMS K506 A2 | 4.65\% | 8/1/2028 | 1,356.25 |  |  |
| 11/1/2023 | 11/25/2023 | 335,000.00 | 3137 BSP 72 | FHMS K058 A2 | 2.65\% | 8/1/2026 | 740.63 |  |  |
| 11/1/2023 | 11/25/2023 | 325,000.00 | 3137HAMS2 | FHMS K507 A2 | 4.80\% | 9/1/2028 | 1,300.00 |  |  |
| 11/1/2023 | 11/25/2023 | 279,562.42 | 3137HAD45 | FHMS KJ46 A1 | 4.77\% | 6/1/2028 | 1,112.89 |  |  |
| 11/1/2023 | 11/25/2023 | 276,659.81 | 3137FBTA4 | FHLMC MULTIFAMILY STRUCTURED POOL | 3.06\% | 8/1/2024 | 706.40 |  |  |
| 11/1/2023 | 11/25/2023 | 184,748.84 | 3137HAMN3 | FHMS KJ47 A1 | 5.27\% | 8/1/2028 | 811.66 |  |  |
| 11/1/2023 | 11/25/2023 | 255,000.00 | 3137HAST4 | FHMS K509 A2 | 4.85\% | 9/1/2028 | 1,030.63 |  |  |
| 11/1/2023 | 11/25/2023 | 340,000.00 | 3137FLN34 | FHMS K734 A2 | 3.20\% | 2/1/2026 | 908.93 |  |  |
| 11/1/2023 | 11/25/2023 | 365,000.00 | $3137 B X Q Y 1$ | FHMS K064 A2 | 3.22\% | 3/1/2027 | 980.63 |  |  |

# Quarterly Portfolio Transactions 

| Trade Date | Settle Date | Par (\$) | CUSIP | Security Description | Coupon | Maturity Date | Transact Amount (\$) | Yield at Market | Realized G/L (BV) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| INTEREST |  |  |  |  |  |  |  |  |  |
| 11/1/2023 | 11/25/2023 | 200,000.00 | 3137BJP64 | FHMS K046 A2 | 3.20\% | 3/1/2025 | 534.17 |  |  |
| 11/1/2023 | 11/25/2023 | 65,138.77 | 3136AJB54 | FANNIEMAE-ACES | $3.34 \%$ | 3/1/2024 | 181.62 |  |  |
| 11/1/2023 | 11/25/2023 | 291,739.11 | 3137 BGK 24 | FHMS K043 A2 | 3.06\% | 12/1/2024 | 744.42 |  |  |
| 11/1/2023 | 11/25/2023 | 340,000.00 | $3137 B \mathrm{~B}$ Z 22 | FHMS K063 A2 | $3.43 \%$ | 1/1/2027 | 971.83 |  |  |
| 11/1/2023 | 11/25/2023 | 340,000.00 | 3137HACX2 | FHMS K505 A2 | 4.81\% | 6/1/2028 | 1,365.38 |  |  |
| 11/1/2023 | 11/25/2023 | 353,045.64 | $3137 \mathrm{FJXQ7}$ | FHMS K733 A2 | $3.75 \%$ | 8/1/2025 | 1,103.27 |  |  |
| 11/1/2023 | 11/25/2023 | 385,000.00 | 3137H14B9 | FHMS K743 A2 | 1.77\% | 5/1/2028 | 567.88 |  |  |
| 11/4/2023 | 11/4/2023 | 275,000.00 | 025816CM9 | AMERICAN EXPRESS CO (CALLABLE) CORPORATE | 1.65\% | 11/4/2026 | 2,268.75 |  |  |
| 11/7/2023 | 11/7/2023 | 1,220,000.00 | 3135G06G3 | FANNIE MAE NOTES | 0.50\% | 11/7/2025 | 3,050.00 |  |  |
| 11/10/2023 | 11/10/2023 | 175,000.00 | 665859AW4 | NORTHERN TRUST CORP NOTE (CALLABLE) | 4.00\% | 5/10/2027 | 3,500.00 |  |  |
| 11/11/2023 | 11/11/2023 | 250,000.00 | 166764BW9 | CHEVRON CORP (CALLABLE) NOTES | 1.55\% | 5/11/2025 | 1,942.50 |  |  |
| 11/13/2023 | 11/13/2023 | 142,000.00 | 110122DN5 | BRISTOL-MYERS SQUIBB CO CORPORATE NOTES | 0.75\% | 11/13/2025 | 532.50 |  |  |
| 11/15/2023 | 11/15/2023 | 295,000.00 | 58768PAC8 | MBART 2022-1 A3 | 5.21\% | 8/16/2027 | 1,280.79 |  |  |
| 11/15/2023 | 11/15/2023 | 190,000.00 | 254683CW3 | DCENT 2022-A3 A3 | 3.56\% | 7/15/2027 | 563.67 |  |  |
| 11/15/2023 | 11/15/2023 | 250,000.00 | 14041NFY2 | COMET 2021-A3 A3 | 1.04\% | 11/15/2026 | 216.67 |  |  |
| 11/15/2023 | 11/15/2023 | 330,000.00 | 14041NGD7 | COMET 2023-A1 A | 4.42\% | 5/15/2028 | 1,215.50 |  |  |
| 11/15/2023 | 11/15/2023 | 255,000.00 | 254683CY9 | DCENT 2023-A1 A | 4.31\% | 3/15/2028 | 915.88 |  |  |

## Quarterly Portfolio Transactions

| $\begin{array}{c}\text { Trade } \\ \text { Date }\end{array}$ | $\begin{array}{c}\text { Settle } \\ \text { Date }\end{array}$ | Par (\$) | CuSIP | Security Description | Coupon | $\begin{array}{c}\text { Maturity } \\ \text { Date }\end{array}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| INTEREST |  |  |  | $\begin{array}{c}\text { Realized } \\ \text { Amount (\$) }\end{array}$ |  |  |
| G/L Market |  |  |  |  |  |  |$\}$

# Quarterly Portfolio Transactions 

| $\begin{array}{c}\text { Trade } \\ \text { Date }\end{array}$ | $\begin{array}{c}\text { Settle } \\ \text { Date }\end{array}$ | Par (\$) | CUSIP | Security Description | Coupon | $\begin{array}{c}\text { Maturity } \\ \text { Date }\end{array}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| INTEREST |  |  |  | $\begin{array}{c}\text { Realized } \\ \text { Amount (\$) }\end{array}$ |  |  |
| at Market |  |  |  |  |  |  |$]$

## Quarterly Portfolio Transactions

| Trade <br> Date | Settle <br> Date | Par (\$) | CUSIP | Security Description | Coupon | Maturity <br> Date |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| INTEREST |  |  |  | Realized <br> G/L (BV) |  |  |
| $11 / 30 / 2023$ | $11 / 30 / 2023$ | $250,000.00$ | 91282 CCF6 | US TREASURY NOTES |  |  |
| at Market |  |  |  |  |  |  |

# Quarterly Portfolio Transactions 

| Trade <br> Date | Settle <br> Date | Par (\$) | CUSIP | Security Description | Coupon | Maturity <br> Date |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| TNTEREST |  |  |  | Reansact <br> Amount (\$) <br> G/L (BV) |  |  |
| $12 / 1 / 2023$ | $12 / 25 / 2023$ | $340,000.00$ | 3137 Market |  |  |  |

# Quarterly Portfolio Transactions 

| Trade Date | Settle Date | Par (\$) | CUSIP | Security Description | Coupon | Maturity Date | Transact Amount (\$) | Yield at Market | Realized G/L (BV) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| INTEREST |  |  |  |  |  |  |  |  |  |
| 12/15/2023 | 12/15/2023 | 60,000.00 | 63743HFE7 | NATIONAL RURAL UTIL COOP CORPORATE NOTES | 3.45\% | 6/15/2025 | 1,035.00 |  |  |
| 12/15/2023 | 12/15/2023 | 240,000.00 | 31680EAD3 | FITAT 2023-1 A3 | 5.53\% | 8/15/2028 | 1,106.00 |  |  |
| 12/15/2023 | 12/15/2023 | 70,000.00 | 65480MAD5 | NAROT 2023-B A3 | 5.93\% | 3/15/2028 | 345.92 |  |  |
| 12/15/2023 | 12/15/2023 | 125,000.00 | 02007WAC2 | ALLYA 2023-1 A3 | 5.46\% | 5/15/2028 | 568.75 |  |  |
| 12/15/2023 | 12/15/2023 | 100,000.00 | 344930AD4 | FORDO 2023-B A3 | 5.23\% | 5/15/2028 | 435.83 |  |  |
| 12/15/2023 | 12/15/2023 | 295,000.00 | 58768PAC8 | MBART 2022-1 A3 | 5.21\% | 8/16/2027 | 1,280.79 |  |  |
| 12/15/2023 | 12/15/2023 | 245,000.00 | 14318MAD1 | CARMX 2022-3 A3 | 3.97\% | 4/15/2027 | 810.54 |  |  |
| 12/15/2023 | 12/15/2023 | 78,263.36 | 98163KAC6 | WOART 2021-D A3 | 0.81\% | 10/15/2026 | 52.83 |  |  |
| 12/15/2023 | 12/15/2023 | 25,148.51 | 44933LAC7 | HART 2021-A A3 | 0.38\% | 9/15/2025 | 7.96 |  |  |
| 12/15/2023 | 12/15/2023 | 330,000.00 | 14041NGD7 | COMET 2023-A1 A | 4.42\% | 5/15/2028 | 1,215.50 |  |  |
| 12/15/2023 | 12/15/2023 | 130,000.00 | 02582JJZ4 | AMXCA 2023-1 A | 4.87\% | 5/15/2028 | 527.58 |  |  |
| 12/15/2023 | 12/15/2023 | 115,000.00 | 05522RDG0 | BACCT 2023-A1 A1 | 4.79\% | 5/15/2028 | 459.04 |  |  |
| 12/15/2023 | 12/15/2023 | 255,000.00 | 254683CY9 | DCENT 2023-A1 A | 4.31\% | 3/15/2028 | 915.88 |  |  |
| 12/15/2023 | 12/15/2023 | 75,000.00 | 44933XAD9 | HART 2023-B A3 | 5.48\% | 4/17/2028 | 342.50 |  |  |
| 12/15/2023 | 12/15/2023 | 13,699.85 | 14316NAC3 | CARMX 2021-1 A3 | 0.34\% | 12/15/2025 | 3.88 |  |  |
| 12/16/2023 | 12/16/2023 | 9,503.64 | 362590AC5 | GMCAR 2020-3 A3 | 0.45\% | 4/16/2025 | 3.56 |  |  |
| 12/16/2023 | 12/16/2023 | 66,376.13 | 380146AC4 | GMCAR 2022-1 A3 | 1.26\% | 11/16/2026 | 69.69 |  |  |

## Quarterly Portfolio Transactions

| $\begin{array}{c}\text { Trade } \\ \text { Date }\end{array}$ | $\begin{array}{c}\text { Settle } \\ \text { Date }\end{array}$ | Par (\$) | CUSIP | Security Description | Coupon |
| :--- | :--- | :--- | :--- | :--- | :--- |
| INTEREST |  |  |  | $\begin{array}{c}\text { Maturity } \\ \text { Date }\end{array}$ | $\begin{array}{c}\text { Transact } \\ \text { Amount (\$) }\end{array}$ |
| Realized Market |  |  |  |  |  |
| G/LV) |  |  |  |  |  |$]$

## Quarterly Portfolio Transactions

| Trade Date | Settle Date | Par (\$) | CUSIP | Security Description | Coupon | Maturity Date | Transact Amount (\$) | Yield at Market | Realized G/L (BV) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PAYDOWNS |  |  |  |  |  |  |  |  |  |
| 10/15/2023 | 10/15/2023 | 4,900.85 | 14314QAC8 | CARMX 2021-2 A3 | 0.52\% | 2/17/2026 | 4,900.85 |  |  |
| 10/15/2023 | 10/15/2023 | 1,642.58 | 14316NAC3 | CARMX 2021-1 A3 | 0.34\% | 12/15/2025 | 1,642.58 |  |  |
| 10/15/2023 | 10/15/2023 | 5,305.15 | 98163KAC6 | WOART 2021-D A3 | 0.81\% | 10/15/2026 | 5,305.15 |  |  |
| 10/15/2023 | 10/15/2023 | 2,225.67 | 89237VAB5 | TAOT 2020-C A3 | 0.44\% | 10/15/2024 | 2,225.67 |  |  |
| 10/15/2023 | 10/15/2023 | 3,811.49 | 44933LAC7 | HART 2021-A A3 | 0.38\% | 9/15/2025 | 3,811.49 |  |  |
| 10/15/2023 | 10/15/2023 | 1,301.81 | 14315FAD9 | CARMX 2020-3 A3 | 0.62\% | 3/17/2025 | 1,301.81 |  |  |
| 10/16/2023 | 10/16/2023 | 4,067.51 | 380146AC4 | GMCAR 2022-1 A3 | 1.26\% | 11/16/2026 | 4,067.51 |  |  |
| 10/16/2023 | 10/16/2023 | 4,076.80 | 362590AC5 | GMCAR 2020-3 A3 | 0.45\% | 4/16/2025 | 4,076.80 |  |  |
| 10/18/2023 | 10/18/2023 | 6,024.56 | 43815EAC8 | HAROT 2021-3 A3 | 0.41\% | 11/18/2025 | 6,024.56 |  |  |
| 10/20/2023 | 10/20/2023 | 1,319.47 | 92290BAA9 | VZOT 2020-B A | 0.47\% | 2/20/2025 | 1,319.47 |  |  |
| 11/1/2023 | 11/25/2023 | 453.74 | $3137 \mathrm{FBTA4}$ | FHLMC MULTIFAMILY STRUCTURED POOL | 3.06\% | 8/1/2024 | 453.74 |  |  |
| 11/1/2023 | 11/25/2023 | 476.66 | 3137BGK24 | FHMS K043 A2 | 3.06\% | 12/1/2024 | 476.66 |  |  |
| 11/1/2023 | 11/25/2023 | 142.07 | 3137HAD45 | FHMS KJ46 A1 | 4.77\% | 6/1/2028 | 142.07 |  |  |
| 11/1/2023 | 11/25/2023 | 156.90 | 3136AJB54 | FANNIEMAE-ACES | 3.34\% | 3/1/2024 | 156.90 |  |  |
| 11/1/2023 | 11/25/2023 | 198.17 | 3137HAMN3 | FHMS KJ47 A1 | 5.27\% | 8/1/2028 | 198.17 |  |  |
| 11/1/2023 | 11/25/2023 | 176.41 | $3137 \mathrm{FJXQ7}$ | FHMS K733 A2 | 3.75\% | 8/1/2025 | 176.41 |  |  |
| 11/15/2023 | 11/15/2023 | 4,773.95 | 14314QAC8 | CARMX 2021-2 A3 | 0.52\% | 2/17/2026 | 4,773.95 |  |  |

## Quarterly Portfolio Transactions

| Trade Date | Settle Date | Par (\$) | CUSIP | Security Description | Coupon | Maturity Date | Transact Amount (\$) | Yield at Market | Realized G/L (BV) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PAYDOWNS |  |  |  |  |  |  |  |  |  |
| 11/15/2023 | 11/15/2023 | 458.78 | 14315FAD9 | CARMX 2020-3 A3 | 0.62\% | 3/17/2025 | 458.77 |  |  |
| 11/15/2023 | 11/15/2023 | 3,623.46 | 44933LAC7 | HART 2021-A A3 | 0.38\% | 9/15/2025 | 3,623.46 |  |  |
| 11/15/2023 | 11/15/2023 | 5,181.38 | 98163KAC6 | WOART 2021-D A3 | 0.81\% | 10/15/2026 | 5,181.38 |  |  |
| 11/15/2023 | 11/15/2023 | 1,557.85 | 14316NAC3 | CARMX 2021-1 A3 | 0.34\% | 12/15/2025 | 1,557.85 |  |  |
| 11/16/2023 | 11/16/2023 | 3,958.25 | 362590AC5 | GMCAR 2020-3 A3 | 0.45\% | 4/16/2025 | 3,958.25 |  |  |
| 11/16/2023 | 11/16/2023 | 3,870.99 | 380146AC4 | GMCAR 2022-1 A3 | 1.26\% | 11/16/2026 | 3,870.99 |  |  |
| 11/18/2023 | 11/18/2023 | 5,799.91 | 43815EAC8 | HAROT 2021-3 A3 | 0.41\% | 11/18/2025 | 5,799.91 |  |  |
| 12/1/2023 | 12/25/2023 | 253.69 | 3137HAMN3 | FHMS KJ47 A1 | 5.27\% | 8/1/2028 | 253.69 |  |  |
| 12/1/2023 | 12/25/2023 | 485.50 | 3137FBTA4 | FHLMC MULTIFAMILY STRUCTURED POOL | 3.06\% | 8/1/2024 | 485.50 |  |  |
| 12/1/2023 | 12/25/2023 | 351.25 | 3137BTUM1 | FHMS K061 A2 | 3.34\% | 11/1/2026 | 351.25 |  |  |
| 12/1/2023 | 12/25/2023 | 191.26 | $3137 \mathrm{FJXQ7}$ | FHMS K733 A2 | 3.75\% | 8/1/2025 | 191.26 |  |  |
| 12/1/2023 | 12/25/2023 | 174.46 | 3137HAD45 | FHMS KJ46 A1 | 4.77\% | 6/1/2028 | 174.46 |  |  |
| 12/1/2023 | 12/25/2023 | 166.64 | 3136AJB54 | FANNIEMAE-ACES | 3.34\% | 3/1/2024 | 166.64 |  |  |
| 12/1/2023 | 12/25/2023 | 506.62 | 3137BGK24 | FHMS K043 A2 | 3.06\% | 12/1/2024 | 506.62 |  |  |
| 12/15/2023 | 12/15/2023 | 3,458.34 | 44933LAC7 | HART 2021-A A3 | 0.38\% | 9/15/2025 | 3,458.34 |  |  |
| 12/15/2023 | 12/15/2023 | 1,518.69 | 14316NAC3 | CARMX 2021-1 A3 | 0.34\% | 12/15/2025 | 1,518.69 |  |  |
| 12/15/2023 | 12/15/2023 | 5,636.92 | 448977ADO | HART 2022-A A3 | 2.22\% | 10/15/2026 | 5,636.92 |  |  |

## Quarterly Portfolio Transactions

| Trade Date | Settle Date | Par (\$) | CUSIP | Security Description | Coupon | Maturity Date | Transact Amount (\$) | Yield at Market | Realized G/L (BV) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PAYDOWNS |  |  |  |  |  |  |  |  |  |
| 12/15/2023 | 12/15/2023 | 5,159.09 | 98163KAC6 | WOART 2021-D A3 | 0.81\% | 10/15/2026 | 5,159.09 |  |  |
| 12/15/2023 | 12/15/2023 | 4,550.67 | 14314QAC8 | CARMX 2021-2 A3 | 0.52\% | 2/17/2026 | 4,550.67 |  |  |
| 12/16/2023 | 12/16/2023 | 3,829.67 | 380146AC4 | GMCAR 2022-1 A3 | 1.26\% | 11/16/2026 | 3,829.67 |  |  |
| 12/16/2023 | 12/16/2023 | 3,794.08 | 362590AC5 | GMCAR 2020-3 A3 | 0.45\% | 4/16/2025 | 3,794.08 |  |  |
| 12/18/2023 | 12/18/2023 | 5,526.34 | 43815EAC8 | HAROT 2021-3 A3 | 0.41\% | 11/18/2025 | 5,526.34 |  |  |
| 12/25/2023 | 12/25/2023 | 2,371.33 | 05602RAD3 | BMWOT 2022-A A3 | 3.21\% | 8/25/2026 | 2,371.33 |  |  |
| Total PAYDO | WNS | 248,777.44 |  |  |  |  | 248,777.43 |  | 0.00 |
| SELL |  |  |  |  |  |  |  |  |  |
| 10/12/2023 | 10/19/2023 | 200,000.00 | 91282CDG3 | US TREASURY NOTES | 1.12\% | 10/31/2026 | 180,496.94 |  | -19,989.63 |
| 10/25/2023 | 10/31/2023 | 60,000.00 | 91282CBH3 | US TREASURY NOTES | 0.37\% | 1/31/2026 | 54,164.06 |  | -5,469.87 |
| 10/25/2023 | 10/31/2023 | 140,000.00 | 91282CBH3 | US TREASURY NOTES | 0.37\% | 1/31/2026 | 126,382.82 |  | -12,513.22 |
| 10/30/2023 | 11/1/2023 | 250,000.00 | 4581X0DZ8 | INTER-AMERICAN DEVEL BK NOTES | 0.50\% | 9/23/2024 | 239,339.44 |  | -10,737.30 |
| 11/27/2023 | 11/29/2023 | 155,000.00 | 798306WN2 | SAN JUAN USD, CA TXBL GO BONDS | 0.70\% | 8/1/2024 | 150,426.11 |  | -4,930.55 |
| 11/27/2023 | 11/29/2023 | 260,000.00 | 4581X0DZ8 | INTER-AMERICAN DEVEL BK NOTES | 0.50\% | 9/23/2024 | 250,121.73 |  | -10,064.11 |
| 11/27/2023 | 11/29/2023 | 275,000.00 | 874857KK0 | TAMALPAIS UHSD, CA TXBL GO BONDS | 2.02\% | 8/1/2024 | 270,480.21 |  | -6,341.50 |
| 11/27/2023 | 11/29/2023 | 65,000.00 | 20772KJW0 | CT ST TXBL GO BONDS | 1.99\% | 7/1/2024 | 64,148.11 |  | -1,385.80 |
| 11/27/2023 | 11/29/2023 | 180,000.00 | 574193TQ1 | MD ST TXBL GO BONDS | 0.51\% | 8/1/2024 | 174,522.90 |  | -5,769.49 |

## Quarterly Portfolio Transactions

$\left.\begin{array}{lllllll}\begin{array}{c}\text { Trade } \\ \text { Date }\end{array} & \begin{array}{c}\text { Settle } \\ \text { Date }\end{array} & \text { Par (\$) } & \text { CUSIP } & \text { Security Description } & \text { Coupon } \begin{array}{c}\text { Maturity } \\ \text { Date }\end{array} \begin{array}{c}\text { Transact } \\ \text { Amount (\$) }\end{array} \\ \hline \text { SELL } & & & & \begin{array}{c}\text { Yield } \\ \text { at Market }\end{array} \\ \hline 11 / 27 / 2023 & 11 / 29 / 2023 & 110,000.00 & \text { Realized } \\ \text { G/L (BV) }\end{array}\right]$

## Important Disclosures

This material is for general information purposes only and is not intended to provide specific advice or a specific recommendation, as it was prepared without regard to any specific objectives or financial circumstances.

Investment advisory services are provided by PFM Asset Management LLC ("PFMAM"), an investment adviser registered with the U.S. Securities and Exchange Commission and a subsidiary of U.S. Bancorp Asset Management, Inc. ("USBAM"). USBAM is a subsidiary of U.S. Bank National Association ("U.S. Bank"). U.S. Bank is a separate entity and subsidiary of U.S. Bancorp. U.S. Bank is not responsible for and does not guarantee the products, services or performance of PFMAM. The information contained is not an offer to purchase or sell any securities. Additional applicable regulatory information is available upon request.

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It is not possible to invest directly in an index. The index returns shown throughout this material do not represent the results of actual trading of investor assets. Third-party providers maintain the indices shown and calculate the index levels and performance shown or discussed. Index returns do not reflect payment of any sales charges or fees an investor would pay to purchase the securities they represent. The imposition of these fees and charges would cause investment performance to be lower than the performance shown.

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- Market values that include accrued interest are derived from closing bid prices as of the last business day of the month as supplied by Refinitiv, Bloomberg, or Telerate. Where prices are not available from generally recognized sources, the securities are priced using a yield-based matrix system to arrive at an estimated market value.
- In accordance with generally accepted accounting principles, information is presented on a trade date basis; forward settling purchases are included in the monthly balances, and forward settling sales are excluded.
- Performance is presented in accordance with the CFA Institute's Global Investment Performance Standards (GIPS). Unless otherwise noted, performance is shown gross of fees. Quarterly returns are presented on an unannualized basis. Returns for periods greater than one year are presented on an annualized basis. Past performance is not indicative of future returns.
- Bank of America/Merrill Lynch Indices provided by Bloomberg Financial Markets.
- Money market fund/cash balances are included in performance and duration computations.
- Standard \& Poor's is the source of the credit ratings. Distribution of credit rating is exclusive of money market fund/LGIP holdings.
- Callable securities in the portfolio are included in the maturity distribution analysis to their stated maturity date, although, they may be called prior to maturity.
- MBS maturities are represented by expected average life.


## Glossary

- Accrued Interest: Interest that is due on a bond or other fixed income security since the last interest payment was made.
- Agencies: Federal agency securities and/or Government-sponsored enterprises.
- Amortized Cost: The original cost of the principal of the security is adjusted for the amount of the periodic reduction of any discount or premium from the purchase date until the date of the report. Discount or premium with respect to short-term securities (those with less than one year to maturity at time of issuance) is amortized on a straight line basis. Such discount or premium with respect to longer-term securities is amortized using the constant yield basis.
- Asset-Backed Security: A financial instrument collateralized by an underlying pool of assets - usually ones that generate a cash flow from debt, such as loans, leases, credit card balances, and receivables.
- Bankers' Acceptance: A draft or bill or exchange accepted by a bank or trust company. The accepting institution guarantees payment of the bill as well as the insurer.
- Commercial Paper: An unsecured obligation issued by a corporation or bank to finance its short-term credit needs, such as accounts receivable and inventory.
- Contribution to Total Return: The weight of each individual security multiplied by its return, then summed for each sector to determine how much each sector added or subtracted from the overall portfolio performance.
- Effective Duration: A measure of the sensitivity of a security's price to a change in interest rates, stated in years.
- Effective Yield: The total yield an investor receives in relation to the nominal yield or coupon of a bond. Effective yield takes into account the power of compounding on investment returns, while nominal yield does not.
- FDIC: Federal Deposit Insurance Corporation. A federal agency that insures bank deposits to a specified amount.
- Interest Rate: Interest per year divided by principal amount and expressed as a percentage.
- Market Value: The value that would be received or paid for an investment in an orderly transaction between market participants at the measurement date.
- Maturity: The date upon which the principal or stated value of an investment becomes due and payable.
- Negotiable Certificates of Deposit: A CD with a very large denomination, usually $\$ 1$ million or more, that can be traded in secondary markets.
- Par Value: The nominal dollar face amount of a security.
- Pass-through Security: A security representing pooled debt obligations that passes income from debtors to its shareholders. The most common type is the mortgage-backed security.


## Glossary

- Repurchase Agreements: A holder of securities sells these securities to an investor with an agreement to repurchase them at a fixed price on a fixed date.
- Settle Date: The date on which the transaction is settled and monies/securities are exchanged. If the settle date of the transaction (i.e., coupon payments and maturity proceeds) occurs on a non-business day, the funds are exchanged on the next business day.
- Supranational: A multinational union or association in which member countries cede authority and sovereignty on at least some internal matters to the group, whose decisions are binding on its members.
- Trade Date: The date on which the transaction occurred; however, the final consummation of the security transaction and payment has not yet taken place.
- Unsettled Trade: A trade which has been executed; however, the final consummation of the security transaction and payment has not yet taken place.
- U.S. Treasury: The department of the U.S. government that issues Treasury securities.
- Yield: The rate of return based on the current market value, the annual interest receipts, maturity value, and the time period remaining until maturity, stated as a percentage on an annualized basis.
- YTM at Cost: The yield to maturity at cost is the expected rate of return based on the original cost, the annual interest receipts, maturity value, and the time period from purchase date to maturity, stated as a percentage on an annualized basis.
- YTM at Market: The yield to maturity at market is the rate of return based on the current market value, the annual interest receipts, maturity value, and the time period remaining until maturity, stated as a percentage on an annualized basis.


## Memorandum

To: Min Su, Finance Manager<br>Eric Dahlen, Executive Director<br>Pooled Liability Assurance Network<br>From: Michael Kronbetter, Relationship Manager<br>PFM Asset Management LLC ("PFMAM")

RE: Annual Investment Policy Review

PFM Asset Management LLC has completed its annual review of the Pooled Liability Assurance Network's (the "Authority") Investment Policy (the "Policy"). The Policy is in compliance with the sections of the California Government Code (the "Code") that govern the investment of public funds.

We are, however, recommending the Authority incorporate a recent Code change into the Policy. Senate Bill 882, which took effect January 1, 2024, also known as the Local Government Omnibus Act of 2023, made several changes to Code, including one change to Code Section 53601(o). The bill clarified that mortgage-backed securities issued by federal agencies are exempt from the Code's requirements described in Section 53601(o) for privately issued asset- and mortgage-backed securities. The Code update codifies the common understanding of how agency mortgage-backed securities are treated under Code. Although the Code change does not change what type of securities the Authority may purchase nor how the portfolio is managed, incorporating the Code change into the Policy will better align the Policy with the current Code language.

We have attached a marked-up copy of the Authority's Policy to illustrate our recommended change. Please let us know if you have any questions or if you would like to discuss further.

# Pooled Liability Assurance Network JPA (PLAN) 

## Investment Policy

Adopted: $\quad$ September, 1987<br>Revised: May 6, 1997<br>Revised: May 22, 2002<br>Revised: May 25, 2005<br>Reaffirmed: June 11, 2009<br>Revised: January 24, 2017<br>Revised: June 20, 2018<br>Revised: June 12, 2019<br>Revised: June 11, 2020<br>Revised: June 18, 2021<br>Revised: February 14, 2023

### 1.0 Policy

It is the policy of the Pooled Liability Assurance Network JPA (PLAN) to invest its financial assets in a manner which will provide maximum security with a market rate of return, while meeting its cash flow demands and conforming to all applicable laws governing the investment of public funds.

## $2.0 \quad$ Scope

This Investment Policy (the "Policy") shall apply to all funds and investment activities under the direct control of PLAN.

### 3.0 Prudence

Pursuant to California Government Code Section 53600.3, all persons authorized to make investment decisions on behalf of PLAN are trustees and therefore fiduciaries subject to the prudent investor standard: "When investing, reinvesting, purchasing, acquiring, exchanging, selling, or managing public funds, a trustee shall act with care, skill, prudence, and diligence under the circumstances then prevailing, including, but not limited to, the general economic conditions and the anticipated needs of the agency, that a prudent person acting in a like capacity and familiarity with those matters would use in the conduct of funds of a like character and with like aims, to safeguard the principal and maintain the liquidity needs of the agency. Within the limitations of this section and considering individual investments as part of an overall strategy, investments may be acquired as authorized by law."

### 4.0 Objectives

The overall program shall be designed and managed with a degree of professionalism worthy of the public trust. The primary objectives, in order of priority, of PLAN's investment activities shall be:

1) Safety. Safety of principal is the foremost objective of the investment program. PLAN's investments shall be undertaken in a manner that seeks to ensure preservation of capital in the overall portfolio.
2) Liquidity. PLAN's investment portfolio will remain sufficiently liquid to enable PLAN to meet its reasonably anticipated cash flow requirements.
3) Return on Investment. PLAN seeks to maximize the return on its investments, consistent with constraints imposed by its objectives of safety and liquidity.

### 5.0 Delegation of Authority

The investment authority will be vested in the Treasurer, as defined and established in PLAN's bylaws. Upon the approval of this Investment Policy on an annual basis, PLAN will be adhering to Government Code Section 53607 which states in pertinent part: "The authority of the legislative body to invest or to reinvest funds of a local agency, or to sell or exchange securities so purchased, may be delegated for a one year period by the legislative body to the treasurer of the local agency, who shall thereafter assume full responsibility for those transactions until the delegation of authority is revoked or expires."

The Treasurer may delegate investment decision making and execution authority to an investment advisor. The advisor shall follow the Investment Policy and such other written instructions as are
provided.
The Treasurer and the delegated investment officers acting in accordance with written procedures and the Investment Policy and exercising due diligence shall be relieved of personal responsibility for an individual security's credit risk or market price changes, provided deviations from expectations are reported in a timely fashion and appropriate action is taken to control adverse developments.

### 6.0 Ethics and Conflicts of Interest

Officers and employees involved in the investment process shall refrain from personal business activities that could conflict with proper execution of the investment program, or which could impair their ability to make impartial investment decisions. Employees and investment officials shall disclose to the President any material financial interests in financial institutions that conduct business with PLAN, and they shall further disclose any material financial interest that could be related to the performance of PLAN, particularly with regard to the time of purchases and sales. For purposes of this section "material financial interests" means any interest described in Government Code Sections 87103(a)-(e), as they may be amended from time to time.

### 7.0 Internal Controls

The Treasurer shall maintain a system of written internal controls to regulate PLAN's investment activities, including the activities of any subordinate officials acting on behalf of PLAN. As part of the annual financial audit, PLAN's external auditor will perform a review of investment transactions to verify compliance with policies and procedures.

### 8.0 Authorized Financial Dealers and Institutions

A competitive bid process shall be used to place all investment transactions; a minimum of three quotes shall be obtained on all purchase and sales of securities, when practical. It shall be PLAN's policy to purchase securities only from those authorized institutions and firms. No deposit of public funds shall be made except in a qualified public depository as established by state laws.

The Treasurer shall maintain a list of authorized broker/dealers and financial institutions which are approved for investment purposes. The purchase by PLAN of any investment other than those purchased directly from the issuer, shall be purchased either from an institution licensed by the State as a broker-dealer, as defined in Section 25004 of the Corporations Code, which is a member of the Financial Industry Regulatory Authority (FINRA), or a member of a federally regulated securities exchange, a national or state chartered bank, a federal or state association (as defined by Section 5102 of the Financial Code), or a brokerage firm designated as a Primary Government Dealer by the Federal Reserve Bank.

PLAN requires each firm that will be used for the purchase or sale of securities to be evaluated by the Treasurer prior to any investments. The firms shall submit current financial statements, and annual audited financial statements each year thereafter, which are to be evaluated by the Treasurer. At a minimum, the firm must be financially sound and have been in business a minimum of three years. In addition, the firms must provide: proof of the licensing or membership described above, trading resolutions, proof of state registration or exemption, and certificate of having read PLAN's Investment Policy.

If PLAN has retained the services of an investment advisor, the investment advisor may use its own
list of authorized broker/dealers to conduct transactions on behalf of PLAN.

### 9.0 Authorized and Suitable Investments

PLAN is governed by Government Code, Sections 53600 et seq. Within the investments permitted by the Government Code, PLAN seeks to further restrict eligible investment to the investments listed below. In the event an apparent discrepancy is found between this Policy and the Government Code, the more restrictive parameters will take precedence. The maturity and sector allocation limits are applied at the time of purchase.
Credit criteria listed in this section refers to the credit quality of the issuing organization at the time the security is purchased. In the event of a downgrade below the minimum credit rating requirements listed below, the Treasurer or the investment advisor, if so designated, must notify PLAN of such downgrade within 15 days of the downgrade and will use their best professional judgment to determine the appropriate course of action.
The portfolio shall be diversified by security type and institution to avoid incurring unreasonable and avoidable risks regarding specific security types or individual financial institutions.

1. United States Treasury Issues.** United States Treasury notes, bonds, bills, or certificates of indebtedness, or those for which the faith and credit of the United States are pledged for the payment of principal and interest. United States Treasury Issues cannot exceed a maturity of 5 years. There is no limitation as to the percentage of the portfolio that may be invested in this category.
2. Federal Agency Obligations.** Federal agency or United States government-sponsored enterprise obligations, participations, or other instruments, including those issued by or fully guaranteed as to principal and interest by federal agencies or United States governmentsponsored enterprises. Federal Agency Obligations cannot exceed a maturity of 5 years. There is no limitation as to the percentage of the portfolio that may be invested in this category. In addition, purchases of Federal Agency mortgage-backed securities issued by or fully guaranteed as to principal and interest by government agencies are limited to a maximum of 20 percent of the portfolio.
3. Medium-term notes.** Medium-term notes are defined as all corporate and depository institution debt securities with a maximum remaining maturity of five years or less, issued by corporations organized and operating within the United States or by depository institutions licensed by the United States or any state and operating within the United States. Purchases are limited to securities rated in a rating category of "A" or its equivalent or better by a nationally recognized rating service (NRSRO). A maximum of 30 percent of the portfolio may be invested in this category. The amount invested in the medium-term notes of any one issuer in combination with any other securities from that issuer shall not exceed 5 percent of the portfolio.
4. Bankers' Acceptances. Bankers' acceptances, otherwise known as bills of exchange or time drafts that are drawn on and accepted by a commercial bank. Purchasers are limited to issuers whose short-term debt is rated A-1/P-1 or its equivalent or better by an NRSRO. Bankers' acceptances cannot exceed a maturity of 180 days. A maximum of 25 percent of the portfolio may be invested in this category. The amount invested in bankers' acceptances with any one financial institution in combination with any other securities from that financial institution shall not exceed 5 percent of the portfolio.
5. Commercial Paper. Commercial paper of "prime" quality of the highest ranking or of the highest letter and number rating as provided for by a nationally recognized statistical-rating organization. The entity that issues the commercial paper shall meet all of the following conditions in either paragraph (A) or paragraph (B):
a) The entity meets the following criteria: (i) Is organized and operating in the United States as a general corporation. (ii) Has total assets in excess of five hundred million dollars $(\$ 500,000,000)$. (iii) Has debt other than commercial paper, if any, that is rated in a rating category of " $A$ " or its equivalent or higher by a nationally recognized statistical-rating organization.
b) The entity meets the following criteria: (i) Is organized within the United States as a special purpose corporation, trust, or limited liability company. (ii) Has program wide credit enhancements including, but not limited to, over collateralization, letters of credit, or surety bond. (iii) Has commercial paper that is rated "A-1" or higher, or the equivalent, by an NRSRO.

Eligible commercial paper shall have a maximum maturity of 270 days or less. A maximum of 25 percent of the portfolio may be invested in this category. The amount invested in commercial paper of any one issuer in combination with any other securities from that issuer shall not exceed 5 percent of the portfolio.
6. Negotiable Certificates of Deposit.** Negotiable certificates of deposit (NCDs) issued by a nationally or state-chartered bank, a savings association or a federal association, a state or federal credit union, or by a state-licensed branch of a foreign bank. Purchases are limited to NCDs rated in a rating category of " A " or its equivalent or better for long-term obligations, and "A- 1 " or its equivalent or better for short-term obligations. NCDs may not exceed 5 years in maturity. A maximum of 30 percent of the portfolio may be invested in this category. The amount invested in NCDs with any one financial institution in combination with any other securities from that financial institution shall not exceed 5 percent of the portfolio.
7. Time Certificates of Deposit. Time Certificates of Deposit (TCDs) placed with commercial banks and savings and loans. The purchase of TCDs from out-of-state banks or savings and loans is prohibited. The amount on deposit shall not exceed the shareholder's equity in the financial institution. To be eligible for purchase, the financial institution must have received a minimum overall satisfactory rating for meeting the credit needs of California Communities in its most recent evaluation, as provided in Government Code Section 53635.2. TCDs are required to be collateralized as specified under Government Code Section 53630 et. seq. The Treasurer, at the Treasurer's discretion, may waive the collateralization requirements for any portion that is covered by federal insurance. PLAN shall have a signed agreement with the depository per Government Code Section 53649. TCDs may not exceed 5 year in maturity. A maximum of 10 percent of the portfolio may be invested in this category. The amount invested in TCDs with any one financial institution in combination with any other securities from that financial institution shall not exceed 10 percent of the portfolio.
8. Money Market Funds. Shares of beneficial interest issued by diversified management companies that are money market funds registered with the Securities and Exchange Commission under the Investment Company Act of 1940 (15 U.S.C. Sec. 80a-1 and following). The company shall have met either of the following criteria: (A) Attained the highest ranking or the highest letter and numerical rating provided by not less than two NRSROs. (B) Retained an investment adviser registered or exempt from registration with the Securities and Exchange Commission
with not less than five years of experience managing money market mutual funds with assets under management in excess of five hundred million dollars ( $\$ 500,000,000$ ). A maximum of 10 percent of the portfolio may be invested in this category.
9. State of California Local Agency Investment Fund (LAIF). There is no limitation as to the percentage of the portfolio that may be invested in this category. However, the amount invested may not exceed the maximum allowed by LAIF. For due diligence, a copy of LAIF's current investment policy and its requirements for participation, including limitations on deposits or withdrawals shall be maintained on file.

Under the California Government Code, LAIF is allowed greater investment flexibility than PLAN is permitted. As such, LAIF's investment portfolio may contain investments not otherwise permitted under this policy. For funds invested with LAIF, LAIF's investment policy overrides PLAN's investment policy.
10. Municipal Obligations.** Municipal obligations shall be permissible as described in either paragraph (A), (B), or (C) below:
a) Registered state warrants or treasury notes or bonds of this state, including bonds payable solely out of the revenues form a revenue-producing property owned, controlled, or operated by the state or by a department, board, agency, or authority of the state.
b) Registered treasury notes or bonds of any of the other 49 states in addition to California, including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by a state or by a department, board, agency, or authority of any of the other 49 states, in addition to California.
c) Bonds, notes, warrants, or other evidences of indebtedness of a local agency within this state, including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by the local agency, or by a department, board, agency, or authority of the local agency.
A maximum of 30 percent of the portfolio may be invested in any combination of the municipal obligations as described in paragraphs (A), (B), or (C) above. Purchases are limited to municipal obligations rated in a rating category of "A" or its equivalent or better. Further, the amount invested in any one municipal issuer may not exceed 5 percent of the portfolio.
11. Asset Backed Securities (ABS). A mortgage passthrough security, collateralized mortgage obligation, mortgage-backed or other pay-through bond, equipment lease-backed certificate, consumer receivable passthrough certificate, or consumer receivable-backed bond.

Securities eligible for investment under this subdivision and not issued or guaranteed by an agency or issuer identified in subdivision (1) or (2), the following limitations apply:-
a)_shall be rated in a rating category of "AAA" or its equivalent by an $\mathrm{NRSRO}_{2}$ and
b) have a maximum remaining maturity of five years or less,
c) Purchase of securities authorized by this subdivision-shall not exceed 20 percent of the portfolio, and
11.d) Further, the amount invested in any one ABS issuer in combination with any other securities from that issuer shall not exceed 5 percent.

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12. Local Government Investment Pools. Shares of beneficial interest issued by a joint powers authority organized pursuant to California Government Code Section 6509.7 that invests in the securities and obligations authorized in subdivisions (a) to ( r , inclusive. Each share shall represent an equal proportional interest in the underlying pool of securities owned by the joint powers authority. To be eligible under this section, the joint powers authority issuing the shares shall have retained an investment adviser that meets all of the following criteria:
(1) The adviser is registered or exempt from registration with the Securities and Exchange Commission.
(2) The adviser has not less than five years of experience investing in the securities and obligations authorized in subdivisions (a) to (q), inclusive.
(3) The adviser has assets under management in excess of five hundred million dollars (\$500,000,000).
Further, the shares of beneficial interest shall be rated in a rating category of AAA or its equivalent by an NRSORO.
13. Supranational Obligations.** United States dollar denominated senior unsecured unsubordinated obligations issued or unconditionally guaranteed by the International Bank for Reconstruction and Development, International Finance Corporation, or Inter-American Development Bank, with a maximum remaining maturity of five years or less, and eligible for purchase and sale within the United States. Investments under this subdivision shall be rated in a rating category of "AA" or its equivalent or better by an NRSRO and shall not exceed 30 percent of the portfolio.
** The aggregate total of investments in callable notes in is limited to $25.0 \%$ of the portfolio.
Please see Appendix A for a summary of authorized and suitable investments.

### 10.0 Prohibited Investment Practices and Instruments

Any investment in a security not specifically listed in Section 9.0 above, but otherwise permitted by the Government Code, is prohibited without the prior approval of the Board. Section 53601.6 of the Government Code specifically disallows investments in inverse floaters, range notes, or interestonly strips that are derived from a pool of mortgages. In addition to the limitations in Government Code Section 53601.6, this Policy further restricts investments as follows: (1) PLAN shall not engage in leveraged investing, such as in margin accounts or any form of borrowing for the purpose of investment, (2) PLAN shall not invest in securities with floating coupon interest rates, and (3) no investment will be made that has either (a) an embedded option or characteristic which could result in a loss of principal if the investment is held to maturity, or (b) an embedded option or characteristic which could seriously limit accrual rates or which could result in zero accrual periods, except that, in the event of, and for the duration of, a period of negative market interest rates, PLAN may invest in securities issued by, or backed by, the United States government that could result in zero- or negativeinterest accrual if held to maturity. Before the initial investment in such zero- or negative-interest accrual securities, the investment advisor, if so retained, shall inform PLAN of its intent to purchase such securities along with a rationale. At which point, PLAN may approve or reject such purchases.

### 11.0 Duration and Maximum Maturity

It is the objective of this Policy to provide a system which will accurately monitor and forecast revenues and expenditures so that PLAN can invest funds to the fullest extent possible. PLAN's funds will be invested in accordance with sound treasury management principles.

Assets in the Operating Fund (projected administration expenses and claim payments for a fiscal year) will be invested in pooled funds, LAIF, or other highly liquid securities.

Assets in the Claims Liability Fund and the Long-Term Fund will be invested in an individual portfolio of securities. Claims Liability Fund (assets needed to fully fund the Pool as determined by the actuary) will be invested to achieve an average duration that closely matches the duration of Claims Liability as calculated by the actuary. Assets in the Long-term Fund represent assets in excess of full funding requirements of the Pool. Assets in this category can be invested in securities with durations and yields that are higher than those in the Claims Liability Fund.

The maximum maturity of individual investments shall not exceed the limits set forth in Section 9.0. The Board has approved the investment in U.S. Treasury and Federal Agency obligations with a maximum maturity of up to five years. No investment shall exceed a maturity of five years from the date of purchase unless the Board has granted express authority to make that investment either specifically or as a part of an investment program approved by the Board no less than three months prior to the investment.

### 12.0 Safekeeping and Custody

All security transactions entered into by PLAN shall be conducted on a delivery-versus- payment (DVP) basis. All cash and securities in PLAN's portfolio shall be held in safekeeping in PLAN's name by a third party bank trust department, acting as agent for PLAN under the terms of a custody agreement executed by the bank and PLAN. The only exception to the foregoing shall be depository accounts and securities purchases made with: (i) local government investment pools; (ii) time certificates of deposit, and, (iii) money market mutual funds, since the purchased securities are not deliverable. Evidence of each these investments will be held by PLAN.

### 13.0 Performance Benchmark

PLAN seeks to attain market rates of return on its investments throughout economic cycles, consistent with constraints imposed by its safety objectives and cash flow consideration. The Treasurer shall continually monitor and evaluate the portfolio's performance. A comparison of the portfolio's performance against a performance benchmark shall be included in the Treasurer's quarterly report. The Treasurer shall recommend an appropriate, readily available market index to use as a performance benchmark.

### 14.0 Reporting

The Treasurer shall submit a quarterly investment report to the Executive Committee in advance of the Executive Committee's next scheduled meeting. The report shall include the following information for each individual investment: Description of investment instrument, issuer name, maturity date, credit rating, coupon rate, yield, purchase price, par value, book value, current market value and the source of the valuation. The quarterly report shall also state compliance of the portfolio to the statement of investment policy, or manner in which the portfolio is not in compliance, and include a statement denoting PLAN's ability to meet its expenditure requirements for the next six months, or provide an explanation as to why sufficient money may or may not be available. The report shall also include a list of monthly investment transactions.

### 15.0 Policy Adoption

The policy shall be reviewed annually by the Finance Committee. The policy shall be adopted
annually by the Board at a public meeting. Any change in the policy shall also be reviewed and approved by the Board at a public meeting.

## Appendix A

Summary of Authorized and Suitable Investments
This table is for general reference only. Please see the body of the Policy for a listing of all requirements.

| Security Type** | Maturity Limits | Maximum Portfolio Percentage Holdings | Rating Requirements |
| :--- | :--- | :--- | :--- |
| United State Treasury Securities | 5 years | $100 \%$ | None |
| Federal Agency Obligations | 5 years | $100 \%$ <br> $20 \%$ limit on mortgage-backed securities. | None |
| Medium-Term Corporate Notes | 5 years | $30 \%$ <br> $5 \%$ limit per issuer (applies across security types) | A |
| Bankers' Acceptances | 180 days | $25 \%$ <br> $5 \%$ limit per issuer (applies across security types) | Issuers with a short-term rating <br> of A-1/P-1 |
| Commercial Paper | 270 days | $25 \%$ <br> $5 \%$ limit per issuer (applies across security types) | A-1/P-1/F-1 |
| Negotiable Certificates of Deposit | 5 years | $30 \%$ <br> $5 \%$ limit per issuer (applies across security types) | A / A-1 |
| Time Certificates of Deposit | 5 year | $10 \%$ <br> $10 \%$ limit per issuer (applies across security types) |  |
| Money Market Funds |  | $10 \%$ <br> Local Government Investment | N.A. satisfactory" |

[^1]Agenda Item 6.B.

## FINANCIAL MATTERS

SUBJECT: Liability Program Updates and Preliminary Actuarial Data

## BACKGROUND AND HISTORY:

The preliminary actuarial report provides the funding information for the upcoming 2024/25 Program Year. The actuary was able to compile the data using loss run and estimated payroll data as of December 31, 2023. With the additional $\$ 5 \mathrm{M}$ top layer, taking total limits to $\$ 35 \mathrm{M}$ in 2023/24, below is PLAN JPA's current General Liability (GL) Program structure.

| Navigators: \$5M x \$30M |
| :---: |
| \$10M Policy Aggregate |
| AXIS: \$5M x \$25M |
| \$10M Policy Aggregate |
| Starstone: \$5M x \$20M |
| \$10M Policy Aggregate |
| Everest: \$5M x \$15M |
| \$15M Policy Aggregate |
| Safety National: \$5M x \$10M |
| \$15M Policy Aggregate |
|  |
| CARMA: \$9M x \$1M |
| PLAN JPA Pool Layer |
| Member SIR up to \$1M |
| Member SIR (Deductible) |
| \$25K, \$50K, \$100K or \$250K |

Below is a current comparison of the funding for the PLAN JPA Primary Pool Layer of \$1M self-insured retention (SIR):

| Liability Program | Discount Factor | Expected |  | 60\% |  | 70\% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2024/25 | 2.0\% | \$ | 6,438,000 | \$ | 6,625,000 | \$ | 7,520,000 |
| 2023/24 | 2.0\% | \$ | 4,764,000 | \$ | 4,888,000 | \$ | 5,593,000 |
|  | Change |  | 1,674,000 |  | 1,737,000 |  | 1,927,000 |
|  | \% Change |  | 35.1\% |  | 35.5\% |  | 34.5\% |

For the upcoming 2024/25 Program Year, the Liability Program funding has increased by $\$ 1,737,000$, or $35.5 \%$ at the $60 \%$ confidence level. Based on the draft actuarial report dated March 11, 2024, these increases were due to substantial claim losses and adverse development, which were significantly more than originally anticipated since the prior actuarial report dated March 13, 2023. In addition to recent claims development, the increase in the primary funding layer is also due to the $2024 / 25$ estimated payroll increasing by $8.8 \%$, or $\$ 43 \mathrm{M}$.

Becky Richard, Bickmore Actuarial, will be present to provide a thorough overview of the Draft General Liability Program Actuarial Report to the Committee.

## STAFF RECOMMENDATION:

None.

## REFERENCE MATERIALS ATTACHED:

- Draft General Liability Program Actuarial Report as of March 11, 2024


# Bickmore Actuarial 

## Actuarial Review of the Self-Insured Liability Program

Outstanding Liabilities as of June 30, 2024
Forecast for Program Year 2024-25

Presented to
PLAN JPA

March 11, 2024 - DRAFT

March 11, 2024

Pooled Liability Assurance Network Joint Powers Authority
Attn: Eric Dahlen
1750 Creekside Oaks Drive, Suite 200
Sacramento, CA 95833

Re: Actuarial Review of the Self-Insured Liability Program

Dear Mr. Dahlen:
As you requested, we have completed our review of the Authority's self-insured liability program (the PLAN JPA). We estimate the ultimate cost of claims and expenses for claims incurred during the 2024-25 program year to be \$6,438,000 including allocated loss adjustment expenses (ALAE) and a discount for anticipated investment income (assuming a $\$ 1$ million retention). ALAE is basically the direct cost associated with the defense of individual claims. The discount for investment income is calculated based on the likely payout pattern of your claims, assuming a $2.0 \%$ return on investments per year. For budgeting purposes, the expected cost of 2024-25 claims translates to a rate of $\$ 1.209$ per $\$ 100$ payroll.

In addition, we estimate the program's liability for outstanding claims to be $\$ 27,139,000$ as of June 30, 2024, including ALAE, unallocated loss adjustment expenses (ULAE), and discounted for anticipated investment income, assuming a $2.0 \%$ discount rate. ULAE is the remainder of the cost to administer all claims to final settlement. Given estimated program assets of $\$ 49,677,000$ (including SIR Fund assets), the program is funded above the $95 \%$ confidence level (see Graph 1 on Page 8).

The $\$ 27,139,000$ estimate is the minimum liability to be booked by the PLAN in accordance with Governmental Accounting Standards Board (GASB) Statement \#10. GASB \#10 requires PLAN to accrue a liability on its financial statements for the ultimate cost of claims and expenses associated with all reported and unreported claims, including ALAE and ULAE. GASB \#10 does not prohibit the discounting of losses to recognize investment income.

## Estimated Liability for Unpaid Loss and LAE at June 30, 2024

|  | Expected | 70\% CL | 75\% CL | 80\% CL | 85\% CL | Minimum 90\% CL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Loss and ALAE | \$25,246,000 |  |  |  |  |  |
| ULAE (Claims Administration) | 3,156,000 |  |  |  |  |  |
| Investment Income Offset @ 2\% | $(1,263,000)$ |  |  |  |  |  |
| Discounted Loss and LAE | \$27,139,000 | \$30,097,000 | \$31,318,000 | \$32,757,000 | \$34,602,000 | \$37,099,000 |
| Program Assets Includes SIR Fund | 49,677,000 |  |  |  |  |  |
| Redundancy | \$22,538,000 | \$19,580,000 | \$18,359,000 | \$16,920,000 | \$15,075,000 | \$12,578,000 |

The following table shows estimated liability for unpaid loss and LAE at various discount rate assumptions at the expected confidence level.

Estimated Liability for Unpaid Loss and LAE at June 30, 2024

| Discount Rate | Outstanding Liability |
| :---: | ---: |
| $2.0 \%$ | $\$ 27,139,000$ |
| $3.0 \%$ | $\$ 26,549,000$ |
| $4.0 \%$ | $\$ 25,986,000$ |

GASB \#10 does not address an actual funding requirement for the program, but only speaks of the liability to be recorded on the PLAN's financial statements. Because actuarial estimates of claims costs are subject to some uncertainty, we recommend that an amount in addition to the discounted expected loss costs be set aside as a margin for contingencies.
We generally recommend that risk pools maintain assets for historical liabilities at no less than the $90 \%$ confidence level. Per CAJPA accreditation requirements, the $98 \% \mathrm{CL}$ discounted outstanding liabilities are \$50,245,000.

It should be noted that the $\$ 49,677,000$ of program assets can be broken downs as follows:

- $\$ 27,139,000$ of assets backing discounted loss and LAE liabilities at expected level
- \$9,960,000 of assets backing discounted loss and LAE liabilities from the expected level to the 90\% confidence level (Risk-Margin Fund)
- \$12,578,000 of assets backing discounted loss and LAE liabilities above the 90\% confidence level (SIR Fund)


## DRAFT

The following tables show our funding recommendations for PLAN for the 2024-25 fiscal year assuming $\$ 1$ million limit at 2.0\%, 3.0\% and $4.0 \%$ discount rate assumptions.

| Loss and ALAE Funding Guidelines |  |  |  |
| :--- | :---: | :---: | :---: |
|  | $2.0 \%$ | $3.0 \%$ | $4.0 \%$ |
| Expected Loss and <br> ALAE | $\$ 6,915,000$ | $\$ 6,915,000$ | $\$ 6,915,000$ |
| Discounted Loss <br> and ALAE | $\$ 6,438,000$ | $\$ 6,219,000$ | $\$ 6,011,000$ |
| 60\% Confidence <br> Level | $6,625,000$ | $6,399,000$ | $6,185,000$ |
| 70\% Confidence <br> Level | $7,520,000$ | $7,264,000$ | $7,021,000$ |
| 80\% Confidence <br> Level <br> 90\% Confidence <br> Level | $8,698,000$ | $8,402,000$ | $8,121,000$ |

The funding recommendations above are for losses and allocated loss adjustment expense only. They do not include any provision for claims administration, excess insurance, loss control, overhead, and other expenses associated with the program.
We generally recommend that risk pools fund for future costs between the $75 \%$ and $85 \%$ confidence levels.

## DRAFT

The report that follows outlines the scope of our study, its background, and our conclusions, recommendations and assumptions. Judgments regarding the appropriateness of our conclusions and recommendations should be made only after studying the report in its entirety - including the graphs, attachments, exhibits and appendices. Our report has been developed for the PLAN's internal use. It is not intended for general circulation.

We appreciate the opportunity to be of service to PLAN in preparing this report. Please feel free to call Becky Richard at (916) 244-1183, Mike Harrington at (916) 244-1162 with any questions you may have concerning this report.

Sincerely,
Bickmore Actuarial

## DRAFT

Becky Richard, ACAS, MAAA
Partner

## DRAFT

Mike Harrington, FCAS, MAAA

President and Managing Partner

## DRAFT

## David Kim, MA

Actuarial Consultant

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## I. BACKGROUND

PLAN JPA began its self-insured excess liability program on June 2, 1986. Excess liability coverage up to $\$ 5$ million limits is written for accident years 1986-87 through 1997-98. For accident years 1998-99, 1999-00 and 2000-01 the excess liability coverage is $\$ 7$ million. For accident years 2001-02 through 2014-15, the excess liability coverage is $\$ 5$ million. For accident years 2015-16 through 2020-21, the excess liability coverage is $\$ 2.5$ million. PLAN currently purchases reinsurance in excess of $\$ 1$ million per occurrence as follows:

| Loss Layer | $\underline{\text { Reinsurer }}$ |
| :--- | :--- |
| \$1M - \$10M per occurrence | CARMA |
| \$10M - \$15M per occurrence | Safety National |
| \$15M - \$20M per occurrence | Everest |
| $\$ 20 \mathrm{M}-$ \$25M per occurrence | Hallmark |
| $\$ 25 \mathrm{M}$ - \$30M per occurrence | AWAC |

Each member city retains a portion of each claim. Deductible options are: \$25,000, $\$ 50,000$, $\$ 100,000, \$ 250,000$ and $\$ 500,000$. Appendix D, page 3 summarizes the member cities' deductibles by year.

Claims administration services are provided by York. As of June 30, 2024, the PLAN JPA is expected to have available assets of $\$ 49,677,000$ for the program including SIR Fund.

In PLAN's loss history, there have been claims made relating to property development actions, specifically inverse condemnation claims. Effective July 1, 2008, the PLAN JPA Program Memorandum of Coverage (MOC) was amended with the intent to exclude all regulatory inverse condemnation claims going forward. However, there exists tail exposure for claims occurring prior to this date. For these claims, an agreement was reached to provide each member a $\$ 1$ million SIR for defense coverage for all prior inverse claims reported by June 30, 2013 (5-year reporting window).

The purpose of this review is to provide a guide to PLAN JPA to determine reasonable funding levels for its self-insurance program according to the funding policy PLAN JPA has adopted to comply with Governmental Accounting Standards Board Statements \#10.

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The specific objectives of the study are to estimate the Authority's liability for outstanding claims as of June 30, 2024, project ultimate loss cost for 2024-25 and provide funding guidelines to meet these liabilities and future costs.

## II. CONCLUSIONS AND RECOMMENDATIONS

## A. LIABILITY FOR OUTSTANDING CLAIMS AS OF JUNE 30, 2024

Graph 1 on the following page summarizes our assessment of the PLAN JPA's funding position as of June 30, 2024. The dark-colored bars indicate our estimates of the program's liability for outstanding claims before recognition of the investment income that can be earned on the assets held before the claim payments come due. The solid horizontal line across the graph indicates the PLAN JPA's available assets at June 30, 2024 including the SIR Fund.

Our best estimate of the full value of PLAN JPA's liability for outstanding claims within its self-insured retention (SIR) is $\$ 28,402,000$. This amount includes losses, allocated loss adjustment expenses (ALAE) and unallocated loss adjustment expenses (ULAE), and is shown at the far left of the graph. ALAE is basically the direct cost associated with the defense of individual claims (e.g. legal fees, investigation fees, court charges, etc.). ULAE is the additional cost to administer all claims to final settlement, which may be years into the future (e.g. claims adjusters' salaries, taxes, etc.), and is estimated to be $10 \%$ of outstanding loss and ALAE.

There is some measure of uncertainty associated with our best estimate because of the random nature of much of the process that determines ultimate claims costs. For this reason, we generally recommend that a program such as this include some funding margin for the possibility that actual loss costs will be greater than the best estimate. We generally measure the amount of this margin by thinking in terms of the probability distribution of actual possible results around our best estimate. As the margin grows, the probability that the corresponding funding amount will be sufficient to meet actual claim liabilities increases. We typically refer to this probability as the "confidence level" of funding. Graph 1 shows the liabilities for outstanding claims at several confidence levels that are typically of interest to risk managers in formulating funding policies for selfinsurance programs.

PLAN JPA
Available Assets vs Outstanding Liability (\$000's) at June 30, 2024


The PLAN can earn investment income on the assets it holds until claims payments come due. Assuming a long-term average annual return on investments of $2.0 \%$, we estimate the impact of investment income earnings to be about $4.4 \%$ if the program is funded within the range indicated in Graph 1. Investment income earnings will be less than this when the program does not maintain sufficient funding, and more when there is excess funding. Thus, thinking in terms of liabilities discounted for investment income can actually mask funding deficiencies and redundancies that might otherwise be obvious. However, the discounted liabilities do represent legitimate funding targets. The light-colored bars on Graph 1 show our estimates of the PLAN's discounted liability for outstanding claims.

We estimate the program's expected discounted liability for outstanding claims to be \$27,139,000 again including ALAE and ULAE. With recognition of the investment income that can be earned on the assets held, the program is funded above the $90 \%$ confidence level. The information presented in Graph 1 is also summarized in tabular form below.

## Liability for Outstanding Claims at 6/30/24

| Confidence <br> Levels | Expected | $70 \%$ | $75 \%$ | $80 \%$ | $85 \%$ | $90 \%$ |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: |
| Not Discounted | $\$ 28,402,000$ | $\$ 31,498,000$ | $\$ 32,776,000$ | $\$ 34,281,000$ | $\$ 36,213,000$ | $\$ 38,826,000$ |
| Discounted | $27,139,000$ | $30,097,000$ | $31,318,000$ | $32,757,000$ | $34,602,000$ | $37,099,000$ |
| Assets Available |  |  | $\$ 49,677,000$ |  |  |  |

GASB \#10 does not address an actual funding requirement for the program, but only speaks to the liability to be recorded on the PLAN's financial statements. Because actuarial estimates of claims costs are subject to some uncertainty, we recommend that an amount in addition to the discounted expected loss costs be set aside as a margin for contingencies.

We generally recommend that risk pools maintain assets for historical liabilities at no less than the $90 \%$ confidence level.

The following chart shows the breakdown of PLAN's estimated assets available as of June 30, 2024. The discounted value of PLAN's estimated case reserves, IBNR and ULAE as of June 30, 2024 are $\$ 11,312,000, \$ 12,811,000$, and $\$ 3,016,000$, respectively. An additional \$9,960,000 increases the funding to $90 \%$ confidence.


## B. COSTS OF 2024-25 CLAIMS

The following chart shows our funding recommendations for PLAN for the 2024-25 fiscal year assuming $\$ 1$ million limit at 2.0\%, 3.0\% and $4.0 \%$ discount rate assumptions.

Loss and ALAE Funding Guidelines

|  | 2.0\% | 3.0\% | 4.0\% |
| :---: | :---: | :---: | :---: |
| Expected Loss and ALAE | \$6,915,000 | \$6,915,000 | \$6,915,000 |
| Discounted Loss and ALAE | \$6,438,000 | \$6,219,000 | \$6,011,000 |
| 60\% Confidence Level | 6,625,000 | 6,399,000 | 6,185,000 |
| 70\% Confidence Level | 7,520,000 | 7,264,000 | 7,021,000 |
| 80\% Confidence Level | 8,698,000 | 8,402,000 | 8,121,000 |
| 90\% Confidence Level | 10,559,000 | 10,199,000 | 9,858,000 |

The funding recommendations above are for losses and allocated loss adjustment expense only. They do not include any provision for claims administration, excess insurance, loss control, overhead, and other expenses associated with the program.

We generally recommend that risk pools fund for future costs between the $75 \%$ and $85 \%$ confidence levels.

## C. PROGRAM FUNDING: GOALS AND OBJECTIVES

As self-insurance programs have proliferated among public entities, it has become apparent that there is a large measure of inconsistency in the way in which these programs recognize and account for their claims costs. This is the result of the fact that there have been several different sources of guidance available, none of which has been completely relevant to public entity self-insurance programs.

According to the Governmental Accounting Standards Board (GASB), the most relevant source of guidance on the subject is Financial Accounting Standards Board Statement \#60. A liability for unpaid claim costs, including all loss adjustment expenses, should be accrued at the time the self-insured events occur. This liability should include an allowance for incurred but not reported claims. It may be discounted for investment income at an appropriate rate of return, provided the discounting is disclosed. The regulations detailing the way in which this must be done are outlined in GASB's Statement \#10.

GASB \#10 does not address funding requirements. It does, however, allow a range of funded amounts to be recognized for accounting purposes, specifically GASB \#10 allows recognition of a funding margin for unexpectedly adverse loss experience.

The amount of such a margin should be a question of long-term funding policy. We recommend that the margin be determined by thinking in terms of the probability that a given level of funding will prove to be adequate. If you elect to fund at a low confidence level, the chances are much greater that future events will prove that additional contributions should have been made for current claims.

We generally recommend that risk pools maintain assets for historical liabilities at no less than the $90 \%$ confidence level, after recognition of investment income. The resulting risk margin is reasonably high that resulting funding should be sufficient to meet claim liabilities, yet the risk margin is not so large that they will cause most self-insured entities to experience undue financial hardship.
We generally recommend that risk pools fund for future costs between the $75 \%$ and $85 \%$ confidence levels. The confidence level to which any future year is funded should be evaluated in light of the relative certainty of the assumptions underlying the actuarial analysis, PLAN JPA's other budgetary constraints, and the relative level of risk it is believed appropriate to assume. This means formulating both short- and long-term funding goals, which may be the same in some years, but different in others.

The following target funding ratios are used to further determine appropriate funding goals.

|  | Score |  |  |
| :---: | :---: | :---: | :---: |
| Funding Benchmarks | (SIR: \$1M) | Target | Result |
| Net Assets to SIR | 22.54 | >5:1 | Pass |
| SIR fund to SIR | 12.58 | > 2 : 1 | Pass |
| Net Premium to Net Assets | 0.29 | <2:1 | Pass |
| Claim Reserve/IBNR to Net Assets | 1.07 | < 3 : 1 | Pass |
| Ultimate Loss Development to Net Assets | 21\% | < $20 \%$ | Fail |

## Net Assets to SIR ratio: Target $>5: 1$

This ratio is a measure of the maximum amount net assets could decline due to a single full limits loss. A high ratio is desirable.

## SIR Fund to SIR ratio: Target $\mathbf{> 2 : 1}$

This ratio is a measure of the maximum amount the SIR Fund could decline due to a single full limits loss. A high ratio is desirable.

## Net Premium to Net Assets ratio: Target <2:1

This ratio measure whether adverse loss development can be absorbed by new premium. Net premium equals premium received by PLAN, less premium paid by PLAN to others. A low ratio is desirable.

## Claim Reserve/IBNR to Net Assets ratio: Target <3:1

The ratio is a measure of how net assets are leveraged against total undiscounted reserves. A low ratio is desirable.

Ultimate Loss Development to Net Assets ratio: Target <20\%
This ratio is a measure of the development in prior year's ultimate losses from one year to the next. A low ratio is desirable.

We provide the following comparison of deposit premiums, which include ultimate loss and ALAE, claims administration, loss prevention, other administration and excess insurance costs at the $60 \%$ confidence level on a discounted basis (2.0\%). This is shown in further detail on Exhibit 1, page 1.


As shown in the previous table, total PLAN contributions are $\$ 27,411,000$, and can be broken down into four categories (1) Loss Funding, (2) Fixed Expenses, (3) Variable Expenses and (4) Loss Prevention Expenses. These costs are allocated to each individual member using the various methods discussed below.
The loss funding category actually can be broken down into two components: (1) PLAN loss fund contributions and (2) excess insurance. The PLAN loss fund contributions are based on the member's loss experience relative to the overall PLAN average and member's projected exposure (payroll) for 2024-25. The member's loss experience is factored into the allocation by using the experience modification factor developed in Exhibit 1, page 6. The experience modification factor calculation compares the prior five year's loss experience (2018-19 through 2022-23) per \$100 of payroll to the average of all PLAN members. A factor of 100\% indicates that the member's loss experience is equal to the PLAN average.
The number of years of loss experience utilized depends on the degree of stability vs. responsiveness desired. Using more years in the calculation may stabilize year-to-year premium changes, but will not be responsive to changes in loss experience. On the other hand, using a limited number of years results in a quick response to changes in loss experience, but changes in year-to-year premiums by member will be dramatic. A fiveyear time period provides a reasonable balance between stability and responsiveness.
Furthermore, the experience modification factors are developed based on losses limited to $\$ 250,000$ per occurrence. Without such a loss limit, a member incurring one catastrophic loss will pay disproportionately higher premiums as long as that loss remains in the experience period. The member will not realize financial benefits from loss control, even though its claim frequency may have decreased.
The experience modification and deductible factors are applied to the selected funding rate to obtain the adjusted rate. The adjusted rate is multiplied by the members' payroll to determine the base deposit.
The excess insurance portion of the loss funding is allocated to each member based upon estimated member population. The assumption here is that losses in excess of the PLAN retention are random, and thus more appropriately related to exposure than loss experience. This calculation is shown on Exhibit 1, Page 3.
Total budgeted administrative costs for $2024-25$ are $\$ 2,537,000$. Total PLAN administrative expenses of $\$ 2,537,000$ are split into $\$ 2,029,600$ for general liability and $\$ 507,400$ for property coverages then again split into fixed and variable portions. Thirtythree percent of these expenses are assumed to be fixed, and every individual member is initially allocated the same amount of fixed expense regardless of its size. Given total fixed expenses of \$837,210 and 28 members for the 2024-25 fiscal year, this results in an initial charge of $\$ 29,900$ per member.
The remaining sixty-seven percent of administrative expenses are assumed to vary by member and are initially allocated based upon one-third weight to reported claims greater than $\$ 1$ (i.e. excluding claims closed without payment) and two-thirds weight to paid

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losses in the period 2018-19 through 2022-23. Liability and Property are treated separately for the allocation, then added into the premium in total.

## D. OTHER RESULTS

The following chart show each program year's ultimate loss broken down by paid losses, case reserves and IBNR reserves.


PLAN's pool loss rate per $\$ 100$ of payroll has varied significantly over the past ten years. The projected loss rate of $\$ 1.27$ per $\$ 100$ of payroll for the 2023-24 year is based on the long-term average at the $\$ 1 \mathrm{M}$ limited layer.

Pool Layer Loss \& ALAE Rate Trend ${ }^{1}$
Ultimate Loss \& ALAE / Payroll (\$100s)


1 Losses are at expected (no risk margin) and are not discounted to reflect net present value.

The program's cost per claim averaged $\$ 245,000$ per claim (limited to $\$ 1 \mathrm{M}$ ) during the period shown below. The projected severity for the 2023-24 program year of $\$ 231,800$ is based on this long-term trend.

Average Claim Size Trend ${ }^{1}$ Ultimate Loss \& ALAE / Ultimate Reported Claims


PLAN's claims frequency per $\$ 1$ million of payroll averaged 0.047 claims per $\$ 1$ million of payroll during the period shown below. The projected frequency for the 2023-24 program year of 0.055 is based on recent three-year average.

Claim Frequency Trend Ultimate Reported Claims / Payroll (\$ Millions)


## E. COMPARISON WITH OUR PREVIOUS RESULTS

The prior report for PLAN was dated March 13, 2023. In the table below we display actual versus expected development of incurred losses and ALAE by accident year between the December 31, 2022 evaluation date of the prior report and the December 31, 2023 evaluation date of the current report.

## Actual Versus Expected Pool Incurred Loss and ALAE Development

| Accident <br> Year | Expected <br> Incurred <br> Development | Actual <br> Incurred <br> Development | Actual <br> Minus Expected |
| :---: | ---: | ---: | ---: |
| $1986-03$ | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| $2003-04$ | 0 | 0 | 0 |
| $2004-05$ | 0 | 0 | 0 |
| $2005-06$ | 0 | 0 | 0 |
| $2006-07$ | 0 | 0 | 0 |
| $2007-08$ | 0 | 0 | 0 |
| $2008-09$ | 0 | 0 | 0 |
| $2009-10$ | 0 | 0 | 0 |
| $2010-11$ | 12,000 | 0 | 0 |
| $2011-12$ | 24,000 | 42,000 | 30,000 |
| $2012-13$ | 35,000 | 0 | $(24,000)$ |
| $2013-14$ | 54,000 | 0 | $(35,000)$ |
| $2014-15$ | 73,000 | $(115,000)$ | $(54,000)$ |
| $2015-16$ | 20,000 | 888,000 | $(188,000)$ |
| $2016-17$ | 66,000 | $(1,000)$ | 868,000 |
| $2017-18$ | 236,000 | $(32,000)$ | $(267,000)$ |
| $2018-19$ | $1,268,000$ | $1,692,000$ | $424,000)$ |
| $2019-20$ | $1,837,000$ | $3,729,000$ | $1,892,000$ |
| $2020-21$ | $1,576,000$ | $3,633,000$ | $2,057,000$ |
| $2021-22$ | 845,000 | $3,868,000$ | $3,023,000$ |
| $2022-23$ |  | 0 |  |
|  | $\$ 6,046,000$ | $\$ 13,704,000$ | $\$ 7,658,000$ |

As shown, actual pool incurred development was more than anticipated since the prior report. Based on the assumptions from the prior report, it was expected that incurred losses through accident year 2022-23 would increase by $\$ 6,046,000$ between the two evaluation dates. However, actual development was approximately $\$ 13,704,000$; or about $\$ 7,658,000$ more than expected.

In the table below we display actual versus expected development of paid losses and ALAE by accident year between the December 31, 2022 evaluation date of the prior report and the December 31, 2023 evaluation date of the current report.

Actual Versus Pool Expected Paid Loss and ALAE Development

| Accident <br> Year | Expected <br> Paid <br> Development | Actual <br> Paid <br> Development | Actual <br> Minus Expected |
| :---: | ---: | ---: | ---: |
| $1986-03$ | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| $2003-04$ | 0 | 0 | 0 |
| $2004-05$ | 0 | 0 | 0 |
| $2005-06$ | 0 | 0 | 0 |
| $2006-07$ | 0 | 0 | 0 |
| $2007-08$ | 0 | 0 | 0 |
| $2008-09$ | 0 | 0 | 0 |
| $2009-10$ | 0 | 0 | 0 |
| $2010-11$ | 0 | 0 | 0 |
| $2011-12$ | 45,000 | 97,000 | 52,000 |
| $2012-13$ | 136,000 | 81,000 | $(55,000)$ |
| $2013-14$ | 30,000 | 0 | $(30,000)$ |
| $2014-15$ | 49,000 | 0 | $(49,000)$ |
| $2015-16$ | 49,000 | 4,000 | $(45,000)$ |
| $2016-17$ | 44,000 | $2,104,000$ | $1,965,000$ |
| $2017-18$ | 343,000 | $(1,000)$ | $(45,000)$ |
| $2018-19$ | $1,051,000$ | 59,000 | $(284,000)$ |
| $2019-20$ | $1,807,000$ | 642,000 | $(409,000)$ |
| $2020-21$ | 796,000 | $2,710,000$ | 903,000 |
| $2021-22$ | 184,000 | 515,000 | $(281,000)$ |
| $2022-23$ |  | 19,000 | $(165,000)$ |
|  | $\$ 4,673,000$ | $\$ 6,230,000$ | $\$ 1,557,000$ |

As shown, actual pool paid development was more than anticipated since the prior report. Based on the assumptions from the prior report, it was expected that paid losses through accident year 2022-23 would increase by $\$ 4,673,000$ between the two evaluation dates. However, actual development was approximately $\$ 6,230,000$; or about $\$ 1,557,000$ more than expected.

In the table below we display the change in our estimates of the program's ultimate losses and ALAE by accident year since our prior report.

## Change in Pool Loss and ALAE Ultimate Losses

| Accident |  |  |  |
| :---: | :---: | :---: | :---: |
| Year | Prior Report | Current Report | Change |
| 1986-03 | \$43,442,000 | \$43,442,000 | \$0 |
| 2003-04 | 2,574,000 | 2,574,000 | 0 |
| 2004-05 | 1,874,000 | 1,874,000 | 0 |
| 2005-06 | 4,756,000 | 4,756,000 | 0 |
| 2006-07 | 1,662,000 | 1,662,000 | 0 |
| 2007-08 | 6,756,000 | 6,756,000 | 0 |
| 2008-09 | 3,473,000 | 3,473,000 | 0 |
| 2009-10 | 2,353,000 | 2,353,000 | 0 |
| 2010-11 | 2,047,000 | 2,047,000 | 0 |
| 2011-12 | 3,902,000 | 3,920,000 | 18,000 |
| 2012-13 | 4,105,000 | 4,088,000 | $(17,000)$ |
| 2013-14 | 7,074,000 | 7,039,000 | $(35,000)$ |
| 2014-15 | 5,566,000 | 5,512,000 | $(54,000)$ |
| 2015-16 | 5,157,000 | 4,964,000 | $(193,000)$ |
| 2016-17 | 8,351,000 | 9,259,000 | 908,000 |
| 2017-18 | 1,075,000 | 976,000 | $(99,000)$ |
| 2018-19 | 2,079,000 | 1,812,000 | $(267,000)$ |
| 2019-20 | 2,690,000 | 3,001,000 | 311,000 |
| 2020-21 | 8,725,000 | 11,393,000 | 2,668,000 |
| 2021-22 | 4,978,000 | 6,476,000 | 1,498,000 |
| 2022-23 | 4,720,000 | 7,178,000 | 2,458,000 |
| Total | \$127,359,000 | \$134,555,000 | \$7,196,000 |

As shown, overall we have increased our estimated ultimate losses by $\$ 7,196,000$ since our prior report. The changes in our estimates of ultimate losses take into account both the incurred and paid development listed on the previous two pages.

The following table displays a comparison of the PLAN JPA's proposed 2023-24 funding and actual 2024-25 funding by member.

| Member | 2023-24 <br> Actual <br> Funding | 2024-25 <br> Proposed Funding | Dollar Change | Percent Change |
| :---: | :---: | :---: | :---: | :---: |
| American Canyon | \$530,737 | \$610,275 | \$79,538 | 15.0\% |
| Atherton | 285,607 | 421,711 | 136,104 | 47.7\% |
| Benicia | 1,109,128 | 1,226,782 | 117,654 | 10.6\% |
| Burlingame | 1,042,150 | 1,254,450 | 212,300 | 20.4\% |
| Campbell | 1,110,923 | 1,407,410 | 296,487 | 26.7\% |
| Colma | 146,635 | 153,601 | 6,966 | 4.8\% |
| Cupertino | 1,231,725 | 1,476,950 | 245,225 | 19.9\% |
| Dublin | 1,609,914 | 1,985,298 | 375,384 | 23.3\% |
| East Palo Alto | 714,359 | 791,558 | 77,199 | 10.8\% |
| Foster City | 796,891 | 972,818 | 175,927 | 22.1\% |
| Half Moon Bay | 309,245 | 408,482 | 99,237 | 32.1\% |
| Hillsborough | 398,478 | 581,618 | 183,141 | 46.0\% |
| Los Altos Hills | 222,350 | 288,379 | 66,029 | 29.7\% |
| Los Gatos | 765,879 | 980,402 | 214,524 | 28.0\% |
| Millbrae | 622,972 | 737,026 | 114,054 | 18.3\% |
| Milpitas | 2,112,548 | 2,511,412 | 398,864 | 18.9\% |
| Morgan Hill | 1,223,523 | 1,428,682 | 205,159 | 16.8\% |
| Newark | 1,131,751 | 1,403,310 | 271,558 | 24.0\% |
| Pacifica | 1,256,303 | 1,452,479 | 196,176 | 15.6\% |
| Portola Valley | 135,350 | 160,215 | 24,865 | 18.4\% |
| Ross, Town of | 93,737 | 122,592 | 28,855 | 30.8\% |
| San Bruno | 1,333,296 | 1,538,977 | 205,682 | 15.4\% |
| San Carlos | 850,969 | 1,187,580 | 336,611 | 39.6\% |
| Saratoga | 773,769 | 901,509 | 127,740 | 16.5\% |
| South SF | 1,468,714 | 1,829,916 | 361,202 | 24.6\% |
| Suisun City | 758,855 | 1,028,617 | 269,762 | 35.5\% |
| Tiburon | 273,970 | 343,882 | 69,912 | 25.5\% |
| Woodside | 164,061 | 205,070 | 41,009 | 25.0\% |
| Total | \$22,473,839 | \$27,411,000 | \$4,937,161 | 22.0\% |

The following table displays PLAN JPA members' 2024-25 experience modification adjustment. This is the experience modification factor minus $100 \%$, and shows how each member performs relative to the pool average. A negative percentage indicates better than average performance, while a positive percentage indicates worse than average performance. A detailed calculation of the experience modification factors is shown in Exhibit 1, page 6.


## DRAFT

## F. DATA ISSUES

Overall, the data utilized in preparing this report appears to be accurate as of the date of the current evaluation. However, it should be noted that certain assumptions have been made to allow for a lack of information on exposures.

We received loss data evaluated as of December 31, 2023. This data appeared to be consistent with the data provided for prior reviews.

We were provided with fiscal year payrolls for the 2022-23, 2023-24 and 2024-25 program years.

Excess insurance premium is estimated to be $\$ 18,249,000$ for the $\$ 1$ million to $\$ 30$ million layer. Premiums for individual layers are estimated based upon pool limits factors.

Tiburon has assumed liability coverage for the Tiburon-Belvedere library effective July 1, 2006. Tiburon-Belvedere library left the pool effective July 1, 2020.

## III. ASSUMPTIONS AND LIMITATIONS

Any quantitative analysis is developed within a very specific framework of assumptions about conditions in the outside world, and actuarial analysis is no exception. We believe that it is important to review the assumptions we have made in developing the estimates presented in this report. By doing so, we hope you will gain additional perspective on the nature of the uncertainties involved in maintaining a self-insurance program. Our assumptions, and some observations about them, are as follows:

- Our analysis is based on loss experience, exposure data, and other general and specific information provided to us by PLAN. We have accepted all of this information without audit.
- We have also made use of loss statistics that have been developed from the information gathered and compiled from other California public entities with selfinsured excess liability program.
- We have assumed that the future development of incurred and paid losses can be reasonably predicted on the basis of development of such losses in the recent past. We have also assumed that the historical development patterns for the participants of other California public entities with self-insured liability programs in the aggregate form a reasonable basis of comparison to the patterns from PLAN's data.
- We have made use of cost relationships for claims of various sizes derived from the most recent actuarial reviews of other California public entities with self-insured liability programs.
- We have assumed that there is a continuing relationship between past and future loss costs.
- It is not possible to predict future claim costs precisely. Most of the cost of liability claims arise from a small number of incidents involving serious injury. A relatively small number of such claims could generate enough loss dollars to significantly reduce, or even deplete, the self-insurance fund.
- We cannot predict and have not attempted to predict the impact of future law changes and court rulings on claims costs. This is one major reason why we believe our funding recommendations are reasonable now, but should not be extrapolated into the future.
- We have assumed that the loss costs associated with liability claims are increasing at $2.5 \%$ per year. We have assumed that the average claim size decreases at $0.5 \%$ per year and that the average number of claims per $\$ 1$ million increases at 3.0\% per year.
- We have assumed that payroll and other inflation-sensitive exposure measures increase $2.5 \%$ annually due to inflation.
- We have assumed that assets held for investment will generate an annual return of $2 \%$.
- The claims costs we have estimated include indemnity and medical payments, and all loss adjustment expenses. We have not provided estimates for excess insurance contributions, and other expenses associated with the program.
- Our funding recommendations do not include provision for catastrophic events not in the PLAN's history, such as earthquakes, flooding, mass civil disorder, or mass occupational disease.
- Our estimates assume that all excess insurance is valid and collectible. Further, our funding recommendations do not include a provision for losses greater than PLAN's excess coverage.
- PLAN available assets have been estimated to be $\$ 49,677,000$ as of June 30, 2024 for use in this report.


## IV. GLOSSARY OF ACTUARIAL TERMS

Accident Year - Year during which the accidents that generate a group of claims occurs, regardless of when the claims are reported, payments are made, or reserves are established.

Allocated Loss Adjustment Expenses (ALAE) - Expense incurred in settling claims that can be directly attributed to specific individual claims (e.g., legal fees, investigative fees, court charges, etc.)

Case Reserve - The amount left to be paid on a claim, as estimated by the claims administrator.

Claim Count Development Factor - A factor that is applied to the number of claims reported in a particular accident period in order to estimate the number of claims that will ultimately be reported.

Claim Frequency - Number of claims per \$1 million payroll.
Confidence Level - An estimated probability that a given level of funding will be adequate to pay actual claims costs. For example, the $85 \%$ confidence level refers to an estimate for which there is an $85 \%$ chance that the amount will be sufficient to pay loss costs.

Discount Factor - A factor to adjust estimated loss costs to reflect anticipated investment income from assets held prior to actual claim payout.

Expected Losses - The best estimate of the full, ultimate value of loss costs.
Incurred but not Reported (IBNR) Losses - Losses for which the accident has occurred but the claim has not yet been reported. This is the ultimate value of losses, less any amount that has been set up as reported losses by the claims adjuster. It includes both amounts for claims incurred but not yet received by the administrator and loss development on already reported claims.

Loss Development Factor - A factor applied to losses for a particular accident period to reflect the fact that reported and paid losses do not reflect final values until all claims are settled (see Section IV).

Loss Rate - Ultimate losses per \$100 payroll.
Non-Claims Related Expenses - Program expenses not directly associated with claims settlement and administration, such as excess insurance, safety program expenses, and general overhead. These exclude expenses associated with loss settlements (Indemnity/Medical, BI/PD), legal expenses associated with individual claims (ALAE), and claims administration (ULAE).

Outstanding Losses - Losses that have been incurred but not paid. This is the ultimate value of losses less any amount that has been paid.

Paid Losses - Losses actually paid on all reported claims.
Program Losses - Losses, including ALAE, limited to the SIR for each occurrence.
Reported Losses - The total expected value of losses as estimated by the claims administrator. This is the sum of paid losses and case reserves.

Self-Insured Retention (SIR) - The level at which an excess insurance policy is triggered to begin payments on a claim. Financially, this is similar to an insurance deductible.

Severity - Average claim cost.
Ultimate Losses - The value of claim costs at the time when all claims have been settled. This amount must be estimated until all claims are actually settled.

Unallocated Loss Adjustment Expenses (ULAE) - Claim settlement expenses that cannot be directly attributed to individual claims (e.g., claims adjusters' salaries, taxes, etc.)

(B) From provided by PLAN JPA.
(C) From Exhibit 1 - Page 2a
(D) (C) - (B)
(E) (C) $/$ (B) -1
(F) From Exhibit 1 - Page 2a

PLAN JPA

Split of 2024-25 Deposit Between Loss Funding and Administrative Expenses \$1.0M Retention / \$30M Limit

| Member <br> (A) | Loss <br> Funding | Excess <br> Insurance | Admin <br> Expenses | Total <br> Deposit |
| :--- | :---: | :---: | :---: | :---: |
| (B) |  | (C) | (D) | (E) |

(B) From Exhibit 1, Page 2b.
(C) From Exhibit 1, Page 2b.
(D) From Exhibit 1, Page 2b.
(E) $(B)+(C)+(D)$

## DRAFT


(B) Provided by PLAN
(C) From Exhibit 2, Page 2.
(D) From Exhibit 1, Page 6.
(E) From Exhibit 2, Page 1.
(G) $\{[\$ 6,625,000 /$ Total (E) $] \times[(C) /$ Weighted Average of $(C)] \times(D) \times(E)\}$. $\$ 6,625,000$ is the discounted expected loss \& ALAE at $60 \%$ CL from Exhibit 2, Page 1a. (2.0\% Discount Rate). (H) From Exhibit 1, page 3.
(I) [Total fixed expenses / Total number of members].

Total fixed expenses are equal to $33 \%$ of total expenses. Total expenses of $\$ 2,537,000$ projected by PLAN JPA.
(J) $(\mathrm{G})+(\mathrm{H})+(\mathrm{I})$

|  |  |  | Exhibit 1 page 3 |
| :---: | :---: | :---: | :---: |
| PLAN JPA |  |  |  |
| 2024-25 Allocation of Excess Insurance Premium by Member |  |  |  |
|  |  | 2024-25 |  |
|  |  | Percent | Excess |
|  | 2024-25 | 2024-25 | Insurance |
| Member | Population | Population | M XS \$1M |
| (A) | (B) | (C) | (D) |
| American Canyon | 21,338 | 2.56\% | 467,124 |
| Atherton | 6,678 | 0.80\% | 146,193 |
| Benicia | 26,180 | 3.14\% | 573,124 |
| Burlingame | 30,136 | 3.62\% | 659,727 |
| Campbell | 42,713 | 5.12\% | 935,059 |
| Colma | 1,359 | 0.16\% | 29,751 |
| Cupertino | 59,154 | 7.10\% | 1,294,979 |
| Dublin | 71,750 | 8.61\% | 1,570,727 |
| East Palo Alto | 28,586 | 3.43\% | 625,795 |
| Foster City | 32,703 | 3.92\% | 715,923 |
| Half Moon Bay | 11,226 | 1.35\% | 245,756 |
| Hillsborough | 10,962 | 1.32\% | 239,976 |
| Los Altos Hills | 8,380 | 1.01\% | 183,452 |
| Los Gatos | 33,102 | 3.97\% | 724,658 |
| Millbrae | 22,487 | 2.70\% | 492,278 |
| Milpitas | 81,067 | 9.72\% | 1,774,691 |
| Morgan Hill | 45,892 | 5.51\% | 1,004,652 |
| Newark | 47,459 | 5.69\% | 1,038,956 |
| Pacifica | 37,082 | 4.45\% | 811,787 |
| Portola Valley | 4,247 | 0.51\% | 92,974 |
| Ross, Town of | 2,267 | 0.27\% | 49,628 |
| San Bruno | 42,054 | 5.04\% | 920,632 |
| San Carlos | 29,496 | 3.54\% | 645,717 |
| Saratoga | 30,567 | 3.67\% | 669,162 |
| South SF | 64,323 | 7.72\% | 1,408,137 |
| Suisun City | 28,471 | 3.42\% | 623,278 |
| Tiburon | 8,798 | 1.06\% | 192,603 |
| Woodside | 5,128 | 0.62\% | 112,260 |
| Total | 833,605 | 100.0\% | 18,249,000 |
| (B) Provided by PLAN JPA. |  |  |  |
| (C) (B) / Total (B) |  |  |  |
| (D) (C) $\times$ Total (D) |  |  |  |

PLAN JPA

2024-25 Allocation of Variable Administrative Expenses by Member Liability Claims

|  | Liability |  |  | Percent | Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Reported | Liability | Percent | Liability | Liability | Liability

(A)

| American Canyon |
| :--- |
| Atherton |
| Benicia |
| Burlingame |
| Campbell |
| Colma |
| Cupertino |
| Dublin |
| East Palo Alto |
| Foster City |
| Half Moon Bay |
| Hillsborough |
| Los Altos Hills |
| Los Gatos |
| Millbrae |
| Milpitas |
| Morgan Hill |
| Newark |
| Pacifica |
| Portola Valley |
| Ross, Town of |
| San Bruno |
| San Carlos |
| Saratoga |
| South SF |
| Suisun City |
| Tiburon |
| Woodside |
| Total |

(C)
(B)
(D)
(E)
(G)
(H)

|  |  |  |
| ---: | ---: | ---: |
| $0.03 \%$ | $0.55 \%$ | 7,450 |
| $2.18 \%$ | $1.98 \%$ | 26,952 |
| $6.20 \%$ | $5.88 \%$ | 79,897 |
| $19.19 \%$ | $15.99 \%$ | 217,439 |
| $3.15 \%$ | $3.60 \%$ | 48,893 |
| $0.65 \%$ | $0.75 \%$ | 10,253 |
| $1.75 \%$ | $2.18 \%$ | 29,608 |
| $4.15 \%$ | $3.66 \%$ | 49,758 |
| $0.75 \%$ | $1.23 \%$ | 16,702 |
| $1.94 \%$ | $2.14 \%$ | 29,163 |
| $0.93 \%$ | $1.35 \%$ | 18,355 |
| $3.81 \%$ | $4.52 \%$ | 61,517 |
| $0.28 \%$ | $0.43 \%$ | 5,855 |
| $1.30 \%$ | $2.04 \%$ | 27,776 |
| $2.78 \%$ | $2.86 \%$ | 38,950 |
| $11.65 \%$ | $10.24 \%$ | 139,200 |
| $1.66 \%$ | $2.48 \%$ | 33,742 |
| $1.42 \%$ | $2.28 \%$ | 31,064 |
| $11.36 \%$ | $9.03 \%$ | 122,842 |
| $0.09 \%$ | $0.14 \%$ | 1,893 |
| $0.14 \%$ | $0.26 \%$ | 3,480 |
| $9.48 \%$ | $9.32 \%$ | 126,725 |
| $4.47 \%$ | $5.13 \%$ | 69,716 |
| $2.48 \%$ | $2.14 \%$ | 29,126 |
| $2.69 \%$ | $4.23 \%$ | 57,469 |
| $3.33 \%$ | $3.07 \%$ | 41,738 |
| $1.39 \%$ | $1.42 \%$ | 19,249 |
| $0.75 \%$ | $1.10 \%$ | 15,019 |
| $100.00 \%$ | $100.00 \%$ | $1,359,832$ |

(B) Based on reported claims count $>\$ 1$ for 2018-19 2022-23 from Appendix E, Page 8.
(C) Based on paid losses limited to SIR for 2018-19 2022-23 from Appendix E, Page 6b.
(D) $\quad$ (B) $/$ Total (B)
(E) $\quad$ (C) $/$ Total (C)
(G) $\quad$ (D) $\times(1 / 3)+(E) \times(2 / 3)$
(H) $\quad(\mathrm{G}) \times$ Total of $(\mathrm{H})$

Total variable liability expenses are equal to $53.6 \%$ of total expenses. Total expenses of $\$ 2,537,000$ projected by PLAN JPA.

2024-25 Allocation of Variable Administrative Expenses by Member
Property Claims

|  | Property |  |  | Percent | Percent |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reported | Property | Percent | Property | Property | Property |  |
|  | Counts $>\$ 1$ | Paid Losses | Property | Paid Losses | Variable | Variable |
|  | $2018-19$ | $2018-19$ | Reported | $2018-19$ | Administrative | Administrative |
| Member | $2022-23$ | $2022-23$ | Counts $>\$ 1$ | $2022-23$ | Expenses | Expenses |

(A)
American Canyon
Atherton
Benicia
Burlingame
Campbell
Colma
Cupertino
Dublin
East Palo Alto
Foster City
Half Moon Bay
Hillsborough
Los Altos Hills
Los Gatos
Millbrae
Milpitas
Morgan Hill
Newark
Pacifica
Portola Valley
Ross, Town of
San Bruno
San Carlos
Saratoga
South SF
Suisun City
Tiburon
Woodside
Total
(B)
(C)
(D)
(E)
(G)
(H)
(B) Based on reported claims count > \$1 for 2018-19 2022-23 from Appendix E, Page 8.

Reported property claims for 2018-19 2022-23 included.
(C) Based on paid losses limited to SIR for 2018-19 2022-23 from Appendix E, Page 6b.

Property paid losses limited to SIR for 2018-19 2022-23 are included.
(D) $\quad$ (B) $/$ Total (B)
(E) (C) / Total (C)
$\begin{array}{ll}\text { (G) } & \text { (D) } \times(1 / 3)+(E) \times(2 / 3) \\ \text { (H) } & \text { (G) } \times \text { Total of (H) }\end{array}$
Total variable liability expenses are equal to $13.4 \%$ of total expenses. Total expenses of $\$ 2,537,000$ projected by PLAN JPA.

## DRAFT


(B) Based on losses limited to $\$ 250,000$ for 2018-19 to 2022-23 from Exhibit 1, Page 7
(C) Based on payroll for 2018-19 to 2022-23 from ,
(D) (B) / Total (B)
(E) (C) / Total (C)
(F) (D) / (E)
(G) $[(\mathrm{C}) /((\mathrm{C})+30,000,000)]$. Limited to minimum of $10 \%$ and maximum of $90 \%$, and rounded to the nearest $10 \%$.
(H) $((\mathrm{F}) \times(\mathrm{G}))+(1.00-(\mathrm{G}))$
(I) Prior X-Mod.
(J) Indicated $x$-mod capped at $+/-30 \%$.
(K) (J) / (I) - 1


## DRAFT

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |


$\left.\begin{array}{llll} & & \text { Exhibit } 2 \\ \text { Page } 2\end{array}\right]$
A) From County of Blank - Workers' Compensation, Appendix B, Page 1.
(B) From PLAN JPA - Liability Program (\$100K to \$1M Analysis), \$100K to \$1M Rate Analysis Exhibit 1, Page 1.
(C) From PLAN JPA - Liability Program (\$100K and \$1M Analysis), \$100K and \$1M Rate Analysis Exhibit 1, Page 1.
(D) Based on (A) - (C).
(E) Based on PLAN JPA and Industry experience.
(F) (D) $\times(\mathrm{E})$.
















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PLAN JPA

Member Deductibles

| Member | $2024-25$ | $2023-24$ |
| :--- | ---: | ---: |
|  |  |  |
| American Canyon | 25,000 | 25,000 |
| Atherton | 25,000 | 25,000 |
| Benicia | 25,000 | 25,000 |
| Burlingame | 250,000 | 250,000 |
| Campbell | 100,000 | 100,000 |
| Colma | 50,000 | 50,000 |
| Cupertino | 250,000 | 250,000 |
| Dublin | 50,000 | 50,000 |
| East Palo Alto | 100,000 | 100,000 |
| Foster City | 100,000 | 100,000 |
| Half Moon Bay | 50,000 | 50,000 |
| Hillsborough | 50,000 | 50,000 |
| Los Altos Hills | 25,000 | 25,000 |
| Los Gatos | 50,000 | 50,000 |
| Millbrae | 100,000 | 100,000 |
| Milpitas | 100,000 | 100,000 |
| Morgan Hill | 100,000 | 100,000 |
| Newark | 100,000 | 100,000 |
| Pacifica | 50,000 | 50,000 |
| Portola Valley | 25,000 | 25,000 |
| Ross, Town of | 25,000 | 25,000 |
| San Bruno | 100,000 | 100,000 |
| San Carlos | 10,000 | 100,000 |
| Saratoga | 25,000 | 25,000 |
| South SF | 100,000 | 100,000 |
| Suisun City | 25,000 | 25,000 |
| Tiburon | 50,000 | 50,000 |
| Woodside | 25,000 | 25,000 |

PLAN JPA
Funding Guidelines for Outstanding Liabilities and Funding Options for Program Year 2024-2025

At Various Discount Rates and Confidence Levels
I. Funding Guidelines for Discounted Outstanding Liabilities at 6/30/24

| Investment Rate | Expected Confidence Level | $70 \%$ Confidence Level | $\begin{gathered} 75 \% \\ \text { Confidence } \\ \text { Level } \end{gathered}$ | $80 \%$ Confidence Level | $\begin{gathered} 85 \% \\ \text { Confidence } \\ \text { Level } \end{gathered}$ | $90 \%$ Confidence Level |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.0\% | \$27,757,000 | \$30,810,000 | \$32,059,000 | \$33,558,000 | \$35,446,000 | \$38,027,000 |
| 1.5\% | 27,445,000 | 30,464,000 | 31,699,000 | 33,181,000 | 35,047,000 | 37,600,000 |
| 2.0\% | 27,140,000 | 30,125,000 | 31,347,000 | 32,812,000 | 34,658,000 | 37,182,000 |
| 2.5\% | 26,842,000 | 29,795,000 | 31,003,000 | 32,452,000 | 34,277,000 | 36,774,000 |
| 3.0\% | 26,550,000 | 29,471,000 | 30,665,000 | 32,099,000 | 33,904,000 | 36,374,000 |
| 3.5\% | 26,265,000 | 29,154,000 | 30,336,000 | 31,754,000 | 33,540,000 | 35,983,000 |
| 4.0\% | 25,986,000 | 28,844,000 | 30,014,000 | 31,417,000 | 33,184,000 | 35,601,000 |

II. Funding Options for Program Year 2024-2025

| Investment Rate | Expected Confidence Level | 60\% <br> Confidence Level | 70\% <br> Confidence Level | 80\% <br> Confidence Level | 90\% <br> Confidence Level |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1.0\% | \$27,456,000 | \$27,649,000 | \$28,577,000 | \$29,797,000 | \$31,725,000 |
| 1.5\% | 27,339,000 | 27,529,000 | 28,440,000 | 29,639,000 | 31,533,000 |
| 2.0\% | 27,224,000 | 27,411,000 | 28,306,000 | 29,484,000 | 31,344,000 |
| 2.5\% | 27,113,000 | 27,296,000 | 28,176,000 | 29,334,000 | 31,162,000 |
| 3.0\% | 27,005,000 | 27,185,000 | 28,050,000 | 29,188,000 | 30,985,000 |
| 3.5\% | 26,900,000 | 27,077,000 | 27,927,000 | 29,046,000 | 30,813,000 |
| 4.0\% | 26,797,000 | 26,971,000 | 27,807,000 | 28,907,000 | 30,644,000 |

PLAN JPA - Liability Program (\$100K and \$1M Analysis)
Selection of Projected Limited Loss Rate and Projection of Program Losses and ULAE

| Accident Year |  | Trend Factor (B) | Trended Limited Losses (C) | Trended Payroll (\$00) (D) | Trended <br> Limited Loss Rate <br> (E) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ultimate <br> Limited |  |  |  |  |
|  | Losses |  |  |  |  |
|  | (A) |  |  |  |  |
| 2002-2003 | 4,646,965 | 2.281 | 10,599,727 | 5,465,603 | 1.939 |
| 2003-2004 | 3,509,537 | 2.193 | 7,696,415 | 5,571,062 | 1.381 |
| 2004-2005 | 2,444,607 | 2.108 | 5,153,232 | 5,593,010 | 0.921 |
| 2005-2006 | 2,947,359 | 2.028 | 5,977,244 | 5,546,164 | 1.078 |
| 2006-2007 | 3,128,868 | 1.949 | 6,098,164 | 5,635,518 | 1.082 |
| 2007-2008 | 3,147,259 | 1.875 | 5,901,111 | 5,801,505 | 1.017 |
| 2008-2009 | 2,711,703 | 1.803 | 4,889,201 | 5,863,583 | 0.834 |
| 2009-2010 | 2,538,522 | 1.733 | 4,399,259 | 5,568,244 | 0.790 |
| 2010-2011 | 2,013,526 | 1.667 | 3,356,548 | 4,873,997 | 0.689 |
| 2011-2012 | 2,824,647 | 1.603 | 4,527,909 | 4,650,324 | 0.974 |
| 2012-2013 | 3,309,000 | 1.541 | 5,099,169 | 4,565,996 | 1.117 |
| 2013-2014 | 2,229,780 | 1.482 | 3,304,534 | 4,390,436 | 0.753 |
| 2014-2015 | 2,938,392 | 1.425 | 4,187,209 | 4,434,603 | 0.944 |
| 2015-2016 | 3,126,000 | 1.370 | 4,282,620 | 4,506,901 | 0.950 |
| 2016-2017 | 2,886,000 | 1.317 | 3,800,862 | 4,680,337 | 0.812 |
| 2017-2018 | 1,853,000 | 1.267 | 2,347,751 | 4,797,059 | 0.489 |
| 2018-2019 | 1,600,000 | 1.218 | 1,948,800 | 4,828,712 | 0.404 |
| 2019-2020 | 2,592,000 | 1.171 | 3,035,232 | 4,798,147 | 0.633 |
| 2020-2021 | 3,327,000 | 1.125 | 3,742,875 | 4,735,362 | 0.790 |
| 2021-2022 | 3,657,000 | 1.082 | 3,956,874 | 4,877,311 | 0.811 |
| 2022-2023 | 6,403,000 | 1.040 | 6,659,120 | 5,079,532 | 1.311 |
| Totals \$ | \$63,834,165 |  | \$100,963,856 | 106,263,406 | \$0.950 |
| 19/20-22/23 | 15,979,000 |  | 17,394,101 | 19,490,352 | 0.892 |
| 20/21-22/23 | 13,387,000 |  | 14,358,869 | 14,692,205 | 0.977 |
|  |  |  | (F) Selected Limited Rate: |  | \$0.814 |
|  |  |  |  | Prior \$100K: | \$0.735 |
|  |  |  | Prior \$100K to \$1M: |  | \$0.994 |
|  |  |  | \$1,000,000 | \$100,000 | \$1,000,000 |
| Program Year: |  |  | 2023-2024 | 2024-2025 | 2024-2025 |
| (G) Factor to SIR: |  |  | 2.496 | 1.000 | 2.553 |
| (H) Trend Factor: |  |  | 1.000 | 1.040 | 1.040 |
| (I) Program Rate: |  |  | \$2.031 | \$0.846 | \$2.160 |
| (J) Trended Payrol | (1700): |  | 5,168,687 | 5,168,687 | 5,323,749 |
| (K) Projected Prog | gram Losses: |  | 10,498,000 | 4,373,000 | 11,499,000 |
| (L) Projected ULA |  |  | 0 | 0 | 0 |
| (M) Projected Loss | ss and ULAE: |  | \$10,498,000 | \$4,373,000 | \$11,499,000 |

Notes appear on the next page.

Selection of Projected Limited Loss Rate and Projection of Program Losses and ULAE

## Notes:

(A) From \$100K and \$1M Rate Analysis Not Included, Page 2, Column (F). For purposes of projecting future losses, losses are capped at \$100,000 per occurrence.
(B) From \$100K and \$1M Rate Analysis Appendix E, Page 1, Column (B).
(C) $(\mathrm{A}) \times(\mathrm{B})$.
(D) From \$100K and \$1M Rate Analysis Appendix I, Column (C).
(E) (C) $/(\mathrm{D})$.
(F) Selected based on (E).
(G) Based on a Burr distribution, a mathematical model of claim sizes.
(H) From \$100K and \$1M Rate Analysis Appendix E.
(I) $(\mathrm{F}) \times(\mathrm{G}) \times(\mathrm{H})$.
(J) From \$100K and \$1M Rate Analysis Appendix I, Column (C).
(K) (I) $\times(\mathrm{J})$.
(L) Based on an estimated claim closing pattern and the Authority's historical claims administration expenses.
(M) $(\mathrm{K})+(\mathrm{L})$.

This exhibit shows the calculation of future loss costs based on the past loss rates. The projections will be accurate only to the extent that what has happened in the past is representative of what will happen in the future.

PLAN JPA - Liability Program (\$100K and \$1M Analysis)

Reported Loss Development


Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Authority. These losses exclude amounts over \$100,000 per occurrence.
(C) From \$100K and \$1M Rate Analysis Appendix A, Page 2.
(D) (B) $x$ (C). These estimated losses exclude amounts over \$100,000 per occurrence.
(E) Losses capped at the Authority's SIR. Amounts are provided by the Authority.
(F) Derived from factors on \$100K and \$1M Rate Analysis Appendix A, Page 4.
(G) $(E) \times(F)$.

This method tends to understate ultimate losses for the most recent several years because the large losses for those years generally have not yet emerged at the time of our review.

This exhibit shows the calculation of estimated ultimate losses for each year based on paid losses and case reserves as reported by the claims administrator. These losses tend to "develop" or change from period to period as more information becomes available about the cases. This development tends to follow quantifiable patterns over time.

DRAFT
PLAN JPA - Liability Program (\$100K and \$1M Analysis)
Reported Loss Development

| Limited Losses Reported as of: |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident | 6 | 18 | 30 | 42 | 54 | 66 | 78 | 90 | 102 | 114 | 126 |
| Year | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 1,341,283 | 3,829,893 | 4,293,424 | 4,604,949 | 4,740,657 | 4,821,491 | 4,811,984 | 4,901,984 | 4,966,984 | 5,011,984 | 4,977,421 |
| 2003-2004 | 702,623 | 2,248,188 | 2,863,892 | 3,229,117 | 3,366,140 | 3,528,698 | 3,560,692 | 3,460,542 | 3,560,542 | 3,560,542 | 3,560,542 |
| 2004-2005 | 909,032 | 2,172,504 | 3,103,889 | 2,811,093 | 3,026,321 | 2,861,424 | 2,893,524 | 2,858,702 | 2,866,202 | 2,866,202 | 2,866,155 |
| 2005-2006 | 584,388 | 2,569,384 | 3,328,173 | 3,524,433 | 3,669,875 | 3,689,497 | 3,765,682 | 3,770,624 | 3,795,674 | 3,789,394 | 3,789,394 |
| 2006-2007 | 776,086 | 2,403,595 | 2,905,504 | 3,039,627 | 3,179,650 | 3,297,534 | 3,391,424 | 3,394,986 | 3,394,936 | 3,394,936 | 3,394,936 |
| 2007-2008 | 1,054,492 | 2,921,920 | 3,743,710 | 4,332,780 | 4,420,360 | 4,381,184 | 4,358,070 | 4,259,056 | 4,259,284 | 4,259,284 | 4,259,284 |
| 2008-2009 | 543,401 | 2,839,064 | 3,484,984 | 3,288,639 | 3,398,037 | 3,430,417 | 3,345,621 | 3,347,708 | 3,346,029 | 3,347,708 | 3,336,906 |
| 2009-2010 | 763,697 | 3,371,740 | 3,848,137 | 3,115,304 | 3,131,959 | 3,127,921 | 3,127,921 | 3,127,921 | 3,127,921 | 3,127,921 | 3,127,921 |
| 2010-2011 | 510,509 | 2,770,955 | 2,742,484 | 2,650,741 | 2,519,762 | 2,455,668 | 2,409,001 | 2,409,001 | 2,396,051 | 2,396,051 | 2,396,051 |
| 2011-2012 | 602,255 | 3,518,281 | 3,631,019 | 3,415,805 | 3,302,356 | 3,237,194 | 3,127,725 | 3,127,725 | 3,127,725 | 3,127,725 | 3,127,725 |
| 2012-2013 | 465,105 | 4,254,395 | 3,881,185 | 3,547,144 | 3,502,651 | 3,489,052 | 3,450,659 | 3,459,906 | 3,559,906 | 3,559,906 | 3,559,906 |
| 2013-2014 | 842,948 | 2,251,578 | 2,694,553 | 2,631,490 | 2,671,389 | 2,539,618 | 2,539,618 | 2,539,618 | 2,539,618 | 2,529,575 | 2,529,575 |
| 2014-2015 | 325,035 | 2,666,242 | 3,946,907 | 3,795,367 | 3,350,810 | 3,291,420 | 3,281,784 | 3,281,784 | 3,281,784 | 3,281,784 |  |
| 2015-2016 | 371,511 | 2,328,347 | 3,291,200 | 3,149,726 | 3,155,562 | 3,143,331 | 3,135,461 | 3,125,745 | 3,125,745 |  |  |
| 2016-2017 | 290,633 | 1,930,274 | 2,754,128 | 2,812,484 | 2,851,248 | 2,931,044 | 2,925,720 | 2,883,424 |  |  |  |
| 2017-2018 | 199,803 | 1,368,867 | 1,871,566 | 1,908,433 | 1,873,364 | 1,849,975 | 1,848,977 |  |  |  |  |
| 2018-2019 | 65,888 | 691,395 | 1,364,408 | 1,596,209 | 1,570,788 | 1,594,003 |  |  |  |  |  |
| 2019-2020 | 184,043 | 934,320 | 2,260,330 | 2,491,627 | 2,556,665 |  |  |  |  |  |  |
| 2020-2021 | 299,593 | 2,532,027 | 2,901,375 | 3,254,240 |  |  |  |  |  |  |  |
| 2021-2022 | 415,421 | 2,085,409 | 3,421,687 |  |  |  |  |  |  |  |  |
| 2022-2023 | 113,903 | 5,526,799 |  |  |  |  |  |  |  |  |  |
| 2023-2024 | 738,344 |  |  |  |  |  |  |  |  |  |  |

Reported Loss Development Factors:

2002-2003
2003-2004
2004-2005
2005-2006 2006-2007 2007-2008 2008-2009 2009-2010 2010-2011 2011-2012 2012-2013 2013-2014 2014-2015 2015-2016 2016-2017 2017-2018 2018-2019
2019-2020
2020-2021
2021-2022
2022-2023

|  | 6-18 <br> Months | 18-30 <br> Months | 30-42 <br> Months | $42-54$ <br> Months | $54-66$ <br> Months | 66-78 <br> Months | $78-90$ <br> Months | $90-102$ <br> Months | $102-114$ <br> Months | $114-126$ <br> Months | $126-138$ <br> Months |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average | 7.475 | 1.349 | 1.015 | 1.006 | 0.998 | 0.998 | 0.996 | 1.005 | 1.000 | 0.999 | 0.998 |
| Dollar-Weighted |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ | 12.238 | 1.546 | 1.125 | 1.001 | 1.013 | 0.998 | 0.994 | 1.000 | 0.999 | 1.000 | 1.000 |
| $4-\mathrm{yr}$ | 10.937 | 1.593 | 1.102 | 1.005 | 1.007 | 0.998 | 0.996 | 1.008 | 0.999 | 1.000 | 1.000 |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 3.166 | 1.361 | 1.046 | 1.006 | 1.004 | 1.004 | 1.004 | 1.004 | 1.004 | 1.004 | 1.003 |
| Prior | 6.750 | 1.545 | 1.060 | 1.010 | 1.003 | 1.002 | 1.001 | 1.001 | 1.000 | 1.000 | 1.000 |
| Selected | 6.992 | 1.570 | 1.095 | 1.010 | 1.008 | 1.002 | 1.001 | 1.001 | 1.000 | 1.000 | 1.000 |
| Cumulated | 12.284 | 1.757 | 1.119 | 1.022 | 1.012 | 1.004 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 |

PLAN JPA - Liability Program (\$100K and \$1M Analysis)

| Limited Losses Reported as of: |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident | 138 | 150 | 162 | 174 | 186 | 198 | 210 | 222 | 234 | 246 | 258 |
| Year | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 4,977,421 | 4,977,421 | 4,977,421 | 4,977,421 | 4,977,421 | 4,977,421 | 4,977,421 | 4,977,421 | 4,977,421 | 4,977,421 | 4,977,421 |
| 2003-2004 | 3,560,542 | 3,560,542 | 3,560,542 | 3,560,542 | 3,560,542 | 3,560,542 | 3,560,542 | 3,560,542 | 3,560,542 | 3,560,542 |  |
| 2004-2005 | 2,867,654 | 2,867,654 | 2,867,654 | 2,867,654 | 2,867,654 | 2,867,654 | 2,867,654 | 2,867,654 | 2,867,654 |  |  |
| 2005-2006 | 3,789,394 | 3,788,958 | 3,788,958 | 3,788,958 | 3,788,958 | 3,788,958 | 3,788,958 | 3,788,958 |  |  |  |
| 2006-2007 | 3,394,936 | 3,400,836 | 3,400,836 | 3,425,837 | 3,408,506 | 3,408,506 | 3,408,797 |  |  |  |  |
| 2007-2008 | 4,159,284 | 4,259,284 | 4,259,284 | 4,259,284 | 4,259,284 | 4,259,284 |  |  |  |  |  |
| 2008-2009 | 3,347,708 | 3,347,708 | 3,347,708 | 3,347,708 | 3,347,708 |  |  |  |  |  |  |
| 2009-2010 | 3,127,921 | 3,127,921 | 3,127,921 | 3,127,921 |  |  |  |  |  |  |  |
| 2010-2011 | 2,396,051 | 2,396,051 | 2,396,056 |  |  |  |  |  |  |  |  |
| 2011-2012 | 3,127,725 | 3,127,725 |  |  |  |  |  |  |  |  |  |
| 2012-2013 | 3,559,906 |  |  |  |  |  |  |  |  |  |  |

2002-2003

2012-2013
2013-2014
2014-2015
2015-2016
2016-2017
2017-2018
2018-2019
2019-2020
2020-2021
2021-2022
2022-2023

Reported Loss Development Factors:

| 138-150 | $150-162$ | $162-174$ | $174-186$ | $186-198$ | $198-210$ | $210-222$ | $222-234$ | $234-246$ | $246-258$ | $258-$ Ult. |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |
| 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |
| 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |
| 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |
| 1.002 | 1.000 | 1.007 | 0.995 | 1.000 | 1.000 |  |  |  |  |  |
| 1.024 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |
| 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |
| 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |  |
| 1.000 | 1.000 |  |  |  |  |  |  |  |  |  |
| 1.000 |  |  |  |  |  |  |  |  |  |  |

Dollar-Weighted
Averages
$3-\mathrm{yr}$
$4-\mathrm{yr}$
Comparative

| Factors | 1.003 | 1.003 | 1.002 | 1.002 | 1.002 | 1.002 | 1.002 | 1.001 | 1.001 | 1.001 | 1.005 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Prior | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Selected | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Cumulated | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |

# PLAN JPA - Liability Program (\$100K and \$1M Analysis) <br> Paid Loss Development 

|  | Limited | Program |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Paid | Paid Loss | Ultimate | Paid | Paid Loss | Ultimate |
| Accident | osses as | Development | Limited | Losses | Development | Program |
| Year <br> (A) | of $12 / 31 / 23$ <br> (B) | Factor <br> (C) | Losses <br> (D) | of $12 / 31 / 23$ <br> (E) | Factor <br> (F) | Losses <br> (G) |
| 2002-2003 | \$4,646,965 | 1.000 | \$4,646,965 | \$8,884,428 | 1.000 | \$8,884,428 |
| 2003-2004 | 3,509,537 | 1.000 | 3,509,537 | 5,715,419 | 1.000 | 5,715,419 |
| 2004-2005 | 2,444,607 | 1.000 | 2,444,607 | 3,869,337 | 1.000 | 3,869,337 |
| 2005-2006 | 2,947,359 | 1.000 | 2,947,359 | 5,631,680 | 1.000 | 5,631,680 |
| 2006-2007 | 3,128,868 | 1.000 | 3,128,868 | 4,548,052 | 1.000 | 4,548,052 |
| 2007-2008 | 3,147,259 | 1.000 | 3,147,259 | 5,798,628 | 1.000 | 5,798,628 |
| 2008-2009 | 2,711,703 | 1.000 | 2,711,703 | 5,365,088 | 1.000 | 5,365,088 |
| 2009-2010 | 2,538,522 | 1.000 | 2,538,522 | 3,874,500 | 1.000 | 3,874,500 |
| 2010-2011 | 2,013,526 | 1.000 | 2,013,526 | 3,571,075 | 1.000 | 3,571,075 |
| 2011-2012 | 2,824,647 | 1.000 | 2,824,647 | 6,334,961 | 1.001 | 6,341,296 |
| 2012-2013 | 3,308,601 | 1.001 | 3,311,910 | 6,613,044 | 1.004 | 6,639,496 |
| 2013-2014 | 2,229,780 | 1.002 | 2,234,240 | 4,318,084 | 1.005 | 4,339,674 |
| 2014-2015 | 2,938,392 | 1.004 | 2,950,146 | 6,737,773 | 1.009 | 6,798,413 |
| 2015-2016 | 3,125,745 | 1.007 | 3,147,625 | 6,130,786 | 1.013 | 6,210,486 |
| 2016-2017 | 2,883,424 | 1.011 | 2,915,142 | 8,178,080 | 1.043 | 8,529,737 |
| 2017-2018 | 1,848,975 | 1.019 | 1,884,106 | 2,623,375 | 1.072 | 2,812,258 |
| 2018-2019 | 1,572,174 | 1.028 | 1,616,195 | 2,422,650 | 1.142 | 2,766,666 |
| 2019-2020 | 2,073,903 | 1.052 | 2,181,746 | 2,589,280 | 1.238 | 3,205,529 |
| 2020-2021 | 2,473,160 | 1.164 | 2,878,758 | 6,756,376 | 1.691 | 11,425,032 |
| 2021-2022 | 1,560,201 | 1.688 | 2,633,619 | 1,911,606 | 2.952 | 5,643,061 |
| 2022-2023 | 921,281 | 3.916 | 3,607,736 | 921,281 | 7.994 | 7,364,720 |
| Totals | \$54,848,629 |  | \$59,274,216 | \$102,795,503 |  | \$119,334,575 |

Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Authority. These losses exclude amounts over $\$ 100,000$ per occurrence.
(C) From $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix B, Page 2.
(D) (B) $\times$ (C). These estimated losses exclude amounts over $\$ 100,000$ per occurrence.
(E) Losses capped at the Authority's SIR. Amounts are provided by the Authority.
(F) Derived from factors on $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix B, Page 4.
(G) $(\mathrm{E}) \times(\mathrm{F})$.

This method tends to understate ultimate losses for the most recent several years because the large losses for those years generally have not yet emerged at the time of our review.

This exhibit shows the calculation of estimated ultimate losses for each year based on paid losses as reported by the claims administrator. These losses tend to "develop" or change from period to period as more information becomes available about the cases. This development tends to follow quantifiable patterns over time.

DRAFT
PLAN JPA - Liability Program (\$100K and \$1M Analysis)
Paid Loss Development

| Limited Losses Paid as of: |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident | 6 | 18 | 30 | 42 | 54 | 66 | 78 | 90 | 102 | 114 | 126 |
| Year | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 368,341 | 1,921,924 | 3,419,382 | 4,159,574 | 4,572,735 | 4,708,622 | 4,811,984 | 4,820,255 | 4,893,323 | 4,930,307 | 4,962,508 |
| 2003-2004 | 173,413 | 1,278,587 | 2,112,645 | 2,806,518 | 3,216,963 | 3,398,305 | 3,452,557 | 3,460,542 | 3,560,542 | 3,560,542 | 3,560,542 |
| 2004-2005 | 92,583 | 901,463 | 2,122,845 | 2,612,734 | 2,848,049 | 2,845,394 | 2,853,463 | 2,858,654 | 2,866,154 | 2,866,154 | 2,866,154 |
| 2005-2006 | 91,777 | 1,099,067 | 1,733,718 | 3,299,822 | 3,599,286 | 3,654,071 | 3,764,224 | 3,766,533 | 3,780,292 | 3,789,394 | 3,789,394 |
| 2006-2007 | 178,735 | 1,234,100 | 2,253,938 | 2,920,430 | 3,103,547 | 3,253,555 | 3,391,424 | 3,394,936 | 3,394,936 | 3,394,936 | 3,394,936 |
| 2007-2008 | 149,993 | 1,300,794 | 2,635,467 | 3,650,448 | 4,101,554 | 4,208,833 | 4,228,474 | 4,256,077 | 4,259,284 | 4,259,284 | 4,259,284 |
| 2008-2009 | 161,539 | 1,020,079 | 2,186,680 | 2,792,089 | 3,110,459 | 3,338,980 | 3,345,621 | 3,347,708 | 3,346,029 | 3,347,708 | 3,336,906 |
| 2009-2010 | 301,727 | 1,046,459 | 2,274,617 | 2,817,091 | 2,998,274 | 3,072,132 | 3,115,424 | 3,127,921 | 3,127,921 | 3,127,921 | 3,127,921 |
| 2010-2011 | 106,645 | 872,432 | 1,692,195 | 2,287,500 | 2,319,013 | 2,395,143 | 2,396,051 | 2,396,051 | 2,396,051 | 2,396,051 | 2,396,051 |
| 2011-2012 | 114,916 | 832,713 | 2,112,380 | 2,750,332 | 3,122,242 | 3,118,744 | 3,127,725 | 3,127,725 | 3,127,725 | 3,127,725 | 3,127,725 |
| 2012-2013 | 98,607 | 934,308 | 2,290,004 | 3,124,392 | 3,371,990 | 3,450,380 | 3,450,659 | 3,459,906 | 3,559,906 | 3,559,906 | 3,559,906 |
| 2013-2014 | 130,461 | 888,140 | 1,780,866 | 2,316,155 | 2,654,568 | 2,539,618 | 2,539,618 | 2,539,618 | 2,539,618 | 2,529,575 | 2,529,575 |
| 2014-2015 | 91,368 | 1,387,749 | 2,717,926 | 3,379,346 | 3,268,352 | 3,281,784 | 3,281,784 | 3,281,784 | 3,281,784 | 3,281,784 |  |
| 2015-2016 | 98,110 | 679,755 | 1,782,598 | 2,795,127 | 2,999,838 | 3,135,716 | 3,135,461 | 3,125,745 | 3,125,745 |  |  |
| 2016-2017 | 30,679 | 920,995 | 1,975,490 | 2,421,836 | 2,773,661 | 2,834,023 | 2,883,289 | 2,883,424 |  |  |  |
| 2017-2018 | 31,268 | 758,485 | 1,188,193 | 1,713,864 | 1,800,791 | 1,848,975 | 1,848,975 |  |  |  |  |
| 2018-2019 | 16,322 | 417,918 | 867,701 | 1,337,293 | 1,545,763 | 1,572,174 |  |  |  |  |  |
| 2019-2020 | 65,521 | 413,661 | 1,128,779 | 1,716,520 | 2,073,903 |  |  |  |  |  |  |
| 2020-2021 | 54,421 | 793,126 | 1,741,631 | 2,473,160 |  |  |  |  |  |  |  |
| 2021-2022 | 40,902 | 597,050 | 1,560,201 |  |  |  |  |  |  |  |  |
| 2022-2023 | 19,868 | 921,281 |  |  |  |  |  |  |  |  |  |
| 2023-2024 | 70,221 |  |  |  |  |  |  |  |  |  |  |


| Paid Loss Development Factors: |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6-18 | 18-30 | 30-42 | 42-54 | 54-66 | 66-78 | 78-90 | 90-102 | 102-114 | 114-126 | 126-138 |
|  | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 5.218 | 1.779 | 1.216 | 1.099 | 1.030 | 1.022 | 1.002 | 1.015 | 1.008 | 1.007 | 1.003 |
| 2003-2004 | 7.373 | 1.652 | 1.328 | 1.146 | 1.056 | 1.016 | 1.002 | 1.029 | 1.000 | 1.000 | 1.000 |
| 2004-2005 | 9.737 | 2.355 | 1.231 | 1.090 | 0.999 | 1.003 | 1.002 | 1.003 | 1.000 | 1.000 | 1.001 |
| 2005-2006 | 11.975 | 1.577 | 1.903 | 1.091 | 1.015 | 1.030 | 1.001 | 1.004 | 1.002 | 1.000 | 1.000 |
| 2006-2007 | 6.905 | 1.826 | 1.296 | 1.063 | 1.048 | 1.042 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2007-2008 | 8.672 | 2.026 | 1.385 | 1.124 | 1.026 | 1.005 | 1.007 | 1.001 | 1.000 | 1.000 | 0.977 |
| 2008-2009 | 6.315 | 2.144 | 1.277 | 1.114 | 1.073 | 1.002 | 1.001 | 0.999 | 1.001 | 0.997 | 1.003 |
| 2009-2010 | 3.468 | 2.174 | 1.238 | 1.064 | 1.025 | 1.014 | 1.004 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2010-2011 | 8.181 | 1.940 | 1.352 | 1.014 | 1.033 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2011-2012 | 7.246 | 2.537 | 1.302 | 1.135 | 0.999 | 1.003 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2012-2013 | 9.475 | 2.451 | 1.364 | 1.079 | 1.023 | 1.000 | 1.003 | 1.029 | 1.000 | 1.000 | 1.000 |
| 2013-2014 | 6.808 | 2.005 | 1.301 | 1.146 | 0.957 | 1.000 | 1.000 | 1.000 | 0.996 | 1.000 |  |
| 2014-2015 | 15.189 | 1.959 | 1.243 | 0.967 | 1.004 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |
| 2015-2016 | 6.928 | 2.622 | 1.568 | 1.073 | 1.045 | 1.000 | 0.997 | 1.000 |  |  |  |
| 2016-2017 | 30.020 | 2.145 | 1.226 | 1.145 | 1.022 | 1.017 | 1.000 |  |  |  |  |
| 2017-2018 | 24.258 | 1.567 | 1.442 | 1.051 | 1.027 | 1.000 |  |  |  |  |  |
| 2018-2019 | 25.605 | 2.076 | 1.541 | 1.156 | 1.017 |  |  |  |  |  |  |
| 2019-2020 | 6.313 | 2.729 | 1.521 | 1.208 |  |  |  |  |  |  |  |
| 2020-2021 | 14.574 | 2.196 | 1.420 |  |  |  |  |  |  |  |  |
| 2021-2022 | 14.597 | 2.613 |  |  |  |  |  |  |  |  |  |
| 2022-2023 | 46.370 |  |  |  |  |  |  |  |  |  |  |

DRAFT
PLAN JPA - Liability Program (\$100K and \$1M Analysis)
Paid Loss Development

| Limited Losses Paid as of: |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident | 138 | 150 | 162 | 174 | 186 | 198 | 210 | 222 | 234 | 246 | 258 |
| Year | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 4,977,421 | 4,977,421 | 4,977,421 | 4,977,421 | 4,977,421 | 4,977,421 | 4,977,421 | 4,977,421 | 4,977,421 | 4,977,421 | 4,977,421 |
| 2003-2004 | 3,560,542 | 3,560,542 | 3,560,542 | 3,560,542 | 3,560,542 | 3,560,542 | 3,560,542 | 3,560,542 | 3,560,542 | 3,560,542 |  |
| 2004-2005 | 2,867,654 | 2,867,654 | 2,867,654 | 2,867,654 | 2,867,654 | 2,867,654 | 2,867,654 | 2,867,654 | 2,867,654 |  |  |
| 2005-2006 | 3,789,394 | 3,788,958 | 3,788,958 | 3,788,958 | 3,788,958 | 3,788,958 | 3,788,958 | 3,788,958 |  |  |  |
| 2006-2007 | 3,394,936 | 3,400,836 | 3,400,836 | 3,403,249 | 3,408,506 | 3,408,506 | 3,408,797 |  |  |  |  |
| 2007-2008 | 4,159,284 | 4,259,284 | 4,259,284 | 4,259,284 | 4,259,284 | 4,259,284 |  |  |  |  |  |
| 2008-2009 | 3,347,708 | 3,347,708 | 3,347,708 | 3,347,708 | 3,347,708 |  |  |  |  |  |  |
| 2009-2010 | 3,127,921 | 3,127,921 | 3,127,921 | 3,127,921 |  |  |  |  |  |  |  |
| 2010-2011 | 2,396,051 | 2,396,051 | 2,396,056 |  |  |  |  |  |  |  |  |
| 2011-2012 | 3,127,725 | 3,127,725 |  |  |  |  |  |  |  |  |  |
| 2012-2013 | 3,559,906 |  |  |  |  |  |  |  |  |  |  |

Paid Loss Development Factors:

2002-200
2003-2004
2004-2005
2005-2006
2006-2007
2007-2008
2008-2009
2009-2010
2010-2011
2011-2012
2012-2013
2013-2014
2014-2015
2015-2016
2016-2017
2017-2018
2018-2019
2019-2020
2020-2021
2021-2022
2022-2023

| $138-150$ | $150-162$ | $162-174$ | $174-186$ | $186-198$ | $198-210$ | $210-222$ | $222-234$ | $234-246$ | $246-258$ | $258-$ Ult. |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |
| 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |
| 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |
| 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |
| 1.002 | 1.000 | 1.001 | 1.002 | 1.000 | 1.000 |  |  |  |  |  |
| 1.024 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |
| 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |
| 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |  |
| 1.000 | 1.000 |  |  |  |  |  |  |  |  |  |
| 1.000 |  |  |  |  |  |  |  |  |  |  |


|  | 138-150 Months | 150-162 Months | 162-174 Months | 174-186 Months | 186-198 Months | 198-210 Months | $210-222$ <br> Months | 222-234 <br> Months | $234-246$ <br> Months | $246-258$ <br> Months | 258-Ult. <br> Months |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average | 1.003 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |
| Dollar-Weighted |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |
| $4-\mathrm{yr}$ | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 1.006 | 1.005 | 1.004 | 1.004 | 1.003 | 1.002 | 1.002 | 1.002 | 1.002 | 1.001 | 1.003 |
| Prior | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Selected | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Cumulated | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |

Exposure and Development Method
Based on Reported Losses

| Accident Year | Trended Payroll (\$00) (A) | Reported Losses as of $12 / 31 / 23$ (B) | Loss Development Factor (C) | Percentage of Losses Yet to Be Reported (D) | Program Rate (E) | Incurred but not Reported (IBNR) (F) | Ultimate Program Losses (G) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2002-2003 | 5,465,603 | 8,884,428 | 1.000 | 0.000 | 1.350 | 0 | 8,884,428 |
| 2003-2004 | 5,571,062 | 5,715,419 | 1.000 | 0.000 | 1.019 | 0 | 5,715,419 |
| 2004-2005 | 5,593,010 | 3,869,337 | 1.000 | 0.000 | 0.721 | 0 | 3,869,337 |
| 2005-2006 | 5,546,164 | 5,631,680 | 1.000 | 0.000 | 0.893 | 0 | 5,631,680 |
| 2006-2007 | 5,635,518 | 4,548,052 | 1.000 | 0.000 | 0.952 | 0 | 4,548,052 |
| 2007-2008 | 5,801,505 | 5,798,628 | 1.000 | 0.000 | 0.949 | 0 | 5,798,628 |
| 2008-2009 | 5,863,583 | 5,365,088 | 1.000 | 0.000 | 0.827 | 0 | 5,365,088 |
| 2009-2010 | 5,568,244 | 3,874,500 | 1.000 | 0.000 | 0.834 | 0 | 3,874,500 |
| 2010-2011 | 4,873,997 | 3,571,075 | 1.000 | 0.000 | 0.771 | 0 | 3,571,075 |
| 2011-2012 | 4,650,324 | 6,334,961 | 1.001 | 0.001 | 1.159 | 5,390 | 6,340,351 |
| 2012-2013 | 4,565,996 | 7,008,017 | 1.003 | 0.003 | 1.414 | 19,369 | 7,027,386 |
| 2013-2014 | 4,390,436 | 4,318,084 | 1.005 | 0.005 | 1.014 | 22,260 | 4,340,344 |
| 2014-2015 | 4,434,603 | 6,737,773 | 1.008 | 0.008 | 1.353 | 48,000 | 6,785,773 |
| 2015-2016 | 4,506,901 | 6,145,693 | 1.013 | 0.013 | 1.448 | 84,838 | 6,230,531 |
| 2016-2017 | 4,680,337 | 8,215,217 | 1.021 | 0.021 | 1.317 | 129,444 | 8,344,661 |
| 2017-2018 | 4,797,059 | 2,623,377 | 1.026 | 0.025 | 0.843 | 101,098 | 2,724,475 |
| 2018-2019 | 4,828,712 | 2,589,734 | 1.032 | 0.031 | 1.467 | 219,595 | 2,809,329 |
| 2019-2020 | 4,798,147 | 4,590,988 | 1.050 | 0.048 | 1.560 | 359,285 | 4,950,273 |
| 2020-2021 | 4,735,362 | 10,164,997 | 1.284 | 0.221 | 1.661 | 1,738,261 | 11,903,258 |
| 2021-2022 | 4,877,311 | 7,327,072 | 1.752 | 0.429 | 1.766 | 3,695,119 | 11,022,191 |
| 2022-2023 | 5,079,532 | 8,599,708 | 3.135 | 0.681 | 1.878 | 6,496,305 | 15,096,013 |
| Totals | 106,263,406 | \$121,913,828 |  |  |  | \$12,918,964 | \$134,832,792 |

Notes:
(A) From $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix I, Column (C).
(B) Provided by the Authority. These losses exclude amounts incurred above the Authority's SIR for each year.
(C) From $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix A, Page 1, Column (F).
(D) 1-1/(C).
(E) From \$100K and \$1M Rate Analysis Appendix C, Page 3, Column (H).
(F) (A) $\times(\mathrm{D}) \times(\mathrm{E})$.
(G) $(B)+(F)$.

This exhibit shows the calculation of ultimate losses based on the assumption that there is an underlying relationship between losses and exposure that changes in regular ways over time. The method relies on the premise that the losses that are currently unreported will cost what this relationship would suggest.

| Accident Year | Trended Payroll (\$00) (A) | Paid Losses as of $12 / 31 / 23$ <br> (B) | Loss Development Factor (C) | Percentage of Losses Yet to Be Paid (D) | Program Rate (E) | Incurred but not Paid (F) | Ultimate Program Losses (G) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2002-2003 | 5,465,603 | 8,884,428 | 1.000 | 0.000 | 1.350 | 0 | 8,884,428 |
| 2003-2004 | 5,571,062 | 5,715,419 | 1.000 | 0.000 | 1.019 | 0 | 5,715,419 |
| 2004-2005 | 5,593,010 | 3,869,337 | 1.000 | 0.000 | 0.721 | 0 | 3,869,337 |
| 2005-2006 | 5,546,164 | 5,631,680 | 1.000 | 0.000 | 0.893 | 0 | 5,631,680 |
| 2006-2007 | 5,635,518 | 4,548,052 | 1.000 | 0.000 | 0.952 | 0 | 4,548,052 |
| 2007-2008 | 5,801,505 | 5,798,628 | 1.000 | 0.000 | 0.949 | 0 | 5,798,628 |
| 2008-2009 | 5,863,583 | 5,365,088 | 1.000 | 0.000 | 0.827 | 0 | 5,365,088 |
| 2009-2010 | 5,568,244 | 3,874,500 | 1.000 | 0.000 | 0.834 | 0 | 3,874,500 |
| 2010-2011 | 4,873,997 | 3,571,075 | 1.000 | 0.000 | 0.771 | 0 | 3,571,075 |
| 2011-2012 | 4,650,324 | 6,334,961 | 1.001 | 0.001 | 1.159 | 5,390 | 6,340,351 |
| 2012-2013 | 4,565,996 | 6,613,044 | 1.004 | 0.004 | 1.414 | 25,825 | 6,638,869 |
| 2013-2014 | 4,390,436 | 4,318,084 | 1.005 | 0.005 | 1.014 | 22,260 | 4,340,344 |
| 2014-2015 | 4,434,603 | 6,737,773 | 1.009 | 0.009 | 1.353 | 54,000 | 6,791,773 |
| 2015-2016 | 4,506,901 | 6,130,786 | 1.013 | 0.013 | 1.448 | 84,838 | 6,215,624 |
| 2016-2017 | 4,680,337 | 8,178,080 | 1.043 | 0.041 | 1.317 | 252,724 | 8,430,804 |
| 2017-2018 | 4,797,059 | 2,623,375 | 1.072 | 0.067 | 0.843 | 270,943 | 2,894,318 |
| 2018-2019 | 4,828,712 | 2,422,650 | 1.142 | 0.124 | 1.467 | 878,381 | 3,301,031 |
| 2019-2020 | 4,798,147 | 2,589,280 | 1.238 | 0.192 | 1.560 | 1,437,141 | 4,026,421 |
| 2020-2021 | 4,735,362 | 6,756,376 | 1.691 | 0.409 | 1.661 | 3,216,963 | 9,973,339 |
| 2021-2022 | 4,877,311 | 1,911,606 | 2.952 | 0.661 | 1.766 | 5,693,412 | 7,605,018 |
| 2022-2023 | 5,079,532 | 921,281 | 7.994 | 0.875 | 1.878 | 8,346,941 | 9,268,222 |
| Totals | 106,263,406 | \$102,795,503 |  |  |  | \$20,288,818 | \$123,084,321 |

Notes:
(A) From $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix I, Column (C).
(B) Provided by the Authority. These losses exclude amounts paid above the Authority's SIR for each year.
(C) From $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix B, Page 1, Column (F).
(D) 1-1/(C).
(E) From $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix C, Page 3, Column (H).
(F) $(\mathrm{A}) \times(\mathrm{D}) \times(\mathrm{E})$.
(G) $(B)+(F)$.

This exhibit shows the calculation of ultimate losses based on the assumption that there is an underlying relationship between losses and exposure that changes in regular ways over time. The method relies on the premise that the losses that are currently unpaid will cost what this relationship would suggest.

Exposure and Development Method

| Accident Year | Trended Payroll (\$00) <br> (A) | Ultimate Limited Losses (B) | Trend Factor (C) | Trended Limited Losses (D) | Trended Limited Loss Rate (E) | Limited Loss Rate (F) | Factor to SIR (G) | Program Loss Rate <br> (H) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 2002-2003 | 5,465,603 | 4,646,965 | 2.281 | 10,599,727 | 1.939 | 0.850 | 1.589 | 1.350 |
| 2003-2004 | 5,571,062 | 3,509,537 | 2.193 | 7,696,415 | 1.381 | 0.630 | 1.618 | 1.019 |
| 2004-2005 | 5,593,010 | 2,444,607 | 2.108 | 5,153,232 | 0.921 | 0.437 | 1.650 | 0.721 |
| 2005-2006 | 5,546,164 | 2,947,359 | 2.028 | 5,977,244 | 1.078 | 0.531 | 1.681 | 0.893 |
| 2006-2007 | 5,635,518 | 3,128,868 | 1.949 | 6,098,164 | 1.082 | 0.555 | 1.715 | 0.952 |
| 2007-2008 | 5,801,505 | 3,147,259 | 1.875 | 5,901,111 | 1.017 | 0.542 | 1.751 | 0.949 |
| 2008-2009 | 5,863,583 | 2,711,703 | 1.803 | 4,889,201 | 0.834 | 0.462 | 1.790 | 0.827 |
| 2009-2010 | 5,568,244 | 2,538,522 | 1.733 | 4,399,259 | 0.790 | 0.456 | 1.828 | 0.834 |
| 2010-2011 | 4,873,997 | 2,013,526 | 1.667 | 3,356,548 | 0.689 | 0.413 | 1.867 | 0.771 |
| 2011-2012 | 4,650,324 | 2,824,647 | 1.603 | 4,527,909 | 0.974 | 0.607 | 1.910 | 1.159 |
| 2012-2013 | 4,565,996 | 3,309,000 | 1.541 | 5,099,169 | 1.117 | 0.725 | 1.951 | 1.414 |
| 2013-2014 | 4,390,436 | 2,229,780 | 1.482 | 3,304,534 | 0.753 | 0.508 | 1.996 | 1.014 |
| 2014-2015 | 4,434,603 | 2,938,392 | 1.425 | 4,187,209 | 0.944 | 0.663 | 2.041 | 1.353 |
| 2015-2016 | 4,506,901 | 3,126,000 | 1.370 | 4,282,620 | 0.950 | 0.694 | 2.086 | 1.448 |
| 2016-2017 | 4,680,337 | 2,886,000 | 1.317 | 3,800,862 | 0.812 | 0.617 | 2.134 | 1.317 |
| 2017-2018 | 4,797,059 | 1,853,000 | 1.267 | 2,347,751 | 0.489 | 0.386 | 2.184 | 0.843 |
| 2018-2019 | 4,828,712 | 1,600,000 | 1.218 | 1,948,800 | 0.404 | 0.657 | 2.234 | 1.467 |
| 2019-2020 | 4,798,147 | 2,587,000 | 1.171 | 3,029,377 | 0.631 | 0.683 | 2.283 | 1.560 |
| 2020-2021 | 4,735,362 | 3,326,000 | 1.125 | 3,741,750 | 0.790 | 0.711 | 2.335 | 1.661 |
| 2021-2022 | 4,877,311 | 3,709,000 | 1.082 | 4,013,138 | 0.823 | 0.739 | 2.390 | 1.766 |
| 2022-2023 | 5,079,532 | 6,354,000 | 1.040 | 6,608,160 | 1.301 | 0.769 | 2.442 | 1.878 |
| Total/Avg | 106,263,406 | \$63,831,165 |  | \$100,962,180 | \$0.950 |  |  |  |
| 18/19-22/23 | 24,319,064 | 17,576,000 |  | 19,341,225 | 0.795 |  |  |  |
| 19/20-22/23 | 19,490,352 | 15,976,000 |  | 17,392,425 | 0.892 |  |  |  |
|  |  |  | Selec | Limited Rate: Prior: | $\begin{aligned} & \$ 0.800 \\ & \$ 0.725 \end{aligned}$ |  |  |  |

Notes:
(A) From $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix I, Column (C).
(B) Selected average of results from Appendices and .
(C) From $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix E, Page 1, Column (B).
(D) $(\mathrm{B}) \times(\mathrm{C})$.
(E) (D) / (A).
(F) Selected Limited Rate / (C). For 2017-2018 and prior (B) / (A).
(G) Based on a Burr distribution, a mathematical model of claim sizes.
(H) $(\mathrm{F}) \times(\mathrm{G})$.

This exhibit shows the calculation of the underlying historical relationship between losses and exposure that is needed to apply the estimation methods shown on pages 1 and 2 of this Appendix.

PLAN JPA - Liability Program (\$100K and \$1M Analysis)

Frequency and Severity Method

|  | Ultimate | Adjusted | Ultimate |
| :---: | :---: | :---: | :---: |
| Accident | Program | Ultimate | Program |
| Year | Severity <br> (A) | Claims (B) | Losses (C) |
| 2002-2003 | \$9,777 | 755 | \$7,381,635 |
| 2003-2004 | 9,056 | 627 | 5,678,112 |
| 2004-2005 | 7,125 | 566 | 4,032,750 |
| 2005-2006 | 8,817 | 562 | 4,955,154 |
| 2006-2007 | 9,302 | 577 | 5,367,254 |
| 2007-2008 | 8,327 | 662 | 5,512,474 |
| 2008-2009 | 8,227 | 590 | 4,853,930 |
| 2009-2010 | 8,943 | 519 | 4,641,417 |
| 2010-2011 | 8,993 | 418 | 3,759,074 |
| 2011-2012 | 12,458 | 433 | 5,394,314 |
| 2012-2013 | 13,066 | 494 | 6,454,604 |
| 2013-2014 | 10,115 | 440 | 4,450,600 |
| 2014-2015 | 12,680 | 473 | 5,997,640 |
| 2015-2016 | 13,420 | 486 | 6,522,120 |
| 2016-2017 | 12,053 | 511 | 6,159,083 |
| 2017-2018 | 8,292 | 488 | 4,046,496 |
| 2018-2019 | 17,567 | 428 | 7,518,676 |
| 2019-2020 | 18,758 | 431 | 8,084,698 |
| 2020-2021 | 20,059 | 384 | 7,702,656 |
| 2021-2022 | 21,446 | 431 | 9,243,226 |
| 2022-2023 | 22,900 | 659 | 15,091,100 |
| Total |  | 10,934 | \$132,847,013 |

Notes:
(A) From \$100K and \$1M Rate Analysis Appendix D, Page 2, Colu
(B) From \$100K and \$1M Rate Analysis Appendix D, Page 2, Colu
(C) $(\mathrm{A}) \times(\mathrm{B})$.

This exhibit shows the calculation of the estimated ultimate losses for each year based on the observed average frequency and severity of claims.

PLAN JPA - Liability Program (\$100K and \$1M Analysis)

Frequency and Severity Method

| Accident Year | Ultimate | Adjusted Ultimate Claims (B) | Ultimate Limited Severity (C) | Trend Factor (D) | Trended Limited Severity (E) | Limited Severity (F) | Factor to SIR (G) | Program Severity (H) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Limited |  |  |  |  |  |  |  |
|  | Losses <br> (A) |  |  |  |  |  |  |  |
| 2002-2003 | \$4,646,965 | 755 | \$6,155 | 2.519 | \$15,504 | \$6,155 | 1.589 | \$9,777 |
| 2003-2004 | 3,509,537 | 627 | 5,597 | 2.410 | 13,489 | 5,597 | 1.618 | 9,056 |
| 2004-2005 | 2,444,607 | 566 | 4,319 | 2.307 | 9,964 | 4,319 | 1.650 | 7,125 |
| 2005-2006 | 2,947,359 | 562 | 5,244 | 2.208 | 11,579 | 5,244 | 1.681 | 8,817 |
| 2006-2007 | 3,128,868 | 577 | 5,423 | 2.113 | 11,459 | 5,423 | 1.715 | 9,302 |
| 2007-2008 | 3,147,259 | 662 | 4,754 | 2.022 | 9,613 | 4,754 | 1.751 | 8,327 |
| 2008-2009 | 2,711,703 | 590 | 4,596 | 1.935 | 8,893 | 4,596 | 1.790 | 8,227 |
| 2009-2010 | 2,538,522 | 519 | 4,891 | 1.852 | 9,058 | 4,891 | 1.828 | 8,943 |
| 2010-2011 | 2,013,526 | 418 | 4,817 | 1.772 | 8,536 | 4,817 | 1.867 | 8,993 |
| 2011-2012 | 2,824,647 | 433 | 6,523 | 1.696 | 11,063 | 6,523 | 1.910 | 12,458 |
| 2012-2013 | 3,309,000 | 494 | 6,698 | 1.623 | 10,871 | 6,698 | 1.951 | 13,066 |
| 2013-2014 | 2,229,780 | 440 | 5,068 | 1.553 | 7,871 | 5,068 | 1.996 | 10,115 |
| 2014-2015 | 2,938,392 | 473 | 6,212 | 1.486 | 9,231 | 6,212 | 2.041 | 12,680 |
| 2015-2016 | 3,126,000 | 486 | 6,432 | 1.422 | 9,146 | 6,432 | 2.086 | 13,420 |
| 2016-2017 | 2,886,000 | 511 | 5,648 | 1.361 | 7,687 | 5,648 | 2.134 | 12,053 |
| 2017-2018 | 1,853,000 | 488 | 3,797 | 1.302 | 4,944 | 3,797 | 2.184 | 8,292 |
| 2018-2019 | 1,600,000 | 428 | 3,738 | 1.246 | 4,658 | 7,865 | 2.234 | 17,567 |
| 2019-2020 | 2,592,000 | 431 | 6,014 | 1.193 | 7,175 | 8,215 | 2.283 | 18,758 |
| 2020-2021 | 3,327,000 | 384 | 8,664 | 1.141 | 9,886 | 8,589 | 2.335 | 20,059 |
| 2021-2022 | 3,657,000 | 431 | 8,485 | 1.092 | 9,266 | 8,974 | 2.390 | 21,446 |
| 2022-2023 | 6,403,000 | 659 | 9,716 | 1.045 | 10,153 | 9,378 | 2.442 | 22,900 |
|  |  | Average Limited Severity: |  |  | \$9,526 |  |  |  |
|  |  | Average 17/18-20/21 Limited Severity: |  |  | 6,666 |  |  |  |
|  |  | Average 20/21-22/23 Limited Severity: |  |  | 9,768 |  |  |  |
|  |  | Selected Limited Severity: |  |  | \$9,800 |  |  |  |
|  |  |  |  |  | \$7,500 |  |  |  |

Notes:
(A) Selected average of results from Appendices , and.
(B) \$100K and \$1M Rate Analysis Appendix D, Page 3, Column (C).
(C) $(\mathrm{A}) /(\mathrm{B})$.
(D) From \$100K and \$1M Rate Analysis Appendix E, Page 1, Column (J).
(E) $(\mathrm{C}) \times(\mathrm{D})$.
(F) Selected Limited Severity / (D).
(G) Based on a Burr distribution, a mathematical model of claim sizes.
(H) $(\mathrm{F}) \times(\mathrm{G})$.

This exhibit shows the calculation of the historical average cost per claim, or severity. The observed average severity is used in the method shown on page 1 of this Appendix.

## DRAFT

PLAN JPA - Liability Program (\$100K and \$1M Analysis)

Frequency and Severity Method
Projection of Ultimate Claims

| Accident Year | Reported Claim Development (A) | Closed Claim Development (B) | Selected Ultimate Claims (C) | Trended Payroll $(\$ 000,000)$ <br> (D) | Claim Frequency (E) | Trend Factor (F) | Trended Claim Frequency (G) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2002-2003 | 755 | 755 | 755 | 546.6 | 1.381 | 0.897 | 1.239 |
| 2003-2004 | 627 | 627 | 627 | 557.1 | 1.125 | 0.902 | 1.015 |
| 2004-2005 | 566 | 566 | 566 | 559.3 | 1.012 | 0.906 | 0.917 |
| 2005-2006 | 562 | 562 | 562 | 554.6 | 1.013 | 0.910 | 0.922 |
| 2006-2007 | 577 | 577 | 577 | 563.6 | 1.024 | 0.914 | 0.936 |
| 2007-2008 | 662 | 662 | 662 | 580.2 | 1.141 | 0.919 | 1.049 |
| 2008-2009 | 590 | 590 | 590 | 586.4 | 1.006 | 0.924 | 0.930 |
| 2009-2010 | 519 | 519 | 519 | 556.8 | 0.932 | 0.929 | 0.866 |
| 2010-2011 | 418 | 418 | 418 | 487.4 | 0.858 | 0.934 | 0.801 |
| 2011-2012 | 433 | 434 | 433 | 465.0 | 0.931 | 0.939 | 0.874 |
| 2012-2013 | 494 | 494 | 494 | 456.6 | 1.082 | 0.944 | 1.021 |
| 2013-2014 | 440 | 442 | 440 | 439.0 | 1.002 | 0.949 | 0.951 |
| 2014-2015 | 473 | 475 | 473 | 443.5 | 1.067 | 0.954 | 1.018 |
| 2015-2016 | 486 | 488 | 486 | 450.7 | 1.078 | 0.959 | 1.034 |
| 2016-2017 | 511 | 514 | 511 | 468.0 | 1.092 | 0.964 | 1.053 |
| 2017-2018 | 488 | 494 | 488 | 479.7 | 1.017 | 0.970 | 0.986 |
| 2018-2019 | 428 | 432 | 428 | 482.9 | 0.886 | 0.975 | 0.864 |
| 2019-2020 | 431 | 424 | 431 | 479.8 | 0.898 | 0.980 | 0.880 |
| 2020-2021 | 384 | 374 | 384 | 473.5 | 0.811 | 0.985 | 0.799 |
| 2021-2022 | 431 | 423 | 431 | 487.7 | 0.884 | 0.990 | 0.875 |
| 2022-2023 | 659 | 741 | 659 | 508.0 | 1.297 | 0.995 | 1.291 |
| Total | 10,934 | 11,011 | 10,934 | 10,626.3 |  |  | 0.969 |
| 17/18-21/22 | 2,162 | 2,147 | 2,162 | 2,403.7 |  |  | 0.881 |
|  |  |  |  |  | (H) Selected Frequency: Prior: |  | 0.900 |
|  |  |  |  |  |  |  | 0.850 |
|  | Program Year: |  |  | 2023-2024 | 2024-2025 |  |  |
| (I) | Trend Factor: |  |  | 1.000 | 0.995 |  |  |
| (J) | Selected Frequenc |  |  | 0.900 | 0.896 |  |  |
| (K) | Est. Payroll (\$000, |  |  | 516.9 | 532.4 |  |  |
| (L) | Ultimate Claims: |  |  | 465 | 477 |  |  |

Notes:
(A) From $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix D, Page 4, (C).
(B) From $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix D, Page 5, (C).
(C) Selected from (A) and (B).
(D) From $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix I, Column (C) / 10,000.
(E) (C) / (D).
This exhibit summarizes the estimated numbers of claims and shows the estimated frequencies per $\$ 1,000,000$ of trended payroll.
(G) $(\mathrm{E}) \times(\mathrm{F})$.
(H) The selected frequency of 0.900 is based on (G).
(I) From \$100K and \$1M Rate Analysis Appendix E, Page 1
(J) $(\mathrm{H}) \times(\mathrm{I})$.
(K) From \$100K and \$1M Rate Analysis Appendix I, Column
(L) $(\mathrm{J}) \times(\mathrm{K})$

## DRAFT

PLAN JPA - Liability Program (\$100K and \$1M Analysis)

Frequency and Severity Method
Reported Claim Count Development

|  | Claims | Reported |  |
| :---: | :---: | :---: | :---: |
| Reported | Claim | Trended |  |
| Accident | as of | Development | Ultimate |
| Year | $12 / 31 / 2023$ | Factor | Claims |


| $2002-2003$ | 755 | 1.000 | 755 | 1.239 |
| :--- | :--- | :--- | :--- | :--- |
| $2003-2004$ | 627 | 1.000 | 627 | 1.015 |
| $2004-2005$ | 566 | 1.000 | 566 | 0.917 |
| $2005-2006$ | 562 | 1.000 | 562 | 0.922 |
| $2006-2007$ | 577 | 1.000 | 577 | 1.936 |
| $2007-2008$ | 662 | 1.000 | 662 | 0.930 |
| $2008-2009$ | 590 | 1.000 | 0.866 |  |
| $2009-2010$ | 519 | 1.000 | 590 |  |
| $2010-2011$ | 418 | 1.000 | 418 | 0.801 |
| $2011-2012$ | 433 | 1.000 | 433 | 0.874 |
| $2012-2013$ | 494 | 1.000 | 494 | 1.021 |
| $2013-2014$ | 440 | 1.000 | 440 | 0.951 |
| $2014-2015$ | 473 | 1.000 | 473 | 1.018 |
| $2015-2016$ | 486 | 1.000 | 486 | 1.034 |
| $2016-2017$ | 511 | 1.000 | 511 | 1.052 |
| $2017-2018$ | 488 | 1.001 | 488 | 0.987 |
| $2018-2019$ | 427 | 1.003 | 428 | 0.864 |
| $2019-2020$ | 428 | 1.006 | 431 | 0.880 |
| $2020-2021$ | 380 | 1.010 | 384 | 0.799 |
| $2021-2022$ | 421 | 1.023 | 431 | 0.875 |
| $2022-2023$ | 614 | 1.074 | 659 | 1.291 |
| Total |  |  | 10,934 | 0.969 |

Notes:
(A) Provided by the Authority.
(B) From $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix D, Page 6.
(C) $(\mathrm{A}) \times(\mathrm{B})$.
(D) (C) / [\$100K and \$1M Rate Analysis Appendix D, Page 3, (D)] $\times$ [\$100K and \$1M Rate Analysis Appendix D, Page 3, (F)].

This exhibit shows the calculation of estimated ultimate claims for each year based on reported claims as provided by the Authority. These numbers of claims tend to "develop" or change from period to period as more claims are filed. This development tends to follow quantifiable patterns over time.

PLAN JPA - Liability Program (\$100K and \$1M Analysis)
Frequency and Severity Method Closed Claim Count Development

| Accident Year | $\begin{gathered} \text { Claims } \\ \text { Closed } \\ \text { as of } \\ 12 / 31 / 2023 \\ \text { (A) } \end{gathered}$ | Closed Claim Development Factor (B) | Ultimate Claims (C) | Trended Claim Frequency (D) |
| :---: | :---: | :---: | :---: | :---: |
| 2002-2003 | 755 | 1.000 | 755 | 1.239 |
| 2003-2004 | 627 | 1.000 | 627 | 1.015 |
| 2004-2005 | 566 | 1.000 | 566 | 0.917 |
| 2005-2006 | 562 | 1.000 | 562 | 0.922 |
| 2006-2007 | 577 | 1.000 | 577 | 0.936 |
| 2007-2008 | 662 | 1.000 | 662 | 1.049 |
| 2008-2009 | 590 | 1.000 | 590 | 0.930 |
| 2009-2010 | 519 | 1.000 | 519 | 0.866 |
| 2010-2011 | 418 | 1.001 | 418 | 0.801 |
| 2011-2012 | 433 | 1.002 | 434 | 0.876 |
| 2012-2013 | 493 | 1.003 | 494 | 1.021 |
| 2013-2014 | 440 | 1.004 | 442 | 0.955 |
| 2014-2015 | 473 | 1.005 | 475 | 1.022 |
| 2015-2016 | 485 | 1.007 | 488 | 1.038 |
| 2016-2017 | 509 | 1.010 | 514 | 1.059 |
| 2017-2018 | 487 | 1.014 | 494 | 0.999 |
| 2018-2019 | 424 | 1.019 | 432 | 0.872 |
| 2019-2020 | 413 | 1.026 | 424 | 0.866 |
| 2020-2021 | 357 | 1.049 | 374 | 0.778 |
| 2021-2022 | 369 | 1.145 | 423 | 0.859 |
| 2022-2023 | 418 | 1.773 | 741 | 1.452 |
| Total | 10,577 |  | 11,011 | 0.976 |

Notes:
(A) Provided by the Authority.
(B) From \$100K and \$1M Rate Analysis Appendix D, Page 7.
(C) $(\mathrm{A}) \times(\mathrm{B})$.
(D) (C) / [\$100K and \$1M Rate Analysis Appendix D, Page 3, (D)] $\times$ [\$100K and \$1M Rate Ar

This exhibit shows the calculation of estimated ultimate claims for each year based on closed claims as provided by the Authority. These numbers of closed claims tend to "develop" or change from period to period as more claims are closed. This development tends to follow quantifiable patterns over time.

DRAFT PLAN JPA - Liability Program (\$100K and \$1M Analysis)
Reported Claim Count Development

| Claims Reported as of: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident | 6 | 18 | 30 | 42 | 54 | 66 | 78 | 90 | 102 | 114 | 126 | 138 | 150 | 162 |
| Year | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 253 | 775 | 796 | 790 | 791 | 792 | 792 | 806 | 807 | 807 | 807 | 807 | 807 | 807 |
| 2003-2004 | 206 | 637 | 631 | 652 | 656 | 656 | 668 | 667 | 668 | 666 | 667 | 667 | 667 | 667 |
| 2004-2005 | 244 | 619 | 720 | 721 | 723 | 728 | 729 | 730 | 730 | 730 | 731 | 731 | 731 | 731 |
| 2005-2006 | 192 | 669 | 695 | 697 | 706 | 708 | 710 | 710 | 711 | 711 | 711 | 711 | 711 | 711 |
| 2006-2007 | 234 | 660 | 677 | 696 | 696 | 700 | 701 | 702 | 702 | 702 | 702 | 702 | 703 | 703 |
| 2007-2008 | 242 | 659 | 803 | 809 | 814 | 814 | 814 | 814 | 814 | 814 | 814 | 810 | 814 | 814 |
| 2008-2009 | 243 | 693 | 716 | 721 | 724 | 724 | 724 | 724 | 724 | 724 | 709 | 724 | 724 | 724 |
| 2009-2010 | 238 | 632 | 647 | 646 | 646 | 646 | 646 | 646 | 647 | 647 | 647 | 647 | 647 | 647 |
| 2010-2011 | 168 | 494 | 505 | 506 | 508 | 509 | 510 | 510 | 510 | 510 | 513 | 514 | 514 | 514 |
| 2011-2012 | 129 | 452 | 465 | 467 | 470 | 471 | 471 | 470 | 470 | 470 | 470 | 470 | 470 |  |
| 2012-2013 | 169 | 499 | 520 | 523 | 523 | 524 | 525 | 527 | 528 | 528 | 526 | 526 |  |  |
| 2013-2014 | 144 | 455 | 467 | 471 | 473 | 466 | 466 | 466 | 467 | 460 | 461 |  |  |  |
| 2014-2015 | 161 | 489 | 510 | 514 | 502 | 503 | 504 | 512 | 492 | 499 |  |  |  |  |
| 2015-2016 | 170 | 487 | 502 | 490 | 492 | 492 | 497 | 460 | 486 |  |  |  |  |  |
| 2016-2017 | 108 | 501 | 508 | 511 | 512 | 512 | 488 | 511 |  |  |  |  |  |  |
| 2017-2018 | 152 | 473 | 481 | 483 | 489 | 469 | 488 |  |  |  |  |  |  |  |
| 2018-2019 | 123 | 394 | 421 | 430 | 412 | 427 |  |  |  |  |  |  |  |  |
| 2019-2020 | 144 | 413 | 431 | 412 | 428 |  |  |  |  |  |  |  |  |  |
| 2020-2021 | 124 | 353 | 346 | 380 |  |  |  |  |  |  |  |  |  |  |
| 2021-2022 | 151 | 370 | 422 |  |  |  |  |  |  |  |  |  |  |  |
| 2022-2023 | 116 | 615 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2023-2024 | 165 |  |  |  |  |  |  |  |  |  |  |  |  |  |

Reported Claim Count Development Factors:

| Reported Claim Count Development Factors: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6-18 | 18-30 | 30-42 | 42-54 | 54-66 | 66-78 | 78-90 | 90-102 | 102-114 | 114-126 | 126-138 | 138-150 | 150-162 | 162-174 |
|  | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 3.063 | 1.027 | 0.992 | 1.001 | 1.001 | 1.000 | 1.018 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2003-2004 | 3.092 | 0.991 | 1.033 | 1.006 | 1.000 | 1.018 | 0.999 | 1.001 | 0.997 | 1.002 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2004-2005 | 2.537 | 1.163 | 1.001 | 1.003 | 1.007 | 1.001 | 1.001 | 1.000 | 1.000 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2005-2006 | 3.484 | 1.039 | 1.003 | 1.013 | 1.003 | 1.003 | 1.000 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2006-2007 | 2.821 | 1.026 | 1.028 | 1.000 | 1.006 | 1.001 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.001 | 1.000 | 1.001 |
| 2007-2008 | 2.723 | 1.219 | 1.007 | 1.006 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.995 | 1.005 | 1.000 | 1.000 |
| 2008-2009 | 2.852 | 1.033 | 1.007 | 1.004 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.979 | 1.021 | 1.000 | 1.000 | 1.000 |
| 2009-2010 | 2.655 | 1.024 | 0.998 | 1.000 | 1.000 | 1.000 | 1.000 | 1.002 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.002 |
| 2010-2011 | 2.940 | 1.022 | 1.002 | 1.004 | 1.002 | 1.002 | 1.000 | 1.000 | 1.000 | 1.006 | 1.002 | 1.000 | 1.000 |  |
| 2011-2012 | 3.504 | 1.029 | 1.004 | 1.006 | 1.002 | 1.000 | 0.998 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |
| 2012-2013 | 2.953 | 1.042 | 1.006 | 1.000 | 1.002 | 1.002 | 1.004 | 1.002 | 1.000 | 0.996 | 1.000 |  |  |  |
| 2013-2014 | 3.160 | 1.026 | 1.009 | 1.004 | 0.985 | 1.000 | 1.000 | 1.002 | 0.985 | 1.002 |  |  |  |  |
| 2014-2015 | 3.037 | 1.043 | 1.008 | 0.977 | 1.002 | 1.002 | 1.016 | 0.961 | 1.014 |  |  |  |  |  |
| 2015-2016 | 2.865 | 1.031 | 0.976 | 1.004 | 1.000 | 1.010 | 0.926 | 1.057 |  |  |  |  |  |  |
| 2016-2017 | 4.639 | 1.014 | 1.006 | 1.002 | 1.000 | 0.953 | 1.047 |  |  |  |  |  |  |  |
| 2017-2018 | 3.112 | 1.017 | 1.004 | 1.012 | 0.959 | 1.041 |  |  |  |  |  |  |  |  |
| 2018-2019 | 3.203 | 1.069 | 1.021 | 0.958 | 1.036 |  |  |  |  |  |  |  |  |  |
| 2019-2020 | 2.868 | 1.044 | 0.956 | 1.039 |  |  |  |  |  |  |  |  |  |  |
| 2020-2021 | 2.847 | 0.980 | 1.098 |  |  |  |  |  |  |  |  |  |  |  |
| 2021-2022 | 2.450 | 1.141 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2022-2023 | 5.302 |  |  |  |  |  |  |  |  |  |  |  |  |  |


|  | 6-18 | 18-30 | 30-42 | 42-54 | 54-66 | 66-78 | 78-90 | 90-102 | 102-114 | 114-126 | 126-138 | 138-150 | 150-162 | 162-174 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| Average | 3.148 | 1.049 | 1.008 | 1.002 | 1.000 | 1.002 | 1.001 | 1.002 | 1.000 | 0.999 | 1.002 | 1.001 | 1.000 | 1.000 |
| Claim-Weighted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ | 3.422 | 1.055 | 1.020 | 1.003 | 0.996 | 1.000 | 0.996 | 1.005 | 1.000 | 0.999 | 1.001 | 1.000 | 1.000 | 1.000 |
| $4-\mathrm{yr}$ | 3.273 | 1.059 | 1.015 | 1.003 | 0.997 | 1.001 | 0.997 | 1.004 | 1.000 | 1.001 | 1.000 | 1.000 | 1.000 | 1.001 |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 2.659 | 1.141 | 1.013 | 1.008 | 1.005 | 1.004 | 1.003 | 1.003 | 1.003 | 1.003 | 1.003 | 1.003 | 1.003 | 1.003 |
| Prior | 2.909 | 1.036 | 1.007 | 1.004 | 1.003 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Selected | 3.188 | 1.050 | 1.013 | 1.004 | 1.003 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Cumulated | 3.424 | 1.074 | 1.023 | 1.010 | 1.006 | 1.003 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |

DRAFT PLAN JPA - Liability Program (\$100K and \$1M Analysis)
Closed Claim Development

| Claims Closed as of: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident | 6 | 18 | 30 | 42 | 54 | 66 | 78 | 90 | 102 | 114 | 126 | 138 | 150 | 162 |
| Year | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 44 | 536 | 734 | 766 | 783 | 789 | 791 | 805 | 805 | 805 | 806 | 806 | 806 | 806 |
| 2003-2004 | 36 | 465 | 585 | 636 | 648 | 649 | 662 | 663 | 666 | 666 | 667 | 667 | 667 | 667 |
| 2004-2005 | 54 | 414 | 668 | 706 | 712 | 726 | 727 | 730 | 730 | 730 | 730 | 731 | 731 | 731 |
| 2005-2006 | 50 | 487 | 637 | 672 | 692 | 701 | 707 | 707 | 707 | 710 | 711 | 711 | 711 | 711 |
| 2006-2007 | 83 | 518 | 632 | 681 | 687 | 692 | 699 | 701 | 702 | 702 | 702 | 702 | 703 | 702 |
| 2007-2008 | 94 | 480 | 742 | 786 | 800 | 808 | 811 | 813 | 814 | 814 | 814 | 810 | 814 | 814 |
| 2008-2009 | 89 | 509 | 664 | 704 | 712 | 718 | 723 | 724 | 724 | 724 | 709 | 724 | 724 | 724 |
| 2009-2010 | 45 | 464 | 599 | 631 | 643 | 644 | 645 | 645 | 647 | 647 | 647 | 647 | 647 | 647 |
| 2010-2011 | 46 | 331 | 470 | 497 | 503 | 507 | 509 | 509 | 510 | 510 | 513 | 514 | 514 | 514 |
| 2011-2012 | 27 | 285 | 421 | 451 | 459 | 467 | 470 | 469 | 469 | 469 | 469 | 469 | 470 |  |
| 2012-2013 | 36 | 332 | 471 | 506 | 515 | 518 | 524 | 526 | 527 | 527 | 525 | 525 |  |  |
| 2013-2014 | 28 | 304 | 430 | 456 | 467 | 464 | 465 | 466 | 467 | 460 | 461 |  |  |  |
| 2014-2015 | 23 | 354 | 457 | 491 | 492 | 501 | 504 | 512 | 492 | 499 |  |  |  |  |
| 2015-2016 | 43 | 336 | 450 | 470 | 481 | 488 | 496 | 459 | 485 |  |  |  |  |  |
| 2016-2017 | 19 | 316 | 465 | 491 | 499 | 506 | 484 | 509 |  |  |  |  |  |  |
| 2017-2018 | 22 | 310 | 445 | 473 | 486 | 468 | 487 |  |  |  |  |  |  |  |
| 2018-2019 | 19 | 234 | 366 | 411 | 407 | 424 |  |  |  |  |  |  |  |  |
| 2019-2020 | 36 | 227 | 363 | 383 | 413 |  |  |  |  |  |  |  |  |  |
| 2020-2021 | 18 | 209 | 299 | 357 |  |  |  |  |  |  |  |  |  |  |
| 2021-2022 | 41 | 189 | 370 |  |  |  |  |  |  |  |  |  |  |  |
| 2022-2023 | 23 | 419 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2023-2024 | 65 |  |  |  |  |  |  |  |  |  |  |  |  |  |

Closed Claim Count Development Factors:

| Closed Claim Count Development Factors: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6-18 | 18-30 | 30-42 | 42-54 | 54-66 | 66-78 | 78-90 | 90-102 | 102-114 | 114-126 | 126-138 | 138-150 | 150-162 | 162-174 |
|  | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 12.182 | 1.369 | 1.044 | 1.022 | 1.008 | 1.003 | 1.018 | 1.000 | 1.000 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2003-2004 | 12.917 | 1.258 | 1.087 | 1.019 | 1.002 | 1.020 | 1.002 | 1.005 | 1.000 | 1.002 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2004-2005 | 7.667 | 1.614 | 1.057 | 1.008 | 1.020 | 1.001 | 1.004 | 1.000 | 1.000 | 1.000 | 1.001 | 1.000 | 1.000 | 1.000 |
| 2005-2006 | 9.740 | 1.308 | 1.055 | 1.030 | 1.013 | 1.009 | 1.000 | 1.000 | 1.004 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2006-2007 | 6.241 | 1.220 | 1.078 | 1.009 | 1.007 | 1.010 | 1.003 | 1.001 | 1.000 | 1.000 | 1.000 | 1.001 | 0.999 | 1.001 |
| 2007-2008 | 5.106 | 1.546 | 1.059 | 1.018 | 1.010 | 1.004 | 1.002 | 1.001 | 1.000 | 1.000 | 0.995 | 1.005 | 1.000 | 1.000 |
| 2008-2009 | 5.719 | 1.305 | 1.060 | 1.011 | 1.008 | 1.007 | 1.001 | 1.000 | 1.000 | 0.979 | 1.021 | 1.000 | 1.000 | 1.000 |
| 2009-2010 | 10.311 | 1.291 | 1.053 | 1.019 | 1.002 | 1.002 | 1.000 | 1.003 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.002 |
| 2010-2011 | 7.196 | 1.420 | 1.057 | 1.012 | 1.008 | 1.004 | 1.000 | 1.002 | 1.000 | 1.006 | 1.002 | 1.000 | 1.000 |  |
| 2011-2012 | 10.556 | 1.477 | 1.071 | 1.018 | 1.017 | 1.006 | 0.998 | 1.000 | 1.000 | 1.000 | 1.000 | 1.002 |  |  |
| 2012-2013 | 9.222 | 1.419 | 1.074 | 1.018 | 1.006 | 1.012 | 1.004 | 1.002 | 1.000 | 0.996 | 1.000 |  |  |  |
| 2013-2014 | 10.857 | 1.414 | 1.060 | 1.024 | 0.994 | 1.002 | 1.002 | 1.002 | 0.985 | 1.002 |  |  |  |  |
| 2014-2015 | 15.391 | 1.291 | 1.074 | 1.002 | 1.018 | 1.006 | 1.016 | 0.961 | 1.014 |  |  |  |  |  |
| 2015-2016 | 7.814 | 1.339 | 1.044 | 1.023 | 1.015 | 1.016 | 0.925 | 1.057 |  |  |  |  |  |  |
| 2016-2017 | 16.632 | 1.472 | 1.056 | 1.016 | 1.014 | 0.957 | 1.052 |  |  |  |  |  |  |  |
| 2017-2018 | 14.091 | 1.435 | 1.063 | 1.027 | 0.963 | 1.041 |  |  |  |  |  |  |  |  |
| 2018-2019 | 12.316 | 1.564 | 1.123 | 0.990 | 1.042 |  |  |  |  |  |  |  |  |  |
| 2019-2020 | 6.306 | 1.599 | 1.055 | 1.078 |  |  |  |  |  |  |  |  |  |  |
| 2020-2021 | 11.611 | 1.431 | 1.194 |  |  |  |  |  |  |  |  |  |  |  |
| 2021-2022 | 4.610 | 1.958 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2022-2023 | 18.217 |  |  |  |  |  |  |  |  |  |  |  |  |  |


|  | 6-18 | 18-30 | 30-42 | 42-54 | 54-66 | 66-78 | 78-90 | 90-102 | 102-114 | 114-126 | 126-138 | 138-150 | 150-162 | 162-174 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| Average | 10.224 | 1.437 | 1.072 | 1.019 | 1.009 | 1.006 | 1.002 | 1.002 | 1.000 | 0.999 | 1.002 | 1.001 | 1.000 | 1.000 |
| Claim-Weighted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ | 9.963 | 1.651 | 1.120 | 1.031 | 1.004 | 1.003 | 0.997 | 1.005 | 1.000 | 0.999 | 1.001 | 1.001 | 1.000 | 1.000 |
| $4-\mathrm{yr}$ | 8.847 | 1.627 | 1.103 | 1.027 | 1.007 | 1.004 | 0.998 | 1.004 | 1.000 | 1.001 | 1.000 | 1.000 | 1.000 | 1.001 |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 3.699 | 1.523 | 1.094 | 1.036 | 1.017 | 1.008 | 1.007 | 1.006 | 1.005 | 1.005 | 1.005 | 1.005 | 1.005 | 1.005 |
| Prior | 8.508 | 1.478 | 1.071 | 1.015 | 1.007 | 1.005 | 1.004 | 1.003 | 1.002 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 |
| Selected | 9.386 | 1.548 | 1.091 | 1.023 | 1.007 | 1.005 | 1.004 | 1.003 | 1.002 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 |
| Cumulated | 16.641 | 1.773 | 1.145 | 1.049 | 1.026 | 1.019 | 1.014 | 1.010 | 1.007 | 1.005 | 1.004 | 1.003 | 1.002 | 1.001 |

PLAN JPA - Liability Program (\$100K and \$1M Analysis)
Loss Trend Factors

|  | Benefit | $\begin{gathered} \text { Factor to } \\ 2023-2024 \end{gathered}$ | $\begin{aligned} & \text { Factor to } \\ & 2024-2025 \end{aligned}$ | $\begin{gathered} \text { Factor to } \\ 2025-2026 \end{gathered}$ | Factor to 2026-2027 | $\begin{aligned} & \text { Factor to } \\ & 2023-2024 \end{aligned}$ | Factor to 2024-2025 | $\begin{gathered} \text { Factor to } \\ 2025-2026 \end{gathered}$ | Factor to 2026-2027 | Factor to 2023-2024 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident | Level | Loss Rate | Loss Rate | Loss Rate | Loss Rate | Frequency | Frequency | Frequency | Frequency | Severity |
| Year | Factor <br> (A) | Level (B) | Level (C) | Level (D) | Level (E) | Level (F) | Level (G) | Level <br> (H) | Level <br> (I) | Level <br> (J) |
| 2002-2003 | 1.000 | 2.281 | 2.372 | 2.467 | 2.566 | 0.897 | 0.893 | 0.888 | 0.884 | 2.519 |
| 2003-2004 | 1.000 | 2.193 | 2.280 | 2.372 | 2.467 | 0.902 | 0.897 | 0.892 | 0.888 | 2.410 |
| 2004-2005 | 1.000 | 2.108 | 2.192 | 2.281 | 2.372 | 0.906 | 0.901 | 0.896 | 0.892 | 2.307 |
| 2005-2006 | 1.000 | 2.028 | 2.108 | 2.193 | 2.281 | 0.910 | 0.905 | 0.901 | 0.896 | 2.208 |
| 2006-2007 | 1.000 | 1.949 | 2.027 | 2.109 | 2.193 | 0.914 | 0.909 | 0.905 | 0.900 | 2.113 |
| 2007-2008 | 1.000 | 1.875 | 1.949 | 2.028 | 2.109 | 0.919 | 0.914 | 0.910 | 0.905 | 2.022 |
| 2008-2009 | 1.000 | 1.803 | 1.874 | 1.950 | 2.028 | 0.924 | 0.919 | 0.915 | 0.910 | 1.935 |
| 2009-2010 | 1.000 | 1.733 | 1.802 | 1.875 | 1.950 | 0.929 | 0.924 | 0.920 | 0.915 | 1.852 |
| 2010-2011 | 1.000 | 1.667 | 1.733 | 1.803 | 1.875 | 0.934 | 0.929 | 0.925 | 0.920 | 1.772 |
| 2011-2012 | 1.000 | 1.603 | 1.666 | 1.734 | 1.803 | 0.939 | 0.934 | 0.930 | 0.925 | 1.696 |
| 2012-2013 | 1.000 | 1.541 | 1.603 | 1.667 | 1.734 | 0.944 | 0.939 | 0.935 | 0.930 | 1.623 |
| 2013-2014 | 1.000 | 1.482 | 1.541 | 1.603 | 1.667 | 0.949 | 0.944 | 0.940 | 0.935 | 1.553 |
| 2014-2015 | 1.000 | 1.425 | 1.482 | 1.541 | 1.603 | 0.954 | 0.949 | 0.945 | 0.940 | 1.486 |
| 2015-2016 | 1.000 | 1.370 | 1.424 | 1.482 | 1.541 | 0.959 | 0.955 | 0.950 | 0.945 | 1.422 |
| 2016-2017 | 1.000 | 1.317 | 1.370 | 1.425 | 1.482 | 0.964 | 0.960 | 0.955 | 0.950 | 1.361 |
| 2017-2018 | 1.000 | 1.267 | 1.317 | 1.370 | 1.425 | 0.970 | 0.965 | 0.960 | 0.955 | 1.302 |
| 2018-2019 | 1.000 | 1.218 | 1.266 | 1.317 | 1.370 | 0.975 | 0.970 | 0.965 | 0.960 | 1.246 |
| 2019-2020 | 1.000 | 1.171 | 1.217 | 1.266 | 1.317 | 0.980 | 0.975 | 0.970 | 0.965 | 1.193 |
| 2020-2021 | 1.000 | 1.125 | 1.170 | 1.217 | 1.266 | 0.985 | 0.980 | 0.975 | 0.970 | 1.141 |
| 2021-2022 | 1.000 | 1.082 | 1.125 | 1.170 | 1.217 | 0.990 | 0.985 | 0.980 | 0.975 | 1.092 |
| 2022-2023 | 1.000 | 1.040 | 1.081 | 1.125 | 1.170 | 0.995 | 0.990 | 0.985 | 0.980 | 1.045 |
| 2023-2024 | 1.000 | 1.000 | 1.040 | 1.082 | 1.125 | 1.000 | 0.995 | 0.990 | 0.985 | 1.000 |
| 2024-2025 | 1.000 | -- | 1.000 | 1.040 | 1.082 | -- | 1.000 | 0.995 | 0.990 | -- |
| 2025-2026 | 1.000 | -- | -- | 1.000 | 1.040 | -- | -- | 1.000 | 0.995 | -- |
| 2026-2027 | 1.000 | -- | -- | -- | 1.000 | -- | -- | -- | 1.000 | -- |

Notes:
(A) No benefit level adjustment applied.
(B) - (E) (A) adjusted for a $4.0 \%$ annual loss rate trend.
(F) - (I) (A) adjusted for a $-0.5 \%$ annual frequency trend.
(J) (A) adjusted for a $4.5 \%$ annual severity trend.

This exhibit shows the calculation of the ways in which we expect claims costs to have changed over the past twenty years due to changes in inflation.

PLAN JPA - Liability Program (\$100K and \$1M Analysis)

Residual Trend Factors

| Accident Year |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estimate of |  |  |  |  |  |
|  | Ultimate | Ultimate |  | Adjusted | Trended |  |
|  | Limited | Reported |  | Limited | Payroll | Ultimate |
|  | Losses | Claims(B) | BLF | Severity | (\$00) | Frequency |
|  | (A) |  | (C) | (D) | (E) | (F) |
| 2002-2003 | \$4,646,965 | -755 | 1.000 | 6,155 | 5,465,603 | 1.381 |
| 2003-2004 | 3,509,537 | 627 | 1.000 | 5,597 | 5,571,062 | 1.125 |
| 2004-2005 | 2,444,607 | - 566 | 1.000 | 4,319 | 5,593,010 | 1.012 |
| 2005-2006 | 2,947,359 | 562 | 1.000 | 5,244 | 5,546,164 | 1.013 |
| 2006-2007 | 3,128,868 | - 577 | 1.000 | 5,423 | 5,635,518 | 1.024 |
| 2007-2008 | 3,147,259 | 662 | 1.000 | 4,754 | 5,801,505 | 1.141 |
| 2008-2009 | 2,711,703 | 590 | 1.000 | 4,596 | 5,863,583 | 1.006 |
| 2009-2010 | 2,538,522 | - 519 | 1.000 | 4,891 | 5,568,244 | 0.932 |
| 2010-2011 | 2,013,526 | 418 | 1.000 | 4,817 | 4,873,997 | 0.858 |
| 2011-2012 | 2,824,647 | 733 | 1.000 | 6,523 | 4,650,324 | 0.931 |
| 2012-2013 | 3,309,000 | 494 | 1.000 | 6,698 | 4,565,996 | 1.082 |
| 2013-2014 | 2,229,780 | 440 | 1.000 | 5,068 | 4,390,436 | 1.002 |
| 2014-2015 | 2,938,392 | 273 | 1.000 | 6,212 | 4,434,603 | 1.067 |
| 2015-2016 | 3,126,000 | 486 | 1.000 | 6,432 | 4,506,901 | 1.078 |
| 2016-2017 | 2,886,000 | 511 | 1.000 | 5,648 | 4,680,337 | 1.092 |
| 2017-2018 | 1,853,000 | 488 | 1.000 | 3,797 | 4,797,059 | 1.017 |
| 2018-2019 | 1,600,000 | 428 | 1.000 | 3,738 | 4,828,712 | 0.886 |
| 2019-2020 | 2,587,000 | 431 | 1.000 | 6,002 | 4,798,147 | 0.898 |
| 2020-2021 | 3,326,000 | 384 | 1.000 | 8,661 | 4,735,362 | 0.811 |
| 2021-2022 | 3,709,000 | 431 | 1.000 | 8,606 | 4,877,311 | 0.884 |
| 2022-2023 | 6,354,000 | -659 | 1.000 | 9,642 | 5,079,532 | 1.297 |
|  |  |  | Severity Trend Factors |  | Frequency Trend Factors |  |
|  |  | 2011-2012 thro | 020-2021 | 0.992 |  | 0.980 |
|  |  | 2012-2013 thro | 021-2022 | 1.023 |  | 0.971 |
|  |  | 2017-2018 thro | 021-2022 | 1.281 |  | 0.964 |
|  |  |  | Prior | 1.035 |  | 0.995 |
|  |  |  | Default | 1.030 |  | 0.975 |
|  |  | Selected | ual Trend | 1.045 |  | 0.995 |

Notes:
(A) Selected average of results from $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix A and $\$ 100 \mathrm{~K}$
(B) $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix D, Page 3, Column (C).
(C) $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix E, Page 1, (A).
(D) $(\mathrm{A}) \times(\mathrm{C}) /(\mathrm{B})$.
(E) From $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix I, Column (C).
(F) $(B) /(E) \times 10,000$.

PLAN JPA - Liability Program (\$100K and \$1M Analysis)
Calculation of Discount Factors

| Payment Year (A) | Payment Pattern (B) | Return on Investment (C) | Discounted Reserves (D) | Undiscounted Reserves (E) | Discount Factor (F) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 21 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 20 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 19 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 18 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 17 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 16 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 15 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 14 | 0.1\% | 2.0\% | 0.001 | 0.001 | 0.990 |
| 13 | 0.2\% | 2.0\% | 0.003 | 0.003 | 0.984 |
| 12 | 0.2\% | 2.0\% | 0.005 | 0.005 | 0.975 |
| 11 | 0.2\% | 2.0\% | 0.007 | 0.007 | 0.965 |
| 10 | 0.4\% | 2.0\% | 0.010 | 0.011 | 0.962 |
| 9 | 1.8\% | 2.0\% | 0.028 | 0.029 | 0.973 |
| 8 | 3.0\% | 2.0\% | 0.058 | 0.059 | 0.972 |
| 7 | 4.5\% | 2.0\% | 0.101 | 0.104 | 0.969 |
| 6 | 6.5\% | 2.0\% | 0.163 | 0.169 | 0.965 |
| 5 | 14.6\% | 2.0\% | 0.304 | 0.315 | 0.967 |
| 4 | 23.5\% | 2.0\% | 0.531 | 0.549 | 0.966 |
| 3 | 22.6\% | 2.0\% | 0.744 | 0.776 | 0.960 |
| 2 | 16.0\% | 2.0\% | 0.888 | 0.936 | 0.949 |
| 1 | 6.4\% | 2.0\% | 0.934 | 1.000 | 0.934 |
|  |  | (G) Discount Factor for Future Funding: |  | 2023-2024 | 0.944 |
|  |  |  |  | 2024-2025 | 0.944 |

Notes:
(A) This is the year of payment relative to the accident year. For example, year 7 refers to payments made in the seventh year after the inception of the accident year. We assume that payments are made at midyear.
(B) Percent of ultimate loss paid this year. This payment pattern is based on the paid loss development pattern selected in $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix B, Page 2.
(C) Assumed Investment Income Rates.
(D) Discounted Reserves at the beginning of this year is next year's Discounted Reserves discounted one year plus this year's payments discounted six months. For example, in year $2,88.8 \%=[74.4 \% / 1.020]+[16.0 \% /(1.010)]$.
(E) Summation of future (B) values. This is the percent of ultimate loss unpaid at the beginning of the year.
(F) (D) / (E).
(G) (F) at year 1, with interest accumulated for six months. We assume that the required funding is deposited at the middle of the first year.

This exhibit shows the calculation of the effect of anticipated investment income on future claims costs. Thus, if the discount factor in item ( $F$ ) is 0.94 , on a discounted basis, $\$ 0.94$ must be budgeted for every $\$ 1$ that will actually be paid on claims that will be incurred in the next fiscal year.

PLAN JPA - Liability Program (\$100K and \$1M Analysis)

Confidence Level Table

| Probability | Projected Losses | Outstanding Losses |
| :---: | :---: | :---: |
|  |  |  |
| $95 \%$ | 1.791 | 1.551 |
| $90 \%$ | 1.559 | 1.373 |
| $85 \%$ | 1.418 | 1.278 |
| $80 \%$ | 1.311 | 1.210 |
| $75 \%$ | 1.225 | 1.156 |
| $70 \%$ | 1.152 | 1.112 |
| $65 \%$ | 1.088 | 1.072 |
| $60 \%$ | 1.030 | 1.037 |
| $55 \%$ | 0.977 | 1.004 |
| $50 \%$ | 0.926 | 0.974 |
| $45 \%$ | 0.878 | 0.944 |
| $40 \%$ | 0.831 | 0.784 |
| $35 \%$ | 0.737 | 0.688 |
| $30 \%$ |  | 0.887 |
| $25 \%$ | For the above retention, there is a $90 \%$ chance |  |
|  | that final loss settlements will be less than |  |
| To read table: | 1.559 times the average expected amount of losses. |  |

This exhibit shows the loads that must be applied to bring estimated losses at the expected level to the various indicated confidence levels.

PLAN JPA - Liability Program (\$100K and \$1M Analysis)

| Incurred Losses as of 12/31/23 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident Year <br> (A) | Unlimited Incurred <br> (B) | Additions to Losses (C) | Subtractions from Losses (D) | Adjusted Incurred <br> (E) | Incurred Over SIR <br> (F) | Incurred Over \$100,000 <br> (G) | Incurred Capped at \$100,000 <br> (H) | Incurred \$100,000 to SIR Layer <br> (I) | Incurred Capped at SIR <br> (J) | Incurred Capped at SIR \& Aggregate (K) |
| 2002-2003 | \$12,459,622 | \$0 | \$0 | \$12,459,622 | \$3,575,194 | \$7,812,657 | \$4,646,965 | \$4,237,463 | \$8,884,428 | \$8,884,428 |
| 2003-2004 | 5,715,419 | 0 | 0 | 5,715,419 | 0 | 2,205,881 | 3,509,537 | 2,205,881 | 5,715,419 | 5,715,419 |
| 2004-2005 | 3,909,704 | 0 | 0 | 3,909,704 | 40,367 | 1,465,098 | 2,444,607 | 1,424,731 | 3,869,337 | 3,869,337 |
| 2005-2006 | 7,274,863 | 0 | 0 | 7,274,863 | 1,643,182 | 4,327,503 | 2,947,359 | 2,684,321 | 5,631,680 | 5,631,680 |
| 2006-2007 | 4,548,052 | 0 | 0 | 4,548,052 | 0 | 1,419,184 | 3,128,868 | 1,419,184 | 4,548,052 | 4,548,052 |
| 2007-2008 | 5,982,106 | 0 | 0 | 5,982,106 | 183,478 | 2,834,846 | 3,147,259 | 2,651,369 | 5,798,628 | 5,798,628 |
| 2008-2009 | 5,485,923 | 0 | 0 | 5,485,923 | 120,835 | 2,774,220 | 2,711,703 | 2,653,385 | 5,365,088 | 5,365,088 |
| 2009-2010 | 3,874,500 | 0 | 0 | 3,874,500 | 0 | 1,335,978 | 2,538,522 | 1,335,978 | 3,874,500 | 3,874,500 |
| 2010-2011 | 3,571,075 | 0 | 0 | 3,571,075 | 0 | 1,557,549 | 2,013,526 | 1,557,549 | 3,571,075 | 3,571,075 |
| 2011-2012 | 6,357,185 | 0 | 0 | 6,357,185 | 22,224 | 3,532,539 | 2,824,647 | 3,510,315 | 6,334,961 | 6,334,961 |
| 2012-2013 | 7,108,017 | 0 | 0 | 7,108,017 | 100,000 | 3,799,416 | 3,308,601 | 3,699,416 | 7,008,017 | 7,008,017 |
| 2013-2014 | 9,703,564 | 0 | 0 | 9,703,564 | 5,385,480 | 7,473,784 | 2,229,780 | 2,088,304 | 4,318,084 | 4,318,084 |
| 2014-2015 | 7,286,913 | 0 | 0 | 7,286,913 | 549,140 | 4,348,520 | 2,938,392 | 3,799,381 | 6,737,773 | 6,737,773 |
| 2015-2016 | 8,386,266 | 0 | 0 | 8,386,266 | 2,240,574 | 5,260,522 | 3,125,745 | 3,019,948 | 6,145,693 | 6,145,693 |
| 2016-2017 | 38,732,335 | 0 | 0 | 38,732,335 | 30,517,119 | 35,848,912 | 2,883,424 | 5,331,793 | 8,215,217 | 8,215,217 |
| 2017-2018 | 2,623,377 | 0 | 0 | 2,623,377 | 0 | 774,401 | 1,848,977 | 774,401 | 2,623,377 | 2,623,377 |
| 2018-2019 | 2,589,734 | 0 | 0 | 2,589,734 | 0 | 995,732 | 1,594,003 | 995,732 | 2,589,734 | 2,589,734 |
| 2019-2020 | 4,590,988 | 0 | 0 | 4,590,988 | 0 | 2,034,323 | 2,556,665 | 2,034,323 | 4,590,988 | 4,590,988 |
| 2020-2021 | 44,727,172 | 0 | 0 | 44,727,172 | 34,562,175 | 41,472,932 | 3,254,240 | 6,910,757 | 10,164,997 | 10,164,997 |
| 2021-2022 | 17,563,072 | 0 | 0 | 17,563,072 | 10,236,000 | 14,141,384 | 3,421,687 | 3,905,384 | 7,327,072 | 7,327,072 |
| 2022-2023 | 8,599,708 | 0 | 0 | 8,599,708 | 0 | 3,072,909 | 5,526,799 | 3,072,909 | 8,599,708 | 8,599,708 |
| 2023-2024 | 858,344 | 0 | 0 | 858,344 | 0 | 120,000 | 738,344 | 120,000 | 858,344 | 858,344 |
| Total | \$211,947,938 | \$0 | \$0 | \$211,947,938 | \$89,175,767 | \$148,608,290 | \$63,339,648 | \$59,432,524 | \$122,772,172 | \$122,772,172 |

Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Authority.
(C)
(D)
(E) $(B)+(C)-(D)$.
(F) Sum of incurred losses in excess of SIR.
(G) Sum of incurred losses in excess of \$100,000.
(H) (E) - (G).
(I) (G) - (F).
(J) (E) - (F).
(K) Minimum of (J) and the aggregate stop loss. See \$100K and \$1M Rate Analysis Not Included.

PLAN JPA - Liability Program (\$100K and \$1M Analysis)

| Paid Losses as of 12/31/23 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident Year <br> (A) | Unlimited Paid (B) | Additions to Losses (C) | Subtractions from Losses (D) | Adjusted Paid (E) | Paid Over SIR <br> (F) | Paid <br> Over \$100,000 <br> (G) | Paid Capped at \$100,000 <br> (H) | Paid \$100,000 to SIR Layer <br> (I) | Paid <br> Capped at SIR <br> (J) | Paid Capped at SIR \& Aggregate (K) |
| 2002-2003 | \$12,459,622 | \$0 | \$0 | \$12,459,622 | \$3,575,194 | \$7,812,657 | \$4,646,965 | \$4,237,463 | \$8,884,428 | \$8,884,428 |
| 2003-2004 | 5,715,419 | 0 | 0 | 5,715,419 | 0 | 2,205,881 | 3,509,537 | 2,205,881 | 5,715,419 | 5,715,419 |
| 2004-2005 | 3,909,704 | 0 | 0 | 3,909,704 | 40,367 | 1,465,098 | 2,444,607 | 1,424,731 | 3,869,337 | 3,869,337 |
| 2005-2006 | 7,274,863 | 0 | 0 | 7,274,863 | 1,643,182 | 4,327,503 | 2,947,359 | 2,684,321 | 5,631,680 | 5,631,680 |
| 2006-2007 | 4,548,052 | 0 | 0 | 4,548,052 | 0 | 1,419,184 | 3,128,868 | 1,419,184 | 4,548,052 | 4,548,052 |
| 2007-2008 | 5,982,106 | 0 | 0 | 5,982,106 | 183,478 | 2,834,846 | 3,147,259 | 2,651,369 | 5,798,628 | 5,798,628 |
| 2008-2009 | 5,485,923 | 0 | 0 | 5,485,923 | 120,835 | 2,774,220 | 2,711,703 | 2,653,385 | 5,365,088 | 5,365,088 |
| 2009-2010 | 3,874,500 | 0 | 0 | 3,874,500 | 0 | 1,335,978 | 2,538,522 | 1,335,978 | 3,874,500 | 3,874,500 |
| 2010-2011 | 3,571,075 | 0 | 0 | 3,571,075 | 0 | 1,557,549 | 2,013,526 | 1,557,549 | 3,571,075 | 3,571,075 |
| 2011-2012 | 6,357,185 | 0 | 0 | 6,357,185 | 22,224 | 3,532,539 | 2,824,647 | 3,510,315 | 6,334,961 | 6,334,961 |
| 2012-2013 | 6,613,044 | 0 | 0 | 6,613,044 | 0 | 3,304,442 | 3,308,601 | 3,304,442 | 6,613,044 | 6,613,044 |
| 2013-2014 | 9,703,564 | 0 | 0 | 9,703,564 | 5,385,480 | 7,473,784 | 2,229,780 | 2,088,304 | 4,318,084 | 4,318,084 |
| 2014-2015 | 7,286,913 | 0 | 0 | 7,286,913 | 549,140 | 4,348,520 | 2,938,392 | 3,799,381 | 6,737,773 | 6,737,773 |
| 2015-2016 | 8,371,359 | 0 | 0 | 8,371,359 | 2,240,574 | 5,245,615 | 3,125,745 | 3,005,041 | 6,130,786 | 6,130,786 |
| 2016-2017 | 38,537,696 | 0 | 0 | 38,537,696 | 30,359,615 | 35,654,272 | 2,883,424 | 5,294,657 | 8,178,080 | 8,178,080 |
| 2017-2018 | 2,623,375 | 0 | 0 | 2,623,375 | 0 | 774,401 | 1,848,975 | 774,401 | 2,623,375 | 2,623,375 |
| 2018-2019 | 2,422,650 | 0 | 0 | 2,422,650 | 0 | 850,476 | 1,572,174 | 850,476 | 2,422,650 | 2,422,650 |
| 2019-2020 | 2,589,280 | 0 | 0 | 2,589,280 | 0 | 515,377 | 2,073,903 | 515,377 | 2,589,280 | 2,589,280 |
| 2020-2021 | 41,055,551 | 0 | 0 | 41,055,551 | 34,299,175 | 38,582,392 | 2,473,160 | 4,283,217 | 6,756,376 | 6,756,376 |
| 2021-2022 | 1,911,606 | 0 | 0 | 1,911,606 | 0 | 351,404 | 1,560,201 | 351,404 | 1,911,606 | 1,911,606 |
| 2022-2023 | 921,281 | 0 | 0 | 921,281 | 0 | 0 | 921,281 | 0 | 921,281 | 921,281 |
| 2023-2024 | 70,221 | 0 | 0 | 70,221 | 0 | 0 | 70,221 | 0 | 70,221 | 70,221 |
| Total | \$181,284,987 | \$0 | \$0 | \$181,284,987 | \$78,419,263 | \$126,366,138 | \$54,918,849 | \$47,946,875 | \$102,865,724 | \$102,865,724 |

Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Authority.
(C)
(D)
(E) $(\mathrm{B})+(\mathrm{C})-(\mathrm{D})$.
(F) Sum of paid losses in excess of SIR.
(G) Sum of paid losses in excess of $\$ 100,000$.
(H) (E) - (G).
(I) (G) - (F).
(J) (E) - (F).
(K) Minimum of (J) and the aggregate stop loss. See $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Not Included.

PLAN JPA - Liability Program (\$100K and \$1M Analysis)
Case Reserves as of 12/31/23


Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) \$100K and \$1M Rate Analysis Appendix H, Page 1, Column (B) - \$100K and \$1M Rate Analysis Appendix H, Page 2, Column (B).
(C) $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix H, Page 1, Column (C) - \$100K and \$1M Rate Analysis Appendix H, Page 2, Column (C).
(D) $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix H, Page 1, Column (D) - $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix H, Page 2, Column (D).
(E) $(B)+(C)-(D)$.
(F) Sum of case reserves in excess of SIR.
(G) Sum of case reserves in excess of $\$ 100,000$.
(H) (E) - (G).
(I) (G) - (F).
(J) (E) - (F).
(K) Minimum of (J) and the aggregate stop loss. See \$100K and \$1M Rate Analysis Not Included.

Claim Counts as of 12/31/23

| Accident Year <br> (A) | Reported Claims <br> (B) | Additions to Reported Claims (C) | Subtractions from Reported Claims (D) | Adjusted Reported Claims (E) | Closed Claims (F) | Additions to Closed Claims (G) | Subtractions from Closed Claims (H) | Adjusted Closed Claims (I) | Open Claims (J) | Adjusted Open Claims (K) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2002-2003 | 755 | 0 | 0 | 755 | 755 | 0 | 0 | 755 | 0 | 0 |
| 2003-2004 | 627 | 0 | 0 | 627 | 627 | 0 | 0 | 627 | 0 | 0 |
| 2004-2005 | 566 | 0 | 0 | 566 | 566 | 0 | 0 | 566 | 0 | 0 |
| 2005-2006 | 562 | 0 | 0 | 562 | 562 | 0 | 0 | 562 | 0 | 0 |
| 2006-2007 | 577 | 0 | 0 | 577 | 577 | 0 | 0 | 577 | 0 | 0 |
| 2007-2008 | 662 | 0 | 0 | 662 | 662 | 0 | 0 | 662 | 0 | 0 |
| 2008-2009 | 590 | 0 | 0 | 590 | 590 | 0 | 0 | 590 | 0 | 0 |
| 2009-2010 | 519 | 0 | 0 | 519 | 519 | 0 | 0 | 519 | 0 | 0 |
| 2010-2011 | 418 | 0 | 0 | 418 | 418 | 0 | 0 | 418 | 0 | 0 |
| 2011-2012 | 433 | 0 | 0 | 433 | 433 | 0 | 0 | 433 | 0 | 0 |
| 2012-2013 | 494 | 0 | 0 | 494 | 493 | 0 | 0 | 493 | 1 | 1 |
| 2013-2014 | 440 | 0 | 0 | 440 | 440 | 0 | 0 | 440 | 0 | 0 |
| 2014-2015 | 473 | 0 | 0 | 473 | 473 | 0 | 0 | 473 | 0 | 0 |
| 2015-2016 | 486 | 0 | 0 | 486 | 485 | 0 | 0 | 485 | 1 | 1 |
| 2016-2017 | 511 | 0 | 0 | 511 | 509 | 0 | 0 | 509 | 2 | 2 |
| 2017-2018 | 488 | 0 | 0 | 488 | 487 | 0 | 0 | 487 | 1 | 1 |
| 2018-2019 | 427 | 0 | 0 | 427 | 424 | 0 | 0 | 424 | 3 | 3 |
| 2019-2020 | 428 | 0 | 0 | 428 | 413 | 0 | 0 | 413 | 15 | 15 |
| 2020-2021 | 380 | 0 | 0 | 380 | 357 | 0 | 0 | 357 | 23 | 23 |
| 2021-2022 | 421 | 0 | 0 | 421 | 369 | 0 | 0 | 369 | 52 | 52 |
| 2022-2023 | 614 | 0 | 0 | 614 | 418 | 0 | 0 | 418 | 196 | 196 |
| 2023-2024 | 165 | 0 | 0 | 165 | 65 | 0 | 0 | 65 | 100 | 100 |
| Total | 11,036 | 0 | 0 | 11,036 | 10,642 | 0 | 0 | 10,642 | 394 | 394 |

Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Authority.
(C)
(D)
(E) $(B)+(C)-(D)$.
(F) Provided by the Authority.
(G)
(H)
(I) $(\mathrm{F})+(\mathrm{G})-(\mathrm{H})$.
(J) (B) - (F).
(K) (E) - (I).

PLAN JPA - Liability Program (\$100K and \$1M Analysis)
Exposure Measures

| Accident <br> Year | Total <br> Payroll <br> (\$00) | Inflation <br> Trend <br> Factor <br> (B) | Trended <br> Payroll |
| :---: | :---: | :---: | :---: |
| (A) |  | $(\$ 00)$ |  |
| $2002-2003$ | $3,255,273$ | 1.679 | 5 |
| $2003-2004$ | $3,401,137$ | 1.638 | $5,465,603$ |
| $2004-2005$ | $3,500,006$ | 1.598 | $5,571,062$ |
| $2005-2006$ | $3,557,514$ | 1.559 | $5,593,010$ |
| $2006-2007$ | $3,705,140$ | 1.521 | $5,546,164$ |
| $2007-2008$ | $3,909,370$ | 1.484 | $5,635,518$ |
| $2008-2009$ | $4,049,436$ | 1.448 | $5,801,505$ |
| $2009-2010$ | $3,940,725$ | 1.413 | $5,863,583$ |
| $2010-2011$ | $3,534,443$ | 1.379 | $5,568,244$ |
| $2011-2012$ | $3,457,490$ | 1.345 | $4,873,997$ |
| $2012-2013$ | $3,480,180$ | 1.312 | $4,650,324$ |
| $2013-2014$ | $3,430,028$ | 1.280 | $4,565,996$ |
| $2014-2015$ | $3,550,523$ | 1.249 | $4,390,436$ |
| $2015-2016$ | $3,697,212$ | 1.219 | $4,434,603$ |
| $2016-2017$ | $3,936,364$ | 1.189 | $4,506,901$ |
| $2017-2018$ | $4,135,396$ | 1.160 | $4,680,337$ |
| $2018-2019$ | $4,265,647$ | 1.132 | $4,797,059$ |
| $2019-2020$ | $4,346,148$ | 1.104 | $4,828,712$ |
| $2020-2021$ | $4,396,808$ | 1.077 | $4,798,147$ |
| $2021-2022$ | $4,640,638$ | 1.051 | $4,735,362$ |
| $2022-2023$ | $4,955,641$ | 1.025 | $4,877,311$ |
| $2023-2024$ | $5,168,687$ | 1.000 | $5,079,532$ |
| $2024-2025$ | $5,323,749$ | 1.000 | $5,168,687$ |

Notes:
(A) Provided by the Authority.
(B) Based on industry factors.
(C) $\quad(A) \times(B)$.

PLAN JPA - Liability Program (\$100K to \$1M Analysis)

Selection of Projected Limited Loss Rate and Projection of Program Losses and ULAE

| Accident | Ultimate <br> Limited <br> Losses | Trend <br> Factor <br> (A) | Trended <br> Limited <br> Losses | Trended <br> Payroll <br> (\$00) | Trended <br> Limited <br> Loss Rate |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | (C) | (D) | (E) |

Notes appear on the next page.

## Notes:

(A) From \$100K to \$1M Rate Analysis Not Included, Page 2, Column (F). For purposes of projecting future losses, losses are capped at \$100,000 per occurrence.
(B) From \$100K to \$1M Rate Analysis Appendix E, Page 1, Column (B).
(C) $(\mathrm{A}) \times(\mathrm{B})$.
(D) From \$100K to \$1M Rate Analysis Appendix I, Column (C).
(E) (C)/(D).
(F) Selected based on (E).
(G) Based on a Burr distribution, a mathematical model of claim sizes.
(H) From \$100K to \$1M Rate Analysis Appendix E.
(I) $(\mathrm{F}) \times(\mathrm{G}) \times(\mathrm{H})$.
(J) From \$100K to \$1M Rate Analysis Appendix I, Column (C).
(K) (I) $\times(\mathrm{J})$.
(L) Based on an estimated claim closing pattern and the Authority's historical claims administration expenses.
(M) $(\mathrm{K})+(\mathrm{L})$.

This exhibit shows the calculation of future loss costs based on the past loss rates. The projections will be accurate only to the extent that what has happened in the past is representative of what will happen in the future.


Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Authority. These losses exclude amounts over \$100,000 per occurrence.
(C) From $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix A, Page 2.
(D) (B) $\times$ (C). These estimated losses exclude amounts over $\$ 100,000$ per occurrence.
(E) Losses capped at the Authority's SIR. Amounts are provided by the Authority.
(F) Derived from factors on $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix A, Page 4.
(G) $(\mathrm{E}) \times(\mathrm{F})$.

This method tends to understate ultimate losses for the most recent several years because the large losses for those years generally have not yet emerged at the time of our review.

This exhibit shows the calculation of estimated ultimate losses for each year based on paid losses and case reserves as reported by the claims administrator. These losses tend to "develop" or change from period to period as more information becomes available about the cases. This development tends to follow quantifiable patterns over time.

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PLAN JPA - Liability Program (\$100K to \$1M Analysis)
Reported Loss Development

| Limited Losses Reported as of: |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident | 6 | 18 | 30 | 42 | 54 | 66 | 78 | 90 | 102 | 114 | 126 |
| Year | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 365,543 | 1,476,042 | 3,953,355 | 3,589,550 | 4,887,581 | 4,262,606 | 4,441,309 | 4,439,396 | 4,497,701 | 4,495,632 | 4,437,327 |
| 2003-2004 |  | 66,478 | 363,636 | 398,884 | 890,862 | 986,705 | 1,227,451 | 1,518,119 | 2,427,012 | 2,205,001 | 2,205,881 |
| 2004-2005 |  | 586,598 | 1,140,449 | 1,700,075 | 1,700,074 | 1,675,074 | 1,675,074 | 1,675,074 | 1,675,074 | 1,675,074 | 1,675,074 |
| 2005-2006 | 25,000 | 331,278 | 1,741,278 | 2,362,206 | 2,728,549 | 2,867,756 | 2,979,841 | 3,131,757 | 3,206,757 | 3,045,410 | 3,008,029 |
| 2006-2007 | 200,000 | 292,450 | 332,811 | 374,101 | 717,777 | 1,013,370 | 1,474,688 | 1,413,760 | 1,413,623 | 1,413,623 | 1,413,623 |
| 2007-2008 | 100,000 | 633,000 | 1,573,836 | 2,796,222 | 3,688,008 | 4,360,051 | 4,253,945 | 4,203,645 | 4,203,645 | 4,203,645 | 4,203,645 |
| 2008-2009 |  | 267,405 | 1,881,941 | 3,667,001 | 3,485,698 | 3,032,463 | 2,796,842 | 2,751,812 | 2,751,812 | 2,751,812 | 2,751,812 |
| 2009-2010 | 588,210 | 2,839,236 | 3,579,153 | 3,176,666 | 2,837,525 | 2,823,031 | 2,079,066 | 2,059,066 | 2,036,496 | 2,036,496 | 2,036,496 |
| 2010-2011 |  | 1,983,751 | 4,432,358 | 2,267,822 | 1,756,558 | 1,759,837 | 1,709,837 | 1,709,837 | 1,709,837 | 1,709,837 | 1,709,837 |
| 2011-2012 |  | 5,467,351 | 5,436,904 | 4,482,628 | 3,623,434 | 3,455,028 | 3,603,332 | 3,672,332 | 3,672,332 | 3,672,332 | 3,672,332 |
| 2012-2013 |  | 4,426,268 | 2,923,860 | 1,852,321 | 1,745,668 | 2,223,502 | 2,145,524 | 2,274,806 | 3,563,734 | 3,563,734 | 3,738,734 |
| 2013-2014 | 307,000 | 1,025,000 | 1,218,912 | 2,036,429 | 2,549,713 | 2,720,508 | 2,696,970 | 2,609,433 | 2,609,434 | 2,619,477 | 2,619,477 |
| 2014-2015 |  | 2,287,736 | 2,959,162 | 3,811,606 | 4,292,047 | 4,271,609 | 4,273,028 | 4,273,028 | 4,273,028 | 4,273,028 |  |
| 2015-2016 |  | 575,005 | 2,175,661 | 2,839,484 | 3,255,772 | 3,254,877 | 3,125,229 | 3,134,946 | 3,019,948 |  |  |
| 2016-2017 | 10,002 | 1,597,500 | 2,927,832 | 4,486,306 | 5,196,650 | 5,165,945 | 5,319,453 | 5,331,793 |  |  |  |
| 2017-2018 |  | 145,002 | 597,690 | 818,662 | 773,258 | 775,051 | 774,401 |  |  |  |  |
| 2018-2019 |  |  | 391,223 | 717,128 | 1,028,207 | 995,732 |  |  |  |  |  |
| 2019-2020 |  |  | 66,812 | 456,550 | 2,034,323 |  |  |  |  |  |  |
| 2020-2021 | 905,000 | 2,019,771 | 3,272,283 | 6,910,757 |  |  |  |  |  |  |  |
| 2021-2022 | 50,000 | 569,442 | 3,905,384 |  |  |  |  |  |  |  |  |
| 2022-2023 |  | 3,072,909 |  |  |  |  |  |  |  |  |  |
| 2023-2024 | 120,000 |  |  |  |  |  |  |  |  |  |  |


| Reported Loss Development Factors: |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6-18 | 18-30 | 30-42 | 42-54 | 54-66 | 66-78 | 78-90 | 90-102 | 102-114 | 114-126 | 126-138 |
|  | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 4.038 | 2.678 | 0.908 | 1.362 | 0.872 | 1.042 | 1.000 | 1.013 | 1.000 | 0.987 | 1.017 |
| 2003-2004 |  | 5.470 | 1.097 | 2.233 | 1.108 | 1.244 | 1.237 | 1.599 | 0.909 | 1.000 | 1.000 |
| 2004-2005 |  | 1.944 | 1.491 | 1.000 | 0.985 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2005-2006 | 13.251 | 5.256 | 1.357 | 1.155 | 1.051 | 1.039 | 1.051 | 1.024 | 0.950 | 0.988 | 1.000 |
| 2006-2007 | 1.462 | 1.138 | 1.124 | 1.919 | 1.412 | 1.455 | 0.959 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2007-2008 | 6.330 | 2.486 | 1.777 | 1.319 | 1.182 | 0.976 | 0.988 | 1.000 | 1.000 | 1.000 | 0.955 |
| 2008-2009 |  | 7.038 | 1.949 | 0.951 | 0.870 | 0.922 | 0.984 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2009-2010 | 4.827 | 1.261 | 0.888 | 0.893 | 0.995 | 0.736 | 0.990 | 0.989 | 1.000 | 1.000 | 1.000 |
| 2010-2011 |  | 2.234 | 0.512 | 0.775 | 1.002 | 0.972 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2011-2012 |  | 0.994 | 0.824 | 0.808 | 0.954 | 1.043 | 1.019 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2012-2013 |  | 0.661 | 0.634 | 0.942 | 1.274 | 0.965 | 1.060 | 1.567 | 1.000 | 1.049 | 1.000 |
| 2013-2014 | 3.339 | 1.189 | 1.671 | 1.252 | 1.067 | 0.991 | 0.968 | 1.000 | 1.004 | 1.000 |  |
| 2014-2015 |  | 1.293 | 1.288 | 1.126 | 0.995 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |
| 2015-2016 |  | 3.784 | 1.305 | 1.147 | 1.000 | 0.960 | 1.003 | 0.963 |  |  |  |
| 2016-2017 | 159.718 | 1.833 | 1.532 | 1.158 | 0.994 | 1.030 | 1.002 |  |  |  |  |
| 2017-2018 |  | 4.122 | 1.370 | 0.945 | 1.002 | 0.999 |  |  |  |  |  |
| 2018-2019 |  |  | 1.833 | 1.434 | 0.968 |  |  |  |  |  |  |
| 2019-2020 |  |  | 6.833 | 4.456 |  |  |  |  |  |  |  |
| 2020-2021 | 2.232 | 1.620 | 2.112 |  |  |  |  |  |  |  |  |
| 2021-2022 | 11.389 | 6.858 |  |  |  |  |  |  |  |  |  |

2022-2023

|  | $6-18$ <br> Months | $18-30$ <br> Months | $30-42$ <br> Months | $42-54$ <br> Months | 54-66 <br> Months | $66-78$ <br> Months | $78-90$ <br> Months | $90-102$ <br> Months | $102-114$ <br> Months | $114-126$ <br> Months | 126-138 <br> Months |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average | 22.954 | 2.881 | 1.606 | 1.382 | 1.043 | 1.023 | 1.017 | 1.083 | 0.989 | 1.002 | 0.997 |
| Dollar-Weighted |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ |  |  | 2.167 | 1.925 | 0.991 | 1.003 | 1.002 | 0.989 | 1.001 | 1.018 | 1.000 |
| $4-\mathrm{yr}$ |  |  | 2.057 | 1.394 | 0.994 | 1.002 | 0.996 | 1.096 | 1.001 | 1.015 | 1.000 |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 2.945 | 1.254 | 1.006 | 0.965 | 0.972 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Prior | 5.500 | 2.325 | 1.615 | 1.169 | 1.024 | 1.009 | 1.006 | 1.015 | 1.010 | 1.005 | 1.004 |
| Selected | 5.500 | 2.325 | 1.861 | 1.468 | 1.024 | 1.009 | 1.006 | 1.015 | 1.010 | 1.005 | 1.004 |
| Cumulated | 37.802 | 6.873 | 2.956 | 1.588 | 1.082 | 1.056 | 1.047 | 1.040 | 1.025 | 1.015 | 1.010 |

DRAFT
PLAN JPA - Liability Program (\$100K to \$1M Analysis)
Reported Loss Development
Accident

Limited Losses Reported as of: Year
2002-2003 2003-2004 2004-2005 2005-2006 2006-2007 2007-2008 2008-2009 2009-2010 $\begin{array}{ccccccccccc}138 & 150 & 162 & 174 & 186 & 198 & 210 & 222 & 234 & 246 & 258 \\ \text { Months } & \text { Months } & \text { Months } & \text { Months } & \text { Months } & \text { Months } & \text { Months } & \text { Months } & \text { Months } & \text { Months } & \text { Months }\end{array}$ $\begin{array}{lllllllllll}4,512,327 & 4,509,757 & 4,509,756 & 4,509,756 & 4,509,756 & 4,478,397 & 4,478,397 & 4,478,397 & 4,478,397 & 4,478,397 & 4,478,397\end{array}$ $\begin{array}{llllllllll}2,205,881 & 2,205,881 & 2,205,881 & 2,205,881 & 2,205,881 & 2,205,881 & 2,205,881 & 2,205,881 & 2,205,881 & 2,205,881\end{array}$ $\begin{array}{llllllll}1,675,074 & 1,675,074 & 1,675,074 & 1,675,074 & 1,675,074 & 1,675,074 & 1,675,074 & 1,675,074 \\ 1,675,074\end{array}$ $\begin{array}{lllllll}3,008,029 & 3,008,029 & 3,008,029 & 3,008,029 & 3,008,029 & 3,008,029 & 3,008,029\end{array} 3,008,029$ $\begin{array}{llllllll}1,413,623 & 1,413,623 & 1,436,261 & 1,419,184 & 1,419,184 & 1,419,184 & 1,419,184\end{array}$ $\begin{array}{llllll}4,015,369 & 4,203,645 & 4,203,645 & 4,203,645 & 4,203,645 & 4,203,645\end{array}$ $\begin{array}{lllll}2,751,812 & 2,751,812 & 2,750,770 & 2,751,812 & 2,751,812\end{array}$ 2,036,496 2,036,496 2,036,496 2,036,496 1,709,837 1,709,837 1,709,837 3,672,332 3,714,138 3,738,734

Reported Loss Development Factors:

| $138-150$ | $150-162$ | $162-174$ | $174-186$ | $186-198$ | $198-210$ | $210-222$ | $222-234$ | $234-246$ | $246-258$ | $258-$ Ult. |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Months | Months | Months | $\begin{array}{l}\text { Months }\end{array}$ | $\begin{array}{l}\text { Months }\end{array}$ | $\begin{array}{l}\text { Months }\end{array}$ | $\begin{array}{l}\text { Months }\end{array}$ | $\begin{array}{l}\text { Months }\end{array}$ | $\begin{array}{l}\text { Months }\end{array}$ | $\begin{array}{l}\text { Months }\end{array}$ | Months |$)$

2012-2013
2013-2014
2014-2015
2015-2016
2016-2017
2017-2018
2018-2019
2019-2020
2020-2021
2021-2022
2022-2023

|  | 138-150 Months | 150-162 Months | 162-174 <br> Months | 174-186 Months | 186-198 <br> Months | 198-210 Months | 210-222 <br> Months | 222-234 Months | 234-246 <br> Months | 246-258 <br> Months | 258-Ult. Months |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average | 1.006 | 1.002 | 0.999 | 1.000 | 0.999 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |
| Dollar-Weighted Averages |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ | 1.006 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |
| 4 -yr | 1.004 | 1.000 | 0.998 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Prior | 1.003 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Selected | 1.003 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Cumulated | 1.006 | 1.003 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |

Paid Loss Development

|  | Limited Paid | Program |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Paid Loss | Ultimate | Paid | Paid Loss | Ultimate |
| Accident | Losses as | Development | Limited | Losses | Development | Program |
| Year <br> (A) | of $12 / 31 / 23$ <br> (B) | Factor <br> (C) | Losses <br> (D) | of $12 / 31 / 23$ <br> (E) | Factor <br> (F) | Losses <br> (G) |
| 2002-2003 | \$4,237,463 | 1.000 | \$4,237,463 | \$4,237,463 | 1.000 | \$4,237,463 |
| 2003-2004 | 2,205,881 | 1.000 | 2,205,881 | 2,205,881 | 1.000 | 2,205,881 |
| 2004-2005 | 1,424,731 | 1.000 | 1,424,731 | 1,424,731 | 1.000 | 1,424,731 |
| 2005-2006 | 2,684,321 | 1.000 | 2,684,321 | 2,684,321 | 1.000 | 2,684,321 |
| 2006-2007 | 1,419,184 | 1.000 | 1,419,184 | 1,419,184 | 1.000 | 1,419,184 |
| 2007-2008 | 2,651,369 | 1.000 | 2,651,369 | 2,651,369 | 1.000 | 2,651,369 |
| 2008-2009 | 2,653,385 | 1.000 | 2,653,385 | 2,653,385 | 1.000 | 2,653,385 |
| 2009-2010 | 1,335,978 | 1.000 | 1,335,978 | 1,335,978 | 1.000 | 1,335,978 |
| 2010-2011 | 1,557,549 | 1.001 | 1,559,107 | 1,557,549 | 1.001 | 1,559,107 |
| 2011-2012 | 3,510,315 | 1.002 | 3,517,336 | 3,510,315 | 1.002 | 3,517,336 |
| 2012-2013 | 3,304,442 | 1.007 | 3,327,573 | 3,304,442 | 1.007 | 3,327,573 |
| 2013-2014 | 2,088,304 | 1.008 | 2,105,010 | 2,088,304 | 1.008 | 2,105,010 |
| 2014-2015 | 3,799,381 | 1.013 | 3,848,773 | 3,799,381 | 1.013 | 3,848,773 |
| 2015-2016 | 3,005,041 | 1.019 | 3,062,137 | 3,005,041 | 1.019 | 3,062,137 |
| 2016-2017 | 5,294,657 | 1.072 | 5,675,872 | 5,294,657 | 1.072 | 5,675,872 |
| 2017-2018 | 774,401 | 1.121 | 868,104 | 774,401 | 1.121 | 868,104 |
| 2018-2019 | 850,476 | 1.254 | 1,066,497 | 850,476 | 1.254 | 1,066,497 |
| 2019-2020 | 515,377 | 1.435 | 739,566 | 515,377 | 1.435 | 739,566 |
| 2020-2021 | 4,283,217 | 2.557 | 7,838,186 | 4,283,217 | 2.557 | 7,838,186 |
| 2021-2022 | 351,404 | 6.398 | 2,248,283 | 351,404 | 6.398 | 2,248,283 |
| 2022-2023 | 0 | 28.791 | 0 | 0 | 28.791 | 0 |
| Totals | \$47,946,876 |  | \$54,468,756 | \$47,946,876 |  | \$54,468,756 |

Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Authority. These losses exclude amounts over \$100,000 per occurrence.
(C) From \$100K to \$1M Rate Analysis Appendix B, Page 2.
(D) (B) $x(C)$. These estimated losses exclude amounts over \$100,000 per occurrence.
(E) Losses capped at the Authority's SIR. Amounts are provided by the Authority.
(F) Derived from factors on $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix B, Page 4.
(G) $(E) \times(F)$.

This method tends to understate ultimate losses for the most recent several years because the large losses for those years generally have not yet emerged at the time of our review.

This exhibit shows the calculation of estimated ultimate losses for each year based on paid losses as reported by the claims administrator. These losses tend to "develop" or change from period to period as more information becomes available about the cases. This development tends to follow quantifiable patterns over time.

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PLAN JPA - Liability Program (\$100K to \$1M Analysis)
Paid Loss Development

| Limited Losses Paid as of: |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident | 6 | 18 | 30 | 42 | 54 | 66 | 78 | 90 | 102 | 114 | 126 |
| Year | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 75,543 | 903,527 | 2,226,102 | 3,446,317 | 3,946,802 | 3,910,106 | 4,427,910 | 4,439,396 | 4,439,396 | 4,432,327 | 4,432,327 |
| 2003-2004 |  | 15,692 | 363,636 | 379,734 | 682,512 | 766,935 | 1,013,004 | 1,283,354 | 2,244,553 | 2,205,001 | 2,205,881 |
| 2004-2005 |  | 6,598 | 310,953 | 1,675,075 | 1,675,075 | 1,675,075 | 1,675,075 | 1,675,075 | 1,675,075 | 1,675,075 | 1,675,075 |
| 2005-2006 |  | 208,642 | 211,412 | 862,224 | 2,089,131 | 2,710,478 | 2,891,138 | 2,950,433 | 2,986,634 | 2,989,043 | 3,008,028 |
| 2006-2007 | 6,182 | 15,240 | 69,317 | 308,983 | 521,929 | 942,901 | 1,426,352 | 1,413,623 | 1,413,623 | 1,413,623 | 1,413,623 |
| 2007-2008 |  | 54,284 | 602,929 | 1,401,455 | 2,571,860 | 3,424,876 | 4,203,946 | 4,203,646 | 4,203,646 | 4,203,646 | 4,203,646 |
| 2008-2009 |  | 19,904 | 228,676 | 1,724,990 | 2,057,605 | 2,253,588 | 2,717,684 | 2,751,812 | 2,751,812 | 2,751,812 | 2,751,812 |
| 2009-2010 | 219,495 | 285,835 | 559,909 | 1,786,817 | 1,978,733 | 1,997,847 | 2,029,066 | 2,033,765 | 2,036,496 | 2,036,496 | 2,036,496 |
| 2010-2011 |  | 244,011 | 492,996 | 847,767 | 1,631,751 | 1,709,837 | 1,709,837 | 1,709,837 | 1,709,837 | 1,709,837 | 1,709,837 |
| 2011-2012 |  | 183,567 | 1,126,697 | 2,824,229 | 3,464,935 | 3,421,881 | 3,558,192 | 3,581,744 | 3,592,130 | 3,606,084 | 3,608,407 |
| 2012-2013 |  | 325,184 | 714,607 | 1,364,385 | 1,590,037 | 1,843,015 | 2,095,870 | 2,177,287 | 3,128,107 | 3,146,370 | 3,262,762 |
| 2013-2014 |  | 45,594 | 562,912 | 1,541,662 | 2,337,114 | 2,372,509 | 2,583,001 | 2,609,433 | 2,609,433 | 2,619,477 | 2,619,477 |
| 2014-2015 |  | 1,560,730 | 1,844,263 | 2,180,858 | 4,183,215 | 4,271,609 | 4,273,028 | 4,273,028 | 4,273,028 | 4,273,028 |  |
| 2015-2016 |  |  | 155,478 | 1,714,285 | 2,562,714 | 2,787,512 | 2,991,237 | 3,001,379 | 3,005,041 |  |  |
| 2016-2017 |  |  | 1,417,546 | 2,996,157 | 3,400,847 | 4,466,711 | 4,690,666 | 5,294,657 |  |  |  |
| 2017-2018 |  | 56,752 | 356,919 | 681,757 | 719,295 | 775,051 | 774,401 |  |  |  |  |
| 2018-2019 |  |  | 73,233 | 515,432 | 791,792 | 850,476 |  |  |  |  |  |
| 2019-2020 |  |  |  | 19,385 | 515,377 |  |  |  |  |  |  |
| 2020-2021 |  | 947,057 | 1,939,012 | 4,283,217 |  |  |  |  |  |  |  |
| 2021-2022 |  |  | 351,404 |  |  |  |  |  |  |  |  |

2022-2023 2023-2024

Paid Loss Development Factors:

| 6-18 | Paid Loss Development Factors: |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 18-30 | 30-42 | 42-54 | 54-66 | 66-78 | 78-90 | 90-102 | 102-114 | 114-126 | 126-138 |
| Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 11.960 | 2.464 | 1.548 | 1.145 | 0.991 | 1.132 | 1.003 | 1.000 | 0.998 | 1.000 | 1.005 |
|  | 23.173 | 1.044 | 1.797 | 1.124 | 1.321 | 1.267 | 1.749 | 0.982 | 1.000 | 1.000 |
|  | 47.128 | 5.387 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
|  | 1.013 | 4.078 | 2.423 | 1.297 | 1.067 | 1.021 | 1.012 | 1.001 | 1.006 | 1.000 |
| 2.465 | 4.548 | 4.458 | 1.689 | 1.807 | 1.513 | 0.991 | 1.000 | 1.000 | 1.000 | 1.000 |
|  | 11.107 | 2.324 | 1.835 | 1.332 | 1.227 | 1.000 | 1.000 | 1.000 | 1.000 | 0.955 |
|  | 11.489 | 7.543 | 1.193 | 1.095 | 1.206 | 1.013 | 1.000 | 1.000 | 1.000 | 1.000 |
| 1.302 | 1.959 | 3.191 | 1.107 | 1.010 | 1.016 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 |
|  | 2.020 | 1.720 | 1.925 | 1.048 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
|  | 6.138 | 2.507 | 1.227 | 0.988 | 1.040 | 1.007 | 1.003 | 1.004 | 1.001 | 1.002 |
|  | 2.198 | 1.909 | 1.165 | 1.159 | 1.137 | 1.039 | 1.437 | 1.006 | 1.037 | 1.025 |
|  | 12.346 | 2.739 | 1.516 | 1.015 | 1.089 | 1.010 | 1.000 | 1.004 | 1.000 |  |
|  | 1.182 | 1.183 | 1.918 | 1.021 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |
|  |  | 11.026 | 1.495 | 1.088 | 1.073 | 1.003 | 1.001 |  |  |  |
|  |  | 2.114 | 1.135 | 1.313 | 1.050 | 1.129 |  |  |  |  |
|  | 6.289 | 1.910 | 1.055 | 1.078 | 0.999 |  |  |  |  |  |
|  |  | 7.038 | 1.536 | 1.074 |  |  |  |  |  |  |
|  |  |  | 26.586 |  |  |  |  |  |  |  |
|  | 2.047 | 2.209 |  |  |  |  |  |  |  |  |

2021-2022
2022-2023

|  | $6-18$ <br> Months | 18-30 <br> Months | $30-42$ <br> Months | $42-54$ <br> Months | $54-66$ <br> Months | 66-78 <br> Months | $78-90$ <br> Months | $90-102$ <br> Months | $102-114$ <br> Months | $114-126$ <br> Months | $126-138$ <br> Months |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average | 5.242 | 9.007 | 3.552 | 2.875 | 1.144 | 1.117 | 1.032 | 1.086 | 1.000 | 1.004 | 0.999 |
| Dollar-Weighted |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ |  |  |  | 1.666 | 1.240 | 1.053 | 1.051 | 1.000 | 1.003 | 1.013 | 1.010 |
| $4-\mathrm{yr}$ |  |  |  | 1.288 | 1.188 | 1.035 | 1.044 | 1.079 | 1.003 | 1.011 | 1.008 |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 4.218 | 2.117 | 1.446 | 1.151 | 1.057 | 1.033 | 1.015 | 1.010 | 1.008 | 1.008 | 1.006 |
| Prior | 9.100 | 4.500 | 2.502 | 1.418 | 1.144 | 1.119 | 1.051 | 1.040 | 1.008 | 1.005 | 1.002 |
| Selected | 9.100 | 4.500 | 2.502 | 1.782 | 1.144 | 1.119 | 1.046 | 1.052 | 1.006 | 1.005 | 1.001 |
| Cumulated | 261.998 | 28.791 | 6.398 | 2.557 | 1.435 | 1.254 | 1.121 | 1.072 | 1.019 | 1.013 | 1.008 |

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PLAN JPA - Liability Program (\$100K to \$1M Analysis)
Paid Loss Development

| Limited Losses Paid as of: |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident | 138 | 150 | 162 | 174 | 186 | 198 | 210 | 222 | 234 | 246 | 258 |
| Year | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 4,455,192 | 4,470,710 | 4,477,671 | 4,478,398 | 4,478,398 | 4,478,398 | 4,478,398 | 4,478,398 | 4,478,398 | 4,478,398 | 4,478,398 |
| 2003-2004 | 2,205,881 | 2,205,881 | 2,205,881 | 2,205,881 | 2,205,881 | 2,205,881 | 2,205,881 | 2,205,881 | 2,205,881 | 2,205,881 |  |
| 2004-2005 | 1,675,075 | 1,675,075 | 1,675,075 | 1,675,075 | 1,675,075 | 1,675,075 | 1,675,075 | 1,675,075 | 1,675,075 |  |  |
| 2005-2006 | 3,008,028 | 3,008,028 | 3,008,028 | 3,008,028 | 3,008,028 | 3,008,028 | 3,008,028 | 3,008,028 |  |  |  |
| 2006-2007 | 1,413,623 | 1,413,623 | 1,413,623 | 1,419,184 | 1,419,184 | 1,419,184 | 1,419,184 |  |  |  |  |
| 2007-2008 | 4,015,369 | 4,203,646 | 4,203,646 | 4,203,646 | 4,203,646 | 4,203,646 |  |  |  |  |  |
| 2008-2009 | 2,751,812 | 2,751,812 | 2,750,770 | 2,751,812 | 2,751,812 |  |  |  |  |  |  |
| 2009-2010 | 2,036,496 | 2,036,496 | 2,036,496 | 2,036,496 |  |  |  |  |  |  |  |
| 2010-2011 | 1,709,837 | 1,709,837 | 1,709,837 |  |  |  |  |  |  |  |  |
| 2011-2012 | 3,617,170 | 3,714,137 |  |  |  |  |  |  |  |  |  |
| 2012-2013 | 3,343,760 |  |  |  |  |  |  |  |  |  |  |

Paid Loss Development Factors:

2002-2003

| 138-150 | $150-162$ | $162-174$ | $174-186$ | $186-198$ | $198-210$ | $210-222$ | $222-234$ | $234-246$ | $246-258$ | $258-$ Ult. |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 1.003 | 1.002 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |
| 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |
| 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |
| 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |
| 1.000 | 1.000 | 1.004 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |
| 1.047 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |
| 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |
| 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |  |
| 1.000 | 1.000 |  |  |  |  |  |  |  |  |  |
| 1.027 |  |  |  |  |  |  |  |  |  |  |

2012-2013
2013-2014
2014-2015
2015-2016
2016-2017
2017-2018
2018-2019
2019-2020
2020-2021
2021-2022
2022-2023

|  | $138-150$ <br> Months | 150-162 Months | $162-174$ <br> Months | 174-186 <br> Months | 186-198 <br> Months | $198-210$ <br> Months | $210-222$ <br> Months | $222-234$ <br> Months | $234-246$ <br> Months | 246-258 <br> Months | 258-Ult. <br> Months |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average | 1.008 | 1.000 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |
| Dollar-Weighted |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ | 1.013 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |
| $4-\mathrm{yr}$ | 1.010 | 1.000 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 1.006 | 1.004 | 1.004 | 1.002 | 1.002 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.000 |
| Prior | 1.004 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Selected | 1.005 | 1.001 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Cumulated | 1.007 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |

# PLAN JPA - Liability Program (\$100K to \$1M Analysis) <br> Exposure and Development Method <br> Based on Reported Losses 

| Accident Year | Trended Payroll (\$00) (A) | Reported Losses as of $12 / 31 / 23$ (B) | Loss Development Factor (C) | Percentage of Losses Yet to Be Reported (D) | Program Rate (E) | Incurred but not Reported (IBNR) (F) | Ultimate Program Losses (G) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2002-2003 | 5,465,603 | 4,237,463 | 1.000 | 0.000 | 0.775 | 0 | 4,237,463 |
| 2003-2004 | 5,571,062 | 2,205,881 | 1.000 | 0.000 | 0.396 | 0 | 2,205,881 |
| 2004-2005 | 5,593,010 | 1,424,731 | 1.000 | 0.000 | 0.255 | 0 | 1,424,731 |
| 2005-2006 | 5,546,164 | 2,684,321 | 1.000 | 0.000 | 0.484 | 0 | 2,684,321 |
| 2006-2007 | 5,635,518 | 1,419,184 | 1.000 | 0.000 | 0.252 | 0 | 1,419,184 |
| 2007-2008 | 5,801,505 | 2,651,368 | 1.000 | 0.000 | 0.457 | 0 | 2,651,368 |
| 2008-2009 | 5,863,583 | 2,653,385 | 1.000 | 0.000 | 0.453 | 0 | 2,653,385 |
| 2009-2010 | 5,568,244 | 1,335,978 | 1.000 | 0.000 | 0.240 | 0 | 1,335,978 |
| 2010-2011 | 4,873,997 | 1,557,549 | 1.001 | 0.001 | 0.320 | 1,560 | 1,559,109 |
| 2011-2012 | 4,650,324 | 3,510,315 | 1.003 | 0.003 | 0.755 | 10,533 | 3,520,848 |
| 2012-2013 | 4,565,996 | 3,699,416 | 1.006 | 0.006 | 0.815 | 22,328 | 3,721,744 |
| 2013-2014 | 4,390,436 | 2,088,304 | 1.010 | 0.010 | 0.476 | 20,898 | 2,109,202 |
| 2014-2015 | 4,434,603 | 3,799,380 | 1.015 | 0.015 | 0.857 | 57,007 | 3,856,387 |
| 2015-2016 | 4,506,901 | 3,019,948 | 1.025 | 0.024 | 0.687 | 74,310 | 3,094,258 |
| 2016-2017 | 4,680,337 | 5,331,793 | 1.040 | 0.038 | 1.185 | 210,756 | 5,542,549 |
| 2017-2018 | 4,797,059 | 774,401 | 1.047 | 0.045 | 0.161 | 34,755 | 809,156 |
| 2018-2019 | 4,828,712 | 995,732 | 1.056 | 0.053 | 1.034 | 264,623 | 1,260,355 |
| 2019-2020 | 4,798,147 | 2,034,323 | 1.082 | 0.076 | 1.060 | 386,539 | 2,420,862 |
| 2020-2021 | 4,735,362 | 6,910,757 | 1.588 | 0.370 | 1.086 | 1,902,763 | 8,813,520 |
| 2021-2022 | 4,877,311 | 3,905,384 | 2.956 | 0.662 | 1.113 | 3,593,632 | 7,499,016 |
| 2022-2023 | 5,079,532 | 3,072,909 | 6.873 | 0.855 | 1.141 | 4,955,363 | 8,028,272 |
| Totals | 106,263,406 | \$59,312,522 |  |  |  | \$11,535,067 | \$70,847,589 |

Notes:
(A) From $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix I, Column (C).
(B) Provided by the Authority. These losses exclude amounts incurred above the Authority's SIR for each year.
(C) From $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix A, Page 1, Column (F).
(D) 1-1/(C).
(E) From \$100K to \$1M Rate Analysis Appendix C, Page 3, Column (H).
(F) $(\mathrm{A}) \times(\mathrm{D}) \times(\mathrm{E})$.
(G) $(B)+(F)$.

This exhibit shows the calculation of ultimate losses based on the assumption that there is an underlying relationship between losses and exposure that changes in regular ways over time. The method relies on the premise that the losses that are currently unreported will cost what this relationship would suggest.

PLAN JPA - Liability Program (\$100K to \$1M Analysis)
Exposure and Development Method
Based on Paid Losses

| Accident <br> Year | Trended Payroll (\$00) (A) | Paid Losses as of $12 / 31 / 23$ <br> (B) | Loss <br> Development Factor (C) | Percentage of Losses Yet to Be Paid (D) | Program Rate (E) | Incurred but not Paid (F) | Ultimate Program Losses (G) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2002-2003 | 5,465,603 | 4,237,463 | 1.000 | 0.000 | 0.775 | 0 | 4,237,463 |
| 2003-2004 | 5,571,062 | 2,205,881 | 1.000 | 0.000 | 0.396 | 0 | 2,205,881 |
| 2004-2005 | 5,593,010 | 1,424,731 | 1.000 | 0.000 | 0.255 | 0 | 1,424,731 |
| 2005-2006 | 5,546,164 | 2,684,321 | 1.000 | 0.000 | 0.484 | 0 | 2,684,321 |
| 2006-2007 | 5,635,518 | 1,419,184 | 1.000 | 0.000 | 0.252 | 0 | 1,419,184 |
| 2007-2008 | 5,801,505 | 2,651,369 | 1.000 | 0.000 | 0.457 | 0 | 2,651,369 |
| 2008-2009 | 5,863,583 | 2,653,385 | 1.000 | 0.000 | 0.453 | 0 | 2,653,385 |
| 2009-2010 | 5,568,244 | 1,335,978 | 1.000 | 0.000 | 0.240 | 0 | 1,335,978 |
| 2010-2011 | 4,873,997 | 1,557,549 | 1.001 | 0.001 | 0.320 | 1,560 | 1,559,109 |
| 2011-2012 | 4,650,324 | 3,510,315 | 1.002 | 0.002 | 0.755 | 7,022 | 3,517,337 |
| 2012-2013 | 4,565,996 | 3,304,442 | 1.007 | 0.007 | 0.815 | 26,049 | 3,330,491 |
| 2013-2014 | 4,390,436 | 2,088,304 | 1.008 | 0.008 | 0.476 | 16,719 | 2,105,023 |
| 2014-2015 | 4,434,603 | 3,799,381 | 1.013 | 0.013 | 0.857 | 49,406 | 3,848,787 |
| 2015-2016 | 4,506,901 | 3,005,041 | 1.019 | 0.019 | 0.687 | 58,829 | 3,063,870 |
| 2016-2017 | 4,680,337 | 5,294,657 | 1.072 | 0.067 | 1.185 | 371,595 | 5,666,252 |
| 2017-2018 | 4,797,059 | 774,401 | 1.121 | 0.108 | 0.161 | 83,411 | 857,812 |
| 2018-2019 | 4,828,712 | 850,476 | 1.254 | 0.203 | 1.034 | 1,013,556 | 1,864,032 |
| 2019-2020 | 4,798,147 | 515,377 | 1.435 | 0.303 | 1.060 | 1,541,069 | 2,056,446 |
| 2020-2021 | 4,735,362 | 4,283,217 | 2.557 | 0.609 | 1.086 | 3,131,845 | 7,415,062 |
| 2021-2022 | 4,877,311 | 351,404 | 6.398 | 0.844 | 1.113 | 4,581,609 | 4,933,013 |
| 2022-2023 | 5,079,532 |  | 28.791 | 0.965 | 1.141 | 5,592,895 | 5,592,895 |
| Totals | 106,263,406 | \$47,946,876 |  |  |  | \$16,475,565 | \$64,422,441 |

Notes:
(A) From $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix I, Column (C).
(B) Provided by the Authority. These losses exclude amounts paid above the Authority's SIR for each year.
(C) From $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix B, Page 1, Column (F).
(D) 1-1/(C).
(E) From $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix C, Page 3, Column (H).
(F) $(\mathrm{A}) \times(\mathrm{D}) \times(\mathrm{E})$.
(G) $(B)+(F)$.

This exhibit shows the calculation of ultimate losses based on the assumption that there is an underlying relationship between losses and exposure that changes in regular ways over time. The method relies on the premise that the losses that are currently unpaid will cost what this relationship would suggest.

PLAN JPA - Liability Program (\$100K to \$1M Analysis)

Exposure and Development Method

| Accident Year | Trended Payroll (\$00) (A) | Ultimate <br> Limited <br> Losses <br> (B) | Trend Factor (C) | Trended Limited Losses (D) | Trended Limited Loss Rate (E) | Limited Loss Rate (F) | Factor to SIR (G) | Program Loss Rate <br> (H) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 2002-2003 | 5,465,603 | 4,237,463 | 1.679 | 7,114,700 | 1.302 | 0.775 | 1.000 | 0.775 |
| 2003-2004 | 5,571,062 | 2,205,881 | 1.638 | 3,613,233 | 0.649 | 0.396 | 1.000 | 0.396 |
| 2004-2005 | 5,593,010 | 1,424,731 | 1.598 | 2,276,720 | 0.407 | 0.255 | 1.000 | 0.255 |
| 2005-2006 | 5,546,164 | 2,684,321 | 1.559 | 4,184,856 | 0.755 | 0.484 | 1.000 | 0.484 |
| 2006-2007 | 5,635,518 | 1,419,184 | 1.521 | 2,158,579 | 0.383 | 0.252 | 1.000 | 0.252 |
| 2007-2008 | 5,801,505 | 2,651,368 | 1.484 | 3,934,630 | 0.678 | 0.457 | 1.000 | 0.457 |
| 2008-2009 | 5,863,583 | 2,653,385 | 1.448 | 3,842,101 | 0.655 | 0.453 | 1.000 | 0.453 |
| 2009-2010 | 5,568,244 | 1,335,978 | 1.412 | 1,886,401 | 0.339 | 0.240 | 1.000 | 0.240 |
| 2010-2011 | 4,873,997 | 1,557,549 | 1.378 | 2,146,303 | 0.440 | 0.320 | 1.000 | 0.320 |
| 2011-2012 | 4,650,324 | 3,510,315 | 1.344 | 4,717,863 | 1.015 | 0.755 | 1.000 | 0.755 |
| 2012-2013 | 4,565,996 | 3,722,000 | 1.312 | 4,883,264 | 1.069 | 0.815 | 1.000 | 0.815 |
| 2013-2014 | 4,390,436 | 2,088,304 | 1.280 | 2,673,029 | 0.609 | 0.476 | 1.000 | 0.476 |
| 2014-2015 | 4,434,603 | 3,799,380 | 1.249 | 4,745,426 | 1.070 | 0.857 | 1.000 | 0.857 |
| 2015-2016 | 4,506,901 | 3,095,000 | 1.218 | 3,769,710 | 0.836 | 0.687 | 1.000 | 0.687 |
| 2016-2017 | 4,680,337 | 5,545,000 | 1.188 | 6,587,460 | 1.407 | 1.185 | 1.000 | 1.185 |
| 2017-2018 | 4,797,059 | 774,401 | 1.160 | 898,305 | 0.187 | 0.161 | 1.000 | 0.161 |
| 2018-2019 | 4,828,712 | 1,051,000 | 1.132 | 1,189,732 | 0.246 | 1.034 | 1.000 | 1.034 |
| 2019-2020 | 4,798,147 | 2,201,000 | 1.104 | 2,429,904 | 0.506 | 1.060 | 1.000 | 1.060 |
| 2020-2021 | 4,735,362 | 7,838,000 | 1.077 | 8,441,526 | 1.783 | 1.086 | 1.000 | 1.086 |
| 2021-2022 | 4,877,311 | 5,967,000 | 1.051 | 6,271,317 | 1.286 | 1.113 | 1.000 | 1.113 |
| 2022-2023 | 5,079,532 | 6,336,000 | 1.025 | 6,494,400 | 1.279 | 1.141 | 1.000 | 1.141 |
| Total/Avg | 106,263,406 | \$66,097,260 |  | \$84,259,459 | \$0.793 |  |  |  |
| 18/19-21/22 | 19,239,532 | 17,057,000 |  | 18,332,479 | 0.953 |  |  |  |
| 21/22-22/23 | 9,956,843 | 12,303,000 |  | 12,765,717 | 1.282 |  |  |  |
|  |  |  | Selected Limited Rate: <br> Prior: |  | \$1.170 |  |  |  |
|  |  |  |  |  | \$0.875 |  |  |  |

Notes:
(A) From $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix I, Column (C).
(B) Selected average of results from Appendices $\$$ and $\$$.
(C) From $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix E, Page 1, Column (B).
(D) $(\mathrm{B}) \times(\mathrm{C})$.
(E) (D)/(A).
(F) Selected Limited Rate / (C). For 2017-2018 and prior (B) / (A).
(G) Based on a Burr distribution, a mathematical model of claim sizes.
(H) $(\mathrm{F}) \times(\mathrm{G})$.

This exhibit shows the calculation of the underlying historical relationship between losses and exposure that is needed to apply the estimation methods shown on pages 1 and 2 of this Appendix.

## PLAN JPA - Liability Program (\$100K to \$1M Analysis)

Frequency and Severity Method


Notes:
(A) From \$100K to \$1M Rate Analysis Appendix D, Page 2, Colum
(B) From \$100K to \$1M Rate Analysis Appendix D, Page 2, Colum
(C) $(\mathrm{A}) \times(\mathrm{B})$.

This exhibit shows the calculation of the estimated ultimate losses for each year based on the observed average frequency and severity of claims.

PLAN JPA - Liability Program (\$100K to \$1M Analysis)

Frequency and Severity Method

| Accident Year | Ultimate | Adjusted Ultimate Claims (B) | Ultimate Limited Severity (C) | Trend Factor (D) | Trended Limited Severity (E) | Limited Severity (F) | Factor to SIR (G) | Program Severity (H) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Limited |  |  |  |  |  |  |  |
|  | Losses <br> (A) |  |  |  |  |  |  |  |
| 2002-2003 | \$4,237,463 | 20 | \$211,873 | 1.862 | \$394,508 | \$211,873 | 1.000 | \$211,873 |
| 2003-2004 | 2,205,881 | 12 | 183,823 | 1.808 | 332,352 | 183,823 | 1.000 | 183,823 |
| 2004-2005 | 1,424,731 | 4 | 356,183 | 1.755 | 625,101 | 356,183 | 1.000 | 356,183 |
| 2005-2006 | 2,684,321 | 12 | 223,693 | 1.704 | 381,173 | 223,693 | 1.000 | 223,693 |
| 2006-2007 | 1,419,184 | 13 | 109,168 | 1.654 | 180,564 | 109,168 | 1.000 | 109,168 |
| 2007-2008 | 2,651,368 | 12 | 220,947 | 1.606 | 354,841 | 220,947 | 1.000 | 220,947 |
| 2008-2009 | 2,653,385 | 11 | 241,217 | 1.559 | 376,057 | 241,217 | 1.000 | 241,217 |
| 2009-2010 | 1,335,978 | 14 | 95,427 | 1.513 | 144,381 | 95,427 | 1.000 | 95,427 |
| 2010-2011 | 1,557,549 | 9 | 173,061 | 1.469 | 254,227 | 173,061 | 1.000 | 173,061 |
| 2011-2012 | 3,510,315 | 14 | 250,737 | 1.426 | 357,551 | 250,737 | 1.000 | 250,737 |
| 2012-2013 | 3,722,000 | 15 | 248,133 | 1.385 | 343,664 | 248,133 | 1.000 | 248,133 |
| 2013-2014 | 2,088,304 | 9 | 232,034 | 1.345 | 312,086 | 232,034 | 1.000 | 232,034 |
| 2014-2015 | 3,799,380 | 9 | 422,153 | 1.306 | 551,332 | 422,153 | 1.000 | 422,153 |
| 2015-2016 | 3,095,000 | 16 | 193,438 | 1.267 | 245,086 | 193,438 | 1.000 | 193,438 |
| 2016-2017 | 5,545,000 | 14 | 396,071 | 1.231 | 487,563 | 396,071 | 1.000 | 396,071 |
| 2017-2018 | 774,401 | 6 | 129,067 | 1.195 | 154,235 | 129,067 | 1.000 | 129,067 |
| 2018-2019 | 1,156,000 | 6 | 192,667 | 1.160 | 223,494 | 193,103 | 1.000 | 193,103 |
| 2019-2020 | 2,311,000 | 11 | 210,091 | 1.126 | 236,562 | 198,934 | 1.000 | 198,934 |
| 2020-2021 | 7,765,000 | 20 | 388,250 | 1.093 | 424,357 | 204,941 | 1.000 | 204,941 |
| 2021-2022 | 5,959,000 | 28 | 212,821 | 1.061 | 225,803 | 211,122 | 1.000 | 211,122 |
| 2022-2023 | 6,202,000 | 34 | 182,412 | 1.030 | 187,884 | 217,476 | 1.000 | 217,476 |
|  |  | Average Limited Severity: |  |  | \$323,468 |  |  |  |
|  |  | Average 17/18-22/23 Limited Severity: |  |  | 242,056 |  |  |  |
|  |  | Average 21/22-22/23 Limited Severity: |  |  | 206,844 |  |  |  |
|  |  | Selected Limited Severity: |  |  | \$224,000 |  |  |  |
|  |  |  |  |  | \$345,000 |  |  |  |

Notes:
(A) Selected average of results from Appendices \$, \$, and \$.
(B) $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix D, Page 3, Column (C).
(C) $(\mathrm{A}) /(\mathrm{B})$.
(D) From \$100K to \$1M Rate Analysis Appendix E, Page 1, Column (J).
(E) (C) $\times(\mathrm{D})$.
(F) Selected Limited Severity / (D).
(G) Based on a Burr distribution, a mathematical model of claim sizes.
(H) (F) $\times(\mathrm{G})$.

This exhibit shows the calculation of the historical average cost per claim, or severity. The observed average severity is used in the method shown on page 1 of this Appendix.

PLAN JPA - Liability Program (\$100K to \$1M Analysis)

Frequency and Severity Method
Projection of Ultimate Claims

| Accident Year | Reported Claim Development (A) | Closed Claim Development (B) | Selected Ultimate Claims (C) | Trended Payroll $(\$ 000,000)$ <br> (D) | Claim Frequency (E) | Trend Factor (F) | Trended Claim Frequency (G) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2002-2003 | 20 | 20 | 20 | 546.6 | 0.037 | 0.897 | 0.033 |
| 2003-2004 | 12 | 12 | 12 | 557.1 | 0.022 | 0.902 | 0.020 |
| 2004-2005 | 4 | 4 | 4 | 559.3 | 0.007 | 0.906 | 0.006 |
| 2005-2006 | 12 | 12 | 12 | 554.6 | 0.022 | 0.910 | 0.020 |
| 2006-2007 | 13 | 13 | 13 | 563.6 | 0.023 | 0.914 | 0.021 |
| 2007-2008 | 12 | 12 | 12 | 580.2 | 0.021 | 0.919 | 0.019 |
| 2008-2009 | 11 | 11 | 11 | 586.4 | 0.019 | 0.924 | 0.018 |
| 2009-2010 | 14 | 14 | 14 | 556.8 | 0.025 | 0.929 | 0.023 |
| 2010-2011 | 9 | 9 | 9 | 487.4 | 0.018 | 0.934 | 0.017 |
| 2011-2012 | 14 | 14 | 14 | 465.0 | 0.030 | 0.939 | 0.028 |
| 2012-2013 | 15 | 14 | 15 | 456.6 | 0.033 | 0.944 | 0.031 |
| 2013-2014 | 9 | 9 | 9 | 439.0 | 0.020 | 0.949 | 0.019 |
| 2014-2015 | 9 | 9 | 9 | 443.5 | 0.020 | 0.954 | 0.019 |
| 2015-2016 | 16 | 15 | 16 | 450.7 | 0.036 | 0.959 | 0.035 |
| 2016-2017 | 14 | 12 | 14 | 468.0 | 0.030 | 0.964 | 0.029 |
| 2017-2018 | 6 | 6 | 6 | 479.7 | 0.013 | 0.970 | 0.013 |
| 2018-2019 | 6 | 4 | 6 | 482.9 | 0.012 | 0.975 | 0.012 |
| 2019-2020 | 11 | 4 | 11 | 479.8 | 0.023 | 0.980 | 0.023 |
| 2020-2021 | 20 | 14 | 20 | 473.5 | 0.042 | 0.985 | 0.041 |
| 2021-2022 | 28 | 0 | 28 | 487.7 | 0.057 | 0.990 | 0.056 |
| 2022-2023 | 72 | 0 | 34 | 508.0 | 0.066 | 0.995 | 0.066 |
| Total | 327 | 208 | 289 | 10,626.3 |  |  | 0.026 |
| 17/18-21/22 | 71 | 28 | 71 | 2,403.7 |  |  | 0.029 |
|  |  |  |  |  | (H) Selected Frequency: Prior: |  | 0.050 |
|  |  |  |  |  |  |  | 0.028 |
| Program Year: |  |  |  | 2023-2024 | 2024-2025 |  |  |
| (J) | Trend Factor: |  |  | 1.000 | 0.995 |  |  |
|  | Selected Frequency: |  |  | 0.050 | 0.050 |  |  |
| (K) | Est. Payroll (\$000,000): |  |  | 516.9 | 532.4 |  |  |
| (L) | Ultimate Claims: |  |  | 26 | 27 |  |  |

Notes:
(A) From $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix D, Page 4, (C).
(G) $(\mathrm{E}) \times(\mathrm{F})$.
(B) From $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix D, Page 5, (C).
(H) The selected frequency of 0.050 is based on (G).
(C) Selected from (A) and (B).
(D) From $\$ 100 \mathrm{~K}$ to $\$ 1$ M Rate Analysis Appendix I, Column (C) / 10,000.
(E) (C)/ (D).
(I) From $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix E, Pagı
(K) From $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix I, Colur
(F) From $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix E, Page 1, Column (H).
(L) (J) $\times(\mathrm{K})$.

This exhibit summarizes the estimated numbers of claims and shows the estimated frequencies per $\$ 1,000,000$ of trended payroll.

PLAN JPA - Liability Program (\$100K to \$1M Analysis)

Frequency and Severity Method
Reported Claim Count Development

| Accident Year | Claims Reported as of 12/31/2023 <br> (A) | Reported Claim Development Factor (B) | Ultimate Claims <br> (C) | Trended Claim Frequency (D) |
| :---: | :---: | :---: | :---: | :---: |
| 2002-2003 | 20 | 1.000 | 20 | 0.033 |
| 2003-2004 | 12 | 1.000 | 12 | 0.019 |
| 2004-2005 | 4 | 1.000 | 4 | 0.006 |
| 2005-2006 | 12 | 1.000 | 12 | 0.020 |
| 2006-2007 | 13 | 1.000 | 13 | 0.021 |
| 2007-2008 | 12 | 1.000 | 12 | 0.019 |
| 2008-2009 | 11 | 1.000 | 11 | 0.017 |
| 2009-2010 | 14 | 1.000 | 14 | 0.023 |
| 2010-2011 | 9 | 1.000 | 9 | 0.017 |
| 2011-2012 | 14 | 1.001 | 14 | 0.028 |
| 2012-2013 | 15 | 1.001 | 15 | 0.031 |
| 2013-2014 | 9 | 1.001 | 9 | 0.019 |
| 2014-2015 | 9 | 1.002 | 9 | 0.019 |
| 2015-2016 | 16 | 1.003 | 16 | 0.034 |
| 2016-2017 | 14 | 1.004 | 14 | 0.029 |
| 2017-2018 | 6 | 1.005 | 6 | 0.012 |
| 2018-2019 | 6 | 1.015 | 6 | 0.012 |
| 2019-2020 | 11 | 1.040 | 11 | 0.022 |
| 2020-2021 | 17 | 1.205 | 20 | 0.042 |
| 2021-2022 | 19 | 1.456 | 28 | 0.057 |
| 2022-2023 | 23 | 3.121 | 72 | 0.141 |
| Total | 266 |  | 327 | 0.029 |

Notes:
(A) Provided by the Authority.
(B) From $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix D, Page 6.
(C) $(\mathrm{A}) \times(\mathrm{B})$.
(D) (C) / [\$100K to \$1M Rate Analysis Appendix D, Page 3, (D)] $\times$ [\$100K to \$1M Rate Analy:

This exhibit shows the calculation of estimated ultimate claims for each year based on reported claims as provided by the Authority. These numbers of claims tend to "develop" or change from period to period as more claims are filed. This development tends to follow quantifiable patterns over time.

PLAN JPA - Liability Program (\$100K to \$1M Analysis)

Frequency and Severity Method Closed Claim Count Development

| Accident <br> Year | Claims <br> Closed as of 12/31/2023 <br> (A) | Closed Claim Development Factor (B) | Ultimate Claims (C) | Trended Claim Frequency (D) |
| :---: | :---: | :---: | :---: | :---: |
| 2002-2003 | 20 | 1.000 | 20 | 0.033 |
| 2003-2004 | 12 | 1.000 | 12 | 0.019 |
| 2004-2005 | 4 | 1.000 | 4 | 0.006 |
| 2005-2006 | 12 | 1.000 | 12 | 0.020 |
| 2006-2007 | 13 | 1.000 | 13 | 0.021 |
| 2007-2008 | 12 | 1.000 | 12 | 0.019 |
| 2008-2009 | 11 | 1.000 | 11 | 0.017 |
| 2009-2010 | 14 | 1.000 | 14 | 0.023 |
| 2010-2011 | 9 | 1.001 | 9 | 0.017 |
| 2011-2012 | 14 | 1.002 | 14 | 0.028 |
| 2012-2013 | 14 | 1.003 | 14 | 0.029 |
| 2013-2014 | 9 | 1.004 | 9 | 0.019 |
| 2014-2015 | 9 | 1.005 | 9 | 0.019 |
| 2015-2016 | 15 | 1.006 | 15 | 0.032 |
| 2016-2017 | 12 | 1.007 | 12 | 0.025 |
| 2017-2018 | 6 | 1.008 | 6 | 0.012 |
| 2018-2019 | 4 | 1.104 | 4 | 0.008 |
| 2019-2020 | 3 | 1.279 | 4 | 0.008 |
| 2020-2021 | 8 | 1.788 | 14 | 0.029 |
| 2021-2022 | 0 | 5.663 | 0 |  |
| 2022-2023 | 0 | 17.933 | 0 |  |
| Total | 201 |  | 208 | 0.018 |

Notes:
(A) Provided by the Authority.
(B) From \$100K to \$1M Rate Analysis Appendix D, Page 7.
(C) $(\mathrm{A}) \times(\mathrm{B})$.
(D) (C) / [\$100K to \$1M Rate Analysis Appendix D, Page 3, (D)] $x[\$ 100 \mathrm{~K}$ to \$1M Rate Analy:

This exhibit shows the calculation of estimated ultimate claims for each year based on closed claims as provided by the Authority. These numbers of closed claims tend to "develop" or change from period to period as more claims are closed. This development tends to follow quantifiable patterns over time.

Page 6
DRAFT
PLAN JPA - Liability Program (\$100K to \$1M Analysis)
Reported Claim Count Development

| Claims Reported as of: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident | 6 | 18 | 30 | 42 | 54 | 66 | 78 | 90 | 102 | 114 | 126 | 138 | 150 | 162 |
| Year | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 |  |  |  |  |  | 7 | 7 | 7 | 7 | 7 | 11 | 21 | 21 | 21 |
| 2003-2004 |  |  |  |  | 9 | 10 | 10 | 10 | 10 | 22 | 12 | 12 | 12 | 12 |
| 2004-2005 |  |  |  | 17 | 20 | 20 | 20 | 20 | 12 | 5 | 5 | 5 | 5 | 5 |
| 2005-2006 |  |  | 4 | 7 | 9 | 10 | 11 | 5 | 15 | 15 | 15 | 15 | 15 | 15 |
| 2006-2007 |  | 3 | 8 | 6 | 6 | 5 | 16 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 2007-2008 | 1 | 5 | 9 | 11 | 14 | 11 | 19 | 18 | 18 | 18 | 18 | 17 | 18 | 18 |
| 2008-2009 | 2 | 6 | 8 | 8 | 19 | 14 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 2009-2010 | 3 | 5 | 14 | 14 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| 2010-2011 |  | 6 | 21 | 14 | 13 | 12 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 16 |
| 2011-2012 | 3 | 11 | 19 | 17 | 17 | 16 | 16 | 16 | 16 | 16 | 17 | 16 | 11 |  |
| 2012-2013 | 3 | 22 | 22 | 15 | 15 | 16 | 15 | 15 | 15 | 16 | 16 | 16 |  |  |
| 2013-2014 | 3 | 4 | 8 | 10 | 11 | 11 | 11 | 11 | 11 | 11 | 16 |  |  |  |
| 2014-2015 | 3 | 8 | 15 | 12 | 12 | 12 | 12 | 12 | 12 | 11 |  |  |  |  |
| 2015-2016 |  | 4 | 10 | 15 | 16 | 16 | 16 | 16 | 12 |  |  |  |  |  |
| 2016-2017 |  | 4 | 11 | 12 | 16 | 15 | 14 | 16 |  |  |  |  |  |  |
| 2017-2018 |  | 2 | 4 | 12 | 6 | 6 | 14 |  |  |  |  |  |  |  |
| 2018-2019 |  |  | 4 | 5 | 7 | 6 |  |  |  |  |  |  |  |  |
| 2019-2020 |  |  | 4 | 7 | 7 |  |  |  |  |  |  |  |  |  |
| 2020-2021 |  | 12 | 12 | 7 |  |  |  |  |  |  |  |  |  |  |
| 2021-2022 | 1 | 7 | 12 |  |  |  |  |  |  |  |  |  |  |  |
| 2022-2023 |  | 7 |  |  |  |  |  |  |  |  |  |  |  |  |

Reported Claim Count Development Factors:

| Reported Claim Count Development Factors: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6-18 | 18-30 | 30-42 | 42-54 | 54-66 | 66-78 | 78-90 | 90-102 | 102-114 | 114-126 | 126-138 | 138-150 | 150-162 | 162-174 |
|  | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 |  |  |  |  |  | 1.000 | 1.000 | 1.000 | 1.000 | 1.571 | 1.909 | 1.000 | 1.000 | 1.000 |
| 2003-2004 |  |  |  |  | 1.111 | 1.000 | 1.000 | 1.000 | 2.200 | 0.545 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2004-2005 |  |  |  | 1.176 | 1.000 | 1.000 | 1.000 | 0.600 | 0.417 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2005-2006 |  |  | 1.750 | 1.286 | 1.111 | 1.100 | 0.455 | 3.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2006-2007 |  | 2.667 | 0.750 | 1.000 | 0.833 | 3.200 | 0.813 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2007-2008 | 5.000 | 1.800 | 1.222 | 1.273 | 0.786 | 1.727 | 0.947 | 1.000 | 1.000 | 1.000 | 0.944 | 1.059 | 1.000 | 1.000 |
| 2008-2009 | 3.000 | 1.333 | 1.000 | 2.375 | 0.737 | 0.929 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2009-2010 | 1.667 | 2.800 | 1.000 | 1.143 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.813 |
| 2010-2011 |  | 3.500 | 0.667 | 0.929 | 0.923 | 0.917 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.455 |  |
| 2011-2012 | 3.667 | 1.727 | 0.895 | 1.000 | 0.941 | 1.000 | 1.000 | 1.000 | 1.000 | 1.063 | 0.941 | 0.688 |  |  |
| 2012-2013 | 7.333 | 1.000 | 0.682 | 1.000 | 1.067 | 0.938 | 1.000 | 1.000 | 1.067 | 1.000 | 1.000 |  |  |  |
| 2013-2014 | 1.333 | 2.000 | 1.250 | 1.100 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.455 |  |  |  |  |
| 2014-2015 | 2.667 | 1.875 | 0.800 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.917 |  |  |  |  |  |
| 2015-2016 |  | 2.500 | 1.500 | 1.067 | 1.000 | 1.000 | 1.000 | 0.750 |  |  |  |  |  |  |
| 2016-2017 |  | 2.750 | 1.091 | 1.333 | 0.938 | 0.933 | 1.143 |  |  |  |  |  |  |  |
| 2017-2018 |  | 2.000 | 3.000 | 0.500 | 1.000 | 2.333 |  |  |  |  |  |  |  |  |
| 2018-2019 |  |  | 1.250 | 1.400 | 0.857 |  |  |  |  |  |  |  |  |  |
| 2019-2020 |  |  | 1.750 | 1.000 |  |  |  |  |  |  |  |  |  |  |
| 2020-2021 |  | 1.000 | 0.583 |  |  |  |  |  |  |  |  |  |  |  |
| 2021-2022 | 7.000 | 1.714 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2022-2023 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


|  | 6-18 | 18-30 | 30-42 | 42-54 | 54-66 | 66-78 | 78-90 | 90-102 | 102-114 | 114-126 | 126-138 | 138-150 | 150-162 | 162-174 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| Average | 3.958 | 2.048 | 1.199 | 1.161 | 0.957 | 1.255 | 0.957 | 1.096 | 1.046 | 1.053 | 1.072 | 0.975 | 1.051 | 0.977 |
| Claim-Weighted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3-yr |  |  | 0.950 | 0.833 | 0.931 | 1.189 | 1.048 | 0.897 | 1.000 | 1.140 | 0.977 | 0.884 | 1.125 | 0.936 |
| 4-yr |  |  | 1.292 | 1.000 | 0.956 | 1.143 | 1.038 | 0.926 | 1.000 | 1.111 | 0.983 | 0.911 | 1.086 | 0.950 |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 2.633 | 1.136 | 1.018 | 1.005 | 1.005 | 1.004 | 1.004 | 1.002 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 |
| Prior | 3.786 | 2.191 | 1.213 | 1.157 | 1.025 | 1.010 | 1.001 | 1.001 | 1.001 | 1.001 | 1.000 | 1.000 | 1.001 | 1.000 |
| Selected | 3.843 | 2.143 | 1.209 | 1.159 | 1.025 | 1.010 | 1.001 | 1.001 | 1.001 | 1.001 | 1.000 | 1.000 | 1.001 | 1.000 |
| Cumulated | 11.995 | 3.121 | 1.456 | 1.205 | 1.040 | 1.015 | 1.005 | 1.004 | 1.003 | 1.002 | 1.001 | 1.001 | 1.001 | 1.000 |

Page 7
DRAFT PLAN JPA - Liability Program (\$100K to \$1M Analysis)
Closed Claim Development

| Claims Closed as of: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident | 6 | 18 | 30 | 42 | 54 | 66 | 78 | 90 | 102 | 114 | 126 | 138 | 150 | 162 |
| Year | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 |  |  |  |  |  | 6 | 7 | 7 | 7 | 7 | 10 | 20 | 20 | 20 |
| 2003-2004 |  |  |  |  | 6 | 7 | 8 | 10 | 10 | 20 | 12 | 12 | 12 | 12 |
| 2004-2005 |  |  |  | 12 | 17 | 18 | 19 | 20 | 10 | 5 | 5 | 5 | 5 | 5 |
| 2005-2006 |  |  | 4 | 4 | 5 | 5 | 6 | 5 | 13 | 14 | 15 | 15 | 15 | 15 |
| 2006-2007 |  | 1 | 1 | 5 | 5 | 5 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 12 |
| 2007-2008 |  |  | 1 | 6 | 8 | 8 | 18 | 18 | 18 | 18 | 18 | 17 | 18 | 18 |
| 2008-2009 |  | 1 | 2 | 6 | 12 | 10 | 12 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 2009-2010 |  |  | 1 | 6 | 13 | 14 | 15 | 15 | 16 | 16 | 16 | 16 | 16 | 16 |
| 2010-2011 |  | 1 | 4 | 7 | 10 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 16 |
| 2011-2012 |  |  | 2 | 8 | 10 | 14 | 16 | 15 | 15 | 15 | 16 | 15 | 11 |  |
| 2012-2013 |  | 1 | 5 | 10 | 11 | 15 | 14 | 14 | 14 | 15 | 15 | 15 |  |  |
| 2013-2014 |  |  | 3 | 5 | 10 | 9 | 10 | 10 | 11 | 11 | 15 |  |  |  |
| 2014-2015 |  | 2 | 5 | 9 | 8 | 12 | 12 | 12 | 12 | 11 |  |  |  |  |
| 2015-2016 |  |  | 2 | 6 | 10 | 15 | 15 | 15 | 12 |  |  |  |  |  |
| 2016-2017 |  |  | 1 | 5 | 10 | 9 | 11 | 15 |  |  |  |  |  |  |
| 2017-2018 |  |  | 1 | 5 | 4 | 6 | 11 |  |  |  |  |  |  |  |
| 2018-2019 |  |  | 1 | 1 | 4 | 6 |  |  |  |  |  |  |  |  |
| 2019-2020 |  |  |  |  | 4 |  |  |  |  |  |  |  |  |  |
| 2020-2021 |  |  | 3 |  |  |  |  |  |  |  |  |  |  |  |
| 2021-2022 |  |  | 3 |  |  |  |  |  |  |  |  |  |  |  |
| 2022-2023 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2023-2024 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Closed Claim Count Development Factors:

|  | 6-18 | 18-30 | 30-42 | 42-54 | 54-66 | 66-78 | 78-90 | 90-102 | 102-114 | 114-126 | 126-138 | 138-150 | 150-162 | 162-174 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 |  |  |  |  |  | 1.167 | 1.000 | 1.000 | 1.000 | 1.429 | 2.000 | 1.000 | 1.000 | 1.000 |
| 2003-2004 |  |  |  |  | 1.167 | 1.143 | 1.250 | 1.000 | 2.000 | 0.600 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2004-2005 |  |  |  | 1.417 | 1.059 | 1.056 | 1.053 | 0.500 | 0.500 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2005-2006 |  |  | 1.000 | 1.250 | 1.000 | 1.200 | 0.833 | 2.600 | 1.077 | 1.071 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2006-2007 |  | 1.000 | 5.000 | 1.000 | 1.000 | 2.600 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.923 | 1.000 |
| 2007-2008 |  |  | 6.000 | 1.333 | 1.000 | 2.250 | 1.000 | 1.000 | 1.000 | 1.000 | 0.944 | 1.059 | 1.000 | 1.000 |
| 2008-2009 |  | 2.000 | 3.000 | 2.000 | 0.833 | 1.200 | 1.083 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2009-2010 |  |  | 6.000 | 2.167 | 1.077 | 1.071 | 1.000 | 1.067 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.813 |
| 2010-2011 |  | 4.000 | 1.750 | 1.429 | 1.100 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.455 |  |
| 2011-2012 |  |  | 4.000 | 1.250 | 1.400 | 1.143 | 0.938 | 1.000 | 1.000 | 1.067 | 0.938 | 0.733 |  |  |
| 2012-2013 |  | 5.000 | 2.000 | 1.100 | 1.364 | 0.933 | 1.000 | 1.000 | 1.071 | 1.000 | 1.000 |  |  |  |
| 2013-2014 |  |  | 1.667 | 2.000 | 0.900 | 1.111 | 1.000 | 1.100 | 1.000 | 1.364 |  |  |  |  |
| 2014-2015 |  | 2.500 | 1.800 | 0.889 | 1.500 | 1.000 | 1.000 | 1.000 | 0.917 |  |  |  |  |  |
| 2015-2016 |  |  | 3.000 | 1.667 | 1.500 | 1.000 | 1.000 | 0.800 |  |  |  |  |  |  |
| 2016-2017 |  |  | 5.000 | 2.000 | 0.900 | 1.222 | 1.364 |  |  |  |  |  |  |  |
| 2017-2018 |  |  | 5.000 | 0.800 | 1.500 | 1.833 |  |  |  |  |  |  |  |  |
| 2018-2019 |  |  | 1.000 | 4.000 | 1.500 |  |  |  |  |  |  |  |  |  |

2019-2020 2020-2021 2021-2022 2022-2023

|  | 6-18 | 18-30 | 30-42 | 42-54 | 54-66 | 66-78 | 78-90 | 90-102 | 102-114 | 114-126 | 126-138 | 138-150 | 150-162 | 162-174 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| Average |  | 2.900 | 3.301 | 1.620 | 1.175 | 1.308 | 1.035 | 1.076 | 1.043 | 1.044 | 1.080 | 0.979 | 1.042 | 0.977 |
| Claim-Weighted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ |  |  |  |  | 1.167 | 1.233 | 1.105 | 0.946 | 1.000 | 1.122 | 0.976 | 0.905 | 1.125 | 0.936 |
| $4-\mathrm{yr}$ |  |  |  |  | 1.286 | 1.167 | 1.083 | 0.961 | 1.000 | 1.096 | 0.983 | 0.927 | 1.086 | 0.949 |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 3.387 | 1.495 | 1.122 | 1.051 | 1.033 | 1.020 | 1.012 | 1.010 | 1.007 | 1.005 | 1.005 | 1.003 | 1.003 | 1.001 |
| Prior | 4.000 | 3.300 | 3.100 | 1.287 | 1.113 | 1.025 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 |
| Selected | 4.000 | 3.167 | 3.167 | 1.398 | 1.158 | 1.095 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 |
| Cumulated | 71.732 | 17.933 | 5.663 | 1.788 | 1.279 | 1.104 | 1.008 | 1.007 | 1.006 | 1.005 | 1.004 | 1.003 | 1.002 | 1.001 |

PLAN JPA - Liability Program (\$100K to \$1M Analysis)

Loss Trend Factors

|  |  |  | Factor to | Factor to | Factor to | Factor to | Factor to | Factor to | Factor to | Factor to | Factor to |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Benefit | 2023-2024 | 2024-2025 | 2025-2026 | 2026-2027 | 2023-2024 |  |  |  |  |  |
| 2024-2025 | 2025-2026 | 2026-2027 | 2023-2024 |  |  |  |  |  |  |  |  |

## Notes:

(A) No benefit level adjustment applied.
(B) - (E) (A) adjusted for a $2.5 \%$ annual loss rate trend.
(F) - (I) (A) adjusted for a -0.5\% annual frequency trend.
(J) (A) adjusted for a 3.0\% annual severity trend.

This exhibit shows the calculation of the ways in which we expect claims costs to have changed over the past twenty years due to changes in inflation.

PLAN JPA - Liability Program (\$100K to \$1M Analysis)

Residual Trend Factors


Notes:
(A) Selected average of results from $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix A and $\$ 100 \mathrm{~K}$ to
(B) $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix D, Page 3, Column (C).
(C) $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix E, Page 1, (A).
(D) $(\mathrm{A}) \times(\mathrm{C}) /(\mathrm{B})$.
(E) From $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix I, Column (C).
(F) $(B) /(E) \times 10,000$.

PLAN JPA - Liability Program (\$100K to \$1M Analysis)
Calculation of Discount Factors

| Payment Year <br> (A) | Payment Pattern (B) | Return on Investment (C) | Discounted Reserves (D) | Undiscounted Reserves (E) | Discount Factor (F) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 21 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 20 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 19 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 18 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 17 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 16 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 15 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 14 | 0.1\% | 2.0\% | 0.001 | 0.001 | 0.990 |
| 13 | 0.3\% | 2.0\% | 0.004 | 0.004 | 0.985 |
| 12 | 0.3\% | 2.0\% | 0.007 | 0.007 | 0.976 |
| 11 | 0.3\% | 2.0\% | 0.010 | 0.010 | 0.967 |
| 10 | 0.6\% | 2.0\% | 0.015 | 0.016 | 0.964 |
| 9 | 2.7\% | 2.0\% | 0.042 | 0.043 | 0.974 |
| 8 | 4.5\% | 2.0\% | 0.085 | 0.088 | 0.973 |
| 7 | 6.8\% | 2.0\% | 0.151 | 0.155 | 0.970 |
| 6 | 9.7\% | 2.0\% | 0.244 | 0.253 | 0.966 |
| 5 | 20.3\% | 2.0\% | 0.440 | 0.456 | 0.966 |
| 4 | 27.0\% | 2.0\% | 0.700 | 0.726 | 0.963 |
| 3 | 17.8\% | 2.0\% | 0.862 | 0.904 | 0.953 |
| 2 | 7.6\% | 2.0\% | 0.921 | 0.981 | 0.939 |
| 1 | 1.9\% | 2.0\% | 0.922 | 1.000 | 0.922 |
| (G) Discount Factor for Future Funding: |  |  |  | 2023-2024 | 0.931 |
|  |  |  |  | 2024-2025 | 0.931 |

Notes:
(A) This is the year of payment relative to the accident year. For example, year 7 refers to payments made in the seventh year after the inception of the accident year. We assume that payments are made at midyear.
(B) Percent of ultimate loss paid this year. This payment pattern is based on the paid loss development pattern selected in $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix B, Page 2.
(C) Assumed Investment Income Rates.
(D) Discounted Reserves at the beginning of this year is next year's Discounted Reserves discounted one year plus this year's payments discounted six months. For example, in year $2,92.1 \%=[86.2 \% / 1.020]+[7.6 \% /(1.010)]$.
(E) Summation of future (B) values. This is the percent of ultimate loss unpaid at the beginning of the year.
(F) (D) / (E).
(G) (F) at year 1, with interest accumulated for six months. We assume that the required funding is deposited at the middle of the first year.

This exhibit shows the calculation of the effect of anticipated investment income on future claims costs. Thus, if the discount factor in item ( $F$ ) is 0.93 , on a discounted basis, $\$ 0.93$ must be budgeted for every $\$ 1$ that will actually be paid on claims that will be incurred in the next fiscal year.

PLAN JPA - Liability Program (\$100K to \$1M Analysis)
Confidence Level Table

| Probability | Projected Losses | Outstanding Losses |
| :---: | :---: | :---: |
|  |  |  |
| 95\% | 1.916 | 1.524 |
| $90 \%$ | 1.640 | 1.365 |
| $85 \%$ | 1.475 | 1.274 |
| $80 \%$ | 1.351 | 1.207 |
| $75 \%$ | 1.252 | 1.153 |
| $70 \%$ | 1.168 | 1.108 |
| $65 \%$ | 1.094 | 1.068 |
| $60 \%$ | 1.029 | 1.032 |
| $55 \%$ | 0.968 | 0.999 |
| $50 \%$ | 0.910 | 0.967 |
| $45 \%$ | 0.856 | 0.937 |
| $40 \%$ | 0.804 | 0.908 |
| $35 \%$ | 0.753 | 0.878 |
| $30 \%$ | 0.701 | 0.649 |
| $25 \%$ |  | 0.818 |
|  |  |  |
| To read table: | For the above retention, there is a $90 \%$ chance |  |
|  | that final loss settlements will be less than |  |
|  | 1.640 times the average expected amount of losses. |  |

This exhibit shows the loads that must be applied to bring estimated losses at the expected level to the various indicated confidence levels.

PLAN JPA - Liability Program (\$100K to \$1M Analysis)

|  |  |  |  | Incu | Losses a | 12/31/23 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident Year <br> (A) | Unlimited Incurred <br> (B) | Additions to Losses (C) | Subtractions from Losses (D) | Adjusted Incurred <br> (E) | Incurred Over SIR <br> (F) | Incurred Over \$100,000 (G) | Incurred Capped at to SIR Layer (H) | Incurred \$100,000 to SIR Layer <br> (I) | Incurred Capped at SIR <br> (J) | Incurred Capped at SIR \& Aggregate (K) |
| 2002-2003 | \$12,459,622 | \$0 | \$0 | \$12,459,622 | \$3,575,194 | \$7,812,657 | \$4,646,965 | \$4,237,463 | \$8,884,428 | \$8,884,428 |
| 2003-2004 | 5,715,419 | 0 | 0 | 5,715,419 | 0 | 2,205,881 | 3,509,537 | 2,205,881 | 5,715,419 | 5,715,419 |
| 2004-2005 | 3,909,704 | 0 | 0 | 3,909,704 | 40,367 | 1,465,098 | 2,444,607 | 1,424,731 | 3,869,337 | 3,869,337 |
| 2005-2006 | 7,274,863 | 0 | 0 | 7,274,863 | 1,643,182 | 4,327,503 | 2,947,359 | 2,684,321 | 5,631,680 | 5,631,680 |
| 2006-2007 | 4,548,052 | 0 | 0 | 4,548,052 | 0 | 1,419,184 | 3,128,868 | 1,419,184 | 4,548,052 | 4,548,052 |
| 2007-2008 | 5,982,106 | 0 | 0 | 5,982,106 | 183,478 | 2,834,846 | 3,147,259 | 2,651,369 | 5,798,628 | 5,798,628 |
| 2008-2009 | 5,485,923 | 0 | 0 | 5,485,923 | 120,835 | 2,774,220 | 2,711,703 | 2,653,385 | 5,365,088 | 5,365,088 |
| 2009-2010 | 3,874,500 | 0 | 0 | 3,874,500 | 0 | 1,335,978 | 2,538,522 | 1,335,978 | 3,874,500 | 3,874,500 |
| 2010-2011 | 3,571,075 | 0 | 0 | 3,571,075 | 0 | 1,557,549 | 2,013,526 | 1,557,549 | 3,571,075 | 3,571,075 |
| 2011-2012 | 6,357,185 | 0 | 0 | 6,357,185 | 22,224 | 3,532,539 | 2,824,647 | 3,510,315 | 6,334,961 | 6,334,961 |
| 2012-2013 | 7,108,017 | 0 | 0 | 7,108,017 | 100,000 | 3,799,416 | 3,308,601 | 3,699,416 | 7,008,017 | 7,008,017 |
| 2013-2014 | 9,703,564 | 0 | 0 | 9,703,564 | 5,385,480 | 7,473,784 | 2,229,780 | 2,088,304 | 4,318,084 | 4,318,084 |
| 2014-2015 | 7,286,913 | 0 | 0 | 7,286,913 | 549,140 | 4,348,520 | 2,938,392 | 3,799,381 | 6,737,773 | 6,737,773 |
| 2015-2016 | 8,386,266 | 0 | 0 | 8,386,266 | 2,240,574 | 5,260,522 | 3,125,745 | 3,019,948 | 6,145,693 | 6,145,693 |
| 2016-2017 | 38,732,335 | 0 | 0 | 38,732,335 | 30,517,119 | 35,848,912 | 2,883,424 | 5,331,793 | 8,215,217 | 8,215,217 |
| 2017-2018 | 2,623,377 | 0 | 0 | 2,623,377 | 0 | 774,401 | 1,848,977 | 774,401 | 2,623,377 | 2,623,377 |
| 2018-2019 | 2,589,734 | 0 | 0 | 2,589,734 | 0 | 995,732 | 1,594,003 | 995,732 | 2,589,734 | 2,589,734 |
| 2019-2020 | 4,590,988 | 0 | 0 | 4,590,988 | 0 | 2,034,323 | 2,556,665 | 2,034,323 | 4,590,988 | 4,590,988 |
| 2020-2021 | 44,727,172 | 0 | 0 | 44,727,172 | 34,562,175 | 41,472,932 | 3,254,240 | 6,910,757 | 10,164,997 | 10,164,997 |
| 2021-2022 | 17,563,072 | 0 | 0 | 17,563,072 | 10,236,000 | 14,141,384 | 3,421,687 | 3,905,384 | 7,327,072 | 7,327,072 |
| 2022-2023 | 8,599,708 | 0 | 0 | 8,599,708 | 0 | 3,072,909 | 5,526,799 | 3,072,909 | 8,599,708 | 8,599,708 |
| 2023-2024 | 858,344 | 0 | 0 | 858,344 | 0 | 120,000 | 738,344 | 120,000 | 858,344 | 858,344 |
| Total | \$211,947,938 | \$0 | \$0 | \$211,947,938 | \$89,175,767 | \$148,608,290 | \$63,339,648 | \$59,432,524 | \$122,772,172 | \$122,772,172 |

Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Authority.
(C)
(D)
(E) (B) + (C) - (D).
(F) Sum of incurred losses in excess of SIR.
(G) Sum of incurred losses in excess of $\$ 100,000$.
(H) (E) - (G).
(I) (G) - (F).
(J) (E) - (F).
(K) Minimum of (J) and the aggregate stop loss. See \$100K to \$1M Rate Analysis Not Included.

PLAN JPA - Liability Program (\$100K to \$1M Analysis)

| Paid Losses as of 12/31/23 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident Year <br> (A) | Unlimited Paid <br> (B) | Additions to Losses (C) | Subtractions from Losses (D) | Adjusted Paid (E) | Paid Over SIR <br> (F) | Paid <br> Over \$100,000 <br> (G) | Paid Capped at \$100,000 (H) | Paid \$100,000 to SIR Layer <br> (I) | Paid <br> Capped at SIR <br> (J) | Paid Capped at SIR \& Aggregate (K) |
| 2002-2003 | \$12,459,622 | \$0 | \$0 | \$12,459,622 | \$3,575,194 | \$7,812,657 | \$4,646,965 | \$4,237,463 | \$8,884,428 | \$8,884,428 |
| 2003-2004 | 5,715,419 | 0 | 0 | 5,715,419 | 0 | 2,205,881 | 3,509,537 | 2,205,881 | 5,715,419 | 5,715,419 |
| 2004-2005 | 3,909,704 | 0 | 0 | 3,909,704 | 40,367 | 1,465,098 | 2,444,607 | 1,424,731 | 3,869,337 | 3,869,337 |
| 2005-2006 | 7,274,863 | 0 | 0 | 7,274,863 | 1,643,182 | 4,327,503 | 2,947,359 | 2,684,321 | 5,631,680 | 5,631,680 |
| 2006-2007 | 4,548,052 | 0 | 0 | 4,548,052 | 0 | 1,419,184 | 3,128,868 | 1,419,184 | 4,548,052 | 4,548,052 |
| 2007-2008 | 5,982,106 | 0 | 0 | 5,982,106 | 183,478 | 2,834,846 | 3,147,259 | 2,651,369 | 5,798,628 | 5,798,628 |
| 2008-2009 | 5,485,923 | 0 | 0 | 5,485,923 | 120,835 | 2,774,220 | 2,711,703 | 2,653,385 | 5,365,088 | 5,365,088 |
| 2009-2010 | 3,874,500 | 0 | 0 | 3,874,500 | 0 | 1,335,978 | 2,538,522 | 1,335,978 | 3,874,500 | 3,874,500 |
| 2010-2011 | 3,571,075 | 0 | 0 | 3,571,075 | 0 | 1,557,549 | 2,013,526 | 1,557,549 | 3,571,075 | 3,571,075 |
| 2011-2012 | 6,357,185 | 0 | 0 | 6,357,185 | 22,224 | 3,532,539 | 2,824,647 | 3,510,315 | 6,334,961 | 6,334,961 |
| 2012-2013 | 6,613,044 | 0 | 0 | 6,613,044 | 0 | 3,304,442 | 3,308,601 | 3,304,442 | 6,613,044 | 6,613,044 |
| 2013-2014 | 9,703,564 | 0 | 0 | 9,703,564 | 5,385,480 | 7,473,784 | 2,229,780 | 2,088,304 | 4,318,084 | 4,318,084 |
| 2014-2015 | 7,286,913 | 0 | 0 | 7,286,913 | 549,140 | 4,348,520 | 2,938,392 | 3,799,381 | 6,737,773 | 6,737,773 |
| 2015-2016 | 8,371,359 | 0 | 0 | 8,371,359 | 2,240,574 | 5,245,615 | 3,125,745 | 3,005,041 | 6,130,786 | 6,130,786 |
| 2016-2017 | 38,537,696 | 0 | 0 | 38,537,696 | 30,359,615 | 35,654,272 | 2,883,424 | 5,294,657 | 8,178,080 | 8,178,080 |
| 2017-2018 | 2,623,375 | 0 | 0 | 2,623,375 | 0 | 774,401 | 1,848,975 | 774,401 | 2,623,375 | 2,623,375 |
| 2018-2019 | 2,422,650 | 0 | 0 | 2,422,650 | 0 | 850,476 | 1,572,174 | 850,476 | 2,422,650 | 2,422,650 |
| 2019-2020 | 2,589,280 | 0 | 0 | 2,589,280 | 0 | 515,377 | 2,073,903 | 515,377 | 2,589,280 | 2,589,280 |
| 2020-2021 | 41,055,551 | 0 | 0 | 41,055,551 | 34,299,175 | 38,582,392 | 2,473,160 | 4,283,217 | 6,756,376 | 6,756,376 |
| 2021-2022 | 1,911,606 | 0 | 0 | 1,911,606 | 0 | 351,404 | 1,560,201 | 351,404 | 1,911,606 | 1,911,606 |
| 2022-2023 | 921,281 | 0 | 0 | 921,281 | 0 | 0 | 921,281 | 0 | 921,281 | 921,281 |
| 2023-2024 | 70,221 | 0 | 0 | 70,221 | 0 | 0 | 70,221 | 0 | 70,221 | 70,221 |
| Total | \$181,284,987 | \$0 | \$0 | \$181,284,987 | \$78,419,263 | \$126,366,138 | \$54,918,849 | \$47,946,875 | \$102,865,724 | \$102,865,724 |

Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Authority.
(C)
(D)
(E) $(B)+(C)-(D)$.
(F) Sum of paid losses in excess of SIR.
(G) Sum of paid losses in excess of $\$ 100,000$.
(H) (E) - (G).
(I) (G) - (F).
(J) (E) - (F).
(K) Minimum of $(\mathrm{J})$ and the aggregate stop loss. See $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Not Included.

PLAN JPA - Liability Program (\$100K to \$1M Analysis)
Case Reserves as of 12/31/23


Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix H, Page 1, Column (B) - \$100K to \$1M Rate Analysis Appendix H, Page 2, Column (B).
(C) \$100K to \$1M Rate Analysis Appendix H, Page 1, Column (C) - \$100K to \$1M Rate Analysis Appendix H, Page 2, Column (C).
(D) $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix H, Page 1, Column (D) - $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix H, Page 2, Column (D).
(E) $(B)+(C)-(D)$.
(F) Sum of case reserves in excess of SIR.
(G) Sum of case reserves in excess of $\$ 100,000$.
(H) (E) - (G).
(I) (G) - (F).
(J) (E) - (F).
(K) Minimum of $(\mathrm{J})$ and the aggregate stop loss. See $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Not Included.

Claim Counts as of $12 / 31 / 23$ in Excess of $\$ 100 \mathrm{~K}$


Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Authority.
(C)
(D)
(E) $(\mathrm{B})+(\mathrm{C})-(\mathrm{D})$
(F) Provided by the Authority.
(G)
(H)
(I) $(\mathrm{F})+(\mathrm{G})-(\mathrm{H})$
(J) (B) - (F).
(K) (E) - (I).

PLAN JPA - Liability Program (\$100K to \$1M Analysis)

Exposure Measures

| Accident <br> Year | Total <br> Payroll <br> $(\$ 00)$ | Inflation <br> Trend <br> Factor <br> (B) | Trended <br> Payroll <br> $(\$ 00)$ |
| :---: | :---: | :---: | :---: |
| $2002-2003$ | $(A)$ |  | $(C)$ |

Notes:
(A) Provided by the Authority.
(B) Based on industry factors.
(C) $\quad(A) \times(B)$.

## DRAFT

## PLAN JPA - Liability

## Funding Guidelines for Outstanding Liabilities at

 June 30, 2024(A) Estimated Ultimate Losses

Incurred through 6/30/24: \$141,144,000
(From Reserve Appendix F)
(B) Estimated Paid Losses
through 6/30/24:
$115,898,000$
(From Reserve Appendix F)
(C) Estimated Liability for Claims

Outstanding at 6/30/24:
\$25,246,000
(From Reserve Appendix F)
(D) Estimated Liability for Outstanding

Claims Administration Fees at 6/30/24: 3,156,000
(From Reserve Not Included)
(E) Total Outstanding Liability for

Claims at 6/30/24: $\quad \$ 28,402,000$
$((C)+(D))$
(F) Reserve Discount Factor (Based on a Discount Rate of 2.0\%.): 0.956
(Reserve Appendix H, Page 1, (H))
(G) Discounted Outstanding Liability for Claims at 6/30/24:
( $(\mathrm{E}) \times(\mathrm{F})$ )

|  | Marginally Acceptable | Recommended |  |  | Conservative |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Confidence Level of Adequacy: | 70\% | 75\% | 80\% | 85\% | 90\% |
| (H) Confidence Level Factor: (From Reserve Appendix I) | 1.109 | 1.154 | 1.207 | 1.275 | 1.367 |
| (I) Margin for Adverse Experience: $((\mathrm{G}) \times[(\mathrm{H})-1])$ | 2,958,000 | 4,179,000 | 5,618,000 | 7,463,000 | 9,960,000 |
| (J) Total Required Assets at $6 / 30 / 24$ : $((\mathrm{G})+(\mathrm{I}))$ | \$30,097,000 | \$31,318,000 | \$32,757,000 | \$34,602,000 | \$37,099,000 |
| (K) Estimated Total Assets at $6 / 30 / 24$ : <br> (From Reserve Appendix K) | 49,677,000 | 49,677,000 | 49,677,000 | 49,677,000 | 49,677,000 |
| (L) Indicated Funding Redundancy/ (Deficiency): $((\mathrm{K})-(\mathrm{J}))$ | \$19,580,000 | \$18,359,000 | \$16,920,000 | \$15,075,000 | \$12,578,000 |


| PLAN JPA - Liability |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IBNR as of 6/30/24 at Expected Claims Level |  |  |  |  |  |  |
|  |  |  |  | Estimated Percent of IBNR |  |  |
| Accident Year | Estimated Ultimate <br> (A) | Reported as of $12 / 31 / 23$ <br> (B) | Estimated IBNR as of 12/31/23 (C) | Reported Between 1/1/24 and 6/30/24 <br> (D) | Estimated IBNR <br> Reported <br> (E) | Estimated IBNR as of 6/30/24 (F) |
| 1986-2003 | \$43,442,137 | \$43,442,137 | \$0 | 100.0\% | \$0 | \$0 |
| 2003-2004 | 2,574,481 | 2,574,481 | 0 | 100.0\% | 0 | 0 |
| 2004-2005 | 1,874,487 | 1,874,487 | 0 | 100.0\% | 0 | 0 |
| 2005-2006 | 4,756,022 | 4,756,022 | 0 | 100.0\% | 0 | 0 |
| 2006-2007 | 1,662,124 | 1,662,124 | 0 | 100.0\% | 0 | 0 |
| 2007-2008 | 6,755,660 | 6,755,660 | 0 | 100.0\% | 0 | 0 |
| 2008-2009 | 3,472,680 | 3,472,680 | 0 | 100.0\% | 0 | 0 |
| 2009-2010 | 2,352,952 | 2,352,952 | 0 | 100.0\% | 0 | 0 |
| 2010-2011 | 2,046,846 | 2,046,846 | 0 | 100.0\% | 0 | 0 |
| 2011-2012 | 3,919,990 | 3,919,990 | 0 | 33.3\% | 0 | 0 |
| 2012-2013 | 4,088,000 | 4,063,438 | 24,562 | 33.2\% | 8,000 | 16,562 |
| 2013-2014 | 7,039,000 | 6,969,125 | 69,875 | 37.8\% | 26,000 | 43,875 |
| 2014-2015 | 5,512,000 | 5,429,951 | 82,049 | 19.8\% | 16,000 | 66,049 |
| 2015-2016 | 4,964,000 | 4,842,914 | 121,086 | 19.6\% | 24,000 | 97,086 |
| 2016-2017 | 9,259,000 | 9,099,466 | 159,534 | 19.4\% | 31,000 | 128,534 |
| 2017-2018 | 976,000 | 869,823 | 106,177 | 8.2\% | 9,000 | 97,177 |
| 2018-2019 | 1,812,000 | 1,259,170 | 552,830 | 22.8\% | 126,000 | 426,830 |
| 2019-2020 | 3,001,000 | 2,394,322 | 606,678 | 14.8\% | 90,000 | 516,678 |
| 2020-2021 | 11,393,000 | 9,339,976 | 2,053,024 | 39.8\% | 817,000 | 1,236,024 |
| 2021-2022 | 6,475,000 | 4,147,582 | 2,327,418 | 22.0\% | 512,000 | 1,815,418 |
| 2022-2023 | 7,178,000 | 3,868,022 | 3,309,978 | 11.3\% | 374,000 | 2,935,978 |
| 2023-2024 | 6,590,000 | 172,310 | 3,122,690 | 6.1\% | 391,000 | 6,026,690 |
| Totals | \$141,144,379 | \$125,313,478 | \$12,535,901 |  | \$2,424,000 | \$13,406,901 |

Notes:
(A) From Reserve Exhibit 3, Page 1.
(B) Provided by the Authority. These losses exclude amounts incurred above the Authority's SIR for each year.
(C) $(\mathrm{A})-(\mathrm{B})$.
(D) Percentage of incurred but not reported (IBNR) expected to be reported between $1 / 1 / 24$ and $6 / 30 / 24$. The percentage is based on the development pattern selected in Reserve Appendix A.
(E) ((A) - (B)) $x(D)$
(F) $(A)-(B)-(E)$.

This exhibit shows the calculation of the amount of incurred but not reported losses we expect as of $6 / 30 / 24$. This amount is dependent on both the strength of the case reserves and the average frequency and severity of the losses incurred.

## PLAN JPA - Liability

Estimated Ultimate Program Losses


| Projected Losses for the Year 2023-2024 (G) | $\$ 6,590,000$ |
| :--- | :--- |
| Projected Losses for the Year 2024-2025 (H) | $\$ 6,915,000$ |

## Notes:

(A) From Reserve Appendix A, Page 1, Column (G).
(B) From Reserve Appendix B, Page 1, Column (G).
(C) From Reserve Appendix C, Page 1, Column (G).
(D) From Reserve Appendix C, Page 2, Column (G).
(E) From Reserve Appendix D, Page 1, Column (C).
(F) Selected averages of (A), (B), (C), (D), and (E).
(G) From Reserve Not Included, Page 1, Line (K).
(H) From Reserve Not Included, Page 1, Line (K).

This exhibit summarizes the results of the actuarial methods we have applied to estimate ultimate losses for each year. It is important to apply a number of estimation methods because each one relies on specific assumptions about the claims process that tend to hold generally true, but that may be violated in specific situations. Thus, the more estimation methods that can be applied, the better.

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PLAN JPA - Liability
Estimated Ultimate Limited Losses Capped at \$1,000,000 per Claim

|  | Reported <br> Loss | Paid <br> Loss | Exposure <br> Method <br> Based on <br> Reported <br> Loseldent <br> Yevelopment <br> Method <br> (A) | Method <br> (B) | Exposure <br> Method <br> Based on <br> Paid <br> Losses | Frequency- <br> Severity <br> Method |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| Projected Losses for the Year 2023-2024 (G) | $\$ 6,590,000$ |
| :--- | :--- |
| Projected Losses for the Year 2024-2025 (H) | $\$ 6,915,000$ |

Notes:
(A) From Reserve Appendix A, Page 1, Column (D).
(B) From Reserve Appendix B, Page 1, Column (D).
(C) Based on results in Reserve Appendix C, Page 1.
(D) Based on results in Reserve Appendix C, Page 2.
(E) Based on results in Reserve Appendix D, Page 1.
(F) Selected averages of (A), (B), (C), (D), and (E).
(G) From Reserve Not Included, Page 1, Line (K) / Line (G1.
(H) From Reserve Not Included, Page 1, Line (K) / Line (G1.

This exhibit summarizes the results of the actuarial methods we have applied to estimate limited losses for each year. These results are used to select a limited loss rate for future years.

PLAN JPA - Liability

Reported Loss Development

|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Program <br> Reported | Reported Loss | Ultimate | Program Reported | Reported Loss | Ultimate |
| Accident | Losses as | Development | Program | Losses | Development | Program |
| Year | of 12/31/23 | Factor | Losses | of 12/31/23 | Factor | Losses |
| (A) | (B) | (C) | (D) | (E) | (F) | (G) |
| 1986-2003 | \$31,422,743 | 1.000 | \$31,422,743 | \$43,442,137 | 1.000 | \$43,442,137 |
| 2003-2004 | 2,574,481 | 1.000 | 2,574,481 | 2,574,481 | 1.000 | 2,574,481 |
| 2004-2005 | 1,874,487 | 1.000 | 1,874,487 | 1,874,487 | 1.000 | 1,874,487 |
| 2005-2006 | 3,237,840 | 1.000 | 3,237,840 | 4,756,022 | 1.000 | 4,756,022 |
| 2006-2007 | 1,662,124 | 1.000 | 1,662,124 | 1,662,124 | 1.000 | 1,662,124 |
| 2007-2008 | 4,919,885 | 1.000 | 4,919,885 | 6,755,660 | 1.000 | 6,755,660 |
| 2008-2009 | 3,376,845 | 1.000 | 3,376,845 | 3,472,680 | 1.000 | 3,472,680 |
| 2009-2010 | 2,352,952 | 1.000 | 2,352,952 | 2,352,952 | 1.000 | 2,352,952 |
| 2010-2011 | 2,046,846 | 1.001 | 2,048,893 | 2,046,846 | 1.001 | 2,048,893 |
| 2011-2012 | 3,919,990 | 1.003 | 3,931,750 | 3,919,990 | 1.003 | 3,931,750 |
| 2012-2013 | 4,063,438 | 1.006 | 4,087,819 | 4,063,438 | 1.006 | 4,087,819 |
| 2013-2014 | 3,069,125 | 1.010 | 3,099,816 | 6,969,125 | 1.010 | 7,038,816 |
| 2014-2015 | 4,905,812 | 1.015 | 4,979,399 | 5,429,951 | 1.015 | 5,511,400 |
| 2015-2016 | 3,442,914 | 1.025 | 3,528,987 | 4,842,914 | 1.025 | 4,963,987 |
| 2016-2017 | 5,776,089 | 1.040 | 6,007,133 | 9,099,466 | 1.040 | 9,463,445 |
| 2017-2018 | 869,823 | 1.047 | 910,705 | 869,823 | 1.047 | 910,705 |
| 2018-2019 | 1,259,170 | 1.056 | 1,329,684 | 1,259,170 | 1.056 | 1,329,684 |
| 2019-2020 | 2,394,322 | 1.082 | 2,590,656 | 2,394,322 | 1.082 | 2,590,656 |
| 2020-2021 | 7,927,801 | 1.588 | 10,237,348 | 9,339,976 | 1.588 | 13,882,216 |
| 2021-2022 | 4,147,582 | 2.956 | 12,260,252 | 4,147,582 | 2.956 | 12,260,252 |
| 2022-2023 | 3,868,022 | 6.873 | 26,584,915 | 3,868,022 | 6.873 | 26,584,915 |
| Totals | \$99,112,291 |  | \$133,018,714 | \$125,141,168 |  | \$161,495,081 |

Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Authority. These losses exclude amounts over the SIR.
(C) From Reserve Appendix A, Page 2.
(D) (B) $x$ (C). These estimated losses exclude amounts over the SIR.
(E) Losses capped at the Authority's SIR. Amounts are provided by the Authority.
(F) From Reserve Appendix A, Page 2.
(G) (E) $\times(F)$.

This method tends to understate ultimate losses for the most recent several years because the large losses for those years generally have not yet emerged at the time of our review.

This exhibit shows the calculation of estimated ultimate losses for each year based on paid losses and case reserves as reported by the claims administrator. These losses tend to "develop" or change from period to period as more information becomes available about the cases. This development tends to follow quantifiable patterns over time.

DRAFT
PLAN JPA - Liability
Reported Loss Development
DRA
Accident
Year
$2002-2003$
$2003-2004$
$2004-2005$
$2005-2006$
$2006-2007$
$2007-2008$
$2008-2009$
$2009-2010$
$2010-2011$
$2011-2012$
$2012-2013$
$2013-2014$
$2014-2015$
$2015-2016$
$2016-2017$
$2017-2018$
$2018-2019$
$2019-2020$
$2020-2021$
$2021-2022$
$2022-2023$
$2023-2024$
$\begin{array}{cc}\frac{\text { Program Losses Reported as of: }}{18} 30 & 42\end{array}$

| 6 | 18 | 30 | 42 | 54 | 66 | 78 | 90 | 102 | 114 | 126 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 567,543 | 1,906,336 | 4,062,177 | 8,370,243 | 9,217,066 | 8,542,877 | 8,721,640 | 8,719,727 | 8,808,032 | 8,850,963 | 8,792,658 |
| 4,001 | 184,321 | 558,456 | 670,955 | 1,173,162 | 1,318,511 | 1,591,251 | 1,881,919 | 2,790,812 | 2,568,802 | 2,569,681 |
|  | 671,598 | 1,275,449 | 1,852,243 | 1,904,110 | 1,876,140 | 1,884,486 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 |
| 25,000 | 422,143 | 1,922,276 | 2,886,625 | 3,514,764 | 4,881,587 | 4,993,818 | 5,096,734 | 5,171,734 | 4,812,387 | 4,775,006 |
| 250,000 | 429,839 | 388,247 | 544,541 | 885,717 | 1,181,310 | 1,717,627 | 1,656,699 | 1,656,563 | 1,656,563 | 1,656,563 |
| 228,140 | 748,802 | 1,944,679 | 3,425,750 | 4,743,123 | 7,031,234 | 6,805,660 | 6,755,660 | 6,755,660 | 6,755,660 | 6,755,660 |
| 40,000 | 593,853 | 2,272,388 | 4,424,148 | 5,587,036 | 5,819,751 | 3,573,895 | 3,528,864 | 3,528,864 | 3,528,864 | 3,528,864 |
| 588,210 | 3,130,545 | 3,852,129 | 3,616,630 | 3,528,002 | 3,528,002 | 2,483,987 | 2,463,987 | 2,441,417 | 2,441,417 | 2,441,417 |
|  | 3,235,361 | 13,599,043 | 6,660,508 | 1,961,674 | 2,096,846 | 2,046,846 | 2,046,846 | 2,076,846 | 2,076,846 | 2,076,846 |
| 25,000 | 6,136,433 | 10,300,736 | 3,657,810 | 3,711,615 | 3,660,880 | 3,809,185 | 3,878,185 | 3,878,185 | 3,878,185 | 3,878,185 |
| 25,000 | 4,721,268 | 2,820,517 | 2,142,134 | 2,006,231 | 2,383,230 | 2,320,228 | 2,449,510 | 3,788,438 | 3,788,438 | 4,063,438 |
| 357,000 | 1,085,300 | 1,453,782 | 6,394,575 | 6,948,858 | 7,070,156 | 7,046,618 | 6,959,081 | 6,959,081 | 3,069,125 | 3,069,125 |
|  | 2,581,639 | 3,391,765 | 4,496,980 | 5,649,691 | 5,428,532 | 5,429,951 | 5,429,951 | 4,905,812 | 4,905,812 |  |
|  | 816,550 | 4,031,962 | 4,652,451 | 5,078,739 | 5,077,844 | 4,948,195 | 3,557,912 | 3,442,914 |  |  |
| 10,002 | 1,838,105 | 4,617,897 | 6,101,188 | 7,084,535 | 7,845,241 | 5,763,749 | 5,776,089 |  |  |  |
|  | 213,377 | 680,850 | 921,662 | 868,680 | 870,473 | 869,823 |  |  |  |  |
|  | 5,000 | 568,156 | 1,002,487 | 1,291,645 | 1,259,170 |  |  |  |  |  |
|  | 63,500 | 367,323 | 701,961 | 2,394,322 |  |  |  |  |  |  |
| 2,330,000 | 4,118,968 | 4,234,245 | 7,927,801 |  |  |  |  |  |  |  |
| 60,000 | 514,442 | 4,147,582 |  |  |  |  |  |  |  |  |
|  | 3,868,022 |  |  |  |  |  |  |  |  |  |
| 172,310 |  |  |  |  |  |  |  |  |  |  |


| Reported Loss Development Factors: |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6-18 | 18-30 | 30-42 | 42-54 | 54-66 | 66-78 | 78-90 | 90-102 | 102-114 | 114-126 | 126-138 |
|  | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 3.359 | 2.131 | 2.061 | 1.101 | 0.927 | 1.021 | 1.000 | 1.010 | 1.005 | 0.993 | 1.008 |
| 2003-2004 | 46.069 | 3.030 | 1.201 | 1.748 | 1.124 | 1.207 | 1.183 | 1.483 | 0.920 | 1.000 | 1.000 |
| 2004-2005 |  | 1.899 | 1.452 | 1.028 | 0.985 | 1.004 | 0.996 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2005-2006 | 16.886 | 4.554 | 1.502 | 1.218 | 1.389 | 1.023 | 1.021 | 1.015 | 0.931 | 0.992 | 1.000 |
| 2006-2007 | 1.719 | 0.903 | 1.403 | 1.627 | 1.334 | 1.454 | 0.965 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2007-2008 | 3.282 | 2.597 | 1.762 | 1.385 | 1.482 | 0.968 | 0.993 | 1.000 | 1.000 | 1.000 | 0.965 |
| 2008-2009 | 14.846 | 3.827 | 1.947 | 1.263 | 1.042 | 0.614 | 0.987 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2009-2010 | 5.322 | 1.230 | 0.939 | 0.975 | 1.000 | 0.704 | 0.992 | 0.991 | 1.000 | 1.000 | 1.000 |
| 2010-2011 |  | 4.203 | 0.490 | 0.295 | 1.069 | 0.976 | 1.000 | 1.015 | 1.000 | 1.000 | 1.000 |
| 2011-2012 | 245.457 | 1.679 | 0.355 | 1.015 | 0.986 | 1.041 | 1.018 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2012-2013 | 188.851 | 0.597 | 0.759 | 0.937 | 1.188 | 0.974 | 1.056 | 1.547 | 1.000 | 1.073 | 1.000 |
| 2013-2014 | 3.040 | 1.340 | 4.399 | 1.087 | 1.017 | 0.997 | 0.988 | 1.000 | 0.441 | 1.000 |  |
| 2014-2015 |  | 1.314 | 1.326 | 1.256 | 0.961 | 1.000 | 1.000 | 0.903 | 1.000 |  |  |
| 2015-2016 |  | 4.938 | 1.154 | 1.092 | 1.000 | 0.974 | 0.719 | 0.968 |  |  |  |
| 2016-2017 | 183.774 | 2.512 | 1.321 | 1.161 | 1.107 | 0.735 | 1.002 |  |  |  |  |
| 2017-2018 |  | 3.191 | 1.354 | 0.943 | 1.002 | 0.999 |  |  |  |  |  |
| 2018-2019 |  | 113.631 | 1.764 | 1.288 | 0.975 |  |  |  |  |  |  |
| 2019-2020 |  | 5.785 | 1.911 | 3.411 |  |  |  |  |  |  |  |
| 2020-2021 | 1.768 | 1.028 | 1.872 |  |  |  |  |  |  |  |  |
| 2021-2022 | 8.574 | 8.062 |  |  |  |  |  |  |  |  |  |

2022-2023

|  | 6-18 <br> Months | $18-30$ <br> Months | $30-42$ <br> Months | $42-54$ <br> Months | $54-66$ <br> Months | $66-78$ <br> Months | $78-90$ <br> Months | 90-102 <br> Months | $102-114$ <br> Months | $114-126$ <br> Months | $126-138$ <br> Months |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average | 55.611 | 8.423 | 1.525 | 1.268 | 1.093 | 0.981 | 0.995 | 1.067 | 0.946 | 1.005 | 0.998 |
| Dollar-Weighted |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ |  | 1.863 | 1.863 | 1.734 | 1.079 | 0.840 | 0.915 | 0.960 | 0.751 | 1.026 | 1.000 |
| $4-\mathrm{yr}$ |  | 1.982 | 1.804 | 1.334 | 1.051 | 0.885 | 0.937 | 1.038 | 0.801 | 1.021 | 1.000 |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 2.945 | 1.254 | 1.006 | 0.965 | 0.972 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Prior | 5.500 | 2.325 | 1.615 | 1.169 | 1.024 | 1.009 | 1.006 | 1.015 | 1.010 | 1.005 | 1.004 |
| Selected | 5.500 | 2.325 | 1.861 | 1.468 | 1.024 | 1.009 | 1.006 | 1.015 | 1.010 | 1.005 | 1.004 |
| Cumulated | 37.802 | 6.873 | 2.956 | 1.588 | 1.082 | 1.056 | 1.047 | 1.040 | 1.025 | 1.015 | 1.010 |

DRAFT
Program Losses Reported as of:

| Accident | 138 | 150 | 162 | 174 | 186 | 198 | 210 | 222 | 234 | 246 | 258 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 8,866,771 | 8,864,201 | 8,864,200 | 8,864,200 | 8,864,200 | 8,832,841 | 8,832,841 | 8,832,841 | 8,832,841 | 5,457,648 | 5,457,648 |
| 2003-2004 | 2,569,681 | 2,569,681 | 2,569,681 | 2,569,681 | 2,569,681 | 2,569,681 | 2,569,681 | 2,569,681 | 2,569,681 | 2,569,681 |  |
| 2004-2005 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 |  |  |
| 2005-2006 | 4,775,006 | 4,775,006 | 4,775,006 | 4,775,006 | 4,775,006 | 4,775,006 | 3,256,823 | 3,256,823 |  |  |  |
| 2006-2007 | 1,656,563 | 1,656,563 | 1,679,200 | 1,662,124 | 1,662,124 | 1,662,124 | 1,662,124 |  |  |  |  |
| 2007-2008 | 6,517,383 | 6,755,660 | 6,755,660 | 6,755,660 | 4,919,885 | 4,919,885 |  |  |  |  |  |
| 2008-2009 | 3,528,864 | 3,528,864 | 3,527,823 | 3,433,029 | 3,433,029 |  |  |  |  |  |  |
| 2009-2010 | 2,441,417 | 2,441,417 | 2,441,417 | 2,441,417 |  |  |  |  |  |  |  |
| 2010-2011 | 2,076,846 | 2,046,846 | 2,046,846 |  |  |  |  |  |  |  |  |
| 2011-2012 | 3,878,185 | 3,919,990 |  |  |  |  |  |  |  |  |  |
| 2012-2013 | 4,063,438 |  |  |  |  |  |  |  |  |  |  |

Reported Loss Development Factors:

| 138-150 | $150-162$ | $162-174$ | $174-186$ | $186-198$ | $198-210$ | $210-222$ | $222-234$ | 234-246 | 246-258 | 258-Ult. |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 1.000 | 1.000 | 1.000 | 1.000 | 0.996 | 1.000 | 1.000 | 1.000 | 0.618 | 1.000 |  |
| 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |
| 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |
| 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.682 | 1.000 |  |  |  |  |
| 1.000 | 1.014 | 0.990 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |
| 1.037 | 1.000 | 1.000 | 0.728 | 1.000 |  |  |  |  |  |  |
| 1.000 | 1.000 | 0.973 | 1.000 |  |  |  |  |  |  |  |
| 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |  |
| 0.986 | 1.000 |  |  |  |  |  |  |  |  |  |
| 1.011 |  |  |  |  |  |  |  |  |  |  |

PLAN JPA - Liability
Reported Loss Development

2014-2015
2015-2016
2016-2017
2017-2018
2018-2019
2019-2020
2020-2021
2021-2022
2022-2023
2023-2024

2002-2003
2003-2004
2004-2005
2005-2006
2006-2007
2007-2008
2008-2009
2009-2010
2010-2011 1.011

2012-2013
2013-2014
2014-2015
2015-2016
2016-2017
2017-2018
2018-2019
2019-2020
2020-2021
2021-2022
2022-2023

|  | $138-150$ <br> Months | 150-162 Months | 162-174 Months | 174-186 <br> Months | 186-198 <br> Months | $198-210$ <br> Months | $210-222$ <br> Months | $222-234$ <br> Months | $234-246$ <br> Months | 246-258 <br> Months | 258-Ult. <br> Months |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average | 1.003 | 1.002 | 0.995 | 0.961 | 0.999 | 0.936 | 1.000 | 1.000 | 0.809 | 1.000 |  |
| Dollar-Weighted |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ | 1.001 | 1.000 | 0.993 | 0.845 | 1.000 | 0.817 | 1.000 | 1.000 |  |  |  |
| $4-\mathrm{yr}$ | 1.001 | 1.000 | 0.992 | 0.890 | 1.000 | 0.860 | 1.000 |  |  |  |  |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Prior | 1.003 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Selected | 1.003 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Cumulated | 1.006 | 1.003 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |

PLAN JPA - Liability
Paid Loss Development

|  | Program | Program |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Paid | Paid Loss | Ultimate | Paid | Paid Loss | Ultimate |
| Accident | Losses as | Development | Program | Losses | Development | Program |
| Year | of $12 / 31 / 23$ | Factor | Losses | of 12/31/23 | Factor | Losses |
| (A) | (B) | (C) | (D) | (E) | (F) | (G) |
| 1986-2003 | \$31,422,743 | 1.000 | \$31,422,743 | \$43,442,137 | 1.000 | \$43,442,137 |
| 2003-2004 | 2,574,481 | 1.000 | 2,574,481 | 2,574,481 | 1.000 | 2,574,481 |
| 2004-2005 | 1,874,487 | 1.000 | 1,874,487 | 1,874,487 | 1.000 | 1,874,487 |
| 2005-2006 | 3,237,840 | 1.000 | 3,237,840 | 4,756,022 | 1.000 | 4,756,022 |
| 2006-2007 | 1,662,124 | 1.000 | 1,662,124 | 1,662,124 | 1.000 | 1,662,124 |
| 2007-2008 | 4,919,885 | 1.000 | 4,919,885 | 6,755,660 | 1.000 | 6,755,660 |
| 2008-2009 | 3,376,845 | 1.000 | 3,376,845 | 3,472,680 | 1.000 | 3,472,680 |
| 2009-2010 | 2,352,952 | 1.000 | 2,352,952 | 2,352,952 | 1.000 | 2,352,952 |
| 2010-2011 | 2,046,846 | 1.001 | 2,048,893 | 2,046,846 | 1.001 | 2,048,893 |
| 2011-2012 | 3,919,990 | 1.002 | 3,927,830 | 3,919,990 | 1.002 | 3,927,830 |
| 2012-2013 | 3,568,464 | 1.007 | 3,593,443 | 3,568,464 | 1.007 | 3,593,443 |
| 2013-2014 | 3,069,125 | 1.008 | 3,093,678 | 6,969,125 | 1.008 | 7,024,878 |
| 2014-2015 | 4,905,812 | 1.013 | 4,969,588 | 5,429,951 | 1.013 | 5,500,540 |
| 2015-2016 | 3,428,007 | 1.019 | 3,493,139 | 4,828,007 | 1.019 | 4,919,739 |
| 2016-2017 | 5,738,952 | 1.072 | 6,152,157 | 9,062,330 | 1.072 | 9,714,818 |
| 2017-2018 | 869,823 | 1.121 | 975,072 | 869,823 | 1.121 | 975,072 |
| 2018-2019 | 1,113,914 | 1.254 | 1,396,848 | 1,113,914 | 1.254 | 1,396,848 |
| 2019-2020 | 750,865 | 1.435 | 1,077,491 | 750,865 | 1.435 | 1,077,491 |
| 2020-2021 | 5,139,922 | 2.557 | 8,471,781 | 6,539,097 | 2.557 | 12,506,934 |
| 2021-2022 | 514,833 | 6.398 | 3,293,902 | 514,833 | 6.398 | 3,293,902 |
| 2022-2023 | 18,759 | 28.791 | 540,090 | 18,759 | 28.791 | 540,090 |
| Totals | \$86,506,669 |  | \$94,455,269 | \$112,522,547 |  | \$123,411,021 |

Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Authority. These losses exclude amounts over the SIR.
(C) From Reserve Appendix B, Page 2.
(D) (B) $\times(C)$. These estimated losse exclude amounts over the SIR.
(E) Losses capped at the Authority's SIR. Amounts are provided by the Authority.
(F) From Reserve Appendix B, Page 2.
(G) (E) $x(F)$.

This method tends to understate ultimate losses for the most recent several years because the large losses for those years generally have not yet emerged at the time of our review.

This exhibit shows the calculation of estimated ultimate losses for each year based on paid losses as reported by the claims administrator. These losses tend to "develop" or change from period to period as more information becomes available about the cases. This development tends to follow quantifiable patterns over time.

DRAFT
PLAN JPA - Liability
Paid Loss Development

| Program Losses Paid as of: |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident | 6 | 18 | 30 | 42 | 54 | 66 | 78 | 90 | 102 | 114 | 126 |
| Year | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 150,543 | 1,228,821 | 1,665,669 | 6,933,745 | 8,246,287 | 8,190,377 | 8,708,241 | 8,719,727 | 8,719,727 | 8,742,645 | 8,772,745 |
| 2003-2004 | 4,000 | 77,051 | 495,103 | 608,305 | 921,312 | 1,087,642 | 1,376,804 | 1,647,154 | 2,608,353 | 2,568,802 | 2,569,681 |
| 2004-2005 |  | 81,598 | 417,717 | 1,814,469 | 1,878,960 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 |
| 2005-2006 |  | 247,187 | 294,551 | 1,141,504 | 2,514,423 | 3,122,718 | 4,717,976 | 4,734,927 | 4,753,612 | 4,756,021 | 4,775,006 |
| 2006-2007 | 6,182 | 16,629 | 124,634 | 476,923 | 689,869 | 1,110,840 | 1,669,292 | 1,656,563 | 1,656,563 | 1,656,563 | 1,656,563 |
| 2007-2008 |  | 73,131 | 687,414 | 1,833,480 | 3,126,455 | 5,793,113 | 6,755,660 | 6,755,660 | 6,755,660 | 6,755,660 | 6,755,660 |
| 2008-2009 | 20,033 | 75,913 | 531,423 | 2,267,616 | 2,681,095 | 3,030,640 | 3,494,736 | 3,528,864 | 3,528,864 | 3,528,864 | 3,528,864 |
| 2009-2010 | 219,495 | 304,644 | 724,295 | 2,093,891 | 2,352,952 | 2,372,163 | 2,421,490 | 2,438,686 | 2,441,417 | 2,441,417 | 2,441,417 |
| 2010-2011 |  | 249,199 | 684,682 | 1,176,359 | 1,846,866 | 2,046,846 | 2,046,846 | 2,046,846 | 2,076,846 | 2,076,846 | 2,076,846 |
| 2011-2012 | 14,083 | 197,650 | 1,183,434 | 2,859,227 | 3,523,538 | 3,619,018 | 3,764,045 | 3,787,597 | 3,797,983 | 3,811,937 | 3,814,260 |
| 2012-2013 |  | 550,184 | 901,080 | 1,725,493 | 1,819,616 | 2,017,440 | 2,270,574 | 2,351,992 | 3,352,812 | 3,371,074 | 3,487,466 |
| 2013-2014 |  | 128,965 | 746,799 | 5,850,808 | 6,724,237 | 6,722,157 | 6,932,649 | 6,959,081 | 6,959,081 | 3,069,125 | 3,069,125 |
| 2014-2015 |  | 1,676,100 | 2,183,993 | 2,667,604 | 5,339,202 | 5,428,532 | 5,429,951 | 5,429,951 | 4,905,812 | 4,905,812 |  |
| 2015-2016 |  | 16,532 | 226,123 | 3,422,237 | 4,335,681 | 4,610,479 | 4,814,203 | 3,424,345 | 3,428,007 |  |  |
| 2016-2017 |  | 900 | 1,406,078 | 4,536,037 | 4,970,143 | 6,678,653 | 5,034,962 | 5,738,952 |  |  |  |
| 2017-2018 |  | 56,752 | 356,919 | 777,179 | 814,717 | 870,473 | 869,823 |  |  |  |  |
| 2018-2019 |  |  | 167,664 | 707,921 | 1,055,231 | 1,113,914 |  |  |  |  |  |
| 2019-2020 |  |  | 56,239 | 108,746 | 750,865 |  |  |  |  |  |  |
| 2020-2021 |  | 2,431,166 | 2,522,774 | 5,139,922 |  |  |  |  |  |  |  |
| 2021-2022 |  |  | 514,833 |  |  |  |  |  |  |  |  |
| 2022-2023 |  | 18,759 |  |  |  |  |  |  |  |  |  |
| 2023-2024 |  |  |  |  |  |  |  |  |  |  |  |


| Paid Loss Development Factors: |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6-18 | 18-30 | 30-42 | 42-54 | 54-66 | 66-78 | 78-90 | 90-102 | 102-114 | 114-126 | 126-138 |
|  | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 8.163 | 1.356 | 4.163 | 1.189 | 0.993 | 1.063 | 1.001 | 1.000 | 1.003 | 1.003 | 1.004 |
| 2003-2004 | 19.263 | 6.426 | 1.229 | 1.515 | 1.181 | 1.266 | 1.196 | 1.584 | 0.985 | 1.000 | 1.000 |
| 2004-2005 |  | 5.119 | 4.344 | 1.036 | 0.998 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2005-2006 |  | 1.192 | 3.875 | 2.203 | 1.242 | 1.511 | 1.004 | 1.004 | 1.001 | 1.004 | 1.000 |
| 2006-2007 | 2.690 | 7.495 | 3.827 | 1.446 | 1.610 | 1.503 | 0.992 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2007-2008 |  | 9.400 | 2.667 | 1.705 | 1.853 | 1.166 | 1.000 | 1.000 | 1.000 | 1.000 | 0.965 |
| 2008-2009 | 3.789 | 7.000 | 4.267 | 1.182 | 1.130 | 1.153 | 1.010 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2009-2010 | 1.388 | 2.378 | 2.891 | 1.124 | 1.008 | 1.021 | 1.007 | 1.001 | 1.000 | 1.000 | 1.000 |
| 2010-2011 |  | 2.748 | 1.718 | 1.570 | 1.108 | 1.000 | 1.000 | 1.015 | 1.000 | 1.000 | 1.000 |
| 2011-2012 | 14.035 | 5.988 | 2.416 | 1.232 | 1.027 | 1.040 | 1.006 | 1.003 | 1.004 | 1.001 | 1.002 |
| 2012-2013 |  | 1.638 | 1.915 | 1.055 | 1.109 | 1.125 | 1.036 | 1.426 | 1.005 | 1.035 | 1.023 |
| 2013-2014 |  | 5.791 | 7.835 | 1.149 | 1.000 | 1.031 | 1.004 | 1.000 | 0.441 | 1.000 |  |
| 2014-2015 |  | 1.303 | 1.221 | 2.001 | 1.017 | 1.000 | 1.000 | 0.903 | 1.000 |  |  |
| 2015-2016 |  | 13.678 | 15.134 | 1.267 | 1.063 | 1.044 | 0.711 | 1.001 |  |  |  |
| 2016-2017 |  | 1,562.309 | 3.226 | 1.096 | 1.344 | 0.754 | 1.140 |  |  |  |  |
| 2017-2018 |  | 6.289 | 2.177 | 1.048 | 1.068 | 0.999 |  |  |  |  |  |
| 2018-2019 |  |  | 4.222 | 1.491 | 1.056 |  |  |  |  |  |  |
| 2019-2020 |  |  | 1.934 | 6.905 |  |  |  |  |  |  |  |
| 2020-2021 |  | 1.038 | 2.037 |  |  |  |  |  |  |  |  |

2021-2022
2022-2023

|  | $6-18$ <br> Months | 18-30 <br> Months | $30-42$ <br> Months | $42-54$ <br> Months | $54-66$ <br> Months | $66-78$ <br> Months | $78-90$ <br> Months | $90-102$ <br> Months | $102-114$ <br> Months | 114-126 <br> Months | 126-138 <br> Months |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average | 8.221 | 96.538 | 3.742 | 1.679 | 1.165 | 1.105 | 1.007 | 1.067 | 0.957 | 1.004 | 0.999 |
| Dollar-Weighted Averages |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ |  |  | 2.169 | 1.644 | 1.267 | 0.882 | 0.955 | 0.967 | 0.746 | 1.012 | 1.010 |
| $4-\mathrm{yr}$ |  |  | 2.170 | 1.238 | 1.188 | 0.918 | 0.970 | 1.026 | 0.797 | 1.010 | 1.008 |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 4.218 | 2.117 | 1.446 | 1.151 | 1.057 | 1.033 | 1.015 | 1.010 | 1.008 | 1.008 | 1.006 |
| Prior | 9.100 | 4.500 | 2.502 | 1.418 | 1.144 | 1.119 | 1.051 | 1.040 | 1.008 | 1.005 | 1.002 |
| Selected | 9.100 | 4.500 | 2.502 | 1.782 | 1.144 | 1.119 | 1.046 | 1.052 | 1.006 | 1.005 | 1.001 |
| Cumulated | 261.998 | 28.791 | 6.398 | 2.557 | 1.435 | 1.254 | 1.121 | 1.072 | 1.019 | 1.013 | 1.008 |

PLAN JPA - Liability
Paid Loss Development

|  | Program L | es Paid a |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident | 138 | 150 | 162 | 174 | 186 | 198 | 210 | 222 | 234 | 246 | 258 |
| Year | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 8,809,636 | 8,825,154 | 8,832,114 | 8,832,841 | 8,832,841 | 8,832,841 | 8,832,841 | 8,832,841 | 8,832,841 | 5,457,648 | 5,457,648 |
| 2003-2004 | 2,569,681 | 2,569,681 | 2,569,681 | 2,569,681 | 2,569,681 | 2,569,681 | 2,569,681 | 2,569,681 | 2,569,681 | 2,569,681 |  |
| 2004-2005 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 |  |  |
| 2005-2006 | 4,775,006 | 4,775,006 | 4,775,006 | 4,775,006 | 4,775,006 | 4,775,006 | 3,256,823 | 3,256,823 |  |  |  |
| 2006-2007 | 1,656,563 | 1,656,563 | 1,656,563 | 1,662,124 | 1,662,124 | 1,662,124 | 1,662,124 |  |  |  |  |
| 2007-2008 | 6,517,383 | 6,755,660 | 6,755,660 | 6,755,660 | 4,919,885 | 4,919,885 |  |  |  |  |  |
| 2008-2009 | 3,528,864 | 3,528,864 | 3,527,823 | 3,433,029 | 3,433,029 |  |  |  |  |  |  |
| 2009-2010 | 2,441,417 | 2,441,417 | 2,441,417 | 2,441,417 |  |  |  |  |  |  |  |
| 2010-2011 | 2,076,846 | 2,046,846 | 2,046,846 |  |  |  |  |  |  |  |  |
| 2011-2012 | 3,823,023 | 3,919,990 |  |  |  |  |  |  |  |  |  |
| 2012-2013 | 3,568,464 |  |  |  |  |  |  |  |  |  |  |
| 2013-2014 |  |  |  |  |  |  |  |  |  |  |  |
| 2014-2015 |  |  |  |  |  |  |  |  |  |  |  |
| 2015-2016 |  |  |  |  |  |  |  |  |  |  |  |
| 2016-2017 |  |  |  |  |  |  |  |  |  |  |  |
| 2017-2018 |  |  |  |  |  |  |  |  |  |  |  |
| 2018-2019 |  |  |  |  |  |  |  |  |  |  |  |
| 2019-2020 |  |  |  |  |  |  |  |  |  |  |  |
| 2020-2021 |  |  |  |  |  |  |  |  |  |  |  |
| 2021-2022 |  |  |  |  |  |  |  |  |  |  |  |
| 2022-2023 |  |  |  |  |  |  |  |  |  |  |  |
| 2023-2024 |  |  |  |  |  |  |  |  |  |  |  |


|  | Paid Loss Development Factors: |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 138-150 | 150-162 | 162-174 | 174-186 | 186-198 | 198-210 | 210-222 | 222-234 | 234-246 | 246-258 | 258-Ult. |
|  | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.618 | 1.000 |  |
| 2003-2004 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |
| 2004-2005 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |
| 2005-2006 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.682 | 1.000 |  |  |  |  |
| 2006-2007 | 1.000 | 1.000 | 1.003 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |
| 2007-2008 | 1.037 | 1.000 | 1.000 | 0.728 | 1.000 |  |  |  |  |  |  |
| 2008-2009 | 1.000 | 1.000 | 0.973 | 1.000 |  |  |  |  |  |  |  |
| 2009-2010 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |  |
| 2010-2011 | 0.986 | 1.000 |  |  |  |  |  |  |  |  |  |
| 2011-2012 | 1.025 |  |  |  |  |  |  |  |  |  |  |

2012-2013
2013-2014
2014-2015
2015-2016
2016-2017
2017-2018
2018-2019
2019-2020
2020-2021
2021-2022
2022-2023

Paid Loss Development Factors:

|  | 138-150 | 150-162 | 162-174 | 174-186 | 186-198 | 198-210 | 210-222 | 222-234 | 234-246 | 246-258 | 258-Ult. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| Average | 1.005 | 1.000 | 0.997 | 0.961 | 1.000 | 0.936 | 1.000 | 1.000 | 0.809 | 1.000 |  |
| Dollar-Weighted |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ | 1.008 | 1.000 | 0.993 | 0.845 | 1.000 | 0.817 | 1.000 | 1.000 |  |  |  |
| $4-\mathrm{yr}$ | 1.006 | 1.000 | 0.994 | 0.890 | 1.000 | 0.860 | 1.000 |  |  |  |  |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 1.006 | 1.004 | 1.004 | 1.002 | 1.002 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.000 |
| Prior | 1.004 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Selected | 1.005 | 1.001 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Cumulated | 1.007 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |

PLAN JPA - Liability
Exposure and Development Method
Based on Reported Losses

| Accident Year | Trended Payroll (\$00) (A) | Reported Losses as of $12 / 31 / 23$ <br> (B) | Loss <br> Development Factor (C) | Percentage of Losses Yet to Be Reported (D) | Program Rate (E) | Incurred but not Reported (IBNR) (F) | Ultimate Program Losses (G) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1986-2003 | 0 |  | 1.000 | 0.000 | 1.288 | 0 |  |
| 2003-2004 | 5,890,921 | 2,574,481 | 1.000 | 0.000 | 0.493 | 0 | 2,574,481 |
| 2004-2005 | 6,726,086 | 1,874,487 | 1.000 | 0.000 | 0.317 | 0 | 1,874,487 |
| 2005-2006 | 6,701,609 | 4,756,022 | 1.000 | 0.000 | 0.554 | 0 | 4,756,022 |
| 2006-2007 | 6,850,981 | 1,662,124 | 1.000 | 0.000 | 0.280 | 0 | 1,662,124 |
| 2007-2008 | 7,078,282 | 6,755,660 | 1.000 | 0.000 | 0.809 | 0 | 6,755,660 |
| 2008-2009 | 7,137,215 | 3,472,680 | 1.000 | 0.000 | 0.556 | 0 | 3,472,680 |
| 2009-2010 | 6,726,322 | 2,352,952 | 1.000 | 0.000 | 0.416 | 0 | 2,352,952 |
| 2010-2011 | 6,057,964 | 2,046,846 | 1.001 | 0.001 | 0.405 | 2,453 | 2,049,299 |
| 2011-2012 | 5,049,644 | 3,919,990 | 1.003 | 0.003 | 0.945 | 14,316 | 3,934,306 |
| 2012-2013 | 4,813,124 | 4,063,438 | 1.006 | 0.006 | 1.043 | 30,121 | 4,093,559 |
| 2013-2014 | 4,664,018 | 6,969,125 | 1.010 | 0.010 | 0.820 | 38,245 | 7,007,370 |
| 2014-2015 | 4,731,659 | 5,429,951 | 1.015 | 0.015 | 1.311 | 93,048 | 5,522,999 |
| 2015-2016 | 4,506,901 | 4,842,914 | 1.025 | 0.024 | 0.953 | 103,082 | 4,945,996 |
| 2016-2017 | 4,680,337 | 9,099,466 | 1.040 | 0.038 | 1.584 | 281,719 | 9,381,185 |
| 2017-2018 | 4,797,059 | 869,823 | 1.047 | 0.045 | 0.227 | 49,002 | 918,825 |
| 2018-2019 | 4,828,712 | 1,259,170 | 1.056 | 0.053 | 1.791 | 458,356 | 1,717,526 |
| 2019-2020 | 4,640,086 | 2,394,322 | 1.082 | 0.076 | 1.834 | 646,754 | 3,041,076 |
| 2020-2021 | 4,677,499 | 9,339,976 | 1.588 | 0.370 | 1.878 | 3,250,207 | 12,590,183 |
| 2021-2022 | 4,877,311 | 4,147,582 | 2.956 | 0.662 | 1.454 | 4,694,646 | 8,842,228 |
| 2022-2023 | 5,079,532 | 3,868,022 | 6.873 | 0.855 | 1.467 | 6,371,181 | 10,239,203 |
| Totals | 110,515,262 | \$81,699,031 |  |  |  | \$16,033,130 | \$97,732,161 |

Notes:
(A) From Reserve Appendix M, Column (C).
(B) Provided by the Authority. These losses exclude amounts incurred above the Authority's SIR for each year.
(C) From Reserve Appendix A, Page 1, Column (F).
(D) 1-1/(C).
(E) From Reserve Appendix C, Page 3, Column (H).
(F) $(\mathrm{A}) \times(\mathrm{D}) \times(\mathrm{E})$.
(G) $(B)+(F)$.

This exhibit shows the calculation of ultimate losses based on the assumption that there is an underlying relationship between losses and exposure that changes in regular ways over time. The method relies on the premise that the losses that are currently unreported will cost what this relationship would suggest.

PLAN JPA - Liability
Exposure and Development Method Based on Paid Losses

| Accident Year | Trended Payroll (\$00) (A) | Paid Losses as of $12 / 31 / 23$ (B) | Loss Development Factor (C) | Percentage of Losses Yet to Be Paid (D) | Program Rate (E) | Incurred but not Paid (F) | Ultimate Program Losses (G) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1986-2003 | 0 |  | 1.000 | 0.000 | 1.288 | 0 |  |
| 2003-2004 | 5,890,921 | 2,574,481 | 1.000 | 0.000 | 0.493 | 0 | 2,574,481 |
| 2004-2005 | 6,726,086 | 1,874,487 | 1.000 | 0.000 | 0.317 | 0 | 1,874,487 |
| 2005-2006 | 6,701,609 | 4,756,022 | 1.000 | 0.000 | 0.554 | 0 | 4,756,022 |
| 2006-2007 | 6,850,981 | 1,662,124 | 1.000 | 0.000 | 0.280 | 0 | 1,662,124 |
| 2007-2008 | 7,078,282 | 6,755,660 | 1.000 | 0.000 | 0.809 | 0 | 6,755,660 |
| 2008-2009 | 7,137,215 | 3,472,680 | 1.000 | 0.000 | 0.556 | 0 | 3,472,680 |
| 2009-2010 | 6,726,322 | 2,352,952 | 1.000 | 0.000 | 0.416 | 0 | 2,352,952 |
| 2010-2011 | 6,057,964 | 2,046,846 | 1.001 | 0.001 | 0.405 | 2,453 | 2,049,299 |
| 2011-2012 | 5,049,644 | 3,919,990 | 1.002 | 0.002 | 0.945 | 9,544 | 3,929,534 |
| 2012-2013 | 4,813,124 | 3,568,464 | 1.007 | 0.007 | 1.043 | 35,141 | 3,603,605 |
| 2013-2014 | 4,664,018 | 6,969,125 | 1.008 | 0.008 | 0.820 | 30,596 | 6,999,721 |
| 2014-2015 | 4,731,659 | 5,429,951 | 1.013 | 0.013 | 1.311 | 80,642 | 5,510,593 |
| 2015-2016 | 4,506,901 | 4,828,007 | 1.019 | 0.019 | 0.953 | 81,606 | 4,909,613 |
| 2016-2017 | 4,680,337 | 9,062,330 | 1.072 | 0.067 | 1.584 | 496,715 | 9,559,045 |
| 2017-2018 | 4,797,059 | 869,823 | 1.121 | 0.108 | 0.227 | 117,605 | 987,428 |
| 2018-2019 | 4,828,712 | 1,113,914 | 1.254 | 0.203 | 1.791 | 1,755,589 | 2,869,503 |
| 2019-2020 | 4,640,086 | 750,865 | 1.435 | 0.303 | 1.834 | 2,578,505 | 3,329,370 |
| 2020-2021 | 4,677,499 | 6,539,097 | 2.557 | 0.609 | 1.878 | 5,349,665 | 11,888,762 |
| 2021-2022 | 4,877,311 | 514,833 | 6.398 | 0.844 | 1.454 | 5,985,319 | 6,500,152 |
| 2022-2023 | 5,079,532 | 18,759 | 28.791 | 0.965 | 1.467 | 7,190,865 | 7,209,624 |
| Totals | 110,515,262 | \$69,080,410 |  |  |  | \$23,714,245 | \$92,794,655 |

Notes:
(A) From Reserve Appendix M, Column (C).
(B) Provided by the Authority. These losses exclude amounts paid above the Authority's SIR for each year.
(C) From Reserve Appendix B, Page 1, Column (F).
(D) 1-1/(C).
(E) From Reserve Appendix C, Page 3, Column (H).
(F) $(\mathrm{A}) \times(\mathrm{D}) \times(\mathrm{E})$.
(G) $(B)+(F)$.

This exhibit shows the calculation of ultimate losses based on the assumption that there is an underlying relationship between losses and exposure that changes in regular ways over time. The method relies on the premise that the losses that are currently unpaid will cost what this relationship would suggest.

## PLAN JPA - Liability

Exposure and Development Method


Notes:
(A) From Reserve Appendix M, Column (C).
(B) Selected average of results from Appendices $p$ and $p$.
(C) From Reserve Appendix E, Page 1, Column (B).
(D) $(B) \times(C)$.
(E) (D) $/(\mathrm{A})$.
(F) Selected Program Rate / (C). For 2017-2018 and prior (B) / (A).
(G) Based on a Burr distribution, a mathematical model of claim sizes.
(H) (F) $\times(\mathrm{G})$.

This exhibit shows the calculation of the underlying historical relationship between losses and exposure that is needed to apply the estimation methods shown on pages 1 and 2 of this Appendix.

Frequency and Severity Method

| Accident | Ultimate <br> Program <br> Severity <br> (A) | Adjusted <br> Ultimate <br> Claims | Cltimate <br> Program <br> (B) |
| :---: | :---: | :---: | ---: |
|  | (B) | (C) |  |
| 1986-2003 | $\$ 152,892$ | 220 | $\$ 33,636,240$ |
| $2003-2004$ | 145,347 | 20 | $2,906,940$ |
| $2004-2005$ | 236,395 | 9 | $2,127,555$ |
| $2005-2006$ | 232,062 | 16 | $3,712,992$ |
| $2006-2007$ | 136,843 | 14 | $1,915,802$ |
| $2007-2008$ | 238,688 | 24 | $5,728,512$ |
| $2008-2009$ | 233,618 | 17 | $3,971,506$ |
| $2009-2010$ | 139,747 | 20 | $2,794,940$ |
| $2010-2011$ | 188,874 | 13 | $2,455,362$ |
| $2011-2012$ | 238,569 | 20 | $4,771,380$ |
| $2012-2013$ | 239,232 | 21 | $5,023,872$ |
| $2013-2014$ | 255,052 | 15 | $3,825,780$ |
| $2014-2015$ | 344,538 | 18 | $6,201,684$ |
| $2015-2016$ | 214,773 | 20 | $4,295,460$ |
| $2016-2017$ | 370,872 | 20 | $7,417,440$ |
| $2017-2018$ | 174,443 | 7 | $1,221,101$ |
| $2018-2019$ | 350,434 | 9 | $3,153,906$ |
| $2019-2020$ | 358,705 | 15 | $5,380,575$ |
| $2020-2021$ | 367,494 | 31 | $11,39,314$ |
| $2021-2022$ | 284,593 | 33 | $9,391,569$ |
| $2022-2023$ | 287,129 | 28 | $8,039,612$ |
|  |  |  |  |
| Total |  |  | 590 |

Notes:
(A) From Reserve Appendix D, Page 2, Column (H).
(B) From Reserve Appendix D, Page 2, Column (B).
(C) $(A) \times(B)$.

This exhibit shows the calculation of the estimated ultimate losses for each year based on the observed average frequency and severity of claims.

Frequency and Severity Method

| Accident Year | Ultimate Program Losses <br> (A) | Adjusted Ultimate Claims (B) | Ultimate Program Severity (C) | Trend Factor <br> (D) | Trended Program Severity (E) | Program Severity (F) | Factor to SIR <br> (G) | Program Severity (H) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1986-2003 | \$31,422,743 | 220 | \$142,831 | 1.232 | \$175,968 | \$142,831 | 1.070 | \$152,892 |
| 2003-2004 | 2,574,481 | 20 | 128,724 | 1.219 | 156,915 | 128,724 | 1.129 | 145,347 |
| 2004-2005 | 1,874,487 | 9 | 208,276 | 1.208 | 251,597 | 208,276 | 1.135 | 236,395 |
| 2005-2006 | 3,237,840 | 16 | 202,365 | 1.196 | 242,029 | 202,365 | 1.147 | 232,062 |
| 2006-2007 | 1,662,124 | 14 | 118,723 | 1.184 | 140,568 | 118,723 | 1.153 | 136,843 |
| 2007-2008 | 4,919,885 | 24 | 204,995 | 1.173 | 240,459 | 204,995 | 1.164 | 238,688 |
| 2008-2009 | 3,376,845 | 17 | 198,638 | 1.161 | 230,619 | 198,638 | 1.176 | 233,618 |
| 2009-2010 | 2,352,952 | 20 | 117,648 | 1.150 | 135,295 | 117,648 | 1.188 | 139,747 |
| 2010-2011 | 2,046,846 | 13 | 157,450 | 1.138 | 179,178 | 157,450 | 1.200 | 188,874 |
| 2011-2012 | 3,919,990 | 20 | 196,000 | 1.126 | 220,696 | 196,000 | 1.217 | 238,569 |
| 2012-2013 | 4,088,000 | 21 | 194,667 | 1.116 | 217,248 | 194,667 | 1.229 | 239,232 |
| 2013-2014 | 3,069,125 | 15 | 204,608 | 1.105 | 226,092 | 204,608 | 1.247 | 255,052 |
| 2014-2015 | 4,905,812 | 18 | 272,545 | 1.094 | 298,164 | 272,545 | 1.264 | 344,538 |
| 2015-2016 | 3,529,000 | 20 | 176,450 | 1.083 | 191,095 | 176,450 | 1.217 | 214,773 |
| 2016-2017 | 6,007,000 | 20 | 300,350 | 1.073 | 322,276 | 300,350 | 1.235 | 370,872 |
| 2017-2018 | 975,000 | 7 | 139,286 | 1.062 | 147,922 | 139,286 | 1.252 | 174,443 |
| 2018-2019 | 2,277,000 | 9 | 253,000 | 1.051 | 265,903 | 275,928 | 1.270 | 350,434 |
| 2019-2020 | 2,744,000 | 15 | 182,933 | 1.041 | 190,433 | 278,578 | 1.288 | 358,705 |
| 2020-2021 | 9,711,000 | 31 | 313,258 | 1.030 | 322,656 | 281,553 | 1.305 | 367,494 |
| 2021-2022 | 7,905,000 | 33 | 239,545 | 1.019 | 244,096 | 284,593 | 1.000 | 284,593 |
| 2022-2023 | 8,421,000 | 28 | 300,750 | 1.010 | 303,758 | 287,129 | 1.000 | 287,129 |
| Average Program Severity: rage 20/21-22/23 Program Severity: |  |  |  |  | $\begin{array}{r} \$ 223,951 \\ 290,170 \end{array}$ |  |  |  |

Selected Program Severity: $\$ 290,000$
Prior: $\$ 245,000$

Notes:
(A) Selected average of results from Appendices $\mathrm{p}, \mathrm{p}$, and p .
(B) Reserve Appendix D, Page 3, Column (C).
(C) $(\mathrm{A}) /(\mathrm{B})$.
(D) From Reserve Appendix E, Page 1, Column (J).
(E) (C) $\times(\mathrm{D})$.
(F) Selected Limited Severity / (D).
(G) Based on a Burr distribution, a mathematical model of claim sizes.
(H) $(\mathrm{F}) \times(\mathrm{G})$.

This exhibit shows the calculation of the historical average cost per claim, or severity. The observed average severity is used in the method shown on page 1 of this Appendix.

## DRAFT

PLAN JPA - Liability

Frequency and Severity Method
Projection of Ultimate Claims


Notes:
(A) From Reserve Appendix D, Page 4, (C).
(G) $(\mathrm{E}) \times(\mathrm{F})$.
(B) From Reserve Appendix D, Page 5, (C).
(H) The selected frequency of 0.055 is based on (G).
(C) Selected from (A) and (B).
(I) From Reserve Appendix E, Page 1, Column (H).
(D) From Reserve Appendix M, Column (C) / 10,000.
(J) $(\mathrm{H}) \times(\mathrm{I})$.
(E) (C)/(D).
(K) From Reserve Appendix M, Column (C) / 10,000.
(F) From Reserve Appendix E, Page 1, Column (H).
(L) $(\mathrm{J}) \times(\mathrm{K})$.

This exhibit summarizes the estimated numbers of claims and shows the estimated frequencies per $\$ 1,000,000$ of trended payroll.

PLAN JPA - Liability

Frequency and Severity Method
Reported Claim Count Development

| Accident Year | Claims Reported as of 12/31/2023 <br> (A) | Reported Claim Development Factor (B) | Ultimate Claims <br> (C) | Trended Claim Frequency (D) |
| :---: | :---: | :---: | :---: | :---: |
| 1986-2003 | 220 | 1.000 | 220 |  |
| 2003-2004 | 20 | 1.000 | 20 | 0.034 |
| 2004-2005 | 9 | 1.000 | 9 | 0.013 |
| 2005-2006 | 16 | 1.000 | 16 | 0.024 |
| 2006-2007 | 14 | 1.000 | 14 | 0.020 |
| 2007-2008 | 24 | 1.000 | 24 | 0.034 |
| 2008-2009 | 17 | 1.000 | 17 | 0.024 |
| 2009-2010 | 20 | 1.000 | 20 | 0.030 |
| 2010-2011 | 13 | 1.000 | 13 | 0.021 |
| 2011-2012 | 20 | 1.001 | 20 | 0.040 |
| 2012-2013 | 21 | 1.001 | 21 | 0.044 |
| 2013-2014 | 15 | 1.001 | 15 | 0.032 |
| 2014-2015 | 18 | 1.002 | 18 | 0.038 |
| 2015-2016 | 20 | 1.003 | 20 | 0.044 |
| 2016-2017 | 20 | 1.004 | 20 | 0.043 |
| 2017-2018 | 7 | 1.005 | 7 | 0.015 |
| 2018-2019 | 9 | 1.015 | 9 | 0.019 |
| 2019-2020 | 14 | 1.040 | 15 | 0.032 |
| 2020-2021 | 26 | 1.205 | 31 | 0.066 |
| 2021-2022 | 23 | 1.456 | 33 | 0.068 |
| 2022-2023 | 32 | 3.121 | 100 | 0.197 |
| Total | 578 |  | 662 | 0.040 |

Notes:
(A) Provided by the Authority.
(B) From Reserve Appendix D, Page 6.
(C) $(\mathrm{A}) \times(\mathrm{B})$.
(D) (C) / [Reserve Appendix D, Page 3, (D)] x [Reserve Appendix D, Page 3, (F)].

This exhibit shows the calculation of estimated ultimate claims for each year based on reported claims as provided by the Authority. These numbers of claims tend to "develop" or change from period to period as more claims are filed. This development tends to follow quantifiable patterns over time.

Frequency and Severity Method Closed Claim Count Development

|  | Claims <br> Closed <br> as of |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Accident <br> Year | Closed <br> 12/31/2023 <br> (A) | Claim <br> Development <br> Factor <br> (B) | Ultimate <br> Claims | Trended <br> Claim |
|  |  |  |  | (C) |

Notes:
(A) Provided by the Authority.
(B) From Reserve Appendix D, Page 7.
(C) $(\mathrm{A}) \times(\mathrm{B})$.
(D) (C) / [Reserve Appendix D, Page 3, (D)] x [Reserve Appendix D, Page 3, (F)]
This exhibit shows the calculation of estimated ultimate claims for each year
based on closed claims as provided by the Authority. These numbers of
closed claims tend to "develop" or change from period to period as more claims are
closed. This development tends to follow quantifiable patterns over time.

DRAFT
PLAN JPA - Liability
Reported Claim Count Development

| Claims Reported as of: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident Year | 6 <br> Months | $18$ <br> Months |  | $42$ <br> Months | 54 Months | 66 Months | 78 <br> Months | 90 Months | 102 Months | 114 Months | $126$ <br> Months | $138$ <br> Months | 150 Months | $162$ <br> Months |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2002-2003 |  |  |  | 26 | 25 | 27 | 27 | 27 | 29 | 29 | 28 | 28 | 28 | 28 |
| 2003-2004 |  |  | 11 | 12 | 18 | 19 | 19 | 19 | 20 | 20 | 20 | 20 | 20 | 20 |
| 2004-2005 |  | 4 | 5 | 9 | 10 | 9 | 10 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 2005-2006 | 1 | 4 | 13 | 13 | 14 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| 2006-2007 | 1 | 9 | 11 | 10 | 11 | 12 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 2007-2008 | 3 | 7 | 16 | 23 | 25 | 25 | 25 | 24 | 24 | 24 | 24 | 23 | 24 | 24 |
| 2008-2009 | 1 | 12 | 16 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 |
| 2009-2010 | 3 | 18 | 25 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| 2010-2011 |  | 15 | 18 | 16 | 14 | 14 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 2011-2012 | 1 | 19 | 19 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |  |
| 2012-2013 | 1 | 23 | 23 | 22 | 22 | 21 | 20 | 20 | 21 | 21 | 21 | 21 |  |  |
| 2013-2014 | 3 | 7 | 14 | 15 | 16 | 15 | 15 | 15 | 15 | 15 | 15 |  |  |  |
| 2014-2015 |  | 11 | 21 | 21 | 18 | 18 | 18 | 18 | 18 | 18 |  |  |  |  |
| 2015-2016 |  | 10 | 18 | 20 | 20 | 20 | 20 | 20 | 20 |  |  |  |  |  |
| 2016-2017 | 1 | 6 | 19 | 19 | 21 | 21 | 20 | 20 |  |  |  |  |  |  |
| 2017-2018 |  | 4 | 8 | 7 | 7 | 7 | 7 |  |  |  |  |  |  |  |
| 2018-2019 |  | 1 | 5 | 8 | 10 | 9 |  |  |  |  |  |  |  |  |
| 2019-2020 |  | 2 | 9 | 12 | 14 |  |  |  |  |  |  |  |  |  |
| 2020-2021 | 2 | 21 | 20 | 26 |  |  |  |  |  |  |  |  |  |  |
| 2021-2022 | 2 | 11 | 23 |  |  |  |  |  |  |  |  |  |  |  |
| 2022-2023 |  | 32 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2023-2024 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Reported Claim Count Development Factors: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6-18 | 18-30 | 30-42 | 42-54 | 54-66 | 66-78 | 78-90 | 90-102 | 102-114 | 114-126 | 126-138 | 138-150 | 150-162 | 162-174 |
| Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
|  |  |  | 0.962 | 1.080 | 1.000 | 1.000 | 1.074 | 1.000 | 0.966 | 1.000 | 1.000 | 1.000 | 1.000 |
|  |  | 1.091 | 1.500 | 1.056 | 1.000 | 1.000 | 1.053 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
|  | 1.250 | 1.800 | 1.111 | 0.900 | 1.111 | 0.900 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 4.000 | 3.250 | 1.000 | 1.077 | 1.143 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 9.000 | 1.222 | 0.909 | 1.100 | 1.091 | 1.167 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2.333 | 2.286 | 1.438 | 1.087 | 1.000 | 1.000 | 0.960 | 1.000 | 1.000 | 1.000 | 0.958 | 1.043 | 1.000 | 1.000 |
| 12.000 | 1.333 | 1.063 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 6.000 | 1.389 | 0.800 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
|  | 1.200 | 0.889 | 0.875 | 1.000 | 0.929 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |
| 19.000 | 1.000 | 1.053 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |
| 23.000 | 1.000 | 0.957 | 1.000 | 0.955 | 0.952 | 1.000 | 1.050 | 1.000 | 1.000 | 1.000 |  |  |  |
| 2.333 | 2.000 | 1.071 | 1.067 | 0.938 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |
|  | 1.909 | 1.000 | 0.857 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |
|  | 1.800 | 1.111 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |
| 6.000 | 3.167 | 1.000 | 1.105 | 1.000 | 0.952 | 1.000 |  |  |  |  |  |  |  |
|  | 2.000 | 0.875 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |  |
|  | 5.000 | 1.600 | 1.250 | 0.900 |  |  |  |  |  |  |  |  |  |
|  | 4.500 | 1.333 | 1.167 |  |  |  |  |  |  |  |  |  |  |
| 10.500 | 0.952 | 1.300 |  |  |  |  |  |  |  |  |  |  |  |
| 5.500 | 2.091 |  |  |  |  |  |  |  |  |  |  |  |  |

$\begin{array}{lllllllllllllllllllllll}6-18 & 18-30 & 30-42 & 42-54 & 54-66 & 66-78 & 78-90 & 90-102 & 102-114 & 114-126 & 126-138 & 138-150 & 150-162 & 162-174\end{array}$ Months Months Months Months Months Months Months Months Months Months Months Months Months Months

| Average | 9.061 | 2.075 | 1.127 | 1.064 | 1.004 | 1.007 | 0.991 | 1.013 | 1.000 | 0.997 | 0.996 | 1.004 | 1.000 | 1.000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Claim-Weighted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ |  | 1.529 | 1.353 | 1.148 | 0.974 | 0.979 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 4 -yr |  | 1.629 | 1.262 | 1.130 | 0.983 | 0.985 | 1.000 | 1.014 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 2.633 | 1.136 | 1.018 | 1.005 | 1.005 | 1.004 | 1.004 | 1.002 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 |
| Prior | 3.786 | 2.191 | 1.213 | 1.157 | 1.025 | 1.010 | 1.001 | 1.001 | 1.001 | 1.001 | 1.000 | 1.000 | 1.001 | 1.000 |
| Selected | 3.843 | 2.143 | 1.209 | 1.159 | 1.025 | 1.010 | 1.001 | 1.001 | 1.001 | 1.001 | 1.000 | 1.000 | 1.001 | 1.000 |
| Cumulated | 11.995 | 3.121 | 1.456 | 1.205 | 1.040 | 1.015 | 1.005 | 1.004 | 1.003 | 1.002 | 1.001 | 1.001 | 1.001 | 1.000 |


| DRAFT |  |  |  |  | PLAN JPA - Liability Closed Claim Development |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Claims Closed as of: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Accident | 6 | 18 | 30 | 42 | 54 | 66 | 78 | 90 | 102 | 114 | 126 | 138 | 150 | 162 |
| Year | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2002-2003 |  |  |  | 15 | 23 | 25 | 26 | 27 | 27 | 27 | 27 | 27 | 27 | 27 |
| 2003-2004 |  |  | 9 | 11 | 13 | 13 | 14 | 15 | 18 | 20 | 20 | 20 | 20 | 20 |
| 2004-2005 |  | 1 | 1 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 2005-2006 |  | 2 | 3 | 9 | 11 | 12 | 14 | 14 | 14 | 15 | 16 | 16 | 16 | 16 |
| 2006-2007 |  | 1 | 3 | 7 | 8 | 9 | 12 | 14 | 14 | 14 | 14 | 14 | 14 | 13 |
| 2007-2008 |  |  | 2 | 11 | 17 | 22 | 24 | 24 | 24 | 24 | 24 | 23 | 24 | 24 |
| 2008-2009 |  | 1 | 5 | 9 | 11 | 13 | 16 | 17 | 17 | 17 | 17 | 17 | 17 | 17 |
| 2009-2010 |  | 2 | 6 | 13 | 18 | 18 | 19 | 19 | 20 | 20 | 20 | 20 | 20 | 20 |
| 2010-2011 |  |  | 4 | 9 | 11 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 2011-2012 |  | 1 | 3 | 11 | 13 | 18 | 19 | 20 | 19 | 19 | 19 | 19 | 20 |  |
| 2012-2013 |  | 1 | 5 | 15 | 17 | 17 | 20 | 19 | 20 | 20 | 20 | 20 |  |  |
| 2013-2014 |  | 1 | 6 | 9 | 12 | 15 | 14 | 15 | 15 | 15 | 15 |  |  |  |
| 2014-2015 |  | 3 | 7 | 8 | 18 | 18 | 18 | 18 | 18 | 18 |  |  |  |  |
| 2015-2016 |  | 1 | 3 | 20 | 14 | 17 | 19 | 19 | 19 |  |  |  |  |  |
| 2016-2017 |  | 1 | 19 | 10 | 11 | 15 | 17 | 18 |  |  |  |  |  |  |
| 2017-2018 |  | 4 | 1 | 2 | 5 | 7 | 7 |  |  |  |  |  |  |  |
| 2018-2019 |  |  | 1 | 3 | 7 | 7 |  |  |  |  |  |  |  |  |
| 2019-2020 |  |  |  | 2 | 5 |  |  |  |  |  |  |  |  |  |
| 2020-2021 |  |  | 7 | 13 |  |  |  |  |  |  |  |  |  |  |
| 2021-2022 |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |
| 2022-2023 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Closed Claim Count Development Factors:

|  | 6-18 | 18-30 | 30-42 | 42-54 | 54-66 | 66-78 | 78-90 | 90-102 | 102-114 | 14-12 | 126-13 | 8-1 | 150-162 | 2-1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2002-2003 | Months | Months | Months | Months $1.533$ | Months $1.087$ | Months $1.040$ | Months $1.038$ | Months $1.000$ | Months $1.000$ | Months $1.000$ | Months $1.000$ | Months $1.000$ | Months $1.000$ | Months $1.000$ |
| 2003-2004 |  |  | 1.222 | 1.182 | 1.000 | 1.077 | 1.071 | 1.200 | 1.111 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2004-2005 |  | 1.000 | 7.000 | 1.000 | 1.286 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2005-2006 |  | 1.500 | 3.000 | 1.222 | 1.091 | 1.167 | 1.000 | 1.000 | 1.071 | 1.067 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2006-2007 |  | 3.000 | 2.333 | 1.143 | 1.125 | 1.333 | 1.167 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.929 | 1.077 |
| 2007-2008 |  |  | 5.500 | 1.545 | 1.294 | 1.091 | 1.000 | 1.000 | 1.000 | 1.000 | 0.958 | 1.043 | 1.000 | 1.000 |
| 2008-2009 |  | 5.000 | 1.800 | 1.222 | 1.182 | 1.231 | 1.063 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2009-2010 |  | 3.000 | 2.167 | 1.385 | 1.000 | 1.056 | 1.000 | 1.053 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2010-2011 |  |  | 2.250 | 1.222 | 1.182 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |
| 2011-2012 |  | 3.000 | 3.667 | 1.182 | 1.385 | 1.056 | 1.053 | 0.950 | 1.000 | 1.000 | 1.000 | 1.053 |  |  |
| 2012-2013 |  | 5.000 | 3.000 | 1.133 | 1.000 | 1.176 | 0.950 | 1.053 | 1.000 | 1.000 | 1.000 |  |  |  |
| 2013-2014 |  | 6.000 | 1.500 | 1.333 | 1.250 | 0.933 | 1.071 | 1.000 | 1.000 | 1.000 |  |  |  |  |
| 2014-2015 |  | 2.333 | 1.143 | 2.250 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |
| 2015-2016 |  | 3.000 | 6.667 | 0.700 | 1.214 | 1.118 | 1.000 | 1.000 |  |  |  |  |  |  |
| 2016-2017 |  | 19.000 | 0.526 | 1.100 | 1.364 | 1.133 | 1.059 |  |  |  |  |  |  |  |
| 2017-2018 |  | 0.250 | 2.000 | 2.500 | 1.400 | 1.000 |  |  |  |  |  |  |  |  |
| 2018-2019 |  |  | 3.000 | 2.333 | 1.000 |  |  |  |  |  |  |  |  |  |
| 2019-2020 |  |  |  | 2.500 |  |  |  |  |  |  |  |  |  |  |
| 2020-2021 |  |  | 1.857 |  |  |  |  |  |  |  |  |  |  |  |

2021-2022
2022-2023

|  | 6-18 | 18-30 | 30-42 | 42-54 | 54-66 | 66-78 | 78-90 | 90-102 | 102-114 | 114-126 | 126-138 | 138-150 | 150-162 | 162-174 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| Average |  | 4.340 | 2.861 | 1.471 | 1.168 | 1.088 | 1.031 | 1.018 | 1.014 | 1.006 | 0.996 | 1.010 | 0.992 | 1.010 |
| Claim-Weighted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ |  |  |  | 2.429 | 1.261 | 1.103 | 1.019 | 1.000 | 1.000 | 1.000 | 1.000 | 1.019 | 1.000 | 1.000 |
| $4-\mathrm{yr}$ |  |  |  | 1.647 | 1.243 | 1.070 | 1.029 | 1.014 | 1.000 | 1.000 | 1.000 | 1.014 | 1.000 | 1.014 |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 3.387 | 1.495 | 1.122 | 1.051 | 1.033 | 1.020 | 1.012 | 1.010 | 1.007 | 1.005 | 1.005 | 1.003 | 1.003 | 1.001 |
| Prior | 4.000 | 3.300 | 3.100 | 1.287 | 1.113 | 1.025 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 |
| Selected | 4.000 | 3.167 | 3.167 | 1.398 | 1.158 | 1.095 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 |
| Cumulated | 71.732 | 17.933 | 5.663 | 1.788 | 1.279 | 1.104 | 1.008 | 1.007 | 1.006 | 1.005 | 1.004 | 1.003 | 1.002 | 1.001 |

Loss Trend Factors

|  |  |  | Factor to | Factor to | Factor to | Factor to | Factor to | Factor to | Factor to | Factor to | Factor to |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Benefit | 2023-2024 | 2024-2025 | 2025-2026 | 2026-2027 | 2023-2024 | 2024-2025 | 2025-2026 | 2026-2027 | 2023-2024 |  |

## Notes:

(A) No benefit level adjustment applied.
(B) - (E) (A) adjusted for a 1.0\% annual loss rate trend.
(F) - (I) (A) adjusted for a $0.0 \%$ annual frequency trend.
(J) (A) adjusted for a 1.0\% annual severity trend.

This exhibit shows the calculation of the ways in which we expect claims costs to have changed over the past twenty years due to changes in inflation.

PLAN JPA - Liability

Residual Trend Factors

| Accident Year | Initial |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estimate of |  |  |  |  |  |
|  | Ultimate | Ultimate |  | Adjusted | Trended |  |
|  | Limited | Reported |  | Limited | Payroll$(\$ 00)$ | Ulimate |
|  | Losses | Claims | BLF | Severity |  | Frequency |
|  | (A) |  | (C) | (D) | (E) | (F) |
| 1986-2003 | \$31,422,743 | 320 | 1.000 | 142,831 |  |  |
| 2003-2004 | 2,574,481 | 120 | 1.000 | 128,724 | 5,890,921 | 0.034 |
| 2004-2005 | 1,874,487 | 7 | 1.000 | 208,276 | 6,726,086 | 0.013 |
| 2005-2006 | 3,237,840 | -16 | 1.000 | 202,365 | 6,701,609 | 0.024 |
| 2006-2007 | 1,662,124 | -14 | 1.000 | 118,723 | 6,850,981 | 0.020 |
| 2007-2008 | 4,919,885 | 24 | 1.000 | 204,995 | 7,078,282 | 0.034 |
| 2008-2009 | 3,376,845 | -17 | 1.000 | 198,638 | 7,137,215 | 0.024 |
| 2009-2010 | 2,352,952 | 20 | 1.000 | 117,648 | 6,726,322 | 0.030 |
| 2010-2011 | 2,046,846 | - 13 | 1.000 | 157,450 | 6,057,964 | 0.021 |
| 2011-2012 | 3,919,990 | 20 | 1.000 | 196,000 | 5,049,644 | 0.040 |
| 2012-2013 | 4,088,000 | 21 | 1.000 | 194,667 | 4,813,124 | 0.044 |
| 2013-2014 | 3,069,125 | -15 | 1.000 | 204,608 | 4,664,018 | 0.032 |
| 2014-2015 | 4,905,812 | -18 | 1.000 | 272,545 | 4,731,659 | 0.038 |
| 2015-2016 | 3,529,000 | 20 | 1.000 | 176,450 | 4,506,901 | 0.044 |
| 2016-2017 | 6,007,000 | 20 | 1.000 | 300,350 | 4,680,337 | 0.043 |
| 2017-2018 | 869,823 | 7 | 1.000 | 124,260 | 4,797,059 | 0.015 |
| 2018-2019 | 1,330,000 | 9 | 1.000 | 147,778 | 4,828,712 | 0.019 |
| 2019-2020 | 2,591,000 | 15 | 1.000 | 172,733 | 4,640,086 | 0.032 |
| 2020-2021 | 9,708,000 | 31 | 1.000 | 313,161 | 4,677,499 | 0.066 |
| 2021-2022 | 7,777,000 | 33 | 1.000 | 235,667 | 4,877,311 | 0.068 |
| 2022-2023 | 7,051,000 | - 28 | 1.000 | 251,821 | 5,079,532 | 0.055 |
|  |  |  | Severity Trend Factors |  | Frequency Trend Factors |  |
|  |  | 2009-2010 thro | 018-2019 | 1.015 |  | 0.963 |
|  |  | 2010-2011 thro | 019-2020 | 0.984 |  | 0.964 |
|  |  | 2011-2012 thro | 020-2021 | 1.000 |  | 0.981 |
|  |  |  | Prior | 0.990 |  | 1.055 |
|  |  |  | Default | 1.030 |  | 0.975 |
|  |  | Selected | ual Trend | 1.010 |  | 1.000 |

Notes:
(A) Selected average of results from Reserve Appendix A and Reserve Appendix B.
(B) Reserve Appendix D, Page 3, Column (C).
(C) Reserve Appendix E, Page 1, (A).
(D) $(\mathrm{A}) \times(\mathrm{C}) /(\mathrm{B})$.
(E) From Reserve Appendix M, Column (C).
(F) $(B) /(E) \times 10,000$.

## PLAN JPA - Liability

Payment and Reserve Forecast

|  |  | Calendar Period |  |
| :---: | :---: | :---: | :---: |
| Accident Year | $\begin{gathered} \text { As of } \\ \underline{12 / 31 / 2023} \\ \hline \end{gathered}$ | $\begin{gathered} 1 / 1 / 2024 \\ \text { to } \\ 6 / 30 / 2024 \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 1 / 2024 \\ \text { to } \\ 6 / 30 / 2025 \\ \hline \end{gathered}$ |
| Prior |  |  |  |
| Ultimate Loss | \$54,309,251 | \$54,309,251 | \$54,309,251 |
| Paid in Calendar Period | - |  |  |
| Paid to Date | 54,309,251 | 54,309,251 | 54,309,251 |
| Outstanding Liability |  |  |  |
| 2007-2008 |  |  |  |
| Ultimate Loss | \$6,755,660 | \$6,755,660 | \$6,755,660 |
| Paid in Calendar Period | - |  |  |
| Paid to Date | 6,755,660 | 6,755,660 | 6,755,660 |
| Outstanding Liability |  |  |  |
| 2008-2009 |  |  |  |
| Ultimate Loss | \$3,472,680 | \$3,472,680 | \$3,472,680 |
| Paid in Calendar Period | - |  |  |
| Paid to Date | 3,472,680 | 3,472,680 | 3,472,680 |
| Outstanding Liability |  |  |  |
| 2009-2010 |  |  |  |
| Ultimate Loss | \$2,352,952 | \$2,352,952 | \$2,352,952 |
| Paid in Calendar Period | - |  |  |
| Paid to Date | 2,352,952 | 2,352,952 | 2,352,952 |
| Outstanding Liability |  |  |  |
| 2010-2011 |  |  |  |
| Ultimate Loss | \$2,046,846 | \$2,046,846 | \$2,046,846 |
| Paid in Calendar Period | - |  |  |
| Paid to Date | 2,046,846 | 2,046,846 | 2,046,846 |
| Outstanding Liability |  |  |  |
| 2011-2012 |  |  |  |
| Ultimate Loss | \$3,919,990 | \$3,919,990 | \$3,919,990 |
| Paid in Calendar Period | - |  |  |
| Paid to Date | 3,919,990 | 3,919,990 | 3,919,990 |
| Outstanding Liability |  |  |  |
| 2012-2013 |  |  |  |
| Ultimate Loss | \$4,088,000 | \$4,088,000 | \$4,088,000 |
| Paid in Calendar Period | - | 221,842 | 222,973 |
| Paid to Date | 3,568,464 | 3,790,306 | 4,013,279 |
| Outstanding Liability | 519,536 | 297,694 | 74,721 |
| 2013-2014 |  |  |  |
| Ultimate Loss | \$7,039,000 | \$7,039,000 | \$7,039,000 |
| Paid in Calendar Period | - | 8,665 | 26,137 |
| Paid to Date | 6,969,125 | 6,977,790 | 7,003,927 |
| Outstanding Liability | 69,875 | 61,210 | 35,073 |

PLAN JPA - Liability
Payment and Reserve Forecast

|  |  | Calendar Period |  |
| :---: | :---: | :---: | :---: |
| Accident Year | $\begin{gathered} \text { As of } \\ \underline{12 / 31 / 2023} \\ \hline \end{gathered}$ | $\begin{gathered} 1 / 1 / 2024 \\ \text { to } \\ 6 / 30 / 2024 \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 1 / 2024 \\ \text { to } \\ 6 / 30 / 2025 \\ \hline \end{gathered}$ |
| 2014-2015 |  |  |  |
| Ultimate Loss | \$5,512,000 | \$5,512,000 | \$5,512,000 |
| Paid in Calendar Period | - | 11,446 | 21,040 |
| Paid to Date | 5,429,951 | 5,441,397 | 5,462,437 |
| Outstanding Liability | 82,049 | 70,603 | 49,563 |
| 2015-2016 |  |  |  |
| Ultimate Loss | \$4,964,000 | \$4,964,000 | \$4,964,000 |
| Paid in Calendar Period | - | 21,079 | 42,633 |
| Paid to Date | 4,828,007 | 4,849,086 | 4,891,719 |
| Outstanding Liability | 135,993 | 114,914 | 72,281 |
| 2016-2017 |  |  |  |
| Ultimate Loss | \$9,259,000 | \$9,259,000 | \$9,259,000 |
| Paid in Calendar Period | - | 29,501 | 105,985 |
| Paid to Date | 9,062,330 | 9,091,831 | 9,197,816 |
| Outstanding Liability | 196,670 | 167,169 | 61,184 |
| 2017-2018 |  |  |  |
| Ultimate Loss | \$976,000 | \$976,000 | \$976,000 |
| Paid in Calendar Period | - | 10,618 | 48,544 |
| Paid to Date | 869,823 | 880,441 | 928,985 |
| Outstanding Liability | 106,177 | 95,559 | 47,015 |
| 2018-2019 |  |  |  |
| Ultimate Loss | \$1,812,000 | \$1,812,000 | \$1,812,000 |
| Paid in Calendar Period | - | 93,194 | 263,733 |
| Paid to Date | 1,113,914 | 1,207,108 | 1,470,841 |
| Outstanding Liability | 698,086 | 604,892 | 341,159 |
| 2019-2020 |  |  |  |
| Ultimate Loss | \$3,001,000 | \$3,001,000 | \$3,001,000 |
| Paid in Calendar Period | - | 375,773 | 721,629 |
| Paid to Date | 750,865 | 1,126,638 | 1,848,267 |
| Outstanding Liability | 2,250,135 | 1,874,362 | 1,152,733 |
| 2020-2021 |  |  |  |
| Ultimate Loss | \$11,393,000 | \$11,393,000 | \$11,393,000 |
| Paid in Calendar Period | - | 1,218,330 | 1,621,466 |
| Paid to Date | 6,539,097 | 7,757,427 | 9,378,893 |
| Outstanding Liability | 4,853,903 | 3,635,573 | 2,014,107 |
| 2021-2022 |  |  |  |
| Ultimate Loss | \$6,475,000 | \$6,475,000 | \$6,475,000 |
| Paid in Calendar Period | - | 828,463 | 1,908,994 |
| Paid to Date | 514,833 | 1,343,296 | 3,252,290 |
| Outstanding Liability | 5,960,167 | 5,131,704 | 3,222,710 |

## PLAN JPA - Liability

Payment and Reserve Forecast


[^2]
## PLAN JPA - Liability

Payment and Reserve Forecast

Notes to previous page:

- Accident Year is associated with date of loss. Calendar Period is associated with date of transaction. For example, for the losses which occurred during 2021-2022, \$828,463 is expected to be paid between $1 / 1 / 24$ and $6 / 30 / 24, \$ 1,343,296$ will have been paid by $6 / 30 / 24$, and the reserve for remaining payments on these claims should be $\$ 5,131,704$.
- Ultimate Losses for each accident year are from Reserve Exhibit 3, Page 1.
- Paid in Calendar Period is a proportion of the Outstanding Liability from the previous calendar period. These proportions are derived from the paid loss development pattern selected in Appendix B. For example, $\$ 1,908,994=\$ 5,131,704 \times 37.2 \%$.
- Paid to Date is Paid in Calendar Period plus Paid to Date from previous calendar period. For example, $\$ 3,252,290=\$ 1,908,994+\$ 1,343,296$.
- Outstanding Liability is Ultimate Loss minus Paid to Date. For example, \$5,131,704 = \$6,475,000-\$1,343,296.

This exhibit shows the calculation of the liability for outstanding claims as of the date of evaluation, the end of the current fiscal year, and the end of the coming fiscal year. It also shows the expected claims payout during the remainder of the current fiscal year and the coming fiscal year. Refer to the Totals at the end of the exhibit for the balance sheet information. The top parts of the exhibit show information for each program year.

Short- and Long-Term Liabilities


Note: Current (short term) liabilities are the portion of the total estimated liability shown on Reserve Appendix $F$ that is expected to be paid out within the coming year. Totals may vary from Reserve Exhibit 1, due to rounding.

PLAN JPA - Liability

Discount Factors to be Applied to Overall Reserves

| Accident | Full Value <br> of Reserve <br> at 12/31/23 <br> (A) | Discount <br> Factor <br> (B) | Discounted <br> Reserve <br> at $12 / 31 / 23$ <br> (C) | Full Value <br> of Reserve <br> at $6 / 30 / 24$ | (Discount <br> Factor | Discounted <br> Reserve <br> at $6 / 30 / 24$ |
| :---: | ---: | :---: | ---: | ---: | ---: | ---: |
| (E) |  | (D) | (F) |  |  |  |

$\begin{array}{ll}\text { (G) Discount Factor at } 12 / 31 / 23 \text { for Overall Reserve: } & 0.954 \\ \text { (H) Discount Factor at } 6 / 30 / 24 \text { for Overall Reserve: } & 0.956\end{array}$

Notes:
(A) From Reserve Appendix F, Outstanding Liability at 12/31/23.
(B) Based on Reserve Appendix H, Page 2, Column (E).
(C) $(A) \times(B)$.
(D) From Reserve Appendix F, Outstanding Liability at 6/30/24.
(E) Based on Reserve Appendix H, Page 2, Column (E).
(F) (D) $x(E)$.
(G) Total of (C) / Total of (A).
(H) Total of (F) / Total of (D).

This exhibit shows the expected impact of anticipated investment income on the liability for outstanding claims at the date of evaluation and the end of the current fiscal year. For example, if the discount factor in item (G) is 0.954 , the discounted liability for outstanding claims is $95.4 \%$ of the full value.

PLAN JPA - Liability

Confidence Level Table

| Probability | Projected Losses | Outstanding Losses |
| :---: | :---: | :---: |
| $98 \%$ |  | 1.851 |
| $95 \%$ | 1.846 | 1.533 |
| $90 \%$ | 1.594 | 1.367 |
| $85 \%$ | 1.443 | 1.275 |
| $80 \%$ | 1.329 | 1.207 |
| $75 \%$ | 1.239 | 1.154 |
| $70 \%$ | 1.162 | 1.109 |
| $65 \%$ | 1.094 | 1.070 |
| $60 \%$ | 1.032 | 1.034 |
| $55 \%$ | 0.977 | 1.001 |
| $50 \%$ | 0.923 | 0.970 |
| $45 \%$ | 0.873 | 0.940 |
| $40 \%$ | 0.823 | 0.911 |
| $35 \%$ | 0.775 | 0.882 |
| $30 \%$ | 0.726 | 0.853 |
| $25 \%$ | 0.675 | 0.823 |
|  |  |  |
| To read table: | For the above retention, there is a 90\% chance |  |
|  | that final loss settlements will be less than |  |
|  | 1.594 times the average expected amount of losses. |  |

This exhibit shows the loads that must be applied to bring estimated losses at the expected level to the various indicated confidence levels.

Program History

| Policy Year Start Date | Policy Year | Policy | Self-Insured Retention |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Per |  |
|  | End Date | Year | Occurrence | Aggregate |
| 7/1/1986 | 6/30/2003 | 1986-2003 | \$5,000,000 | (none) |
| 7/1/2003 | 6/30/2004 | 2003-2004 | 5,000,000 | (none) |
| 7/1/2004 | 6/30/2005 | 2004-2005 | 5,000,000 | (none) |
| 7/1/2005 | 6/30/2006 | 2005-2006 | 5,000,000 | (none) |
| 7/1/2006 | 6/30/2007 | 2006-2007 | 5,000,000 | (none) |
| 7/1/2007 | 6/30/2008 | 2007-2008 | 5,000,000 | (none) |
| 7/1/2008 | 6/30/2009 | 2008-2009 | 5,000,000 | (none) |
| 7/1/2009 | 6/30/2010 | 2009-2010 | 5,000,000 | (none) |
| 7/1/2010 | 6/30/2011 | 2010-2011 | 5,000,000 | (none) |
| 7/1/2011 | 6/30/2012 | 2011-2012 | 5,000,000 | (none) |
| 7/1/2012 | 6/30/2013 | 2012-2013 | 5,000,000 | (none) |
| 7/1/2013 | 6/30/2014 | 2013-2014 | 5,000,000 | (none) |
| 7/1/2014 | 6/30/2015 | 2014-2015 | 5,000,000 | (none) |
| 7/1/2015 | 6/30/2016 | 2015-2016 | 2,500,000 | (none) |
| 7/1/2016 | 6/30/2017 | 2016-2017 | 2,500,000 | (none) |
| 7/1/2017 | 6/30/2018 | 2017-2018 | 2,500,000 | (none) |
| 7/1/2018 | 6/30/2019 | 2018-2019 | 2,500,000 | (none) |
| 7/1/2019 | 6/30/2020 | 2019-2020 | 2,500,000 | (none) |
| 7/1/2020 | 6/30/2021 | 2020-2021 | 2,500,000 | (none) |
| 7/1/2021 | 6/30/2022 | 2021-2022 | 1,000,000 | (none) |
| 7/1/2022 | 6/30/2023 | 2022-2023 | 1,000,000 | (none) |
| 7/1/2023 | 6/30/2024 | 2023-2024 | 1,000,000 | (none) |
| 7/1/2024 | 6/30/2025 | 2024-2025 | 1,000,000 | (none) |
|  | Third Party |  |  |  |
|  | Claims |  | Begin | End |
|  | Administrator |  | Date | Date |
|  | Sedgwick |  |  | Current |

This exhibit summarizes some of the key facts about the history of the program.

# Reserve Appendix K 

DRAFT
PLAN JPA - Liability
Estimated Total Assets as of 6/30/24
(A) Estimated Total Assets as of 7/1/23:
(B) Total Income to Fund during 2023-2024

## Premiums:

Interest:
Total Income:
(C) Total Payments from Fund during 2023-2024

Loss Payments: \$5,578,793
Excess Insurance:
Other:
Total Payments:
(D) Estimated Total Assets as of 6/30/24:

Notes:
(A) Provided by the Authority.
(B) Provided by the Authority.
(C) Provided by the Authority.
(D) $(A)+(B)-(C)$.

PLAN JPA - Liability
Incurred Losses as of 12/31/23


Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Authority.
(C) Adjustments to Accounting
(D)
(E) $(B)+(C)-(D)$.
(F) Sum of incurred losses in excess of SIR.
(G) Sum of incurred losses in excess of \$1,000,000.
(H) (E) - (G).
(I) (G) - (F).
(J) (E) - (F).
(K) Minimum of (J) and the aggregate stop loss. See Reserve Appendix J.

Paid Losses as of 12/31/23

| Accident Year <br> (A) | Unlimited Paid <br> (B) | Additions to Losses (C) | Subtractions from Losses (D) | Adjusted Paid (E) | Paid Over SIR <br> (F) | Paid Over \$1,000,000 (G) | Paid <br> Capped at \$1,000,000 <br> (H) | Paid \$1,000,000 to SIR Layer <br> (I) | Paid <br> Capped at SIR <br> (J) | Paid Capped at SIR \& Aggregate (K) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1986-2003 | \$43,315,770 | \$126,366 | \$0 | \$43,442,137 | \$0 | \$12,019,394 | \$31,422,743 | \$12,019,394 | \$43,442,137 | \$43,442,137 |
| 2003-2004 | 2,569,681 | 4,800 | 0 | 2,574,481 | 0 | 0 | 2,574,481 | 0 | 2,574,481 | 2,574,481 |
| 2004-2005 | 1,876,140 | $(1,653)$ | 0 | 1,874,487 | 0 | 0 | 1,874,487 | 0 | 1,874,487 | 1,874,487 |
| 2005-2006 | 4,775,006 | $(18,984)$ | 0 | 4,756,022 | 0 | 1,518,182 | 3,237,840 | 1,518,182 | 4,756,022 | 4,756,022 |
| 2006-2007 | 1,662,124 | 0 | 0 | 1,662,124 | 0 | 0 | 1,662,124 | 0 | 1,662,124 | 1,662,124 |
| 2007-2008 | 6,755,660 | 0 | 0 | 6,755,660 | 0 | 1,835,775 | 4,919,885 | 1,835,775 | 6,755,660 | 6,755,660 |
| 2008-2009 | 3,528,864 | $(56,184)$ | 0 | 3,472,680 | 0 | 95,835 | 3,376,845 | 95,835 | 3,472,680 | 3,472,680 |
| 2009-2010 | 2,441,417 | $(88,465)$ | 0 | 2,352,952 | 0 | 0 | 2,352,952 | 0 | 2,352,952 | 2,352,952 |
| 2010-2011 | 2,046,846 | 0 | 0 | 2,046,846 | 0 | 0 | 2,046,846 | 0 | 2,046,846 | 2,046,846 |
| 2011-2012 | 3,919,990 | 0 | 0 | 3,919,990 | 0 | 0 | 3,919,990 | 0 | 3,919,990 | 3,919,990 |
| 2012-2013 | 3,568,464 | 0 | 0 | 3,568,464 | 0 | 0 | 3,568,464 | 0 | 3,568,464 | 3,568,464 |
| 2013-2014 | 6,969,125 | 0 | 0 | 6,969,125 | 0 | 3,900,000 | 3,069,125 | 3,900,000 | 6,969,125 | 6,969,125 |
| 2014-2015 | 5,429,951 | 0 | 0 | 5,429,951 | 0 | 524,140 | 4,905,812 | 524,140 | 5,429,951 | 5,429,951 |
| 2015-2016 | 4,828,007 | 0 | 0 | 4,828,007 | 0 | 1,400,000 | 3,428,007 | 1,400,000 | 4,828,007 | 4,828,007 |
| 2016-2017 | 9,062,330 | 0 | 0 | 9,062,330 | 0 | 3,323,377 | 5,738,952 | 3,323,377 | 9,062,330 | 9,062,330 |
| 2017-2018 | 869,823 | 0 | 0 | 869,823 | 0 | 0 | 869,823 | 0 | 869,823 | 869,823 |
| 2018-2019 | 1,113,914 | 0 | 0 | 1,113,914 | 0 | 0 | 1,113,914 | 0 | 1,113,914 | 1,113,914 |
| 2019-2020 | 750,865 | 0 | 0 | 750,865 | 0 | 0 | 750,865 | 0 | 750,865 | 750,865 |
| 2020-2021 | 6,539,097 | 0 | 0 | 6,539,097 | 0 | 1,399,175 | 5,139,922 | 1,399,175 | 6,539,097 | 6,539,097 |
| 2021-2022 | 514,833 | 0 | 0 | 514,833 | 0 | 0 | 514,833 | 0 | 514,833 | 514,833 |
| 2022-2023 | 18,759 | 0 | 0 | 18,759 | 0 | 0 | 18,759 | 0 | 18,759 | 18,759 |
| 2023-2024 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | \$112,556,667 | -\$34,120 | \$0 | \$112,522,547 | \$0 | \$26,015,878 | \$86,506,669 | \$26,015,878 | \$112,522,547 | \$112,522,547 |

Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Authority.
(C) Adjustments to Accounting
(D)
(E) $(B)+(C)-(D)$.
(F) Sum of paid losses in excess of SIR.
(G) Sum of paid losses in excess of \$1,000,000.
(H) (E) - (G).
(I) (G) - (F).
(J) (E) - (F).
(K) Minimum of (J) and the aggregate stop loss. See Reserve Appendix J.

Case Reserves as of 12/31/23

| Accident Year <br> (A) | Unlimited Reserves <br> (B) | Additions to Losses (C) | Subtractions from Losses (D) | Adjusted Reserves <br> (E) | Reserves Over SIR <br> (F) | Reserves Over \$1,000,000 (G) | Reserves Capped at \$1,000,000 (H) | Reserves \$1,000,000 to SIR Layer <br> (I) | Reserves Capped at SIR <br> (J) | Reserves <br> Capped at SIR \& Aggregate (K) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1986-2003 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2003-2004 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2004-2005 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2005-2006 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2006-2007 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2007-2008 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2008-2009 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2009-2010 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2010-2011 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2011-2012 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2012-2013 | 494,974 | 0 | 0 | 494,974 | 0 | 0 | 494,974 | 0 | 494,974 | 494,974 |
| 2013-2014 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2014-2015 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2015-2016 | 14,907 | 0 | 0 | 14,907 | 0 | 0 | 14,907 | 0 | 14,907 | 14,907 |
| 2016-2017 | 37,136 | 0 | 0 | 37,136 | 0 | 0 | 37,136 | 0 | 37,136 | 37,136 |
| 2017-2018 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2018-2019 | 145,256 | 0 | 0 | 145,256 | 0 | 0 | 145,256 | 0 | 145,256 | 145,256 |
| 2019-2020 | 1,643,457 | 0 | 0 | 1,643,457 | 0 | 0 | 1,643,457 | 0 | 1,643,457 | 1,643,457 |
| 2020-2021 | 2,800,879 | 0 | 0 | 2,800,879 | 0 | 13,000 | 2,787,879 | 13,000 | 2,800,879 | 2,800,879 |
| 2021-2022 | 3,632,749 | 0 | 0 | 3,632,749 | 0 | 0 | 3,632,749 | 0 | 3,632,749 | 3,632,749 |
| 2022-2023 | 3,849,263 | 0 | 0 | 3,849,263 | 0 | 0 | 3,849,263 | 0 | 3,849,263 | 3,849,263 |
| 2023-2024 | 172,310 | 0 | 0 | 172,310 | 0 | 0 | 172,310 | 0 | 172,310 | 172,310 |
| Total | \$12,790,931 | \$0 | \$0 | \$12,790,931 | \$0 | \$13,000 | \$12,777,931 | \$13,000 | \$12,790,931 | \$12,790,931 |

Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Reserve Appendix L, Page 1, Column (B) - Reserve Appendix L, Page 2, Column (B).
(C) Reserve Appendix L, Page 1, Column (C) - Reserve Appendix L, Page 2, Column (C).
(D) Reserve Appendix L, Page 1, Column (D) - Reserve Appendix L, Page 2, Column (D).
(E) (B) + (C) - (D).
(F) Sum of case reserves in excess of SIR.
(G) Sum of case reserves in excess of $\$ 1,000,000$.
(H) (E) - (G).
(I) (G) - (F).
(J) (E) - (F).
(K) Minimum of (J) and the aggregate stop loss. See Reserve Appendix J.

## Claim Counts as of $12 / 31 / 23$

| Accident Year <br> (A) | Reported Claims (B) | Additions to Reported Claims (C) | Subtractions from Reported Claims (D) | Adjusted Reported Claims (E) | Closed Claims (F) | Additions to Closed Claims (G) | Subtractions from Closed Claims (H) | Adjusted Closed Claims <br> (I) | Open <br> Claims <br> (J) | Adjusted Open Claims (K) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1986-2003 | 220 | 0 | 0 | 220 | 220 | 0 | 0 | 220 | 0 | 0 |
| 2003-2004 | 20 | 0 | 0 | 20 | 20 | 0 | 0 | 20 | 0 | 0 |
| 2004-2005 | 9 | 0 | 0 | 9 | 9 | 0 | 0 | 9 | 0 | 0 |
| 2005-2006 | 16 | 0 | 0 | 16 | 16 | 0 | 0 | 16 | 0 | 0 |
| 2006-2007 | 14 | 0 | 0 | 14 | 14 | 0 | 0 | 14 | 0 | 0 |
| 2007-2008 | 24 | 0 | 0 | 24 | 24 | 0 | 0 | 24 | 0 | 0 |
| 2008-2009 | 17 | 0 | 0 | 17 | 17 | 0 | 0 | 17 | 0 | 0 |
| 2009-2010 | 20 | 0 | 0 | 20 | 20 | 0 | 0 | 20 | 0 | 0 |
| 2010-2011 | 13 | 0 | 0 | 13 | 13 | 0 | 0 | 13 | 0 | 0 |
| 2011-2012 | 20 | 0 | 0 | 20 | 20 | 0 | 0 | 20 | 0 | 0 |
| 2012-2013 | 21 | 0 | 0 | 21 | 20 | 0 | 0 | 20 | 1 | 1 |
| 2013-2014 | 15 | 0 | 0 | 15 | 15 | 0 | 0 | 15 | 0 | 0 |
| 2014-2015 | 18 | 0 | 0 | 18 | 18 | 0 | 0 | 18 | 0 | 0 |
| 2015-2016 | 20 | 0 | 0 | 20 | 19 | 0 | 0 | 19 | 1 | 1 |
| 2016-2017 | 20 | 0 | 0 | 20 | 18 | 0 | 0 | 18 | 2 | 2 |
| 2017-2018 | 7 | 0 | 0 | 7 | 7 | 0 | 0 | 7 | 0 | 0 |
| 2018-2019 | 9 | 0 | 0 | 9 | 7 | 0 | 0 | 7 | 2 | 2 |
| 2019-2020 | 14 | 0 | 0 | 14 | 5 | 0 | 0 | 5 | 9 | 9 |
| 2020-2021 | 26 | 0 | 0 | 26 | 13 | 0 | 0 | 13 | 13 | 13 |
| 2021-2022 | 23 | 0 | 0 | 23 | 1 | 0 | 0 | 1 | 22 | 22 |
| 2022-2023 | 32 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 32 | 32 |
| 2023-2024 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 3 |
| Total | 581 | 0 | 0 | 581 | 496 | 0 | 0 | 496 | 85 | 85 |

Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Authority.
(C)
(D)
(E) $(B)+(C)-(D)$.
(F) Provided by the Authority.
(G)
(H)
(I) $(\mathrm{F})+(\mathrm{G})-(\mathrm{H})$
(J) (B) - (F).
(K) (E) - (I).

| Accident Year | Total | Inflation | Trended |
| :---: | :---: | :---: | :---: |
|  | Payroll | Trend | Payroll |
|  | (\$00) | Factor | (\$00) |
|  | (A) | (B) | (C) |
| 1986-2003 |  |  |  |
| 2003-2004 | 3,596,411 | 1.638 | 5,890,921 |
| 2004-2005 | 4,209,065 | 1.598 | 6,726,086 |
| 2005-2006 | 4,298,659 | 1.559 | 6,701,609 |
| 2006-2007 | 4,504,261 | 1.521 | 6,850,981 |
| 2007-2008 | 4,769,732 | 1.484 | 7,078,282 |
| 2008-2009 | 4,929,016 | 1.448 | 7,137,215 |
| 2009-2010 | 4,760,313 | 1.413 | 6,726,322 |
| 2010-2011 | 4,393,012 | 1.379 | 6,057,964 |
| 2011-2012 | 3,754,382 | 1.345 | 5,049,644 |
| 2012-2013 | 3,668,540 | 1.312 | 4,813,124 |
| 2013-2014 | 3,643,764 | 1.280 | 4,664,018 |
| 2014-2015 | 3,788,358 | 1.249 | 4,731,659 |
| 2015-2016 | 3,697,212 | 1.219 | 4,506,901 |
| 2016-2017 | 3,936,364 | 1.189 | 4,680,337 |
| 2017-2018 | 4,135,396 | 1.160 | 4,797,059 |
| 2018-2019 | 4,265,647 | 1.132 | 4,828,712 |
| 2019-2020 | 4,202,976 | 1.104 | 4,640,086 |
| 2020-2021 | 4,343,082 | 1.077 | 4,677,499 |
| 2021-2022 | 4,640,638 | 1.051 | 4,877,311 |
| 2022-2023 | 4,955,641 | 1.025 | 5,079,532 |
| 2023-2024 | 5,168,687 | 1.000 | 5,168,687 |
| 2024-2025 | 5,323,749 | 1.000 | 5,323,749 |

Notes:
(A) Provided by the Authority.
(B) Based on industry factors.
(C) $\quad(A) \times(B)$.

## FINANCIAL MATTERS

SUBJECT: Property Program Updates and Preliminary Actuarial Data

## BACKGROUND AND HISTORY:

PLAN JPA's current Property Program structure is:


The preliminary actuarial data provides funding analysis for the upcoming 2024/25 Program Year. The actuary was able to compile the data using loss run as of December 31, 2023, and Total Insured Values as of January 8, 2024.

Below is a current comparison of the funding for the PLAN JPA Primary Pool Layer of $\$ 500 \mathrm{~K}$ self-insured retention (SIR):

| Property <br> Program | Discount <br> Factor | Expected |  | 70\% |  | 75\% |  | 80\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2024/25 | 2.0\% | \$ | 1,650,000 | \$ | 1,955,000 | \$ | 2,105,000 | \$2,282,000 |
| 2023/24 | 2.0\% | \$ | 1,373,000 | \$ | 1,635,000 | \$ | 1,766,000 | \$1,921,000 |
|  | Change |  | 277,000 |  | 320,000 |  | 339,000 | 361,000 |
|  | \% Change |  | 20.2\% |  | 19.6\% |  | 19.2\% | 18.8\% |

Agenda Item 6.C. Page 2

As inflation and costs of replacing insured values have further elevated to record levels in an already challenging Property insurance market, PLAN member retention in the Property Program has remained steady at $\$ 5,000$ per occurrence. Meanwhile, PLAN has taken on more risk through an increase from $\$ 100,000$ per occurrence to $\$ 500,000$ per occurrence.

During the 2023/24 budget process, the Board of Directors approved the Property Program Rehabilitation Plan, which detailed a three-year repayment loan structure to provide immediate stability and to ensure the long-term viability of the Pooled Property Program. With the passing of Resolution 2023-1, this incorporated an increase in the confidence level funding, incrementally at $+5 \%$ each program year, from $70 \%$ to $85 \%$, over the same period.

As depicted in the current comparison above, in the upcoming 2024/25 Program Year, PLAN's Property Program pool layer is experiencing an increase of $\$ 361,000$, or $18.8 \%$, over $2023 / 24$, at the $80 \%$ confidence level. While Alliant Property Insurance Program (APIP), PLAN's Excess Property provider is working through the appraisal process with members, currently, the Total Insured Values (TIV) have increased from $\$ 3.6 \mathrm{~B}$ to $\$ 3.8 \mathrm{~B}$, or $5.9 \%$, over 2023/24 TIV. The 2024/25 TIV will be updated as staff progresses through this budget cycle.

Becky Richard, Bickmore Actuarial, will be present to provide a thorough overview of the Draft Property Program Actuarial Report to the Committee.

## STAFF RECOMMENDATION:

None.

## REFERENCE MATERIALS ATTACHED:

- Draft Property Program Actuarial Report as of March 11, 2024


# Bickmore Actuarial 

## Actuarial Review of the Self-Insured Property Program

Forecast for Program Year 2024-25

Presented to
PLAN JPA

March 11, 2024 - DRAFT

March 11, 2024

Pooled Liability Assurance Network Joint Powers Authority Attn: Eric Dahlen
1750 Creekside Oaks Drive, Suite 200
Sacramento, CA 95833

Re: Actuarial Review of the Self-Insured Property Program

## Dear Mr. Dahlen:

As you requested, we have completed our review of the Authority's self-insured property program (the PLAN JPA). Assuming a pool retention of $\$ 500,000$ and a member deductible of $\$ 5,000$, we estimate the ultimate cost of claims and expenses for claims incurred during the 2024-25 program year to be $\$ 1,650,000$ including allocated loss adjustment expenses (ALAE) and a discount for anticipated investment income. ALAE is basically the direct cost associated with the defense of individual claims. The discount for investment income is calculated based on the likely payout pattern of your claims, assuming a $2.0 \%$ return on investments per year. For budgeting purposes, the expected cost of 2024-25 claims translates to a rate of $\$ 0.044$ per $\$ 100$ TIV.

The table below shows funding recommendations for the 2024-25 fiscal year.

> PLAN JPA

Self-Insured Property Program
Loss and ALAE Funding Guidelines for 2024-25
Pool Retention of $\$ 500,000$, Member Deductible of $\$ 5,000$

|  | Expected | Marginally Acceptable 70\% CL | Recommended Range |  |  | $\begin{aligned} & \text { Conservative } \\ & 90 \% \mathrm{CL} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Low } \\ 75 \% \mathrm{CL} \end{gathered}$ | Target 80\% CL | $\begin{gathered} \text { High } \\ 85 \% \mathrm{CL} \end{gathered}$ |  |
| Loss and ALAE | \$1,694,000 |  |  |  |  |  |
| Investment Income Offset | $(44,000)$ |  |  |  |  |  |
| Discounted Loss and ALAE | \$1,650,000 | \$1,955,000 | \$2,105,000 | \$2,282,000 | \$2,505,000 | \$2,802,000 |
| Excess Insurance | 10,856,000 | 10,856,000 | 10,856,000 | 10,856,000 | 10,856,000 | 10,856,000 |
| Total Funding | \$12,506,000 | \$12,811,000 | \$12,961,000 | \$13,138,000 | \$13,361,000 | \$13,658,000 |
| Rate per \$100 of 2024-25 TIV | \$0.330 | \$0.338 | \$0.342 | \$0.347 | \$0.352 | \$0.360 |

We generally recommend that risk pools fund for future costs between the $75 \%$ and $85 \%$ confidence levels.

The report that follows outlines the scope of our study, its background, and our conclusions, recommendations and assumptions. Judgments regarding the appropriateness of our conclusions and recommendations should be made only after studying the report in its entirety - including the graphs, attachments, exhibits and appendices. Our report has been developed for the PLAN JPA's internal use. It is not intended for general circulation.

We appreciate the opportunity to be of service to PLAN JPA in preparing this report. Please feel free to call Becky Richard at (916) 244-1183 or Mike Harrington at (916) 244-1162 with any questions you may have about this report.

Sincerely,
Bickmore Actuarial

## DRAFT

Becky Richard, ACAS, MAAA
Partner

## DRAFT

Mike Harrington, FCAS, MAAA
President and Managing Partner

## DRAFT

David Kim, MA
Actuarial Consultant

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## I. BACKGROUND

PLAN JPA began its self-insured property and liability program in 1986.
For many years the property program had very low pool retentions with most property exposure being insured by external insurance carriers.

Effective July 1, 2017, the property pool retention became $\$ 225 \mathrm{~K}$ per occurrence, subject to a $\$ 1 \mathrm{M}$ annual aggregate. Once the annual aggregate was met, the pool retention decreased to a $\$ 10 \mathrm{~K}$ maintenance deductible per occurrence.

Effective July 1, 2021, the property pool retention increased to $\$ 500 \mathrm{~K}$ per occurrence, with no annual aggregate.

PLAN JPA purchases excess insurance up to $\$ 1$ billion per occurrence.
PLAN Members have a $\$ 5,000$ deductible per occurrence.
The purpose of this review is to provide a guide to PLAN JPA to determine reasonable funding levels for its self-insurance program according to the funding policy PLAN JPA has adopted to comply with Governmental Accounting Standards Board Statements \#10. The specific objectives of the study are to estimate PLAN JPA's ultimate loss cost for 2024-25 and provide funding guidelines to meet these future costs.

## II. CONCLUSIONS AND RECOMMENDATIONS

## A. COSTS OF 2024-25 CLAIMS

The following chart shows our funding recommendations for the PLAN JPA property program for the 2024-25 fiscal year assuming a $\$ 500 \mathrm{~K}$ pool retention and member deductibles of $\$ 5,000$.

PLAN JPA
Self-Insured Property Program
Loss and ALAE Funding Guidelines for 2024-25
Pool Retention of $\$ 500,000$, Member Deductible of $\$ 5,000$

|  | Expected | Marginally Acceptable 70\% CL | Recommended Range |  |  | $\begin{aligned} & \text { Conservative } \\ & 90 \% \mathrm{CL} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Low } \\ 75 \% \mathrm{CL} \end{gathered}$ | $\begin{aligned} & \text { Target } \\ & 80 \% \mathrm{CL} \end{aligned}$ | $\begin{gathered} \text { High } \\ 85 \% \text { CL } \end{gathered}$ |  |
| Loss and ALAE | \$1,694,000 |  |  |  |  |  |
| Investment Income Offset | $(44,000)$ |  |  |  |  |  |
| Discounted Loss and ALAE | \$1,650,000 | \$1,955,000 | \$2,105,000 | \$2,282,000 | \$2,505,000 | \$2,802,000 |
| Excess Insurance | 10,856,000 | 10,856,000 | 10,856,000 | 10,856,000 | 10,856,000 | 10,856,000 |
| Total Funding | \$12,506,000 | \$12,811,000 | \$12,961,000 | \$13,138,000 | \$13,361,000 | \$13,658,000 |
| Rate per \$100 of 2024-25 TIV | \$0.330 | \$0.338 | \$0.342 | \$0.347 | \$0.352 | \$0.360 |

The funding recommendations above are for losses and allocated loss adjustment expense only. They do not include any provision for claims administration, excess insurance, loss control, overhead, and other expenses associated with the program.

## B. PROGRAM FUNDING: GOALS AND OBJECTIVES

As self-insurance programs have proliferated among public entities, it has become apparent that there is a large measure of inconsistency in the way in which these programs recognize and account for their claims costs. This is the result of the fact that there have been several different sources of guidance available, none of which has been completely relevant to public entity self-insurance programs.

According to the Governmental Accounting Standards Board (GASB), the most relevant source of guidance on the subject is Financial Accounting Standards Board Statement \#60. A liability for unpaid claim costs, including all loss adjustment expenses, should be accrued at the time the self-insured events occur. This liability should include an allowance for incurred but not reported claims. It may be discounted for investment income at an appropriate rate of return, provided the discounting is disclosed. The regulations detailing the way in which this must be done are outlined in GASB's Statement \#10.

GASB \#10 does not address funding requirements. It does, however, allow a range of funded amounts to be recognized for accounting purposes, specifically GASB \#10 allows recognition of a funding margin for unexpectedly adverse loss experience.

The amount of such a margin should be a question of long-term funding policy. We recommend that the margin be determined by thinking in terms of the probability that a given level of funding will prove to be adequate. If you elect to fund at a low confidence level, the chances are much greater that future events will prove that additional contributions should have been made for current claims.

We generally recommend that risk pools maintain assets for historical liabilities at no less than the $90 \%$ confidence level, after recognition of investment income. The resulting risk margin is reasonably high that resulting funding should be sufficient to meet claim liabilities, yet the risk margin is not so large that they will cause most self-insured entities to experience undue financial hardship.
We generally recommend that risk pools fund for future costs between the $\underline{75 \%}$ and $85 \%$ confidence levels. The confidence level to which any future year is funded should be evaluated in light of the relative certainty of the assumptions underlying the actuarial analysis, PLAN JPA's other budgetary constraints, and the relative level of risk it is believed appropriate to assume. This means formulating both short- and long-term funding goals, which may be the same in some years, but different in others.

## C. HISTORICAL TRENDS

PLAN JPA's $\$ 500 \mathrm{~K}$ loss rate (dollars of loss per $\$ 100$ of TIV) has remained relatively stable over the past eight years, with the exceptions of 2019-20 and 2022-23. The projected 2023-24 loss rate of $\$ 0.051$ is based on the most recent eight years.

PLAN JPA
Property Program
Dollars of Loss per
\$100 of TIV

-Loss Rate

The program's cost per claim (limited to $\$ 500,000$ ) has generally increased since 2013-14. The projected 2023-24 severity of $\$ 15,900$ is based on this increasing trend.

PLAN JPA<br>Property Program<br>Dollars of Loss per Claim



PLAN JPA's claims frequency per \$1 million of TIV has generally decreased over the past ten years. The projected 2023-24 frequency of 0.032 is based on the decreasing trend.

PLAN JPA
Property Program
Number of Claims per
\$1 Million of TIV

-Frequency

## D. COMPARISON WITH OUR PREVIOUS RESULTS

The prior report for the Authority was dated March 13, 2023. In the table below we display actual versus expected development of incurred losses and ALAE by accident year between the December 31, 2022 evaluation date of the prior report and the December 31, 2023 evaluation date of the current report.

## Actual Versus Expected Incurred Loss and ALAE Development

| Accident <br> Year | Expected <br> Incurred <br> Development | Actual <br> Incurred <br> Development | Actual <br> Minus Expected |
| :---: | ---: | ---: | ---: |
| Prior | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| $2016-17$ | 3,000 | $(5,000)$ | $(8,000)$ |
| $2017-18$ | 0 | 0 | 0 |
| $2018-19$ | 5,000 | 0 | $(5,000)$ |
| $2019-20$ | 27,000 | $(23,000)$ | $(50,000)$ |
| $2020-21$ | 15,000 | $(20,000)$ | $(35,000)$ |
| $2021-22$ | 99,000 | $(241,000)$ | $(340,000)$ |
| $2022-23$ | 971,000 | $2,397,000$ | $1,426,000$ |
|  |  |  |  |
| Total | $\$ 1,120,000$ | $\$ 2,108,000$ | $\$ 988,000$ |

As shown, actual incurred development was more than anticipated since the prior report. Based on the assumptions from the prior report, it was expected that incurred losses through accident year 2022-23 would increase by \$1,120,000 between the two evaluation dates. However, actual development was approximately $\$ 2,108,000$; or about $\$ 988,000$ more than expected.

In the table below we display actual versus expected development of paid losses and ALAE by accident year between the December 31, 2022 evaluation date of the prior report and the December 31, 2023 evaluation date of the current report.

## Actual Versus Expected Paid Loss and ALAE Development

| Accident <br> Year | Expected <br> Paid <br> Development | Actual <br> Paid <br> Development | Actual <br> Minus Expected |
| :---: | ---: | ---: | ---: |
| Prior | $\$ 13,000$ | $\$ 43,000$ | $\$ 30,000$ |
| $2016-17$ | 174,000 | 495,000 | 321,000 |
| $2017-18$ | 0 | 0 | 0 |
| $2018-19$ | 4,000 | 0 | $(4,000)$ |
| $2019-20$ | 61,000 | 58,000 | $(3,000)$ |
| $2020-21$ | 79,000 | 169,000 | 90,000 |
| $2021-22$ | 629,000 | 753,000 | 124,000 |
| $2022-23$ | 805,000 | 767,000 | $(38,000)$ |
|  |  | $\$ 1,765,000$ | $\$ 2,285,000$ |

As shown, actual paid development was more than anticipated since the prior report. Based on the assumptions from the prior report, it was expected that paid losses through accident year 2021-22 would increase by $\$ 1,765,000$ between the two evaluation dates. However, actual development was approximately $\$ 2,285,000$; or about $\$ 520,000$ more than expected.

In the table below we display the change in our estimates of the program's ultimate losses and ALAE by accident year since our prior report.

## Change in Loss and ALAE Ultimate Losses

| Accident <br> Year | Prior Report | Current Report | Change |
| :---: | ---: | ---: | ---: |
|  |  |  |  |
| Prior | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| $2012-13$ | $1,212,000$ | $1,212,000$ | $\$ 0$ |
| $2013-14$ | 769,000 | 769,000 | 0 |
| $2014-15$ | 768,000 | 768,000 | 0 |
| $2015-16$ | 730,000 | 730,000 | 0 |
| $2016-17$ | $1,188,000$ | $1,180,000$ | $(8,000)$ |
| $2017-18$ | 620,000 | 620,000 | 0 |
| $2018-19$ | $1,039,000$ | $1,029,000$ | $(10,000)$ |
| $2019-20$ | $2,450,000$ | $2,412,000$ | $(38,000)$ |
| $2020-21$ | 884,000 | 859,000 | $(25,000)$ |
| $2021-22$ | $1,654,000$ | $1,348,000$ | $(306,000)$ |
| $2022-23$ | $1,503,000$ | $2,838,000$ | $1,335,000$ |
|  |  |  |  |
| Total | $\$ 12,817,000$ | $\$ 13,765,000$ | $\$ 948,000$ |

As shown, overall we have increased our estimated ultimate losses by $\$ 948,000$ since our prior report. The changes in our estimates of ultimate losses take into account both the incurred and paid development listed on the previous two pages.

At the time of the prior report, our funding estimate for the 2023-24 year was $\$ 1,373,000$ at the discounted, expected level. That amount included allocated loss adjustment expenses (ALAE), and a discount for anticipated investment income, but excluded unallocated loss adjustment expenses (ULAE). Our current estimate for the 2024-25 year is $\$ 1,650,000$ at the discounted, expected level, an increase in the program's expected loss costs, as shown in the table below:

## Comparison of Funding for Loss and ALAE

|  | Prior | Current |  |
| :--- | ---: | ---: | ---: |
|  | Report | Report |  |
|  | $2023-24$ | $2024-25$ |  |
|  | Deductible $=$ | Deductible $=$ |  |
|  | $\$ 500,000$ | $\$ 500,000$ | Change |
|  | $\$ 1,399,000$ | $\$ 1,694,000$ | $\$ 295,000$ |
| (A) Ultimate Loss and ALAE: | $(26,000)$ | $(44,000)$ | $(18,000)$ |
| (B) Offset for Investment Income: | $1,373,000$ | $\$ 1,650,000$ | $\$ 277,000$ |
| (C) Total Recommended Funding: | $\$ 0.0388$ | $\$ 0.0440$ | $\$ 0.0052$ |

As you can see, our funding recommendations at the discounted, expected level have increased between 2023-24 and 2024-25, as shown in our prior and current reports respectively.

Our estimates of ultimate loss and ALAE have increased by \$295,000 primarily due to an increase in our projected rate and increased exposures in TIV. Investment income is expected to be higher. The net change due to the above factors is an overall increase of $\$ 277,000$ in our annual funding estimate for loss and ALAE.

We provide the following comparison of property premiums, which include ultimate loss and ALAE, discounted at 2.0\%, at the 75\% confidence level (prior report) and 80\% confidence level (current report), excess insurance costs, and administration costs.

|  | 2023-24 <br> $\$ 500 \mathrm{~K}$ |  |  |  |  | 2024-25 <br> $\$ 500 \mathrm{~K}$ |  |  |  |
| :---: | ---: | ---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: |
| Actual |  |  |  |  |  |  |  |  |  |
| Proposed |  |  |  |  |  |  |  |  |  |
| Funding |  |  |  |  |  |  |  |  |  |$\quad$| Dollar |
| :---: |
| Change |$\quad$| Percent |
| :---: |
| Change |

## E. DATA ISSUES

Overall, the data utilized in preparing this report appears to be accurate as of the date of the current evaluation. We received loss data evaluated as of December 31, 2023.

## III. ASSUMPTIONS AND LIMITATIONS

Any quantitative analysis is developed within a very specific framework of assumptions about conditions in the outside world, and actuarial analysis is no exception. We believe that it is important to review the assumptions we have made in developing the estimates presented in this report. By doing so, we hope you will gain additional perspective on the nature of the uncertainties involved in maintaining a self-insurance program. Our assumptions, and some observations about them, are as follows:

- Our analysis is based on loss experience, exposure data, and other general and specific information provided to us by PLAN JPA. We have accepted all of this information without audit.
- We have also made use of loss statistics that have been developed from the information gathered and compiled from other California public entities with self-insured excess property program.
- We were not able to obtain sufficient historical data to produce PLAN JPA property specific loss development factors. As a result, we have had to rely, in part, on statistics and historic loss development patterns derived from the loss history of the other California public entities with self-insured excess property program. This increases the uncertainty associated with the conclusions of this report, in that any individual entities' experience can be significantly different from that of other California public entities with self-insured excess property programs.
- We have made use of cost relationships for claims of various sizes derived from the most recent actuarial reviews of other California public entities.
- We have assumed that there is a continuing relationship between past and future loss costs.
- It is not possible to predict future claim costs precisely. Most of the cost of property claims arise from a small number of incidents involving serious injury. A relatively small number of such claims could generate enough loss dollars to significantly reduce, or even deplete, the self-insurance fund.
- We cannot predict and have not attempted to predict the impact of future law changes and court rulings on claims costs. This is one major reason why we believe our funding recommendations are reasonable now, but should not be extrapolated into the future.
- We have assumed that the costs associated with property claims are increasing at $1.7 \%$ per year. We have assumed that the average claim size increases at $7.0 \%$ per year and that the average number of claims per \$1 million decreases at $5.0 \%$ per year.
- We have assumed that TIV increases $5 \%$ annually due to inflation.
- We have assumed that assets held for investment will generate an annual return of $2 \%$.
- Our funding recommendations do not include provision for catastrophic events not in the PLAN JPA's history, such as earthquakes, flooding, mass civil disorder, or mass occupational disease.
- Our estimates assume that all excess insurance is valid and collectible. Further, our funding recommendations do not include a provision for losses greater than PLAN JPA's excess coverage.


## IV. GLOSSARY OF ACTUARIAL TERMS

Accident Year - Year during which the accidents that generate a group of claims occurs, regardless of when the claims are reported, payments are made, or reserves are established.

Allocated Loss Adjustment Expenses (ALAE) - Expense incurred in settling claims that can be directly attributed to specific individual claims (e.g., legal fees, investigative fees, court charges, etc.)

Case Reserve - The amount left to be paid on a claim, as estimated by the claims administrator.

Claim Count Development Factor - A factor that is applied to the number of claims reported in a particular accident period in order to estimate the number of claims that will ultimately be reported.

Claim Frequency - Number of claims per $\$ 1$ million TIV.
Confidence Level - An estimated probability that a given level of funding will be adequate to pay actual claims costs. For example, the $85 \%$ confidence level refers to an estimate for which there is an $85 \%$ chance that the amount will be sufficient to pay loss costs.

Discount Factor - A factor to adjust estimated loss costs to reflect anticipated investment income from assets held prior to actual claim payout.

Expected Losses - The best estimate of the full, ultimate value of loss costs.
Incurred but not Reported (IBNR) Losses - Losses for which the accident has occurred but the claim has not yet been reported. This is the ultimate value of losses, less any amount that has been set up as reported losses by the claims adjuster. It includes both amounts for claims incurred but not yet received by the administrator and loss development on already reported claims.

Loss Development Factor - A factor applied to losses for a particular accident period to reflect the fact that reported and paid losses do not reflect final values until all claims are settled (see Section IV).

Loss Rate - Ultimate losses per \$100 TIV.
Non-Claims Related Expenses - Program expenses not directly associated with claims settlement and administration, such as excess insurance, safety program expenses, and general overhead. These exclude expenses associated with loss settlements (Indemnity/Medical, BI/PD), legal expenses associated with individual claims (ALAE), and claims administration (ULAE).

Outstanding Losses - Losses that have been incurred but not paid. This is the ultimate value of losses less any amount that has been paid.

Paid Losses - Losses actually paid on all reported claims.
Program Losses - Losses, including ALAE, limited to the deductible for each occurrence.

Reported Losses - The total expected value of losses as estimated by the claims administrator. This is the sum of paid losses and case reserves.

Deductible - The level at which an excess insurance policy is triggered to begin payments on a claim.

Severity - Average claim cost.
Ultimate Losses - The value of claim costs at the time when all claims have been settled. This amount must be estimated until all claims are actually settled.

Unallocated Loss Adjustment Expenses (ULAE) - Claim settlement expenses that cannot be directly attributed to individual claims (e.g., claims adjusters' salaries, taxes, etc.)

# PLAN JPA - Property <br> Funding Options for Program Year 2024-2025 (Pool Layer: \$5,000-\$500,000) One-Year Funding Plan 

 ((H) / \$37,906,257)

TIV rates are per hundred dollars of 2024-2025 TIV of \$3,790,625,700.

PLAN JPA - Property
Estimated Ultimate Program Losses


Notes:
(A) From Appendix A, Column (G).
(B) From Appendix B, Column (G).
(C) From Appendix C, Page 1, Column (G).
(D) From Appendix C, Page 2, Column (G).
(E) From Appendix D, Page 1, Column (C).
(F) Selected averages of (A), (B), (C), (D), and (E).
(G) From Exhibit 3, Page 1, Line (K).
(H) From Exhibit 3, Page 1, Line (K).

This exhibit summarizes the results of the actuarial methods we have applied to estimate ultimate losses for each year. It is important to apply a number of estimation methods because each one relies on specific assumptions about the claims process that tend to hold generally true, but that may be violated in specific situations. Thus, the more estimation methods that can be applied, the better.

PLAN JPA - Property
Estimated Ultimate Limited Losses Capped at $\$ 225,000$ per Claim

|  | Reported <br> Loss | Paid <br> Loss | Exposure <br> Method <br> Based on <br> Reported <br> Losses <br> Accident <br> Year <br> Method <br> Method | Exposure <br> Method <br> Based on <br> Paid <br> Losses | Frequency- <br> Severity <br> Method | Selected <br> Ultimate <br> Limited <br> Losses |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (A) | (B) | (C) | (D) | (E) | (F) |  |


| Projected Losses for the Year 2023-2024 (G) | $\$ 1,544,000$ |
| :--- | :--- |
| Projected Losses for the Year 2024-2025 (H) | $\$ 1,659,000$ |

Notes:
(A) From Appendix A, Column (D).
(B) From Appendix B, Column (D).
(C) Based on results in Appendix C, Page 1.
(D) Based on results in Appendix C, Page 2.
(E) Based on results in Appendix D, Page 1.
(F) Selected averages of (A), (B), (C), (D), and (E).
(G) From Exhibit 3, Page 1, Line (K) / Line (G).
(H) From Exhibit 3, Page 1, Line (K) / Line (G).

This exhibit summarizes the results of the actuarial methods we have applied to estimate limited losses for each year. These results are used to select a limited loss rate for future years.

PLAN JPA - Property
Selection of Projected Limited Loss Rate and Projection of Program Losses and ULAE


PLAN JPA - Property
Selection of Projected Limited Loss Rate
and Projection of Program Losses and ULAE

## Notes:

(A) From Exhibit 2, page 2, Column (F).

For purposes of projecting future losses, losses
are capped at $\$ 225,000$ per occurrence.
(B) From Appendix E, Column (B).
(C) $(\mathrm{A}) \times(\mathrm{B})$.
(D) From Appendix I, Column (C).
(E) (C) / (D).
(F) Selected based on (E).
(G) Based on a Burr distribution, a mathematical model of claim sizes.
(H) From Appendix E.
(I) (F) $\times(\mathrm{G}) \times(\mathrm{H})$.
(J) From Appendix I, Column (C).
(K) (I) $\times(\mathrm{J})$.
(L) Based on an estimated claim closing pattern and the Pool's historical claims administration expenses.
(M) $(\mathrm{K})+(\mathrm{L})$.

This exhibit shows the calculation of future loss costs based on the past loss rates. The projections will be accurate only to the extent that what has happened in the past is representative of what will happen in the future.

PLAN JPA - Property
Reported Loss Development


Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Pool. These losses exclude amounts over $\$ 225,000$ per occurrence.
(C) From Appendix A, Page 2.
(D) (B) $\times(C)$. These estimated losses exclude amounts over $\$ 225,000$ per occurrence.
(E) Losses capped at the Pool's SIR. Amounts are provided by the Pool.
(F) Derived from factors on Appendix A, Page 3.
(G) $(E) \times(F)$.

This method tends to understate ultimate losses for the most recent several years because the large losses for those years generally have not yet emerged at the time of our review.

This exhibit shows the calculation of estimated ultimate losses for each year based on paid losses and case reserves as reported by the claims administrator. These losses tend to "develop" or change from period to period as more information becomes available about the cases. This development tends to follow quantifiable patterns over time.

PLAN JPA - Property
Paid Loss Development

|  | Limited | Program |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Paid | Paid Loss | Ultimate | Paid | Paid Loss | Ultimate |
| Accident | Losses as | Development | Limited | Losses | Development | Program |
| Year | of 12/31/23 | Factor | Losses | of 12/31/23 | Factor | Losses |
| (A) | (B) | (C) | (D) | (E) | (F) | (G) |
| 2012-2013 | 1,211,570 | 1.000 | 1,211,570 | 1,211,570 | 1.004 | 1,216,416 |
| 2013-2014 | 768,874 | 1.000 | 768,874 | 768,874 | 1.005 | 772,718 |
| 2014-2015 | 768,041 | 1.000 | 768,041 | 768,041 | 1.007 | 773,417 |
| 2015-2016 | 694,401 | 1.000 | 694,401 | 729,738 | 1.011 | 737,765 |
| 2016-2017 | 910,380 | 1.000 | 910,380 | 1,180,380 | 1.016 | 1,199,266 |
| 2017-2018 | 619,883 | 1.000 | 619,883 | 619,883 | 1.023 | 634,140 |
| 2018-2019 | 1,029,136 | 1.000 | 1,029,136 | 1,029,136 | 1.034 | 1,064,127 |
| 2019-2020 | 1,736,062 | 1.003 | 1,741,270 | 2,351,062 | 1.054 | 2,478,019 |
| 2020-2021 | 763,993 | 1.013 | 773,925 | 830,238 | 1.093 | 907,450 |
| 2021-2022 | 1,061,634 | 1.050 | 1,114,716 | 1,061,634 | 1.172 | 1,244,235 |
| 2022-2023 | 879,256 | 1.651 | 1,451,652 | 879,256 | 1.894 | 1,665,311 |
| Totals | \$10,443,230 |  | \$11,083,848 | \$11,429,812 |  | \$12,692,864 |

Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Pool. These losses exclude amounts over $\$ 225,000$ per occurrence.
(C) From Appendix B, Page 2.
(D) (B) $\times(C)$. These estimated losses exclude amounts over $\$ 225,000$ per occurrence.
(E) Losses capped at the Pool's SIR. Amounts are provided by the Pool.
(F) Derived from factors on Appendix B, Page 3.
(G) (E) $\times(\mathrm{F})$.

This method tends to understate ultimate losses for the most recent several years because the large losses for those years generally have not yet emerged at the time of our review.

This exhibit shows the calculation of estimated ultimate losses for each year based on paid losses as reported by the claims administrator. These losses tend to "develop" or change from period to period as more information becomes available about the cases. This development tends to follow quantifiable patterns over time.

|  |  |  | PLAN | Property |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Exposure and Based on | elopment Metho orted Losses |  |  |  |
| Accident <br> Year | Trended TIV (\$00) (A) | Reported Losses as of $12 / 31 / 23$ (B) | Loss Development Factor (C) | Percentage of Losses Yet to Be Reported (D) | Program Rate (E) | Incurred but not Reported (IBNR) (F) | Ultimate Program Losses (G) |
| 2012-2013 | 28,573,544 | 1,211,570 | 1.000 | 0.000 | 0.047 | 0 | 1,211,570 |
| 2013-2014 | 31,110,824 | 768,874 | 1.000 | 0.000 | 0.028 | 0 | 768,874 |
| 2014-2015 | 31,214,826 | 768,041 | 1.000 | 0.000 | 0.028 | 0 | 768,041 |
| 2015-2016 | 27,829,114 | 729,738 | 1.000 | 0.000 | 0.028 | 0 | 729,738 |
| 2016-2017 | 27,704,047 | 1,180,380 | 1.001 | 0.001 | 0.038 | 1,053 | 1,181,433 |
| 2017-2018 | 27,962,174 | 619,883 | 1.002 | 0.002 | 0.025 | 1,398 | 621,281 |
| 2018-2019 | 28,322,338 | 1,029,136 | 1.006 | 0.006 | 0.047 | 7,987 | 1,037,123 |
| 2019-2020 | 29,408,079 | 2,383,265 | 1.012 | 0.012 | 0.049 | 17,292 | 2,400,557 |
| 2020-2021 | 29,504,920 | 835,658 | 1.028 | 0.027 | 0.050 | 39,832 | 875,490 |
| 2021-2022 | 29,865,854 | 1,253,684 | 1.071 | 0.066 | 0.051 | 100,528 | 1,354,212 |
| 2022-2023 | 33,497,325 | 2,653,934 | 1.251 | 0.201 | 0.052 | 350,114 | 3,004,048 |
| Totals | 324,993,045 | \$13,434,163 |  |  |  | \$518,204 | \$13,952,367 |

Notes:
(A) From Appendix I, Column (C).
(B) Provided by the Pool. These losses exclude amounts incurred above the Pool's SIR for each year.
(C) From Appendix A, Column (F).
(D) 1-1/(C).
(E) From Appendix C, Page 3, Column (H).
(F) (A) $\times(\mathrm{D}) \times(\mathrm{E})$.
(G) $(B)+(F)$.

This exhibit shows the calculation of ultimate losses based on the assumption that there is an underlying relationship between losses and exposure that changes in regular ways over time. The method relies on the premise that the losses that are currently unreported will cost what this relationship would suggest.

| Accident Year | Trended TIV (\$00) (A) | Paid Losses as of $12 / 31 / 23$ (B) | Loss Development Factor (C) | Percentage of Losses Yet to Be Paid (D) | Program Rate (E) | Incurred but not Paid (F) | Ultimate Program Losses (G) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2012-2013 | 28,573,544 | 1,211,570 | 1.004 | 0.004 | 0.047 | 5,372 | 1,216,942 |
| 2013-2014 | 31,110,824 | 768,874 | 1.005 | 0.005 | 0.028 | 4,356 | 773,230 |
| 2014-2015 | 31,214,826 | 768,041 | 1.007 | 0.007 | 0.028 | 6,118 | 774,159 |
| 2015-2016 | 27,829,114 | 729,738 | 1.011 | 0.011 | 0.028 | 8,571 | 738,309 |
| 2016-2017 | 27,704,047 | 1,180,380 | 1.016 | 0.016 | 0.038 | 16,844 | 1,197,224 |
| 2017-2018 | 27,962,174 | 619,883 | 1.023 | 0.022 | 0.025 | 15,379 | 635,262 |
| 2018-2019 | 28,322,338 | 1,029,136 | 1.034 | 0.033 | 0.047 | 43,928 | 1,073,064 |
| 2019-2020 | 29,408,079 | 2,351,062 | 1.054 | 0.051 | 0.049 | 73,491 | 2,424,553 |
| 2020-2021 | 29,504,920 | 830,238 | 1.093 | 0.085 | 0.050 | 125,396 | 955,634 |
| 2021-2022 | 29,865,854 | 1,061,634 | 1.172 | 0.147 | 0.051 | 223,904 | 1,285,538 |
| 2022-2023 | 33,497,325 | 879,256 | 1.894 | 0.472 | 0.052 | 822,158 | 1,701,414 |
| Totals | 324,993,045 | \$11,429,812 |  |  |  | \$1,345,517 | \$12,775,329 |

Notes:
(A) From Appendix I, Column (C).
(B) Provided by the Pool. These losses exclude amounts paid above the Pool's SIR for each year.
(C) From Appendix B, Column (F).
(D) 1-1/(C).
(E) From Appendix C, Page 3, Column (H).
(F) $(A) \times(D) \times(E)$.
(G) $(B)+(F)$.

This exhibit shows the calculation of ultimate losses based on the assumption that there is an underlying relationship between losses and exposure that changes in regular ways over time. The method relies on the premise that the losses that are currently unpaid will cost what this relationship would suggest.


Notes:
(A) From Appendix I, Column (C).
(B) Selected average of results from Appendices A and B.
(C) From Appendix E, Column (B).
(D) $(B) \times(C)$.
(E) (D)/(A).
(F) Selected Limited Rate / (C). For 2017-2018 and prior (B) / (A).
(G) Based on a Burr distribution, a mathematical model of claim sizes.
(H) $(\mathrm{F}) \times(\mathrm{G})$.

This exhibit shows the calculation of the underlying historical relationship between losses and exposure that is needed to apply the estimation methods shown on pages 1 and 2 of this Appendix.

## PLAN JPA - Property

Frequency and Severity Method

| Accident | Ultimate <br> Program <br> Severity <br> (A) | Adjusted <br> Ultimate <br> Claims <br> (B) | Ultimate <br> Program <br> Losses |
| :---: | :---: | :---: | :---: |
| (C) |  | (C) |  |

## Notes:

(A) From Appendix D, Page 2, Column (H).
(B) From Appendix D, Page 2, Column (B).
(C) $(A) \times(B)$

This exhibit shows the calculation of the estimated ultimate losses for each year based on the observed average frequency and severity of claims.

PLAN JPA - Property
Frequency and Severity Method

| Accident Year | Ultimate | Adjusted Ultimate Claims (B) | Ultimate Limited Severity (C) | Trend Factor (D) | Trended Limited Severity (E) | Limited Severity (F) | Factor to SIR (G) | Program Severity (H) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Limited |  |  |  |  |  |  |  |
|  | Losses <br> (A) |  |  |  |  |  |  |  |
| 2012-2013 | 1,211,570 | 157 | 7,717 | 2.105 | 16,244 | 7,717 | 1.122 | 8,658 |
| 2013-2014 | 768,874 | 180 | 4,272 | 1.967 | 8,403 | 4,272 | 1.127 | 4,815 |
| 2014-2015 | 768,041 | 164 | 4,683 | 1.838 | 8,607 | 4,683 | 1.132 | 5,301 |
| 2015-2016 | 694,401 | 135 | 5,144 | 1.718 | 8,837 | 5,144 | 1.137 | 5,849 |
| 2016-2017 | 910,380 | 122 | 7,462 | 1.606 | 11,984 | 7,462 | 1.143 | 8,529 |
| 2017-2018 | 619,883 | 108 | 5,740 | 1.500 | 8,610 | 5,740 | 1.148 | 6,590 |
| 2018-2019 | 1,029,136 | 118 | 8,721 | 1.402 | 12,227 | 10,342 | 1.153 | 11,924 |
| 2019-2020 | 1,739,000 | 115 | 15,122 | 1.311 | 19,825 | 11,060 | 1.159 | 12,819 |
| 2020-2021 | 770,000 | 82 | 9,390 | 1.225 | 11,503 | 11,837 | 1.165 | 13,790 |
| 2021-2022 | 1,272,000 | 109 | 11,670 | 1.145 | 13,362 | 12,664 | 1.170 | 14,817 |
| 2022-2023 | 2,227,000 | 105 | 21,210 | 1.070 | 22,695 | 13,551 | 1.176 | 15,936 |
|  |  | Average Limited Severity: |  |  | \$12,936 |  |  |  |
|  |  | Average 17/18-21/22 Limited Severity: |  |  | 13,105 |  |  |  |
|  |  | Average 18/19-22/23 Limited Severity: |  |  | 15,922 |  |  |  |
|  |  | Selected Limited Severity: <br> Prior: |  |  | \$14,500 |  |  |  |
|  |  |  |  |  | \$12,400 |  |  |  |

Notes:
(A) Selected average of results from Appendices A, B, and C.
(B) Appendix D, Page 3, Column (C).
(C) $(\mathrm{A}) /(\mathrm{B})$.
(D) From Appendix E, Column (J).
(E) (C) $\times(\mathrm{D})$.
(F) Selected Limited Severity / (D).
(G) Based on a Burr distribution, a mathematical model of claim sizes.
(H) $(\mathrm{F}) \times(\mathrm{G})$.

This exhibit shows the calculation of the historical average cost per claim, or severity. The observed average severity is used in the method shown on page 1 of this Appendix.

PLAN JPA - Property
Frequency and Severity Method
Projection of Ultimate Claims

| Accident Year | Reported Claim Development <br> (A) | Closed Claim Development (B) | Selected Ultimate Claims (C) | $\begin{aligned} & \text { Trended } \\ & \text { TIV } \\ & (\$ 000,000) \\ & \text { (D) } \end{aligned}$ | Claim Frequency (E) | Trend Factor (F) | Trended Claim Frequency (G) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2012-2013 | 157 | 159 | 157 | 2,857.4 | 0.055 | 0.569 | 0.031 |
| 2013-2014 | 180 | 182 | 180 | 3,111.1 | 0.058 | 0.599 | 0.035 |
| 2014-2015 | 164 | 166 | 164 | 3,121.5 | 0.053 | 0.631 | 0.033 |
| 2015-2016 | 135 | 137 | 135 | 2,782.9 | 0.049 | 0.663 | 0.032 |
| 2016-2017 | 122 | 124 | 122 | 2,770.4 | 0.044 | 0.698 | 0.031 |
| 2017-2018 | 108 | 110 | 108 | 2,796.2 | 0.039 | 0.734 | 0.029 |
| 2018-2019 | 118 | 122 | 118 | 2,832.2 | 0.042 | 0.773 | 0.032 |
| 2019-2020 | 115 | 117 | 115 | 2,940.8 | 0.039 | 0.814 | 0.032 |
| 2020-2021 | 82 | 88 | 82 | 2,950.5 | 0.028 | 0.857 | 0.024 |
| 2021-2022 | 109 | 122 | 109 | 2,986.6 | 0.036 | 0.902 | 0.032 |
| 2022-2023 | 105 | 121 | 105 | 3,349.7 | 0.031 | 0.950 | 0.029 |
| Total | 1,395 | 1,448 | 1,395 | 32,499.3 |  |  | 0.031 |
| 17/18-21/22 | 532 | 559 | 532 | 14,506.3 |  |  | 0.030 |
| (H) Selected Frequency: Prior: |  |  |  |  |  |  | 0.032 |
|  |  |  |  |  |  |  | 0.035 |


|  | Program Year: | $2023-2024$ | $2024-2025$ |
| :--- | :--- | ---: | ---: |
| (I) | Trend Factor: | 1.000 | 0.950 |
| (J) | Selected Frequency: | 0.032 | 0.030 |
| (K) Est. TIV (\$000,000): | $3,578.5$ | $3,790.6$ |  |
| (L) Ultimate Claims: | 115 | 114 |  |

Notes:
(A) From Appendix D, Page 4, (C).
(G) $(\mathrm{E}) \times(\mathrm{F})$.
(B) From Appendix D, Page 5, (C).
(H) The selected frequency of .032 is based on (G).
(C) Selected from (A) and (B).
(I) From Appendix E, Column (H).
(D) From Appendix I, Column (C) / 10,000.
(J) $(\mathrm{H}) \times(\mathrm{I})$.
(K) From Appendix I, Column (C) / 10,000.
(E) (C) $/(\mathrm{D})$.
(L) $(\mathrm{J}) \times(\mathrm{K})$.

This exhibit summarizes the estimated numbers of claims and shows the estimated frequencies per $\$ 1,000,000$ of trended payroll.

## PLAN JPA - Property

Frequency and Severity Method
Reported Claim Count Development
$\left.\begin{array}{ccc} & \begin{array}{c}\text { Claims } \\ \text { Reported } \\ \text { as of }\end{array} & \begin{array}{c}\text { Reported } \\ \text { Claim } \\ \text { Development } \\ \text { Factor } \\ \text { Accident } \\ \text { Year }\end{array} \\ \begin{array}{c}\text { 12/31/2023 } \\ \text { (A) }\end{array} & \begin{array}{c}\text { (B) }\end{array} & \begin{array}{c}\text { Ultimate } \\ \text { Claims }\end{array} \\ \text { (C) }\end{array} \begin{array}{c}\text { Trended } \\ \text { Claim } \\ \text { Frequency } \\ \text { (D) }\end{array}\right]$

Notes:
(A) Provided by the Pool.
(B) From Appendix D, Page 6.
(C) (A) $\times(B)$.
(D) (C) / [Appendix D, Page 3, (D)] $\times$ [Appendix D, Page 3, (F)].

This exhibit shows the calculation of estimated ultimate claims for each year based on reported claims as provided by the Pool. These numbers of claims tend to "develop" or change from period to period as more claims are filed. This development tends to follow quantifiable patterns over time.

PLAN JPA - Property
Frequency and Severity Method Closed Claim Count Development

| Accident Year | Claims <br> Closed as of 12/31/2023 <br> (A) | Closed Claim Development Factor (B) | Ultimate Claims (C) | Trended Claim Frequency (D) |
| :---: | :---: | :---: | :---: | :---: |
| 2012-2013 | 157 | 1.010 | 159 | 0.032 |
| 2013-2014 | 180 | 1.011 | 182 | 0.035 |
| 2014-2015 | 164 | 1.012 | 166 | 0.034 |
| 2015-2016 | 135 | 1.013 | 137 | 0.033 |
| 2016-2017 | 122 | 1.016 | 124 | 0.031 |
| 2017-2018 | 108 | 1.022 | 110 | 0.029 |
| 2018-2019 | 118 | 1.031 | 122 | 0.033 |
| 2019-2020 | 112 | 1.044 | 117 | 0.032 |
| 2020-2021 | 80 | 1.098 | 88 | 0.026 |
| 2021-2022 | 96 | 1.269 | 122 | 0.037 |
| 2022-2023 | 63 | 1.923 | 121 | 0.034 |
| Total | 1,335 |  | 1,448 | 0.032 |

Notes:
(A) Provided by the Pool.
(B) From Appendix D, Page 7.
(C) $(A) \times(B)$.
(D) (C) / [Appendix D, Page 3, (D)] $\times$ [Appendix D, Page 3, (F)].

This exhibit shows the calculation of estimated ultimate claims for each year based on closed claims as provided by the Pool. These numbers of closed claims tend to "develop" or change from period to period as more claims are closed. This development tends to follow quantifiable patterns over time.

PLAN JPA - Property
Loss Trend Factors

|  | Benefit | $\begin{gathered} \text { Factor to } \\ \text { 2023-2024 } \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ 2024-2025 \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ 2025-2026 \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ \text { 2026-2027 } \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ \text { 2023-2024 } \end{gathered}$ | Factor to | $\begin{aligned} & \text { Factor to } \\ & 2025-2026 \end{aligned}$ | $\begin{gathered} \text { Factor to } \\ 2026-2027 \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ \text { 2023-2024 } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident | Level | Loss Rate | Loss Rate | Loss Rate | Loss Rate | Frequency | Frequency | Frequency | Frequency | Severity |
| Year | Factor <br> (A) | Level <br> (B) | Level (C) | Level (D) | Level (E) | Level (F) | Level (G) | Level (H) | Level <br> (I) | Level (J) |
| 2002-2003 | 1.000 | 1.424 | 1.449 | 1.473 | 1.498 | 0.341 | 0.324 | 0.308 | 0.293 | 4.142 |
| 2003-2004 | 1.000 | 1.400 | 1.425 | 1.448 | 1.473 | 0.359 | 0.341 | 0.324 | 0.308 | 3.871 |
| 2004-2005 | 1.000 | 1.376 | 1.400 | 1.424 | 1.448 | 0.378 | 0.359 | 0.341 | 0.324 | 3.618 |
| 2005-2006 | 1.000 | 1.354 | 1.377 | 1.400 | 1.424 | 0.397 | 0.378 | 0.359 | 0.341 | 3.381 |
| 2006-2007 | 1.000 | 1.331 | 1.354 | 1.377 | 1.400 | 0.418 | 0.398 | 0.378 | 0.359 | 3.160 |
| 2007-2008 | 1.000 | 1.309 | 1.332 | 1.354 | 1.377 | 0.441 | 0.419 | 0.398 | 0.378 | 2.953 |
| 2008-2009 | 1.000 | 1.287 | 1.309 | 1.331 | 1.354 | 0.464 | 0.441 | 0.419 | 0.398 | 2.760 |
| 2009-2010 | 1.000 | 1.265 | 1.287 | 1.309 | 1.331 | 0.488 | 0.464 | 0.441 | 0.419 | 2.580 |
| 2010-2011 | 1.000 | 1.244 | 1.266 | 1.287 | 1.309 | 0.514 | 0.488 | 0.464 | 0.441 | 2.411 |
| 2011-2012 | 1.000 | 1.223 | 1.245 | 1.265 | 1.287 | 0.541 | 0.514 | 0.488 | 0.464 | 2.253 |
| 2012-2013 | 1.000 | 1.202 | 1.223 | 1.244 | 1.265 | 0.569 | 0.540 | 0.514 | 0.488 | 2.105 |
| 2013-2014 | 1.000 | 1.183 | 1.203 | 1.223 | 1.244 | 0.599 | 0.569 | 0.541 | 0.514 | 1.967 |
| 2014-2015 | 1.000 | 1.163 | 1.183 | 1.203 | 1.223 | 0.631 | 0.599 | 0.569 | 0.541 | 1.838 |
| 2015-2016 | 1.000 | 1.144 | 1.163 | 1.183 | 1.203 | 0.663 | 0.630 | 0.599 | 0.569 | 1.718 |
| 2016-2017 | 1.000 | 1.125 | 1.144 | 1.163 | 1.183 | 0.698 | 0.663 | 0.631 | 0.599 | 1.606 |
| 2017-2018 | 1.000 | 1.106 | 1.125 | 1.144 | 1.163 | 0.734 | 0.698 | 0.663 | 0.630 | 1.500 |
| 2018-2019 | 1.000 | 1.087 | 1.106 | 1.125 | 1.144 | 0.773 | 0.734 | 0.698 | 0.663 | 1.402 |
| 2019-2020 | 1.000 | 1.069 | 1.088 | 1.106 | 1.125 | 0.814 | 0.773 | 0.735 | 0.698 | 1.311 |
| 2020-2021 | 1.000 | 1.051 | 1.070 | 1.088 | 1.106 | 0.857 | 0.814 | 0.774 | 0.735 | 1.225 |
| 2021-2022 | 1.000 | 1.034 | 1.052 | 1.070 | 1.088 | 0.902 | 0.857 | 0.815 | 0.774 | 1.145 |
| 2022-2023 | 1.000 | 1.017 | 1.035 | 1.052 | 1.070 | 0.950 | 0.903 | 0.858 | 0.815 | 1.070 |
| 2023-2024 | 1.000 | 1.000 | 1.017 | 1.034 | 1.052 | 1.000 | 0.950 | 0.903 | 0.858 | 1.000 |
| 2024-2025 | 1.000 | -- | 1.000 | 1.017 | 1.034 | -- | 1.000 | 0.951 | 0.903 | -- |
| 2025-2026 | 1.000 | -- | -- | 1.000 | 1.017 | -- | -- | 1.000 | 0.950 | -- |
| 2026-2027 | 1.000 | -- | -- | -- | 1.000 | -- | -- | -- | 1.000 | -- |

Notes:
(A) No benefit level adjustment applied.
(B) - (E) (A) adjusted for a $1.7 \%$ annual loss rate trend.
(F) - (I) (A) adjusted for a -5.0\% annual frequency trend.
(J) (A) adjusted for a $7.0 \%$ annual severity trend.

This exhibit shows the calculation of the ways in which we expect claims costs to have changed over the past twenty years due to changes in inflation.

PLAN JPA - Property
Calculation of Discount Factors

| Payment Year <br> (A) | Payment Pattern (B) | Return on Investment <br> (C) | Discounted Reserves (D) | Undiscounted Reserves (E) | Discoun Factor (F) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 22 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 21 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 20 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 19 | 0.0\% | 2.0\% | 0.000 | 0.000 | 1.000 |
| 18 | 0.1\% | 2.0\% | 0.001 | 0.001 | 0.990 |
| 17 | 0.0\% | 2.0\% | 0.001 | 0.001 | 0.971 |
| 16 | 0.1\% | 2.0\% | 0.002 | 0.002 | 0.971 |
| 15 | 0.1\% | 2.0\% | 0.003 | 0.003 | 0.965 |
| 14 | 0.1\% | 2.0\% | 0.004 | 0.004 | 0.957 |
| 13 | 0.1\% | 2.0\% | 0.005 | 0.005 | 0.948 |
| 12 | 0.1\% | 2.0\% | 0.006 | 0.006 | 0.940 |
| 11 | 0.2\% | 2.0\% | 0.007 | 0.008 | 0.938 |
| 10 | 0.4\% | 2.0\% | 0.011 | 0.012 | 0.943 |
| 9 | 0.5\% | 2.0\% | 0.016 | 0.017 | 0.944 |
| 8 | 0.7\% | 2.0\% | 0.022 | 0.023 | 0.944 |
| 7 | 0.9\% | 2.0\% | 0.031 | 0.033 | 0.944 |
| 6 | 1.6\% | 2.0\% | 0.046 | 0.049 | 0.946 |
| 5 | 2.7\% | 2.0\% | 0.072 | 0.076 | 0.950 |
| 4 | 4.9\% | 2.0\% | 0.119 | 0.125 | 0.955 |
| 3 | 19.1\% | 2.0\% | 0.307 | 0.316 | 0.969 |
| 2 | 35.9\% | 2.0\% | 0.657 | 0.676 | 0.971 |
| 1 | 32.4\% | 2.0\% | 0.964 | 1.000 | 0.964 |
| (G) Discount Factor for Future Funding: |  |  |  | 2023-2024 | 0.974 |
|  |  |  |  | 2024-2025 | 0.974 |

Notes:
(A) This is the year of payment relative to the accident year. For example, year 7 refers to payments made in the seventh year after the inception of the accident year. We assume that payments are made at midyear.
(B) Percent of ultimate loss paid this year. This payment pattern is based on the paid loss development pattern selected in Appendix B, Page 2.
(C) Assumed Investment Income Rates.
(D) Discounted Reserves at the beginning of this year is next year's Discounted Reserves discounted one year plus this year's payments discounted six months. For example, in year $2,65.7 \%=[30.7 \% / 1.020]+[35.9 \% /(1.010)]$.
(E) Summation of future (B) values. This is the percent of ultimate loss unpaid at the beginning of the year.
(F) (D) / (E).
(G) (F) at year 1, with interest accumulated for six months. We assume that the required funding is deposited at the middle of the first year.

This exhibit shows the calculation of the effect of anticipated investment income on future claims costs. Thus, if the discount factor in item ( $F$ ) is 0.97 , on a discounted basis, $\$ 0.97$ must be budgeted for every $\$ 1$ that will actually be paid on claims that will be incurred in the next fiscal year.

PLAN JPA - Property
Confidence Level Table

| Probability | Projected Losses | Outstanding Losses |
| :---: | :---: | :---: |
|  |  |  |
| $95 \%$ | 1.999 | 1.647 |
| $90 \%$ | 1.698 | 1.458 |
| $85 \%$ | 1.518 | 1.344 |
| $80 \%$ | 1.383 | 1.258 |
| $75 \%$ | 1.276 | 1.189 |
| $70 \%$ | 1.185 | 1.131 |
| $65 \%$ | 1.104 | 1.079 |
| $60 \%$ | 1.033 | 1.032 |
| $55 \%$ | 0.967 | 0.989 |
| $50 \%$ | 0.905 | 0.947 |
| $45 \%$ | 0.845 | 0.908 |
| $40 \%$ | 0.789 | 0.870 |
| $35 \%$ | 0.732 | 0.831 |
| $30 \%$ | 0.676 | 0.793 |
| $25 \%$ | 0.619 | 0.752 |
|  |  |  |
|  |  |  |
| To read table: | For the above retention, there is a 90\% chance |  |
|  | that final loss settlements will be less than |  |
|  | 1.698 times the average expected amount of losses. |  |

This exhibit shows the loads that must be applied to bring estimated losses at the expected level to the various indicated confidence levels.

PLAN JPA - Property

Incurred Losses as of 12/31/23

| Accident Year (A) | Unlimited Incurred (B) | Additions to Losses (C) | Subtractions from Losses (D) | Adjusted Incurred (E) | Incurred Over SIR (F) | Incurred Over \$225,000 (G) | Incurred Capped at \$225,000 <br> (H) | Incurred \$225,000 to SIR Layer (I) | Incurred Capped at SIR <br> (J) | Incurred Capped at SIR \& Aggregate (K) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2012-2013 | 1,211,570 | 0 | 0 | 1,211,570 | 0 | 0 | 1,211,570 | 0 | 1,211,570 | 1,211,570 |
| 2013-2014 | 768,874 | 0 | 0 | 768,874 | 0 | 0 | 768,874 | 0 | 768,874 | 768,874 |
| 2014-2015 | 768,041 | 0 | 0 | 768,041 | 0 | 0 | 768,041 | 0 | 768,041 | 768,041 |
| 2015-2016 | 729,738 | 0 | 0 | 729,738 | 0 | 35,337 | 694,401 | 35,337 | 729,738 | 729,738 |
| 2016-2017 | 1,180,380 | 0 | 0 | 1,180,380 | 0 | 270,000 | 910,380 | 270,000 | 1,180,380 | 1,180,380 |
| 2017-2018 | 619,883 | 0 | 0 | 619,883 | 0 | 0 | 619,883 | 0 | 619,883 | 619,883 |
| 2018-2019 | 1,029,136 | 0 | 0 | 1,029,136 | 0 | 0 | 1,029,136 | 0 | 1,029,136 | 1,029,136 |
| 2019-2020 | 3,903,265 | 0 | 0 | 3,903,265 | 1,520,000 | 2,165,000 | 1,738,265 | 645,000 | 2,383,265 | 2,383,265 |
| 2020-2021 | 835,658 | 0 | 0 | 835,658 | 0 | 66,245 | 769,413 | 66,245 | 835,658 | 835,658 |
| 2021-2022 | 1,253,684 | 0 | 0 | 1,253,684 | 0 | 0 | 1,253,684 | 0 | 1,253,684 | 1,253,684 |
| 2022-2023 | 2,653,934 | 0 | 0 | 2,653,934 | 0 | 650,000 | 2,003,934 | 650,000 | 2,653,934 | 2,653,934 |
| 2023-2024 | 336,392 | 0 | 0 | 336,392 | 0 | 0 | 336,392 | 0 | 336,392 | 336,392 |
| Total | \$15,290,555 | \$0 | \$0 | \$15,290,555 | \$1,520,000 | \$3,186,582 | \$12,103,973 | \$1,666,582 | \$13,770,555 | \$13,770,555 |

Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Pool.
(C)
(D)
(E) $(\mathrm{B})+(\mathrm{C})-(\mathrm{D})$.
(F) Sum of incurred losses in excess of SIR.
(G) Sum of incurred losses in excess of \$225,000.
(H) $(E)-(G)$.
(I) (G) - (F).
(J) $(E)-(F)$.
(K) Minimum of (J) and the aggregate stop loss. See Not Included.

PLAN JPA - Property

Paid Losses as of 12/31/23

| Accident Year (A) | Unlimited Paid (B) | Additions to Losses (C) | Subtractions from Losses (D) | Adjusted Paid (E) | Paid Over SIR (F) | Paid <br> Over \$225,000 <br> (G) | Paid Capped at \$225,000 <br> (H) | Paid \$225,000 to SIR Layer <br> (I) | Paid Capped at SIR <br> (J) | Paid Capped at SIR \& Aggregate (K) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2012-2013 | 1,211,570 | 0 | 0 | 1,211,570 | 0 | 0 | 1,211,570 | 0 | 1,211,570 | 1,211,570 |
| 2013-2014 | 768,874 | 0 | 0 | 768,874 | 0 | 0 | 768,874 | 0 | 768,874 | 768,874 |
| 2014-2015 | 768,041 | 0 | 0 | 768,041 | 0 | 0 | 768,041 | 0 | 768,041 | 768,041 |
| 2015-2016 | 729,738 | 0 | 0 | 729,738 | 0 | 35,337 | 694,401 | 35,337 | 729,738 | 729,738 |
| 2016-2017 | 1,180,380 | 0 | 0 | 1,180,380 | 0 | 270,000 | 910,380 | 270,000 | 1,180,380 | 1,180,380 |
| 2017-2018 | 619,883 | 0 | 0 | 619,883 | 0 | 0 | 619,883 | 0 | 619,883 | 619,883 |
| 2018-2019 | 1,029,136 | 0 | 0 | 1,029,136 | 0 | 0 | 1,029,136 | 0 | 1,029,136 | 1,029,136 |
| 2019-2020 | 2,646,062 | 0 | 0 | 2,646,062 | 295,000 | 910,000 | 1,736,062 | 615,000 | 2,351,062 | 2,351,062 |
| 2020-2021 | 830,238 | 0 | 0 | 830,238 | 0 | 66,245 | 763,993 | 66,245 | 830,238 | 830,238 |
| 2021-2022 | 1,061,634 | 0 | 0 | 1,061,634 | 0 | 0 | 1,061,634 | 0 | 1,061,634 | 1,061,634 |
| 2022-2023 | 879,256 | 0 | 0 | 879,256 | 0 | 0 | 879,256 | 0 | 879,256 | 879,256 |
| 2023-2024 | 136,867 | 0 | 0 | 136,867 | 0 | 0 | 136,867 | 0 | 136,867 | 136,867 |
| Total | \$11,861,680 | \$0 | \$0 | \$11,861,680 | \$295,000 | \$1,281,582 | \$10,580,098 | \$986,582 | \$11,566,680 | \$11,566,680 |

Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Pool.
(C)
(D)
(E) $(\mathrm{B})+(\mathrm{C})-(\mathrm{D})$.
(F) Sum of paid losses in excess of SIR.
(G) Sum of paid losses in excess of \$225,000.
(H) $(E)-(G)$.
(I) (G) - (F).
(J) $(E)-(F)$.
(K) Minimum of (J) and the aggregate stop loss. See Not Included.

| Accident | Unlimited | Additions to | Subtractions from | Adjusted | Reserves | Reserves Over | Reserves Capped at | Reserves $\$ 225,000$ | Reserves Capped at |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year <br> (A) | Reserves <br> (B) | Losses <br> (C) | Losses <br> (D) | Reserves <br> (E) | Over SIR <br> (F) | $\$ 225,000$ <br> (G) | $\$ 225,000$ <br> (H) | to SIR Layer <br> (I) | SIR <br> (J) | Aggregate <br> (K) |
| 2012-2013 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2013-2014 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2014-2015 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2015-2016 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2016-2017 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2017-2018 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2018-2019 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2019-2020 | 1,257,203 | 0 | 0 | 1,257,203 | 1,225,000 | 1,255,000 | 2,203 | 30,000 | 32,203 | 32,203 |
| 2020-2021 | 5,420 | 0 | 0 | 5,420 | 0 | 0 | 5,420 | 0 | 5,420 | 5,420 |
| 2021-2022 | 192,050 | 0 | 0 | 192,050 | 0 | 0 | 192,050 | 0 | 192,050 | 192,050 |
| 2022-2023 | 1,774,678 | 0 | 0 | 1,774,678 | 0 | 650,000 | 1,124,678 | 650,000 | 1,774,678 | 1,774,678 |
| 2023-2024 | 199,525 | 0 | 0 | 199,525 | 0 | 0 | 199,525 | 0 | 199,525 | 199,525 |
| Total | \$3,428,876 | \$0 | \$0 | \$3,428,876 | \$1,225,000 | \$1,905,000 | \$1,523,876 | \$680,000 | \$2,203,876 | \$2,203,876 |

Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Appendix H, Page 1, Column (B) - Appendix H, Page 2, Column (B).
(C) Appendix H, Page 1, Column (C) - Appendix H, Page 2, Column (C).
(D) Appendix H, Page 1, Column (D) - Appendix H, Page 2, Column (D).
(E) $(\mathrm{B})+(\mathrm{C})-(\mathrm{D})$.
(F) Sum of case reserves in excess of SIR.
(G) Sum of case reserves in excess of \$225,000.
(H) (E) - (G).
(I) (G) - (F).
(J) (E) - (F).
(K) Minimum of (J) and the aggregate stop loss. See Not Included.

PLAN JPA - Property
Claim Counts as of $12 / 31 / 23$

| Accident Year (A) | Reported Claims (B) | Additions to Reported Claims (C) | Subtractions from Reported Claims (D) | Adjusted Reported Claims (E) | Closed Claims (F) | Additions to Closed Claims (G) | Subtractions from Closed Claims (H) | Adjusted Closed Claims (I) | Open <br> Claims <br> (J) | Adjusted Open Claims (K) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2012-2013 | 157 | 0 | 0 | 157 | 157 | 0 | 0 | 157 | 0 | 0 |
| 2013-2014 | 180 | 0 | 0 | 180 | 180 | 0 | 0 | 180 | 0 | 0 |
| 2014-2015 | 164 | 0 | 0 | 164 | 164 | 0 | 0 | 164 | 0 | 0 |
| 2015-2016 | 135 | 0 | 0 | 135 | 135 | 0 | 0 | 135 | 0 | 0 |
| 2016-2017 | 122 | 0 | 0 | 122 | 122 | 0 | 0 | 122 | 0 | 0 |
| 2017-2018 | 108 | 0 | 0 | 108 | 108 | 0 | 0 | 108 | 0 | 0 |
| 2018-2019 | 118 | 0 | 0 | 118 | 118 | 0 | 0 | 118 | 0 | 0 |
| 2019-2020 | 115 | 0 | 0 | 115 | 112 | 0 | 0 | 112 | 3 | 3 |
| 2020-2021 | 82 | 0 | 0 | 82 | 80 | 0 | 0 | 80 | 2 | 2 |
| 2021-2022 | 108 | 0 | 0 | 108 | 96 | 0 | 0 | 96 | 12 | 12 |
| 2022-2023 | 97 | 0 | 0 | 97 | 63 | 0 | 0 | 63 | 34 | 34 |
| 2023-2024 | 35 | 0 | 0 | 35 | 14 | 0 | 0 | 14 | 21 | 21 |
| Total | 1,421 | 0 | 0 | 1,421 | 1,349 | 0 | 0 | 1,349 | 72 | 72 |

Notes:
(A) Years are $7 / 1$ to $6 / 30$.
(B) Provided by the Pool.
(C)
(D)
(E) $(\mathrm{B})+(\mathrm{C})-(\mathrm{D})$.
(F) Provided by the Pool.
(G)
(H)
(I) $(\mathrm{F})+(\mathrm{G})-(\mathrm{H})$.
(J) (B) $-(F)$.
(K) (E) - (I).

| Accident | Total <br> TIV | Inflation <br> Trend | Trended <br> TIV |
| :---: | :---: | :---: | :---: |
| Year | (\$00) | Factor <br> (B) | $(\$ 00)$ |
|  | (A) |  | (C) |

## Notes:

(A) Provided by the Pool.
(B) Based on $2.5 \%$.
(C) $\quad(A) x(B)$.

## Agenda Item 6.D.

## FINANCIAL MATTERS

## SUBJECT: Review of the 2024/25 Draft Preliminary Operating Budget

## BACKGROUND AND HISTORY:

Enclosed is the Draft Preliminary Operating Budget (Budget) for PLAN JPA for the 2024/25 Fiscal Year. The funding model is similar to what the Board of Directors has approved in the past. Pages two and three detail the Budget as follows:

- For the Liability Program, member contributions are presented at the $60 \%$ confidence level (CL) with a $2 \%$ discount. PLAN JPA's Self-Insured Retention (SIR) covers up to $\$ 1 \mathrm{M}$ above each member's SIR, with current options of $\$ 25 \mathrm{k}, \$ 50 \mathrm{k}, \$ 100 \mathrm{k}$, and $\$ 250 \mathrm{k}$. PLAN JPA joined California Affiliated Risk Management Authorities (CARMA) JPA in 2021/22 at the \$9M excess of \$1M layer. Above CARMA's pooled layer, PLAN JPA purchases Reinsurance and Excess above $\$ 10 \mathrm{M}$; these coverage layers are conservatively estimated at $23 \%$ over 2023/24 actuals.
- For the Property Program, member contributions are presented at the increased 80\% confidence level funding with a $2 \%$ discount factor. The proposed coverage includes losses pooled from each member's SIR, currently $\$ 5 \mathrm{k}$ for all members, with a maximum of $\$ 500 \mathrm{k}$ per occurrence, as well as excess coverage purchased up to $\$ 1 \mathrm{~B}$. This equates to an estimated $29.2 \%$ increase in the risk-sharing layer and an estimated $20 \%$ increase for excess property through the Alliant Insurance Property Program (APIP).
- As discussed in Agenda Item 6.B, Year 2 (of 3) repayment plan is included as part of the Property Program member contributions.

The other major components of the Budget are outlined below:

## 1. Overall Rates for Coverage

With an increase in estimated payroll of $8.8 \%$ and a $5.9 \%$ increase in Total Insured Values, combined with $27 \%$ CARMA and $15 \%$ Reinsurance/Excess estimations and excess Property premiums of $20 \%$, the budgeted contributions are projected to increase from $\$ 32.7 \mathrm{M}$ to $\$ 39.9 \mathrm{M}$ for $2024 / 25$. An increase of $22 \%$ over the prior year. Below is a summary by program.

## Liability Program (Page 2 of Budget)

The Liability Program is projecting a $22.8 \%$ increase in contributions over the 2023/24 Approved Budget. The underlying assumptions used in compiling the preliminary budget include:

- Payroll - overall, is estimated to increase by $8.8 \%$ from the prior year, with sixteen members of the twenty-eight, experiencing a $27 \%$ average increase. The 2024/25 estimated payroll
is based upon the actual payroll collected on a quarterly basis, annualized with a conservative $3.0 \%$ trend increase.
- Primary Funding Layer - an increase of $35.5 \%$ from the prior year due to estimated payroll increase and adverse claims development.
- Insurance Cost - The insurance cost is projected to increase by $21.7 \%$ over the prior year.
- CARMA is projected to increase by $27 \%$.
- Reinsurance and Excess are projected to increase by $15 \%$.
- Administrative Expenses - budgeted to increase by $3.8 \%$. See note 5 below which outlines the estimated changes.


## Experience Modification (ex-mod) Factors:

PLAN's actuary developed the ex-mod factors by using the loss experience and payroll from $2018 / 19$ through 2022/23. The losses were limited to $\$ 250,000$ per occurrence. Credibility was given to payroll, limited to a minimum of $10 \%$ and maximum of $90 \%$. Ex-mod change, from year over year, has been capped at $30 \%$.

## Allocation of Administrative Expenses:

Administrative costs are first split between the two programs. Then split again into fixed and variable portions. The fixed costs ( $33 \%$ ) are allocated among the members evenly. The remaining variables costs $(67 \%)$ are allocated based upon the following: a) one-third of the costs are allocated based upon reported claims greater than $\$ 1$ and $b$ ) two-thirds of the costs are allocated based upon paid losses in the period of 2018/19 to 2022/23. The allocation of administrative costs is the same as it has been in the past years.

## Property Program (Page 3 of Budget)

The Property Program is projected to increase by $19.2 \%$ in 2024/25, over the 2023/24 Approved Budget. The preliminary budget includes:

- Funding the $2024 / 25$ program year at the increased $80 \%$ confidence level, previously $75 \%$.
- The Total Insured Values (TIV) increasing by $5.9 \%$; these are preliminary as Alliant is still gathering the data.
- Excess premium includes a projection of a $20 \%$ increase over prior year actuals. The proposed increase takes into account the same property coverage as $2023 / 214$ of $\$ 500,000$ per occurrence, with no aggregate deductible.
- Draft Actuarial Report dated March 11, 2024, was used to compile the proposed contributions for 2024/25.


## 2. Claims Expense

The overall claims expenses for the program year 2024/25 are budgeted at the expected CL and are expected to increase by $31.8 \%$ over 2023/24. The Liability Program is projected to increase by $35.1 \%$ due to unfavorable claims development and increase in estimated payroll, and the Property Program is projected to increase by $20.2 \%$ due to both increases in claims activity and TIV.

## 3. Insurance Expense

Total insurance expense is projected to increase by $21.2 \%$ over the prior year's budget. The Liability Program is projected to increase by $21.7 \%$ as the liability market continues to experience a hard market, while the Property Program is also projected to increase by $20 \%$. Excess Cyber Coverage is projected to increase by $9.3 \%$, while employment liability (for members who have elected coverage) is estimated to increase by $105.5 \%$ due to new members joining. These are conservative estimates and will be revised once staff receives more information from Alliant.

## 4. Risk Management Grants

As approved by the Board of Directors, the funding of Risk Management Grants in the current year 2023/24 was reestablished and $\$ 500,000$ was funded out of PLAN's net position. The allocation was based on member contributions to the Liability Program. In the upcoming 2024/25 Program Year, a pause on further allocation is noted on the budget due to low utilization and to prevent further reducing PLAN's net position.

## 5. Administration Expenses

Administrative expenses are projected to increase by $3.8 \%$, or $\$ 93,343$, over the prior year. The 2024/25 proposed budget includes the following line-item variances from the prior year:

- Program Administration: contractual 3\% increase from the prior year.
- Financial Audit: $23.8 \%$ increase from the prior year, or $\$ 5,450$, for updated agreements.
- Actuarial Studies: $15 \%$ increase, or $\$ 7,867$, for new individual member reports.
- Claims Admin \& Audit: contractual $2.9 \%$ increase for claims administration, and claims audit cost of $\$ 8 \mathrm{k}$ budgeted for in 2024/25.
- Legal Counsel: increase of $10 \%$, or $\$ 5,738$ from the prior year's budget for an increase in legal costs of claims activity and coverage opinion.
- Risk Control Services: contractual $3 \%$ increase from prior year.
- Other Insurance: projected $10 \%$ increase, or $\$ 6,109$ for Deadly Weapon Response, E\&O, and Crime coverages.
- Meetings \& Conferences: in-person meetings for the 2024/25 program year, staff is proposing an increase of $\$ 5 \mathrm{k}$ due to rising costs of meetings/conferences in Bay Area cities.
- Allowance for Contingencies: continue with $\$ 10 \mathrm{k}$ for $2024 / 25$, similar to the prior year.


## STAFF RECOMMENDATION:

None.

## REFERENCE MATERIALS ATTACHED:

- Draft Preliminary Operating Budget for 2024/25


## PLAN JPA

## 2024/2025 Preliminary Operating Budget

Summary of Contributions by Program

| Member | Liability <br> Program | Property <br> Program | EPLLiability |  | 2024/25TotalContributions | Prior Year Comparison |  |  |  |  | Payroll Comparison |  |  |  |  | Ex-mod Comparison |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 2023/24 Total Contributions |  | Increase/ Decrease) | Percent <br> Change |  | Estimated Payroll $2024 / 25$ |  | Estimated Payroll $2023 / 24$ |  | 2024/25 | 2023/24 | Change |
|  | Page 2 | Page 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| American Canyon | \$ 614,798 | \$ 300,000 | \$ | 46,810 | \$ 961,608 |  | \$ 848,839 | \$ | 112,769 | 13\% | \$ | 9,165,300 | \$ | 8,431,800 | 9\% | 52\% | 60\% | -13\% |
| Atherton | 423,160 | 215,272 |  | 43,559 | 681,992 |  | 509,422 |  | 172,570 | 34\% |  | 8,112,600 |  | 6,742,700 | 20\% | 157\% | 121\% | 30\% |
| Benicia | 1,232,386 | 926,397 |  | - | 2,158,783 |  | 1,879,367 |  | 279,416 | 15\% |  | 27,076,600 |  | 24,540,400 | 10\% | 112\% | 148\% | -24\% |
| Burlingame | 1,260,970 | 776,044 |  | 133,832 | 2,170,845 |  | 1,681,636 |  | 489,209 | 29\% |  | 29,391,900 |  | 26,215,500 | 12\% | 146\% | 132\% | 11\% |
| Campbell | 1,416,443 | 395,800 |  | - | 1,812,242 |  | 1,432,948 |  | 379,294 | 26\% |  | 27,352,200 |  | 26,083,400 | 5\% | 108\% | 92\% | 17\% |
| Colma | 153,921 | 107,825 |  | - | 261,745 |  | 238,900 |  | 22,845 | 10\% |  | 7,021,400 |  | 6,113,600 | 15\% | 78\% | 100\% | -22\% |
| Cupertino | 1,489,397 | 459,209 |  | - | 1,948,606 |  | 1,626,671 |  | 321,935 | 20\% |  | 25,330,500 |  | 26,692,400 | -5\% | 58\% | 57\% | 2\% |
| Dublin | 2,000,429 | 1,000,168 |  | - | 3,000,597 |  | 2,450,121 |  | 550,476 | 22\% |  | 12,234,200 |  | 11,560,400 | 6\% | 162\% | 142\% | 14\% |
| East Palo Alto | 797,599 | 117,487 |  | - | 915,086 |  | 814,687 |  | 100,399 | 12\% |  | 11,910,200 |  | 12,825,000 | -7\% | 69\% | 94\% | -27\% |
| Foster City | 979,734 | 606,577 |  | - | 1,586,311 |  | 1,308,384 |  | 277,928 | 21\% |  | 29,591,900 |  | 23,744,600 | 25\% | 48\% | 51\% | -6\% |
| Half Moon Bay | 410,875 | 125,689 |  | - | 536,563 |  | 413,022 |  | 123,542 | 30\% |  | 5,552,500 |  | 5,100,900 | 9\% | 137\% | 105\% | 30\% |
| Hillsborough | 583,998 | 313,361 |  | - | 897,359 |  | 663,989 |  | 233,370 | 35\% |  | 13,746,600 |  | 11,918,200 | 15\% | 117\% | 90\% | 30\% |
| Los Altos Hills | 290,166 | 68,979 |  | 22,622 | 381,768 |  | 304,440 |  | 77,328 | 25\% |  | 3,704,500 |  | 3,296,500 | 12\% | 107\% | 84\% | 27\% |
| Los Gatos | 987,399 | 272,731 |  | - | 1,260,130 |  | 997,484 |  | 262,646 | 26\% |  | 23,464,200 |  | 22,514,800 | 4\% | 52\% | 40\% | 30\% |
| Millbrae | 741,798 | 512,259 |  | - | 1,254,057 |  | 1,053,421 |  | 200,636 | 19\% |  | 10,073,700 |  | 9,527,200 | 6\% | 136\% | 160\% | -15\% |
| Milpitas | 2,528,555 | 910,645 |  | - | 3,439,200 |  | 2,881,218 |  | 557,982 | 19\% |  | 67,897,000 |  | 61,670,900 | 10\% | 64\% | 80\% | -20\% |
| Morgan Hill | 1,438,367 | 611,014 |  | - | 2,049,382 |  | 1,738,114 |  | 311,268 | 18\% |  | 35,838,500 |  | 34,313,500 | 4\% | 75\% | 83\% | -10\% |
| Newark | 1,413,314 | 624,118 |  | - | 2,037,431 |  | 1,659,321 |  | 378,110 | 23\% |  | 27,209,200 |  | 25,484,300 | 7\% | 85\% | 80\% | 6\% |
| Pacifica | 1,460,404 | 909,343 |  | - | 2,369,748 |  | 2,011,935 |  | 357,813 | 18\% |  | 24,579,500 |  | 20,371,600 | 21\% | 123\% | 153\% | -20\% |
| Portola Valley | 161,133 | 61,149 |  | - | 222,281 |  | 187,906 |  | 34,375 | 18\% |  | 2,404,600 |  | 2,324,800 | 3\% | 84\% | 81\% | 4\% |
| Ross | 123,095 | 30,263 |  | - | 153,358 |  | 120,458 |  | 32,899 | 27\% |  | 2,526,600 |  | 2,290,100 | 10\% | 93\% | 71\% | 31\% |
| San Bruno | 1,547,940 | 403,055 |  | - | 1,950,994 |  | 1,673,808 |  | 277,186 | 17\% |  | 39,509,400 |  | 32,417,400 | 22\% | 87\% | 125\% | -30\% |
| San Carlos | 1,193,848 | 306,254 |  | - | 1,500,102 |  | 1,084,403 |  | 415,699 | 38\% |  | 14,895,900 |  | 10,945,800 | 36\% | 232\% | 205\% | 13\% |
| Saratoga | 907,966 | 187,354 |  | - | 1,095,320 |  | 933,302 |  | 162,018 | 17\% |  | 8,674,200 |  | 8,193,100 | 6\% | 115\% | 141\% | -18\% |
| South San Francisco | 1,843,479 | 1,556,373 |  | - | 3,399,852 |  | 2,774,466 |  | 625,386 | 23\% |  | 45,360,100 |  | 49,221,500 | -8\% | 56\% | 43\% | 30\% |
| Suisun City | 1,034,652 | 187,654 |  | - | 1,222,306 |  | 911,166 |  | 311,141 | 34\% |  | 13,139,500 |  | 10,109,000 | 30\% | 145\% | 123\% | 18\% |
| Tiburon | 345,766 | 63,074 |  | - | 408,840 |  | 327,320 |  | 81,520 | 25\% |  | 4,428,300 |  | 4,088,100 | 8\% | 153\% | 128\% | 20\% |
| Woodside | 206,181 | 44,048 |  | 13,814 | 264,043 |  | 216,315 |  | 47,728 | 22\% |  | 2,183,800 |  | 2,380,300 | -8\% | 130\% | 100\% | 30\% |
| Total | \$ 27,587,772 | \$ 12,092,142 | \$ | 260,637 | \$ 39,940,551 | \$ | \$ 32,743,063 |  | 7,197,487 | 22\% | \$ | 532,374,900 | \$ | 489,117,800 | 8.8\% |  |  |  |
| Prior Year Actuals | 22,473,839 | 10,142,419 |  | \$126,805 | 32,743,063 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \$ Incr./ (Decr.) | \$ 5,113,933 | \$ 1,949,723 | \$ | 133,832 | \$ 7,197,487 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \% Change | 22.8\% | 19.2\% |  | 105.5\% | 22.0\% |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Notes:

Payroll comparison was obtained from the actuarial study. The payroll numbers are estimates that were used at the time of funding.
The ex-mod comparisons were obtained from actuarial reports.
EPL coverage is through Employment Risk Management Authority (ERMA).

## PLAN JPA

## 2024/2025 Preliminary Operating Budget

Liability Program Contribution Schedule
Pool Funding @ 60\% Confidence Level, 2.0\% Discount Factor


## PLAN JPA

2024/2025 Preliminary Operating Budget
Property Program Contributions Schedule
Pool Funding @ 80\% Confidence Level, 2.0\% Discount Factor


Note 7: Continuation of Resolute Guard Services, no increase over prior year.
Note 8: Year 2 of 3, Property Rehabilitation Repayment.
Note 9: Total 2024/25 Property Contributions by member (Total Notes 3 through 8).
Note 10: 2023/24 Property Contributions.

## PLAN JPA

## 2024/2025 Preliminary Operating Budget

## Revenues:

Contributions
Funding from Equity
Investment Income
Less: Investment Fees
Total Revenues

## Expenses

Claims Expense
Insurance Expense
Insurance - Liability
Insurance - Property
Flood Insurance
Excess Cyber Coverage
Resolute Guard
Employment Liability Coverage

Risk Management Grants
Risk Manag
Program Administration
Financial Audit
Actuarial Studies
Claims Admin \& Audit
Legal Counsel
Risk Control Services
Sewer Summit
Other Insurance
CAJPA Accreditation
Bank Fees
Meetings \& Conferences:
Meetings
Training \& Workshops
Allowance for Contingencies
Total Administration Expenses:

## Total Expenses

Budgeted Net Income (Loss)


Notes:
a Claims expenses are recorded at expected. The breakout of expenses by programs are:

|  | 2023/24 | 2024/25 | Difference | \% Difference |
| :---: | :---: | :---: | :---: | :---: |
| Liability | \$4,764,000 | \$6,438,000 | \$1,674,000 | 35.1\% |
| Property | 1,373,000 | 1,650,000 | 277,000 | 20.2\% |
| Total | \$6,137,000 | \$8,088,000 | \$1,951,000 | 31.8\% |

b Insurance expenses are budgeted to increase by $21.2 \%$ in comparison to 2023/24 budget. Liability insurance expense are budgeted to increase $21.7 \%$ due to a continued hardening insurance market. Property rates are budgeted to increase $20 \%$ as the property market is continuing an upward trend. Cyber excess coverage is budgeted to increase $9.3 \%$ \& employment liability coverage is budgeted to increase $105.5 \%$ with a new member joining ERMA JPA.
c Staff proposing a moratorium on additional funds from PLAN's net position, to the Risk Mgmt Grant Fund until 2025/26.
d Administration expenses are expected to increase by $3.8 \%$ in comparison to $23 / 24$ budget. Increases are related to contractual increases.

Agenda Item 6.E.

## FINANCIAL MATTERS

## SUBJECT: Report from PLAN JPA's Finance Manager

## BACKGROUND AND HISTORY:

Min Su, Finance Manager, will be in attendance to provide updates to the Finance Committee on the following topics:

- Captive - Introduction
- Many public entity self-insured pools in California have formed captive insurance companies over the last several years including PLAN's excess liability overage provider, the California Affiliated Risk Management Authorities (CARMA). A captive insurance company is a special purpose insurance organization owned by its member (s). The captive model is similar to self-insured pools, and one of the primary benefits of a captive is to provide economic benefits through enhanced investment opportunities. Captives are meant for long-term investing and can be a valuable tool for self-insured pools.
- Confidence Level Funding for Liability Program.
- Since PLAN's inception in 2018, confidence level funding has remained at $60 \%$ through each year's budget cycle.
- As a reminder, confidence level funding is a measurement of the estimated probability that, given the level of dollars collected for the pooled layer will be adequate to pay for actual claims costs. For example, the $60 \%$ confidence level refers to an estimate for which there is a $60 \%$ chance that the amount will be sufficient to pay the losses.
- If funded at the lower confidence levels, the chances are much greater that future events will prove that additional contributions should have been made for current claims.
- Per the California Association of Joint Powers Authorities (CAJPA) guidelines for Accreditation, the recommended funding level is $80 \%$.
- Per Bickmore Actuarial, and the annual reports, recommended levels of risk pool funds for future costs between $75 \%$ and $85 \%$.


## STAFF RECOMMENDATION:

Staff recommends the Finance Committee provide direction.

## REFERENCE MATERIALS ATTACHED:

None.


[^0]:    * Reference materials enclosed with staff report.

[^1]:    ** The aggregate total of investments in callable notes is limited to $25.0 \%$ of the portfolio

[^2]:    Notes appear on the next page.

