# SPECIAL BOARD OF DIRECTORS MEETING AGENDA 

Thursday, March 23, 2023 10:00 a.m. Burlingame Community Center 850 Burlingame Avenue Burlingame, CA 94010

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 (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 (PLAN) JPA Board of Directors 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 - The Public may submit any questions in advance of the meeting by contacting Katie Sullivan at: katie.sullivan@sedgwick.com. This time is reserved for members of the public to address the Board relative to matters of the Board of Directors 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.

## 5. GENERAL MANAGER'S REPORT

A. Report from PLAN JPA's General Manager Recommendation: None.

[^0]| $\frac{\text { Page }}{4}$ | 6. | SEDGWICK CLAIMS ADMINISTRATION REPORT <br> A. Review of Sedgwick Third Party Administrator Stewardship Report Recommendation: None. |
| :---: | :---: | :---: |
|  | 7. | LIABILITY PROGRAM |
| 5 |  | *A. Actuarial Update for the General Liability Program Recommendation: None. |
| 144 |  | B. State of the Market - Liability Recommendation: None. |
| 145 |  | C. PLAN JPA 2023/24 Projections - Liability Recommendation: None. |
|  | 8. | PROPERTY AND GROUP PURCHASE PROGRAMS |
| 146 |  | *A. Actuarial Update for the Property Program Recommendation: None. |
| 191 |  | B. State of the Market - Property and Group Purchase Programs Recommendation: None. |
| 192 |  | C. PLAN JPA 2023/24 Projections - Property and Group Purchase Programs Recommendation: None. |
|  | 9. | FINANCIAL MATTERS |
| 193 |  | *A. Review of the PLAN JPA 2023/24 Preliminary Operating Budget Recommendation: None. |

## 10. CLOSING COMMENTS

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

## 11. ADJOURNMENT

## NOTICES:

$>$ The next Executive Committee meeting will be held on April 20, 2023, at 10:00am. Location TBD.
$>$ The next Board of Directors meeting will be held on June 21, 2023, at 9:30am. Location TBD.

Agenda Item 5.A.

## GENERAL MANAGER'S REPORT

## SUBJECT: Report from PLAN JPA's General Manger

## BACKGROUND AND HISTORY:

## Governance

In December 2022, staff received direction from the Board of Directors to make some changes to governing documents and meeting schedules to reflect the combined responsibilities of the Claims Committee and the Executive Committee to include managing of claims. Staff is moving forward with legal reviews of documents and preparation of meeting resolutions to reflect the dissolution of the "Claims Committee" in its current structure. Staff will present changes to the Executive Committee in April and to the full Board of Directors in June.

Additionally, staff will perform further review of other governing documents regarding claims management and the respective authorities between the individual member and the claims administrator.

## Renewals

The renewal market is extremely tough and being identified as a "hard market". PLAN members are likely to see renewal contributions that are higher than expected and, as staff is discovering, affecting the public entity market across the board, including excess JPAs that service primary pools.

## RECOMMENDATION:

None.

## REFERENCE MATERIALS ATTACHED:

None

## Agenda Item 6.A.

## SEDGWICK CLAIMS ADMINISTRATION REPORT

SUBJECT: Review of Sedgwick Third Party Administrator Stewardship Report

## BACKGROUND AND HISTORY:

Over the last 24-36 months, and likely a direct result of the employment challenges similar to those currently being endured by many public entities and valued partners, PLAN's third-party administrator, Sedgwick, has endured and managed several challenges.

Knowing these challenges have the inherent possibility of affecting the claims management process as well as associated claim file costs, staff has invited management from Sedgwick TPA to present a stewardship report regarding their services and the position of the pool.

## RECOMMENDATION:

None.

## REFERENCE MATERIALS ATTACHED:

None

## LIABILITY PROGRAM

SUBJECT: Actuarial Update for the General Liability Program

## BACKGROUND AND HISTORY:

The draft actuarial report provides the funding information for the 2023/24 year. The actuary was able to compile the report using December 31, 2022, loss runs and estimated payroll data.

## General Liability Program:

Below is PLAN's current General Liability program structure.


The actuarial analysis is composed of two main components: (1) a review of the estimates of the ultimate liabilities of the Liability Program projected to June 30, 2023; and (2) a loss forecasting analysis to determine the appropriate contribution for the Liability Program in the 2023/24 program year.

## Part One - Review of Ultimate Liability Estimates

The estimate of Liability Programs’ Ultimate Loss and Allocated Loss Adjustment Expense (ALAE) for all open program years have decreased by $\$ 2,247,000$ due to less than expected incurred claims development. Below is a chart from page 23 of the Draft Actuarial Report, illustrating the changes in ultimate losses:

| Accident <br> Year | Prior Report |  | Current Report |
| :---: | ---: | ---: | ---: |
| Change |  |  |  |
| 1986-02 | $\$ 34,631,000$ | $\$ 34,630,000$ | $(\$ 1,000)$ |
| $2002-03$ | $8,812,000$ | $8,812,000$ | 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 |
| $2008-09$ | $3,472,000$ | $3,473,000$ | 1,000 |
| $2009-10$ | $2,353,000$ | $2,353,000$ | 0 |
| $2010-11$ | $2,077,000$ | $2,047,000$ | $(30,000)$ |
| $2011-12$ | $3,917,000$ | $3,902,000$ | $(15,000)$ |
| $2012-13$ | $3,845,000$ | $4,105,000$ | 260,000 |
| $2013-14$ | $6,959,000$ | $7,074,000$ | 115,000 |
| $2014-15$ | $5,644,000$ | $5,566,000$ | $(78,000)$ |
| $2015-16$ | $5,216,000$ | $5,157,000$ | $(59,000)$ |
| $2016-17$ | $8,049,000$ | $8,351,000$ | 302,000 |
| $2017-18$ | $1,146,000$ | $1,075,000$ | $(71,000)$ |
| $2018-19$ | $2,871,000$ | $2,079,000$ | $(792,000)$ |
| $2019-20$ | $4,018,000$ | $2,690,000$ | $(1,328,000)$ |
| $2020-21$ | $8,808,000$ | $8,725,000$ | $(83,000)$ |
| $2021-22$ | $5,446,000$ | $4,978,000$ | $(468,000)$ |
|  |  |  |  |
| Total | $\$ 124,886,000$ | $\$ 122,639,000$ | $(\$ 2,247,000)$ |

## Part Two - Loss Forecasting Analysis

The discounted contribution required to collect at the $60 \%$ confidence level (CL) for the upcoming 2023/24 program year at the $\$ 1$ million SIR is $\$ 4,888,000$, which decreased by $4.2 \%$, or $\$ 214,000$ from the prior year.

The following is a comparison of the funding for the PLAN JPA Primary Pool Layer:

| Liability <br> Program | Discount Factor | Expected |  | 60\% |  | 70\% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2023/24 | 2.0\% | \$ | 4,764,000 | \$ | 4,888,000 | \$ | 5,593,000 |
| 2022/23 | 2.0\% | \$ | 4,972,000 | \$ | 5,102,000 | \$ | 5,828,000 |
|  | Change |  | $(208,000)$ |  | $(214,000)$ |  | $(235,000)$ |
|  | \% Change |  | -4.2\% |  | -4.2\% |  | -4.0\% |

With a change of methodology in the collection of actual payrolls from members based on DE9 reports, this resulted in better consistency on the data and estimated payroll for 2023/24. This report also includes changes to the contribution calculation method implemented during the $2021 / 22$ year and continues through $2023 / 24$. A plus or minus $30 \%$ cap was placed on the ExMod year-over-year change. In addition, due to changes in the contribution calculation methodology, the Board recommended a phase-in period be utilized on contribution changes with a $40 \%$ cap in $2021 / 22$, a $50 \%$ cap in $2022 / 23$, and a $60 \%$ cap in $2023 / 24$. The $2023 / 24$ budget, the last year of capping, utilizes a $60 \%$ cap placed on contributions changes from prior year. Currently, there are no members against the 60\% cap.

Ms. Becky Richard, ACAS, MAAA, Senior Actuarial Manager from Bickmore Actuarial, will be in attendance to review the Draft Actuarial Study for the Liability Program.

## RECOMMENDATION:

None.

## REFERENCE MATERIALS ATTACHED:

- Draft General Liability Program Actuarial Report as of March 13, 2023


# Bickmore Actuarial 

Actuarial Review of the Self-Insured Liability Program

Outstanding Liabilities as of June 30, 2023
Forecast for Program Year 2023-24

Presented to
PLAN JPA

March 13, 2023 - DRAFT

Monday, March 13, 2023

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 2023-24 program year to be \$4,764,000 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 2023-24 claims translates to a rate of $\$ 0.974$ per $\$ 100$ payroll.

In addition, we estimate the program's liability for outstanding claims to be \$20,049,000 as of June 30, 2023, 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 $\$ 47,426,000$ (including SIR Fund assets), the program is funded above the $95 \%$ confidence level (see Graph 1 on Page 8).

The $\$ 20,049,000$ 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, 2023

|  | Expected | 70\% CL | 75\% CL | 80\% CL | 85\% CL | Minimum 90\% CL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Loss and ALAE | \$18,626,000 |  |  |  |  |  |
| ULAE (Claims Administration) | 2,328,000 |  |  |  |  |  |
| Investment Income Offset @ 2\% | $(905,000)$ |  |  |  |  |  |
| Discounted Loss and LAE | \$20,049,000 | \$22,234,000 | \$23,157,000 | \$24,239,000 | \$25,623,000 | \$27,467,000 |
| Program Assets Includes SIR Fund | 47,426,000 |  |  |  |  |  |
| Redundancy | \$27,377,000 | \$25,192,000 | \$24,269,000 | \$23,187,000 | \$21,803,000 | \$19,959,000 |

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, 2023

Discount Rate Outstanding Liability

| $2.0 \%$ | $\$ 20,049,000$ |
| :--- | :--- |
| $3.0 \%$ | $\$ 19,627,000$ |
| $4.0 \%$ | $\$ 19,223,000$ |

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.
It should be noted that the $\$ 47,426,000$ of program assets can be broken downs as follows:

- \$20,049,000 of assets backing discounted loss and LAE liabilities at expected level
- \$7,418,000 of assets backing discounted loss and LAE liabilities from the expected level to the 90\% confidence level (Risk-Margin Fund)
- \$19,959,000 of assets backing discounted loss and LAE liabilities above the $90 \%$ confidence level (SIR Fund)

The following tables show our funding recommendations for PLAN for the 2023-24 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 | $\$ 5,100,000$ | $\$ 5,100,000$ | $\$ 5,100,000$ |
| ALAE | $\$ 4,764,000$ | $\$ 4,609,000$ | $\$ 4,462,000$ |
| Discounted Loss <br> and ALAE <br> 60\% Confidence <br> Level | $4,888,000$ | $4,729,000$ | $4,578,000$ |
| 70\% Confidence <br> Level | $5,593,000$ | $5,411,000$ | $5,239,000$ |
| $80 \%$ Confidence <br> Level <br> 90\% Confidence | $6,517,000$ | $6,305,000$ | $6,105,000$ |
| Level | $7,999,000$ | $7,739,000$ | $7,492,000$ |

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.

Please note, the estimates included in this report do not make any provision for the increased cost of general liability claims as a result of the coronavirus (COVID-19) pandemic.

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 or David Kim at (916) 244-1166 with any questions you may have concerning this report.

Sincerely,
Bickmore Actuarial

## DRAFT

Becky Richard, ACAS, MAAA
Senior Actuarial Manager, Bickmore Actuarial
Associate, Casualty Actuarial Society
Member, American Academy of Actuaries

## DRAFT

Mike Harrington, FCAS, MAAA
President and Principal, Bickmore Actuarial
Fellow, Casualty Actuarial Society
Member, American Academy of Actuaries

## DRAFT

David Kim
Senior Actuarial Analyst, Bickmore Actuarial

## TABLE OF CONTENTS

I. BACKGROUND ..... 6
II. CONCLUSIONS AND RECOMMENDATIONS ..... 8
A. LIABILITY FOR OUTSTANDING CLAIMS AS OF JUNE 30, 2023 ..... 8
B. COSTS OF 2023-24 CLAIMS ..... 12
C. PROGRAM FUNDING: GOALS AND OBJECTIVES ..... 13
D. OTHER RESULTS ..... 18
E. COMPARISON WITH OUR PREVIOUS RESULTS ..... 22
F. DATA ISSUES ..... 27
III. ASSUMPTIONS AND LIMITATIONS ..... 28
IV. GLOSSARY OF ACTUARIAL TERMS ..... 30
V. EXHIBITS ..... 32
VI. APPENDICIES ..... 50

## 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 | Reinsurer |
| :--- | :--- |
| $\$ 1 \mathrm{M}-\$ 10 \mathrm{M}$ per occurrence | CARMA |
| \$10M - \$15M per occurrence | Safety National |
| $\$ 15 \mathrm{M}-$ \$20M per occurrence | Everest |
| $\$ 20 \mathrm{M}-$ \$25M per occurrence | Hallmark |
| $\$ 25 \mathrm{M}-\$ 30 \mathrm{M}$ 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, 2023, the PLAN JPA is expected to have available assets of $\$ 47,426,000$ 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
and \#30. The specific objectives of the study are to estimate the Authority's liability for outstanding claims as of June 30, 2023, project ultimate loss cost for 2023-24 and provide funding guidelines to meet these liabilities and future costs.

## II. CONCLUSIONS AND RECOMMENDATIONS

## A. LIABILITY FOR OUTSTANDING CLAIMS AS OF JUNE 30, 2023

Graph 1 on the following page summarizes our assessment of the PLAN JPA's funding position as of June 30, 2023. 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, 2023 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 $\$ 20,954,000$. 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, 2023


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 4.3\% 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 \$20,049,000 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 6/30/23

| Confidence <br> Levels | Expected | $70 \%$ | $75 \%$ | $80 \%$ | $85 \%$ | $90 \%$ |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: |
| Not Discounted | $\$ 20,954,000$ | $\$ 23,238,000$ | $\$ 24,202,000$ | $\$ 25,333,000$ | $\$ 26,779,000$ | $\$ 28,707,000$ |
| Discounted | $20,049,000$ | $22,234,000$ | $23,157,000$ | $24,239,000$ | $25,623,000$ | $27,467,000$ |
| Assets Available <br> at $6 / 30 / 23$ |  |  | $\$ 47,426,000$ |  |  |  |

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, 2023. The discounted value of PLAN's estimated case reserves, IBNR and ULAE as of June 30, 2023 are $\$ 5,509,000, \$ 12,313,000$, and $\$ 2,227,000$, respectively. An additional $\$ 7,418,000$ increases the funding to $90 \%$ confidence.


## B. COSTS OF 2023-24 CLAIMS

The following chart shows our funding recommendations for PLAN for the 2023-24 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 | $\$ 5,100,000$ | $\$ 5,100,000$ | $\$ 5,100,000$ |
| Discounted Loss <br> and ALAE | $\$ 4,764,000$ | $\$ 4,609,000$ | $\$ 4,462,000$ |
| 60\% Confidence <br> Level <br> 70\% Confidence <br> Level <br> 80\% Confidence <br> $80 \%$ <br> Level <br> 90\% Confidence <br> Level <br> $7,588,000$ 4,729,000 | $4,578,000$ |  |  |
|  | $7,999,000$ | $7,739,000$ | $7,492,000$ |

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.

| Funding Benchmarks | $\begin{gathered} \text { Score } \\ \text { (SIR: } \$ 2.5 \mathrm{M}) \end{gathered}$ | $\begin{gathered} \text { Score } \\ \text { (SIR: } \$ 1 \mathrm{M}) \\ \hline \end{gathered}$ | Target | $\underline{\text { Result }}$ |
| :---: | :---: | :---: | :---: | :---: |
| Net Assets to SIR | 10.95 | 27.38 | >5:1 | Pass |
| SIR fund to SIR | 7.98 | 19.96 | > $2: 1$ | Pass |
| Net Premium to Net Assets | 0.18 | 0.18 | <2:1 | Pass |
| Claim Reserve/IBNR to Net Assets | 0.65 | 0.65 | < 3 : 1 | Pass |
| Ultimate Loss Development to Net Assets | -7\% | -7\% | < 20\% | Pass |

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.

| SIR/Excess | 2022-23 | \$1-2023-24 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | \$1.0M/\$30M |  |  |  |
|  | Actual | Proposed | Dollar | Percent |
| Member | Funding | Funding | Change | Change |
| American Canyon | \$442,170 | \$516,501 | \$74,331 | 16.8\% |
| Atherton | 305,924 | 281,072 | -24,852 | -8.1\% |
| Benicia | 911,472 | 1,091,443 | 179,971 | 19.7\% |
| Burlingame | 881,632 | 1,021,510 | 139,878 | 15.9\% |
| Campbell | 880,200 | 1,082,921 | 202,721 | 23.0\% |
| Colma | 121,850 | 145,561 | 23,711 | 19.5\% |
| Cupertino | 989,636 | 1,193,063 | 203,427 | 20.6\% |
| Dublin | 1,062,626 | 1,562,537 | 499,912 | 47.0\% |
| East Palo Alto | 733,568 | 695,403 | -38,164 | -5.2\% |
| Foster City | 663,276 | 775,265 | 111,989 | 16.9\% |
| Half Moon Bay | 270,263 | 301,799 | 31,536 | 11.7\% |
| Hillsborough | 381,149 | 391,098 | 9,950 | 2.6\% |
| Los Altos Hills | 208,820 | 216,808 | 7,987 | 3.8\% |
| Los Gatos | 620,909 | 744,334 | 123,425 | 19.9\% |
| Millbrae | 550,035 | 608,203 | 58,168 | 10.6\% |
| Milpitas | 1,825,156 | 2,059,789 | 234,633 | 12.9\% |
| Morgan Hill | 1,210,173 | 1,193,178 | -16,994 | -1.4\% |
| Newark | 1,064,725 | 1,101,002 | 36,277 | 3.4\% |
| Pacifica | 1,077,143 | 1,231,317 | 154,175 | 14.3\% |
| Portola Valley | 122,062 | 132,459 | 10,397 | 8.5\% |
| Ross, Town of | 93,667 | 92,136 | -1,531 | -1.6\% |
| San Bruno | 1,359,839 | 1,305,156 | -54,682 | -4.0\% |
| San Carlos | 800,706 | 831,379 | 30,673 | 3.8\% |
| Saratoga | 645,462 | 753,768 | 108,306 | 16.8\% |
| South SF | 1,419,281 | 1,426,768 | 7,487 | 0.5\% |
| Suisun City | 584,838 | 739,973 | 155,135 | 26.5\% |
| Tiburon | 239,493 | 268,004 | 28,511 | 11.9\% |
| Woodside | 164,383 | 160,554 | -3,829 | -2.3\% |
| Total | \$19,630,455 | \$21,923,000 | \$2,292,545 | 11.7\% |

As shown in the previous table, total PLAN contributions are $\$ 21,923,000$, 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 2023-24. 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 (2017-18 through 2021-22) 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 2023-24 are $\$ 2,436,000$. Total PLAN administrative expenses of $\$ 2,436,000$ are split into $\$ 1,948,800$ for general liability and $\$ 487,200$ 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 $\$ 803,880$ and 28 members for the 2023-24 fiscal year, this results in an initial charge of $\$ 28,710$ 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
losses in the period 2017-18 through 2021-22. Liability and Property are treated separately for the allocation, then added into the premium in total.

In order to prevent extreme year-to-year fluctuations in each member's deposit, there is a limit in the annual change in deposit between the upcoming year and the current year. As directed by PLAN, the annual change in deposit is limited to $50 \%$, assuming the member keeps the same deductible. The net impact of limiting the change in deposit is spread back to all members whose deposits are not already limited so that total deposit collected for the 2023-24 after limiting will be equal to prior deposit.

## 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 $\$ 0.99$ per $\$ 100$ of payroll for the 2022-23 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 $\$ 218,000$ per claim (limited to $\$ 1 \mathrm{M}$ ) during the period shown below. The projected severity for the 2022-23 program year of $\$ 221,000$ 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 0.045 claims per $\$ 1$ million of payroll during the period shown below. The projected frequency for the 2022-23 program year of 0.045 is based on this long-term average.

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


## E. COMPARISON WITH OUR PREVIOUS RESULTS

The prior report for PLAN was dated March 15, 2022. In the table below we display actual versus expected development of incurred losses and ALAE by accident year between the December 31, 2021 evaluation date of the prior report and the December 31, 2022 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 |
| :---: | ---: | ---: | ---: |
| $1986-02$ | $\$ 1,000$ | $(\$ 1,000)$ | $(\$ 2,000)$ |
| $2002-03$ | 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 | 1,000 | 1,000 |
| $2009-10$ | 0 | 0 | 0 |
| $2010-11$ | 15,000 | $(30,000)$ | $(30,000)$ |
| $2011-12$ | 19,000 | 0 | $(15,000)$ |
| $2012-13$ | 0 | 275,000 | 256,000 |
| $2013-14$ | 78,000 | 10,000 | 10,000 |
| $2014-15$ | 59,000 | 0 | $(78,000)$ |
| $2015-16$ | 34,000 | 10,000 | $(49,000)$ |
| $2016-17$ | 93,000 | 367,000 | 333,000 |
| $2017-18$ | $1,073,000$ | 2,000 | $(91,000)$ |
| $2018-19$ | $1,884,000$ | 289,000 | $(784,000)$ |
| $2019-20$ | $2,007,000$ | 335,000 | $(1,549,000)$ |
| $2020-21$ | $1,126,000$ | $1,492,000$ | $(515,000)$ |
| $2021-22$ |  | 454,000 | $(672,000)$ |
|  | $\$ 6,389,000$ | $\$ 3,204,000$ | $(\$ 3,185,000)$ |

As shown, actual pool incurred development was less than anticipated since the prior report. Based on the assumptions from the prior report, it was expected that incurred losses through accident year 2021-22 would increase by $\$ 6,389,000$ between the two evaluation dates. However, actual development was approximately $\$ 3,204,000$; or about $\$ 3,185,000$ less than expected.

In the table below we display actual versus expected development of paid losses and ALAE by accident year between the December 31, 2021 evaluation date of the prior report and the December 31, 2022 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 |
| :---: | ---: | ---: | ---: |
| $1986-02$ | $\$ 2,000$ | $\$ 0$ | $(\$ 2,000)$ |
| $2002-03$ | 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 | 1,000 | 1,000 |
| $2009-10$ | 0 | 0 | 0 |
| $2010-11$ | 41,000 | $(30,000)$ | $(30,000)$ |
| $2011-12$ | 156,000 | 9,000 | $(32,000)$ |
| $2012-13$ | 0 | 116,000 | $(40,000)$ |
| $2013-14$ | 106,000 | 10,000 | 10,000 |
| $2014-15$ | 195,000 | 0 | $(106,000)$ |
| $2015-16$ | 695,000 | 10,000 | $(185,000)$ |
| $2016-17$ | 116,000 | 280,000 | $(415,000)$ |
| $2017-18$ | 883,000 | 56,000 | $(60,000)$ |
| $2018-19$ | $1,505,000$ | 347,000 | $(536,000)$ |
| $2019-20$ | $1,046,000$ | 53,000 | $(1,452,000)$ |
| $2020-21$ | 218,000 | $1,398,000$ | 352,000 |
| $2021-22$ |  | 0 | $(218,000)$ |
|  | $\$ 4,963,000$ | $\$ 2,250,000$ | $(\$ 2,713,000)$ |

As shown, actual pool paid development was less 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 $\$ 4,963,000$ between the two evaluation dates. However, actual development was approximately $\$ 2,250,000$; or about $\$ 2,713,000$ less 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 |
| 1986-02 | \$34,631,000 | \$34,630,000 | $(\$ 1,000)$ |
| 2002-03 | 8,812,000 | 8,812,000 | 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 | 3,472,000 | 3,473,000 | 1,000 |
| 2009-10 | 2,353,000 | 2,353,000 | 0 |
| 2010-11 | 2,077,000 | 2,047,000 | $(30,000)$ |
| 2011-12 | 3,917,000 | 3,902,000 | $(15,000)$ |
| 2012-13 | 3,845,000 | 4,105,000 | 260,000 |
| 2013-14 | 6,959,000 | 7,074,000 | 115,000 |
| 2014-15 | 5,644,000 | 5,566,000 | $(78,000)$ |
| 2015-16 | 5,216,000 | 5,157,000 | $(59,000)$ |
| 2016-17 | 8,049,000 | 8,351,000 | 302,000 |
| 2017-18 | 1,146,000 | 1,075,000 | $(71,000)$ |
| 2018-19 | 2,871,000 | 2,079,000 | $(792,000)$ |
| 2019-20 | 4,018,000 | 2,690,000 | $(1,328,000)$ |
| 2020-21 | 8,808,000 | 8,725,000 | $(83,000)$ |
| 2021-22 | 5,446,000 | 4,978,000 | $(468,000)$ |
| Total | \$124,886,000 | \$122,639,000 | (\$2,247,000) |

As shown, overall we have decreased our estimated ultimate losses by $\$ 2,247,000$ 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 2022-23 funding and actual 2023-24 funding by member.

| Member | 2022-23 Actual Funding | 2023-24 <br> Proposed Funding | Dollar Change | Percent Change |
| :---: | :---: | :---: | :---: | :---: |
| American Canyon | \$442,170 | \$516,501 | \$74,331 | 16.8\% |
| Atherton | 305,924 | 281,072 | -24,852 | -8.1\% |
| Benicia | 911,472 | 1,091,443 | 179,971 | 19.7\% |
| Burlingame | 881,632 | 1,021,510 | 139,878 | 15.9\% |
| Campbell | 880,200 | 1,082,921 | 202,721 | 23.0\% |
| Colma | 121,850 | 145,561 | 23,711 | 19.5\% |
| Cupertino | 989,636 | 1,193,063 | 203,427 | 20.6\% |
| Dublin | 1,062,626 | 1,562,537 | 499,912 | 47.0\% |
| East Palo Alto | 733,568 | 695,403 | -38,164 | -5.2\% |
| Foster City | 663,276 | 775,265 | 111,989 | 16.9\% |
| Half Moon Bay | 270,263 | 301,799 | 31,536 | 11.7\% |
| Hillsborough | 381,149 | 391,098 | 9,950 | 2.6\% |
| Los Altos Hills | 208,820 | 216,808 | 7,987 | 3.8\% |
| Los Gatos | 620,909 | 744,334 | 123,425 | 19.9\% |
| Millbrae | 550,035 | 608,203 | 58,168 | 10.6\% |
| Milpitas | 1,825,156 | 2,059,789 | 234,633 | 12.9\% |
| Morgan Hill | 1,210,173 | 1,193,178 | -16,994 | -1.4\% |
| Newark | 1,064,725 | 1,101,002 | 36,277 | 3.4\% |
| Pacifica | 1,077,143 | 1,231,317 | 154,175 | 14.3\% |
| Portola Valley | 122,062 | 132,459 | 10,397 | 8.5\% |
| Ross, Town of | 93,667 | 92,136 | -1,531 | -1.6\% |
| San Bruno | 1,359,839 | 1,305,156 | -54,682 | -4.0\% |
| San Carlos | 800,706 | 831,379 | 30,673 | 3.8\% |
| Saratoga | 645,462 | 753,768 | 108,306 | 16.8\% |
| South SF | 1,419,281 | 1,426,768 | 7,487 | 0.5\% |
| Suisun City | 584,838 | 739,973 | 155,135 | 26.5\% |
| Tiburon | 239,493 | 268,004 | 28,511 | 11.9\% |
| Woodside | 164,383 | 160,554 | -3,829 | -2.3\% |
| Total | \$19,630,455 | \$21,923,000 | \$2,292,545 | 11.7\% |

The following table displays PLAN JPA members' 2023-24 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.


## 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, 2022. This data appeared to be consistent with the data provided for prior reviews.

We were provided with fiscal year payrolls for the 2021-22, 2022-23 and 2023-24 program years.

Excess insurance premium is estimated to be $\$ 14,599,000$ 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 $3.5 \%$ 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 $\$ 47,426,000$ as of June 30, 2023 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.)


Exhibit 1
Page 1

Summary of 2023-24 Deposit by Retention Limit
(B) From provided by PLAN JPA.
(C) From Exhibit 1 - Page $2 a$
(D) (C) - (B)
(E) (C) / (B) - 1
(F) (E) Capped at $+/-50 \%$

PLAN JPA

Split of 2023-24 Deposit Between Loss Funding and Administrative Expenses \$1.0M Retention / \$30M Limit

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

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

(B) Provided by PLAN
(C) From Exhibit 2, Page 2.
(D) From Exhibit 1, Page 6
(E) From Exhibit 2, Page 1.
(G) $\{[\$ 4,888,000 /$ Total (E) $] \times[(C) /$ Weighted Average of (C)] $\times(\mathrm{D}) \times(\mathrm{E})\}$. $\$ 4,888,000$ 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 $\$ 2,436,000$ projected by PLAN JPA.
(J) $(\mathrm{G})+(\mathrm{H})+(\mathrm{I})$


|  |  |  |  | AN JPA |  |  |  | Exhibit 1 Page 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2023-24 Alloc | tion of Variable Prop | Administrative rty Claims | xpenses by Me |  |  |  |
|  | Member <br> (A) | Property Reported Counts > \$1 2017-18 2021-22 <br> (B) | Property Paid Losses 2017-18 2021-22 <br> (C) | Percent <br> Property <br> Reported Counts > \$1 <br> (D) | Percent <br> Property Paid Losses 2017-18 2021-22 <br> (E) | Percent <br> Property Variable Administrative Expenses (G) | Property <br> Variable Administrative Expenses (H) |  |
|  | American Canyon | 18 | 464,791 | 9.18\% | 10.97\% | 10.38\% | 33,873 |  |
|  | Atherton | 2 | 22,479 | 1.02\% | 0.53\% | 0.69\% | 2,265 |  |
|  | Benicia | 20 | 414,212 | 10.20\% | 9.78\% | 9.92\% | 32,384 |  |
|  | Burlingame | 0 | 0 | 0.00\% | 0.00\% | 0.00\% | 0 |  |
|  | Campbell | 9 | 352,286 | 4.59\% | 8.32\% | 7.08\% | 23,096 |  |
|  | Colma | 3 | 22,087 | 1.53\% | 0.52\% | 0.86\% | 2,800 |  |
|  | Cupertino | 4 | 22,722 | 2.04\% | 0.54\% | 1.04\% | 3,388 |  |
|  | Dublin | 12 | 265,127 | 6.12\% | 6.26\% | 6.21\% | 20,283 |  |
|  | East Palo Alto | 11 | 198,543 | 5.61\% | 4.69\% | 5.00\% | 16,307 |  |
|  | Foster City | 14 | 355,853 | 7.14\% | 8.40\% | 7.98\% | 26,055 |  |
|  | Half Moon Bay | 0 | 0 | 0.00\% | 0.00\% | 0.00\% | 0 |  |
|  | Hillsborough | 9 | 45,095 | 4.59\% | 1.06\% | 2.24\% | 7,313 |  |
|  | Los Altos Hills | 1 | 33,797 | 0.51\% | 0.80\% | 0.70\% | 2,292 |  |
|  | Los Gatos | 10 | 33,427 | 5.10\% | 0.79\% | 2.23\% | 7,269 |  |
|  | Millbrae | 2 | 1,361 | 1.02\% | 0.03\% | 0.36\% | 1,180 |  |
|  | Milpitas | 16 | 245,806 | 8.16\% | 5.80\% | 6.59\% | 21,511 |  |
|  | Morgan Hill | 10 | 385,418 | 5.10\% | 9.10\% | 7.77\% | 25,353 |  |
|  | Newark | 10 | 169,565 | 5.10\% | 4.00\% | 4.37\% | 14,263 |  |
|  | Pacifica | 11 | 534,483 | 5.61\% | 12.62\% | 10.28\% | 33,567 |  |
|  | Portola Valley | 1 | 22,899 | 0.51\% | 0.54\% | 0.53\% | 1,732 |  |
|  | Ross, Town of | 0 | 0 | 0.00\% | 0.00\% | 0.00\% | 0 |  |
|  | San Bruno | 9 | 412,205 | 4.59\% | 9.73\% | 8.02\% | 26,175 |  |
|  | San Carlos | 4 | 19,318 | 2.04\% | 0.46\% | 0.98\% | 3,213 |  |
|  | Saratoga | 0 | 0 | 0.00\% | 0.00\% | 0.00\% | 0 |  |
|  | South SF | 11 | 163,231 | 5.61\% | 3.85\% | 4.44\% | 14,493 |  |
|  | Suisun City | 8 | 50,889 | 4.08\% | 1.20\% | 2.16\% | 7,056 |  |
|  | Tiburon | 1 | 0 | 0.51\% | 0.00\% | 0.17\% | 555 |  |
|  | Woodside | 0 | 0 | 0.00\% | 0.00\% | 0.00\% | 0 |  |
|  | Total | 196 | 4,235,593 | 100.00\% | 100.00\% | 100.00\% | 326,424 |  |
| (B) | Based on reported Reported property | count > \$1 for for 2017-18 202 | 17-18 2021-22 -22 included. | from Appendix | Page 8. |  |  |  |
| (C) | Based on paid loss Property paid losse | ed to SIR for 2 d to SIR for 20 | $\begin{aligned} & 17-182021-22 \\ & 7-182021-22 a \end{aligned}$ | rom Appendix included. | Page 6b. |  |  |  |
| (D) | (B) / Total (B) |  |  |  |  |  |  |  |
| (E) | (C) / Total (C) |  |  |  |  |  |  |  |
| (G) | (D) $\times(1 / 3)+(E) \times($ |  |  |  |  |  |  |  |
| (H) | (G) $\times$ Total of (H) |  |  |  |  |  |  |  |
|  | Total variable liabil | nses are equal | o $13.4 \%$ of tota | expenses. Tot | l expenses of \$ | ,436,000 proje | ed by PLAN J |  |

2023-24 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)
(D)
(E)
(G)
(H)

## DRAFT


(B) Based on losses limited to $\$ 250,000$ for 2017-18 to 2021-22 from Exhibit 1, Page 7
(C) Based on payroll for 2017-18 to 2021-22 from ,
(D) (B) / Total (B)
(E) (C) / Total (C)
(F) (D) $/(\mathrm{E})$
(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


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



PLAN JPA
Pool Layer

Selected 2023-2024 Base Loss Rate (\$100K - \$1M Layer)

|  |  | $\begin{gathered} \text { Current } \\ 2023-2024 \end{gathered}$ | $\begin{gathered} \text { Prior } \\ 2022-2023 \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| (A) | Estimated based on \$1M Ultimate Less \$100K Ultimate | \$0.979 | \$1.051 |
| (B) | Estimated based on \$100K - \$1M Analysis: | 0.994 | 1.061 |
| (C) | Estimated based on \$100K Analysis \& Size of Loss Factors: | 1.024 | 1.055 |
| (D) | Selected Base Loss Rate (\$100K - \$1M Layer): | 0.990 | 1.060 |
| (E) | Factor to \$1.0M Retention | 1.000 | 1.000 |
|  | Factor to \$2.0M Retention | 1.252 | 1.244 |
|  | Factor to \$2.5M Retention | 1.328 | 1.291 |
|  | Factor to \$3.0M Retention | 1.379 | 1.362 |
|  | Factor to \$3.5M Retention | 1.403 | 1.378 |
|  | Factor to \$4.0M Retention | 1.418 | 1.401 |
|  | Factor to \$5.0M Retention | 1.459 | 1.436 |
| (F) | Selected Base Loss Rate for \$1.0M Retention : | \$0.990 | \$1.060 |
|  | Selected Base Loss Rate for \$2.0M Retention : | 1.240 | 1.319 |
|  | Selected Base Loss Rate for \$2.5M Retention : | 1.315 | 1.369 |
|  | Selected Base Loss Rate for \$3.0M Retention : | 1.365 | 1.444 |
|  | Selected Base Loss Rate for \$3.5M Retention : | 1.389 | 1.460 |
|  | Selected Base Loss Rate for \$4.0M Retention : | 1.404 | 1.485 |
|  | Selected Base Loss Rate for \$5.0M Retention | 1.444 | 1.522 |

(A) From PLAN JPA - Liability Program (\$100K and \$1M Analysis), 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) $\quad$ (D) $\times(E)$





















言





言
స
玄



訔



育


~ $\quad$ © ${ }^{\circ}$ ©
さ



PLAN JPA

Member Deductibles

| Member | $2023-24$ | $2022-23$ |
| :--- | ---: | ---: |
|  |  |  |
| 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 | 100,000 | 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 |

$$
\text { PLAN JPA }
$$

Funding Guidelines for Outstanding Liabilities and
Funding Options for Program Year 2023-2024
At Various Discount Rates and Confidence Levels

Discount Rates and
I. Funding Guidelines for Discounted Outstanding Liabilities at 6/30/23

| Investment Rate | Expected Confidence Level | $70 \%$ <br> Confidence Level | $75 \%$ <br> Confidence Level | 80\% <br> Confidence Level | 85\% <br> Confidence Level | 90\% <br> Confidence Level |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.0\% | \$20,491,000 | \$22,725,000 | \$23,667,000 | \$24,774,000 | \$26,187,000 | \$28,073,000 |
| 1.5\% | 20,267,000 | 22,476,000 | 23,408,000 | 24,503,000 | 25,901,000 | 27,766,000 |
| 2.0\% | 20,049,000 | 22,234,000 | 23,157,000 | 24,239,000 | 25,623,000 | 27,467,000 |
| 2.5\% | 19,835,000 | 21,997,000 | 22,909,000 | 23,981,000 | 25,349,000 | 27,174,000 |
| 3.0\% | 19,627,000 | 21,766,000 | 22,669,000 | 23,729,000 | 25,083,000 | 26,889,000 |
| 3.5\% | 19,422,000 | 21,539,000 | 22,432,000 | 23,481,000 | 24,821,000 | 26,608,000 |
| 4.0\% | 19,223,000 | 21,318,000 | 22,203,000 | 23,241,000 | 24,567,000 | 26,336,000 |

II. Funding Options for Program Year 2023-2024
Expected
Confidence

Level $\quad$\begin{tabular}{c}
$60 \%$ <br>
Confidence <br>
Level

$\quad$

70\% <br>
Confidence <br>
Level

$\quad$

$80 \%$ <br>
Confidence <br>
Level

$\quad$

Lenfidence <br>
Level
\end{tabular}

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

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


Notes appear on the next page.

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

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) $(A) \times(B)$.
(D) From \$100K and \$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 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 $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ 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.

Reported Loss Development

| Limited Losses Reported as of: |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident Year | $6$ <br> Months | $18$ <br> Months | $30$ <br> Months | $\overline{42}$ <br> Months | 54 <br> Months | 66 <br> Months | $78$ <br> Months | $90$ <br> Months | $102$ <br> Months | $114$ <br> Months | $126$ <br> Months |
| 2001-2002 |  | 2,356,125 | 2,422,293 | 2,794,437 | 2,851,519 | 2,940,724 | 2,987,766 | 2,939,481 | 2,956,981 | 2,951,981 | 3,039,481 |
| 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 |  |
| 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 |  |  |
| 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 |  |  |  |
| 2016-2017 | 290,633 | 1,930,274 | 2,754,128 | 2,812,484 | 2,851,248 | 2,931,044 | 2,925,720 |  |  |  |  |
| 2017-2018 | 199,803 | 1,368,867 | 1,871,566 | 1,908,433 | 1,873,364 | 1,849,975 |  |  |  |  |  |
| 2018-2019 | 65,888 | 691,395 | 1,364,408 | 1,596,209 | 1,570,788 |  |  |  |  |  |  |
| 2019-2020 | 184,043 | 934,320 | 2,260,330 | 2,491,627 |  |  |  |  |  |  |  |
| 2020-2021 | 299,593 | 2,532,027 | 2,901,375 |  |  |  |  |  |  |  |  |
| 2021-2022 | 415,421 | 2,085,409 |  |  |  |  |  |  |  |  |  |
| 2022-2023 | 113,903 |  |  |  |  |  |  |  |  |  |  |

Reported Loss Development Factors:

2001-2002
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


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

Accident
Year 2001-2002
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

|  | port | s of: |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 138 | 150 | 162 | 174 | 186 | 198 | 210 | 222 | 234 | 246 | 258 |
| Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 3,000,035 | 3,027,919 | 3,012,173 | 3,012,173 | 3,012,173 | 3,012,173 | 3,012,173 | 3,012,173 | 3,012,173 | 3,012,173 | 3,013,572 |
| 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 |  |
| 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 |  |  |
| 2,867,654 | 2,867,654 | 2,867,654 | 2,867,654 | 2,867,654 | 2,867,654 | 2,867,654 | 2,867,654 |  |  |  |
| 3,789,394 | 3,788,958 | 3,788,958 | 3,788,958 | 3,788,958 | 3,788,958 | 3,788,958 |  |  |  |  |
| 3,394,936 | 3,400,836 | 3,400,836 | 3,425,837 | 3,408,506 | 3,408,506 |  |  |  |  |  |
| 4,159,284 | 4,259,284 | 4,259,284 | 4,259,284 | 4,259,284 |  |  |  |  |  |  |
| 3,347,708 | 3,347,708 | 3,347,708 | 3,347,708 |  |  |  |  |  |  |  |
| 3,127,921 | 3,127,921 | 3,127,921 |  |  |  |  |  |  |  |  |
| 2,396,051 | 2,396,051 |  |  |  |  |  |  |  |  |  |
| 3,127,725 |  |  |  |  |  |  |  |  |  |  |

Reported Loss Development Factors:

2001-2002
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

| 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 |
| 1.009 | 0.995 | 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 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |
| 1.002 | 1.000 | 1.007 | 0.995 | 1.000 |  |  |  |  |  |  |
| 1.024 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |
| 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |  |
| 1.000 | 1.000 |  |  |  |  |  |  |  |  |  |
| 1.000 |  |  |  |  |  |  |  |  |  |  |


|  | $138-150$ <br> Months | $150-162$ <br> 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 | 1.004 | 0.999 | 1.001 | 0.999 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |
| Dollar-Weighted |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |
| 3-yr | 1.000 | 1.000 | 1.002 | 0.998 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |
| $4-\mathrm{yr}$ | 1.008 | 1.000 | 1.002 | 0.999 | 1.000 | 1.000 | 1.000 |  |  |  |  |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 1.003 | 1.003 | 1.002 | 1.002 | 1.002 | 1.002 | 1.001 | 1.001 | 1.001 | 1.001 | 1.002 |
| 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 | 1.500 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 58000 |

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

Paid Loss Development

|  | Limited | Program |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Paid | Paid Loss | Ultimate | Paid | Paid Loss | Ultimate |
| Accident | Losses as | Development | Limited | Losses | Development | Program |
| Year | of 12/31/22 | Factor | Losses | of 12/31/22 | Factor | Losses |
| (A) | (B) | (C) | (D) | (E) | (F) | (G) |
| 2001-2002 | \$2,848,456 | 1.000 | \$2,848,456 | \$5,797,997 | 1.000 | \$5,797,997 |
| 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 | 3,128,576 | 1.000 | 3,128,576 | 4,547,760 | 1.000 | 4,547,760 |
| 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 | 1.001 | 3,574,646 |
| 2011-2012 | 2,824,647 | 1.001 | 2,827,472 | 6,237,994 | 1.004 | 6,262,946 |
| 2012-2013 | 3,308,601 | 1.002 | 3,315,218 | 6,532,045 | 1.005 | 6,564,705 |
| 2013-2014 | 2,229,780 | 1.004 | 2,238,699 | 4,318,084 | 1.009 | 4,356,947 |
| 2014-2015 | 2,938,392 | 1.007 | 2,958,961 | 6,737,773 | 1.014 | 6,832,102 |
| 2015-2016 | 3,125,745 | 1.011 | 3,160,128 | 6,127,124 | 1.036 | 6,347,700 |
| 2016-2017 | 2,883,289 | 1.019 | 2,938,071 | 7,573,955 | 1.067 | 8,081,410 |
| 2017-2018 | 1,848,975 | 1.031 | 1,906,293 | 2,624,026 | 1.134 | 2,975,645 |
| 2018-2019 | 1,545,763 | 1.057 | 1,633,871 | 2,337,555 | 1.226 | 2,865,842 |
| 2019-2020 | 1,716,520 | 1.137 | 1,951,683 | 1,735,905 | 1.488 | 2,583,027 |
| 2020-2021 | 1,741,631 | 1.616 | 2,814,476 | 3,680,643 | 2.578 | 9,488,698 |
| 2021-2022 | 597,050 | 3.529 | 2,106,989 | 597,050 | 6.667 | 3,980,532 |
| Totals | \$54,696,903 |  | \$57,788,371 | \$101,558,066 |  | \$113,399,037 |

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 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 $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ 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.

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 |
| 2001-2002 |  | 1,331,577 | 1,898,744 | 2,493,146 | 2,814,747 | 2,835,674 | 2,838,647 | 2,939,481 | 2,939,481 | 2,939,481 | 2,998,047 |
| 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 |  |
| 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 |  |  |
| 2015-2016 | 98,110 | 679,755 | 1,782,598 | 2,795,127 | 2,999,838 | 3,135,716 | 3,135,461 | 3,125,745 |  |  |  |
| 2016-2017 | 30,679 | 920,995 | 1,975,490 | 2,421,836 | 2,773,661 | 2,834,023 | 2,883,289 |  |  |  |  |
| 2017-2018 | 31,268 | 758,485 | 1,188,193 | 1,713,864 | 1,800,791 | 1,848,975 |  |  |  |  |  |
| 2018-2019 | 16,322 | 417,918 | 867,701 | 1,337,293 | 1,545,763 |  |  |  |  |  |  |
| 2019-2020 | 65,521 | 413,661 | 1,128,779 | 1,716,520 |  |  |  |  |  |  |  |
| 2020-2021 | 54,421 | 793,126 | 1,741,631 |  |  |  |  |  |  |  |  |
| 2021-2022 | 40,902 | 597,050 |  |  |  |  |  |  |  |  |  |
| 2022-2023 | 19,868 |  |  |  |  |  |  |  |  |  |  |


| Paid Loss Development Factors: |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $6-18$ <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 |
| 2001-2002 |  | 1.426 | 1.313 | 1.129 | 1.007 | 1.001 | 1.036 | 1.000 | 1.000 | 1.020 | 1.001 |
| 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 |  |
| 2013-2014 | 6.808 | 2.005 | 1.301 | 1.146 | 0.957 | 1.000 | 1.000 | 1.000 | 0.996 |  |  |
| 2014-2015 | 15.189 | 1.959 | 1.243 | 0.967 | 1.004 | 1.000 | 1.000 | 1.000 |  |  |  |
| 2015-2016 | 6.928 | 2.622 | 1.568 | 1.073 | 1.045 | 1.000 | 0.997 |  |  |  |  |
| 2016-2017 | 30.020 | 2.145 | 1.226 | 1.145 | 1.022 | 1.017 |  |  |  |  |  |
| 2017-2018 | 24.258 | 1.567 | 1.442 | 1.051 | 1.027 |  |  |  |  |  |  |
| 2018-2019 | 25.605 | 2.076 | 1.541 | 1.156 |  |  |  |  |  |  |  |
| 2019-2020 | 6.313 | 2.729 | 1.521 |  |  |  |  |  |  |  |  |
| 2020-2021 | 14.574 | 2.196 |  |  |  |  |  |  |  |  |  |
| 2021-2022 | 14.597 |  |  |  |  |  |  |  |  |  |  |


|  | $6-18$ <br> Months | $\begin{gathered} \text { 18-30 } \\ \text { Months } \end{gathered}$ | $30-42$ <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 | 11.443 | 2.059 | 1.371 | 1.094 | 1.023 | 1.010 | 1.004 | 1.006 | 1.001 | 1.002 | 0.999 |
| Dollar-Weighted |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ | 11.215 | 2.301 | 1.497 | 1.118 | 1.032 | 1.005 | 0.999 | 1.011 | 0.999 | 1.000 | 1.000 |
| $4-\mathrm{yr}$ | 12.541 | 2.067 | 1.393 | 1.103 | 1.024 | 1.004 | 1.000 | 1.008 | 0.999 | 1.000 | 1.001 |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 4.760 | 2.200 | 1.444 | 1.145 | 1.044 | 1.019 | 1.015 | 1.011 | 1.009 | 1.008 | 1.006 |
| Prior | 16.544 | 2.033 | 1.373 | 1.076 | 1.025 | 1.012 | 1.008 | 1.004 | 1.003 | 1.002 | 1.001 |
| Selected | 18.000 | 2.184 | 1.421 | 1.076 | 1.025 | 1.012 | 1.008 | 1.004 | 1.003 | 1.002 | 1.001 |
| Cumulated | 63.522 | 3.529 | 1.616 | 1.137 | 1.83 | 1.031 | 1.019 | 1.011 | 1.007 | 1.004 | 60002 |

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

|  | Limited Los | Paid as |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident | 138 | 150 | 162 | 174 | 186 | 198 | 210 | 222 | 234 | 246 | 258 |
| Year | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2001-2002 | 3,000,035 | 3,000,611 | 3,012,173 | 3,012,173 | 3,012,173 | 3,012,173 | 3,012,173 | 3,012,173 | 3,012,173 | 3,012,173 | 3,013,572 |
| 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 |  |
| 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 |  |  |
| 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 |  |  |  |
| 2005-2006 | 3,789,394 | 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 |  |  |  |  |  |
| 2007-2008 | 4,159,284 | 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 |  |  |  |  |  |  |  |
| 2009-2010 | 3,127,921 | 3,127,921 | 3,127,921 |  |  |  |  |  |  |  |  |
| 2010-2011 | 2,396,051 | 2,396,051 |  |  |  |  |  |  |  |  |  |
| 2011-2012 | 3,127,725 |  |  |  |  |  |  |  |  |  |  |


|  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 138-150 | 150-162 | 162-174 | 174-186 | 186-198 | 198-210 | 210-222 | 222-234 | 234-246 | 246-258 | 258-UIt. |
| Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 1.000 | 1.004 | 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 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |
| 1.002 | 1.000 | 1.001 | 1.002 | 1.000 |  |  |  |  |  |  |
| 1.024 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |
| 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |  |
| 1.000 | 1.000 |  |  |  |  |  |  |  |  |  |
| 1.000 |  |  |  |  |  |  |  |  |  |  |

2011-2012
2012-2013
2013-2014
2014-2015
2015-2016
2016-2017
2017-2018
2018-2019
2019-2020
2020-2021
2021-2022

|  | 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 | 1.003 | 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 |  |  |  |
| $4-\mathrm{yr}$ | 1.008 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 1.006 | 1.004 | 1.004 | 1.004 | 1.002 | 1.002 | 1.002 | 1.002 | 1.002 | 1.001 | 1.002 |
| 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 | 1.830 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 61000 |

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

Exposure and Development Method
Based on Reported Losses


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 $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix C, Page 3, Column (H).
(F) (A) $\times(\mathrm{D}) \times(\mathrm{E})$.
(G) $(\mathrm{B})+(\mathrm{F})$.

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 and \$1M Analysis)

Exposure and Development Method
Based on Paid Losses

| Accident Year | Trended Payroll (\$00) (A) | Paid Losses as of $12 / 31 / 22$ <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) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2001-2002 | 4,913,815 | 5,797,997 | 1.000 | 0.000 | 0.877 | 0 | 5,797,997 |
| 2002-2003 | 5,332,137 | 8,884,428 | 1.000 | 0.000 | 1.341 | 0 | 8,884,428 |
| 2003-2004 | 5,435,017 | 5,715,419 | 1.000 | 0.000 | 1.012 | 0 | 5,715,419 |
| 2004-2005 | 5,456,509 | 3,869,337 | 1.000 | 0.000 | 0.714 | 0 | 3,869,337 |
| 2005-2006 | 5,410,979 | 5,631,680 | 1.000 | 0.000 | 0.885 | 0 | 5,631,680 |
| 2006-2007 | 5,498,428 | 4,547,760 | 1.000 | 0.000 | 0.942 | 0 | 4,547,760 |
| 2007-2008 | 5,660,768 | 5,798,628 | 1.000 | 0.000 | 0.939 | 0 | 5,798,628 |
| 2008-2009 | 5,721,853 | 5,365,088 | 1.000 | 0.000 | 0.816 | 0 | 5,365,088 |
| 2009-2010 | 5,434,260 | 3,874,500 | 1.000 | 0.000 | 0.820 | 0 | 3,874,500 |
| 2010-2011 | 4,753,826 | 3,571,075 | 1.001 | 0.001 | 0.760 | 3,613 | 3,574,688 |
| 2011-2012 | 4,536,227 | 6,237,994 | 1.004 | 0.004 | 1.139 | 20,667 | 6,258,661 |
| 2012-2013 | 4,454,630 | 6,532,045 | 1.005 | 0.005 | 1.388 | 30,915 | 6,562,960 |
| 2013-2014 | 4,284,105 | 4,318,084 | 1.009 | 0.009 | 0.992 | 38,248 | 4,356,332 |
| 2014-2015 | 4,328,088 | 6,737,773 | 1.014 | 0.014 | 1.322 | 80,104 | 6,817,877 |
| 2015-2016 | 4,395,985 | 6,127,124 | 1.036 | 0.035 | 1.415 | 217,711 | 6,344,835 |
| 2016-2017 | 4,566,182 | 7,573,955 | 1.067 | 0.063 | 1.304 | 375,121 | 7,949,076 |
| 2017-2018 | 4,681,268 | 2,624,026 | 1.134 | 0.118 | 1.297 | 716,449 | 3,340,475 |
| 2018-2019 | 4,709,274 | 2,337,555 | 1.226 | 0.184 | 1.364 | 1,181,915 | 3,519,470 |
| 2019-2020 | 4,680,801 | 1,735,905 | 1.488 | 0.328 | 1.434 | 2,201,624 | 3,937,529 |
| 2020-2021 | 4,621,045 | 3,680,643 | 2.578 | 0.612 | 1.510 | 4,270,400 | 7,951,043 |
| 2021-2022 | 4,756,654 | 597,050 | 6.667 | 0.850 | 1.588 | 6,420,532 | 7,017,582 |
| Totals | 103,631,851 | \$101,558,066 |  |  |  | \$15,557,299 | \$117,115,365 |

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) $(\mathrm{B})+(\mathrm{F})$.

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 and \$1M Analysis)

Exposure and Development Method

| Accident Year | Trended Payroll (\$00) (A) | Ultimate Limited Losses <br> (B) | Trend Factor (C) | Trended Limited Losses <br> (D) | Trended Limited Loss Rate <br> (E) | Limited Loss Rate (F) | Factor to SIR (G) | Program Loss Rate <br> (H) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 2001-2002 | 4,913,815 | 2,848,456 | 1.862 | 5,303,825 | 1.079 | 0.580 | 1.513 | 0.877 |
| 2002-2003 | 5,332,137 | 4,646,965 | 1.808 | 8,401,713 | 1.576 | 0.872 | 1.538 | 1.341 |
| 2003-2004 | 5,435,017 | 3,509,537 | 1.755 | 6,159,237 | 1.133 | 0.646 | 1.566 | 1.012 |
| 2004-2005 | 5,456,509 | 2,444,607 | 1.704 | 4,165,610 | 0.763 | 0.448 | 1.594 | 0.714 |
| 2005-2006 | 5,410,979 | 2,947,359 | 1.654 | 4,874,932 | 0.901 | 0.545 | 1.623 | 0.885 |
| 2006-2007 | 5,498,428 | 3,128,576 | 1.606 | 5,024,493 | 0.914 | 0.569 | 1.655 | 0.942 |
| 2007-2008 | 5,660,768 | 3,147,259 | 1.559 | 4,906,577 | 0.867 | 0.556 | 1.688 | 0.939 |
| 2008-2009 | 5,721,853 | 2,711,703 | 1.513 | 4,102,807 | 0.717 | 0.474 | 1.722 | 0.816 |
| 2009-2010 | 5,434,260 | 2,538,522 | 1.469 | 3,729,089 | 0.686 | 0.467 | 1.755 | 0.820 |
| 2010-2011 | 4,753,826 | 2,013,526 | 1.426 | 2,871,288 | 0.604 | 0.424 | 1.793 | 0.760 |
| 2011-2012 | 4,536,227 | 2,825,000 | 1.385 | 3,912,625 | 0.863 | 0.623 | 1.828 | 1.139 |
| 2012-2013 | 4,454,630 | 3,309,000 | 1.345 | 4,450,605 | 0.999 | 0.743 | 1.868 | 1.388 |
| 2013-2014 | 4,284,105 | 2,229,780 | 1.306 | 2,912,093 | 0.680 | 0.520 | 1.907 | 0.992 |
| 2014-2015 | 4,328,088 | 2,938,392 | 1.267 | 3,722,943 | 0.860 | 0.679 | 1.947 | 1.322 |
| 2015-2016 | 4,395,985 | 3,129,000 | 1.231 | 3,851,799 | 0.876 | 0.712 | 1.988 | 1.415 |
| 2016-2017 | 4,566,182 | 2,932,000 | 1.195 | 3,503,740 | 0.767 | 0.642 | 2.031 | 1.304 |
| 2017-2018 | 4,681,268 | 1,857,000 | 1.160 | 2,154,120 | 0.460 | 0.625 | 2.075 | 1.297 |
| 2018-2019 | 4,709,274 | 1,582,000 | 1.126 | 1,781,332 | 0.378 | 0.644 | 2.118 | 1.364 |
| 2019-2020 | 4,680,801 | 2,534,000 | 1.093 | 2,769,662 | 0.592 | 0.663 | 2.163 | 1.434 |
| 2020-2021 | 4,621,045 | 3,128,000 | 1.061 | 3,318,808 | 0.718 | 0.683 | 2.211 | 1.510 |
| 2021-2022 | 4,756,654 | 3,472,000 | 1.030 | 3,576,160 | 0.752 | 0.704 | 2.256 | 1.588 |
| Total/Avg | 103,631,851 | \$59,872,682 |  | \$85,493,458 | \$0.825 |  |  |  |
| 15/16-19/20 | 23,033,510 | 12,034,000 |  | 14,060,653 | 0.610 |  |  |  |
| 17/18-21/22 | 23,449,042 | 12,573,000 |  | 13,600,082 | 0.580 |  |  |  |
|  |  |  | Selected Limited Rate: <br> Prior: |  | \$0.725 |  |  |  |
|  |  |  |  |  | \$0.750 |  |  |  |

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) (B) $\times(\mathrm{C})$.
(E) $(\mathrm{D}) /(\mathrm{A})$.
(F) Selected Limited Rate / (C). For 2016-2017 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.

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

Frequency and Severity Method

| Accident | Ultimate <br> Program <br> Severity <br> (A) | Adjusted <br> Ultimate <br> Claims <br> (B) | Ultimate <br> Program <br> Losses |
| :---: | ---: | :---: | :---: |
| 2001-2002 | \$6,346 |  | (C) |
| $2002-2003$ | 9,469 | 679 | $\$ 4,308,934$ |
| $2003-2004$ | 8,765 | 755 | $7,149,095$ |
| $2004-2005$ | 6,883 | 627 | $5,495,655$ |
| $2005-2006$ | 8,512 | 566 | $3,895,778$ |
| $2006-2007$ | 8,972 | 562 | $4,783,744$ |
| $2007-2008$ | 8,026 | 577 | $5,176,844$ |
| $2008-2009$ | 7,913 | 662 | $5,313,212$ |
| $2009-2010$ | 8,603 | 590 | $4,668,670$ |
| $2010-2011$ | 8,636 | 518 | $4,456,354$ |
| $2011-2012$ | 11,927 | 418 | $3,609,848$ |
| $2012-2013$ | 12,510 | 433 | $5,164,391$ |
| $2013-2014$ | 9,686 | 494 | $6,179,940$ |
| $2014-2015$ | 12,248 | 439 | $4,252,154$ |
| $2015-2016$ | 13,522 | 467 | $5,719,816$ |
| $2016-2017$ | 12,204 | 460 | $6,220,120$ |
| $2017-2018$ | 13,087 | 488 | $5,955,552$ |
| $2018-2019$ | 13,838 | 470 | $6,150,890$ |
| $2019-2020$ | 14,632 | 414 | $5,728,932$ |
| $2020-2021$ | 15,482 | 416 | $6,086,912$ |
| $2021-2022$ | 16,348 | 352 | $5,449,664$ |
|  |  | 390 | $6,375,720$ |
| Total |  |  |  |

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) $(A) \times(B)$.

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

Frequency and Severity Method

| Accident | Ultimate <br> Limited <br> Losses | Adjusted <br> Ultimate <br> Claims | Ultimate <br> Limited <br> Severity <br> (B) | (C) | Trend <br> Factor <br> (D) | Trended <br> Limited <br> Severity <br> (E) | Limited <br> Severity <br> (F) | Factor to <br> SIR <br> (G) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | ---: |
|  | (A) |  |  |  | Program <br> Severity |  |  |  |
| (H) |  |  |  |  |  |  |  |  |

## Selected Limited Severity: $\quad \$ 7,500$

Prior: $\$ 6,200$
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.

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 <br> (E) | Trend Factor (F) | Trended Claim Frequency (G) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2001-2002 | 679 | 679 | 679 | 491.4 | 1.382 | 0.897 | 1.240 |
| 2002-2003 | 755 | 755 | 755 | 533.2 | 1.416 | 0.902 | 1.277 |
| 2003-2004 | 627 | 627 | 627 | 543.5 | 1.154 | 0.906 | 1.046 |
| 2004-2005 | 566 | 566 | 566 | 545.7 | 1.037 | 0.910 | 0.944 |
| 2005-2006 | 562 | 562 | 562 | 541.1 | 1.039 | 0.914 | 0.950 |
| 2006-2007 | 577 | 577 | 577 | 549.8 | 1.049 | 0.919 | 0.964 |
| 2007-2008 | 662 | 662 | 662 | 566.1 | 1.169 | 0.924 | 1.080 |
| 2008-2009 | 590 | 590 | 590 | 572.2 | 1.031 | 0.929 | 0.958 |
| 2009-2010 | 518 | 519 | 518 | 543.4 | 0.953 | 0.934 | 0.890 |
| 2010-2011 | 418 | 419 | 418 | 475.4 | 0.879 | 0.939 | 0.825 |
| 2011-2012 | 433 | 433 | 433 | 453.6 | 0.955 | 0.944 | 0.902 |
| 2012-2013 | 494 | 495 | 494 | 445.5 | 1.109 | 0.949 | 1.052 |
| 2013-2014 | 439 | 441 | 439 | 428.4 | 1.025 | 0.954 | 0.978 |
| 2014-2015 | 467 | 470 | 467 | 432.8 | 1.079 | 0.959 | 1.035 |
| 2015-2016 | 460 | 464 | 460 | 439.6 | 1.046 | 0.964 | 1.008 |
| 2016-2017 | 488 | 491 | 488 | 456.6 | 1.069 | 0.970 | 1.037 |
| 2017-2018 | 470 | 477 | 470 | 468.1 | 1.004 | 0.975 | 0.979 |
| 2018-2019 | 414 | 418 | 414 | 470.9 | 0.879 | 0.980 | 0.861 |
| 2019-2020 | 416 | 399 | 416 | 468.1 | 0.889 | 0.985 | 0.876 |
| 2020-2021 | 352 | 333 | 352 | 462.1 | 0.762 | 0.990 | 0.754 |
| 2021-2022 | 390 | 311 | 390 | 475.7 | 0.820 | 0.995 | 0.816 |
| Total | 10,777 | 10,688 | 10,777 | 10,363.2 |  |  | 0.977 |
| 16/17-20/21 | 2,140 | 2,118 | 2,140 | 2,325.9 |  |  | 0.901 |
|  |  |  |  |  | (H) Selected Frequency: |  | 0.850 |
|  |  |  |  |  |  |  | 1.100 |
| Program Year: |  |  |  | 2022-2023 | 2023-2024 |  |  |
| (I) Trend Factor: |  |  |  | 1.000 | 0.995 |  |  |
| (J) Selected Frequency: |  |  |  | 0.850 | 0.846 |  |  |
| (K) Est. Payroll (\$000,000): |  |  |  | 474.9 | 489.1 |  |  |
| (L) Ultimate Claims: |  |  |  | 404 | 414 |  |  |

Notes:
(A) From \$100K and \$1M 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).
(F) From \$100K and \$1M Rate Analysis Appendix E, Page 1, Column (H).
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 0.850 is based on (G).
(I) From \$100K and \$1M Rate Analysis Appendix E, Page 1
(J) (H) $\times(\mathrm{I})$.
(K) From $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix I, Column
(L) $(\mathrm{J}) \times(\mathrm{K})$.

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

| Accident Year | Claims Reported as of 12/31/2022 <br> (A) | Reported Claim Development Factor (B) | Ultimate Claims (C) | Trended Claim Frequency (D) |
| :---: | :---: | :---: | :---: | :---: |
| 2001-2002 | 679 | 1.000 | 679 | 1.239 |
| 2002-2003 | 755 | 1.000 | 755 | 1.277 |
| 2003-2004 | 627 | 1.000 | 627 | 1.045 |
| 2004-2005 | 566 | 1.000 | 566 | 0.944 |
| 2005-2006 | 562 | 1.000 | 562 | 0.949 |
| 2006-2007 | 577 | 1.000 | 577 | 0.964 |
| 2007-2008 | 662 | 1.000 | 662 | 1.081 |
| 2008-2009 | 590 | 1.000 | 590 | 0.958 |
| 2009-2010 | 518 | 1.000 | 518 | 0.890 |
| 2010-2011 | 418 | 1.000 | 418 | 0.826 |
| 2011-2012 | 433 | 1.000 | 433 | 0.901 |
| 2012-2013 | 494 | 1.000 | 494 | 1.052 |
| 2013-2014 | 439 | 1.000 | 439 | 0.978 |
| 2014-2015 | 467 | 1.000 | 467 | 1.035 |
| 2015-2016 | 460 | 1.000 | 460 | 1.009 |
| 2016-2017 | 488 | 1.001 | 488 | 1.037 |
| 2017-2018 | 469 | 1.003 | 470 | 0.979 |
| 2018-2019 | 412 | 1.006 | 414 | 0.862 |
| 2019-2020 | 412 | 1.010 | 416 | 0.875 |
| 2020-2021 | 346 | 1.017 | 352 | 0.754 |
| 2021-2022 | 370 | 1.054 | 390 | 0.816 |
| Total | 10,744 |  | 10,777 | 0.977 |

Notes:
(A) Provided by the Authority.
(B) From $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Appendix D, Page 6.
(C) (A) $\times(B)$.
(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 | Claims <br> Closed as of 12/31/2022 <br> (A) | Closed Claim Development Factor (B) | Ultimate Claims (C) | Trended Claim Frequency (D) |
| :---: | :---: | :---: | :---: | :---: |
| 2001-2002 | 679 | 1.000 | 679 | 1.239 |
| 2002-2003 | 755 | 1.000 | 755 | 1.277 |
| 2003-2004 | 627 | 1.000 | 627 | 1.045 |
| 2004-2005 | 566 | 1.000 | 566 | 0.944 |
| 2005-2006 | 562 | 1.000 | 562 | 0.949 |
| 2006-2007 | 577 | 1.000 | 577 | 0.964 |
| 2007-2008 | 662 | 1.000 | 662 | 1.081 |
| 2008-2009 | 590 | 1.000 | 590 | 0.958 |
| 2009-2010 | 518 | 1.001 | 519 | 0.892 |
| 2010-2011 | 418 | 1.002 | 419 | 0.828 |
| 2011-2012 | 432 | 1.003 | 433 | 0.901 |
| 2012-2013 | 493 | 1.004 | 495 | 1.055 |
| 2013-2014 | 439 | 1.005 | 441 | 0.982 |
| 2014-2015 | 467 | 1.007 | 470 | 1.041 |
| 2015-2016 | 459 | 1.010 | 464 | 1.018 |
| 2016-2017 | 484 | 1.014 | 491 | 1.043 |
| 2017-2018 | 468 | 1.019 | 477 | 0.993 |
| 2018-2019 | 407 | 1.026 | 418 | 0.870 |
| 2019-2020 | 383 | 1.041 | 399 | 0.840 |
| 2020-2021 | 299 | 1.115 | 333 | 0.713 |
| 2021-2022 | 189 | 1.648 | 311 | 0.651 |
| Total | 10,474 |  | 10,688 | 0.968 |

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)] $\times[\$ 100 \mathrm{~K}$ and \$1M Rate At

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.

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 |
| 2001-2002 |  | 686 | 717 | 719 | 707 | 709 | 710 | 710 | 722 | 722 | 723 | 723 | 723 | 723 |
| 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 |  |
| 2011-2012 | 129 | 452 | 465 | 467 | 470 | 471 | 471 | 470 | 470 | 470 | 470 | 470 |  |  |
| 2012-2013 | 169 | 499 | 520 | 523 | 523 | 524 | 525 | 527 | 528 | 528 | 526 |  |  |  |
| 2013-2014 | 144 | 455 | 467 | 471 | 473 | 466 | 466 | 466 | 467 | 460 |  |  |  |  |
| 2014-2015 | 161 | 489 | 510 | 514 | 502 | 503 | 504 | 512 | 492 |  |  |  |  |  |
| 2015-2016 | 170 | 487 | 502 | 490 | 492 | 492 | 497 | 460 |  |  |  |  |  |  |
| 2016-2017 | 108 | 501 | 508 | 511 | 512 | 512 | 488 |  |  |  |  |  |  |  |
| 2017-2018 | 152 | 473 | 481 | 483 | 489 | 469 |  |  |  |  |  |  |  |  |
| 2018-2019 | 123 | 394 | 421 | 430 | 412 |  |  |  |  |  |  |  |  |  |
| 2019-2020 | 144 | 413 | 431 | 412 |  |  |  |  |  |  |  |  |  |  |
| 2020-2021 | 124 | 353 | 346 |  |  |  |  |  |  |  |  |  |  |  |
| 2021-2022 | 151 | 370 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2022-2023 | 116 |  |  |  |  |  |  |  |  |  |  |  |  |  |

## 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 |
| 2001-2002 |  | 1.045 | 1.003 | 0.983 | 1.003 | 1.001 | 1.000 | 1.017 | 1.000 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 |
| 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 |  |
| 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 |  |  |
| 2011-2012 | 3.504 | 1.029 | 1.004 | 1.006 | 1.002 | 1.000 | 0.998 | 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 |  |  |  |  |
| 2013-2014 | 3.160 | 1.026 | 1.009 | 1.004 | 0.985 | 1.000 | 1.000 | 1.002 | 0.985 |  |  |  |  |  |
| 2014-2015 | 3.037 | 1.043 | 1.008 | 0.977 | 1.002 | 1.002 | 1.016 | 0.961 |  |  |  |  |  |  |
| 2015-2016 | 2.865 | 1.031 | 0.976 | 1.004 | 1.000 | 1.010 | 0.926 |  |  |  |  |  |  |  |
| 2016-2017 | 4.639 | 1.014 | 1.006 | 1.002 | 1.000 | 0.953 |  |  |  |  |  |  |  |  |
| 2017-2018 | 3.112 | 1.017 | 1.004 | 1.012 | 0.959 |  |  |  |  |  |  |  |  |  |
| 2018-2019 | 3.203 | 1.069 | 1.021 | 0.958 |  |  |  |  |  |  |  |  |  |  |
| 2019-2020 | 2.868 | 1.044 | 0.956 |  |  |  |  |  |  |  |  |  |  |  |
| 2020-2021 | 2.847 | 0.980 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2021-2022 | 2.450 |  |  |  |  |  |  |  |  |  |  |  |  |  |


|  | 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 | 3.040 | 1.044 | 1.003 | 0.999 | 0.998 | 1.000 | 0.998 | 0.999 | 0.999 | 0.999 | 1.002 | 1.001 | 1.000 | 1.000 |
| Claim-Weighted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ | 2.711 | 1.033 | 0.994 | 0.992 | 0.987 | 0.988 | 0.980 | 0.988 | 0.995 | 1.001 | 1.001 | 1.000 | 1.000 | 1.000 |
| $4-\mathrm{yr}$ | 2.823 | 1.028 | 0.997 | 0.995 | 0.990 | 0.991 | 0.986 | 0.991 | 0.996 | 1.000 | 1.007 | 1.001 | 1.000 | 1.000 |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 2.653 | 1.144 | 1.017 | 1.010 | 1.006 | 1.004 | 1.005 | 1.004 | 1.003 | 1.003 | 1.003 | 1.002 | 1.003 | 1.002 |
| Prior | 3.063 | 1.040 | 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 | 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 |
| Cumulated | 3.066 | 1.054 | 1.017 | 1.010 | 1.006 | 1.0036 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 70.000 |

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 |
| 2001-2002 |  | 474 | 664 | 700 | 698 | 705 | 707 | 709 | 721 | 721 | 722 | 723 | 722 | 723 |
| 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 |  |
| 2011-2012 | 27 | 285 | 421 | 451 | 459 | 467 | 470 | 469 | 469 | 469 | 469 | 469 |  |  |
| 2012-2013 | 36 | 332 | 471 | 506 | 515 | 518 | 524 | 526 | 527 | 527 | 525 |  |  |  |
| 2013-2014 | 28 | 304 | 430 | 456 | 467 | 464 | 465 | 466 | 467 | 460 |  |  |  |  |
| 2014-2015 | 23 | 354 | 457 | 491 | 492 | 501 | 504 | 512 | 492 |  |  |  |  |  |
| 2015-2016 | 43 | 336 | 450 | 470 | 481 | 488 | 496 | 459 |  |  |  |  |  |  |
| 2016-2017 | 19 | 316 | 465 | 491 | 499 | 506 | 484 |  |  |  |  |  |  |  |
| 2017-2018 | 22 | 310 | 445 | 473 | 486 | 468 |  |  |  |  |  |  |  |  |
| 2018-2019 | 19 | 234 | 366 | 411 | 407 |  |  |  |  |  |  |  |  |  |
| 2019-2020 | 36 | 227 | 363 | 383 |  |  |  |  |  |  |  |  |  |  |
| 2020-2021 | 18 | 209 | 299 |  |  |  |  |  |  |  |  |  |  |  |
| 2021-2022 | 41 | 189 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2022-2023 | 23 |  |  |  |  |  |  |  |  |  |  |  |  |  |

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 |
| 2001-2002 |  | 1.401 | 1.054 | 0.997 | 1.010 | 1.003 | 1.003 | 1.017 | 1.000 | 1.001 | 1.001 | 0.999 | 1.001 | 1.000 |
| 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 |  |
| 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 |  |  |
| 2011-2012 | 10.556 | 1.477 | 1.071 | 1.018 | 1.017 | 1.006 | 0.998 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |
| 2012-2013 | 9.222 | 1.419 | 1.074 | 1.018 | 1.006 | 1.012 | 1.004 | 1.002 | 1.000 | 0.996 |  |  |  |  |
| 2013-2014 | 10.857 | 1.414 | 1.060 | 1.024 | 0.994 | 1.002 | 1.002 | 1.002 | 0.985 |  |  |  |  |  |
| 2014-2015 | 15.391 | 1.291 | 1.074 | 1.002 | 1.018 | 1.006 | 1.016 | 0.961 |  |  |  |  |  |  |
| 2015-2016 | 7.814 | 1.339 | 1.044 | 1.023 | 1.015 | 1.016 | 0.925 |  |  |  |  |  |  |  |
| 2016-2017 | 16.632 | 1.472 | 1.056 | 1.016 | 1.014 | 0.957 |  |  |  |  |  |  |  |  |
| 2017-2018 | 14.091 | 1.435 | 1.063 | 1.027 | 0.963 |  |  |  |  |  |  |  |  |  |
| 2018-2019 | 12.316 | 1.564 | 1.123 | 0.990 |  |  |  |  |  |  |  |  |  |  |
| 2019-2020 | 6.306 | 1.599 | 1.055 |  |  |  |  |  |  |  |  |  |  |  |
| 2020-2021 | 11.611 | 1.431 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2021-2022 | 4.610 |  |  |  |  |  |  |  |  |  |  |  |  |  |


|  | 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 | 9.824 | 1.409 | 1.064 | 1.015 | 1.007 | 1.004 | 0.999 | 1.000 | 0.999 | 0.999 | 1.002 | 1.001 | 1.000 | 1.000 |
| Claim-Weighted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ | 6.579 | 1.534 | 1.079 | 1.012 | 0.997 | 0.993 | 0.981 | 0.988 | 0.995 | 1.001 | 1.001 | 1.000 | 1.000 | 1.000 |
| $4-\mathrm{yr}$ | 7.535 | 1.503 | 1.073 | 1.015 | 1.003 | 0.995 | 0.987 | 0.991 | 0.996 | 1.000 | 1.007 | 1.001 | 1.000 | 1.000 |
| Comparative |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Factors | 3.720 | 1.528 | 1.096 | 1.038 | 1.019 | 1.011 | 1.009 | 1.008 | 1.008 | 1.006 | 1.004 | 1.005 | 1.004 | 1.004 |
| Prior | 10.093 | 1.466 | 1.068 | 1.018 | 1.007 | 1.005 | 1.004 | 1.003 | 1.002 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 |
| Selected | 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 |
| Cumulated | 14.021 | 1.648 | 1.115 | 1.041 | 1.026 | 1.0196 | 631.014 | 1.010 | 1.007 | 1.005 | 1.004 | 1.003 | 1.002 | 71.001 |

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

|  | Benefit | $\begin{gathered} \text { Factor to } \\ \text { 2022-2023 } \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ \text { 2023-2024 } \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ \text { 2024-2025 } \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ \text { 2025-2026 } \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ \text { 2022-2023 } \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ \text { 2023-2024 } \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ 2024-2025 \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ \text { 2025-2026 } \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ \text { 2022-2023 } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Level | Loss Rate | Loss Rate | Loss Rate | Loss Rate | Frequency | Frequency | Frequency | Frequency | Severity |
| Year | Factor <br> (A) | Level (B) | Level <br> (C) | Level <br> (D) | Level <br> (E) | Level <br> (F) | Level <br> (G) | Level <br> (H) | Level <br> (I) | Level <br> (J) |
| 2001-2002 | 1.000 | 1.862 | 1.918 | 1.976 | 2.035 | 0.897 | 0.893 | 0.888 | 0.884 | 2.062 |
| 2002-2003 | 1.000 | 1.808 | 1.862 | 1.918 | 1.976 | 0.902 | 0.897 | 0.892 | 0.888 | 1.993 |
| 2003-2004 | 1.000 | 1.755 | 1.808 | 1.862 | 1.918 | 0.906 | 0.901 | 0.896 | 0.892 | 1.925 |
| 2004-2005 | 1.000 | 1.704 | 1.755 | 1.808 | 1.862 | 0.910 | 0.905 | 0.901 | 0.896 | 1.860 |
| 2005-2006 | 1.000 | 1.654 | 1.704 | 1.755 | 1.808 | 0.914 | 0.909 | 0.905 | 0.900 | 1.797 |
| 2006-2007 | 1.000 | 1.606 | 1.654 | 1.704 | 1.755 | 0.919 | 0.914 | 0.910 | 0.905 | 1.736 |
| 2007-2008 | 1.000 | 1.559 | 1.606 | 1.654 | 1.704 | 0.924 | 0.919 | 0.915 | 0.910 | 1.678 |
| 2008-2009 | 1.000 | 1.513 | 1.559 | 1.606 | 1.654 | 0.929 | 0.924 | 0.920 | 0.915 | 1.621 |
| 2009-2010 | 1.000 | 1.469 | 1.514 | 1.559 | 1.606 | 0.934 | 0.929 | 0.925 | 0.920 | 1.566 |
| 2010-2011 | 1.000 | 1.426 | 1.469 | 1.514 | 1.559 | 0.939 | 0.934 | 0.930 | 0.925 | 1.513 |
| 2011-2012 | 1.000 | 1.385 | 1.427 | 1.470 | 1.514 | 0.944 | 0.939 | 0.935 | 0.930 | 1.461 |
| 2012-2013 | 1.000 | 1.345 | 1.385 | 1.427 | 1.470 | 0.949 | 0.944 | 0.940 | 0.935 | 1.412 |
| 2013-2014 | 1.000 | 1.306 | 1.345 | 1.385 | 1.427 | 0.954 | 0.949 | 0.945 | 0.940 | 1.364 |
| 2014-2015 | 1.000 | 1.267 | 1.305 | 1.345 | 1.385 | 0.959 | 0.955 | 0.950 | 0.945 | 1.318 |
| 2015-2016 | 1.000 | 1.231 | 1.268 | 1.306 | 1.345 | 0.964 | 0.960 | 0.955 | 0.950 | 1.273 |
| 2016-2017 | 1.000 | 1.195 | 1.231 | 1.268 | 1.306 | 0.970 | 0.965 | 0.960 | 0.955 | 1.230 |
| 2017-2018 | 1.000 | 1.160 | 1.195 | 1.231 | 1.268 | 0.975 | 0.970 | 0.965 | 0.960 | 1.189 |
| 2018-2019 | 1.000 | 1.126 | 1.160 | 1.195 | 1.231 | 0.980 | 0.975 | 0.970 | 0.965 | 1.148 |
| 2019-2020 | 1.000 | 1.093 | 1.126 | 1.160 | 1.195 | 0.985 | 0.980 | 0.975 | 0.970 | 1.109 |
| 2020-2021 | 1.000 | 1.061 | 1.093 | 1.126 | 1.160 | 0.990 | 0.985 | 0.980 | 0.975 | 1.071 |
| 2021-2022 | 1.000 | 1.030 | 1.061 | 1.093 | 1.126 | 0.995 | 0.990 | 0.985 | 0.980 | 1.035 |
| 2022-2023 | 1.000 | 1.000 | 1.030 | 1.061 | 1.093 | 1.000 | 0.995 | 0.990 | 0.985 | 1.000 |
| 2023-2024 | 1.000 | -- | 1.000 | 1.030 | 1.061 | -- | 1.000 | 0.995 | 0.990 | -- |
| 2024-2025 | 1.000 | -- | -- | 1.000 | 1.030 | -- | -- | 1.000 | 0.995 | -- |
| 2025-2026 | 1.000 | -- | -- | -- | 1.000 | -- | -- | -- | 1.000 | -- |

Notes:
(A) No benefit level adjustment applied.
(B) - (E) (A) adjusted for a 3.0\% annual loss rate trend.
(F) - (I) (A) adjusted for a $-0.5 \%$ annual frequency trend.
(J) (A) adjusted for a $3.5 \%$ 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 | Initial |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estimate of | Ultimate |  |  |  |  |
|  | Ultimate |  |  | Adjusted | Trended |  |
|  | Limited | Reported |  | Limited | Payroll | Ultimate |
|  | Losses | Claims | BLF | Severity | (\$00) | Frequency |
|  | (A) | (B) | (C) | (D) | (E) | (F) |
| 2001-2002 | \$2,848,456 | 679 | 1.000 | 4,195 | 4,913,815 | 1.382 |
| 2002-2003 | 4,646,965 | 755 | 1.000 | 6,155 | 5,332,137 | 1.416 |
| 2003-2004 | 3,509,537 | 627 | 1.000 | 5,597 | 5,435,017 | 1.154 |
| 2004-2005 | 2,444,607 | 566 | 1.000 | 4,319 | 5,456,509 | 1.037 |
| 2005-2006 | 2,947,359 | 562 | 1.000 | 5,244 | 5,410,979 | 1.039 |
| 2006-2007 | 3,128,576 | 577 | 1.000 | 5,422 | 5,498,428 | 1.049 |
| 2007-2008 | 3,147,259 | 662 | 1.000 | 4,754 | 5,660,768 | 1.169 |
| 2008-2009 | 2,711,703 | 590 | 1.000 | 4,596 | 5,721,853 | 1.031 |
| 2009-2010 | 2,538,522 | 518 | 1.000 | 4,901 | 5,434,260 | 0.953 |
| 2010-2011 | 2,013,526 | 418 | 1.000 | 4,817 | 4,753,826 | 0.879 |
| 2011-2012 | 2,825,000 | 433 | 1.000 | 6,524 | 4,536,227 | 0.955 |
| 2012-2013 | 3,309,000 | 494 | 1.000 | 6,698 | 4,454,630 | 1.109 |
| 2013-2014 | 2,229,780 | 439 | 1.000 | 5,079 | 4,284,105 | 1.025 |
| 2014-2015 | 2,938,392 | 467 | 1.000 | 6,292 | 4,328,088 | 1.079 |
| 2015-2016 | 3,129,000 | 460 | 1.000 | 6,802 | 4,395,985 | 1.046 |
| 2016-2017 | 2,932,000 | 488 | 1.000 | 6,008 | 4,566,182 | 1.069 |
| 2017-2018 | 1,857,000 | 470 | 1.000 | 3,951 | 4,681,268 | 1.004 |
| 2018-2019 | 1,582,000 | 414 | 1.000 | 3,821 | 4,709,274 | 0.879 |
| 2019-2020 | 2,534,000 | 416 | 1.000 | 6,091 | 4,680,801 | 0.889 |
| 2020-2021 | 3,128,000 | 352 | 1.000 | 8,886 | 4,621,045 | 0.762 |
| 2021-2022 | 3,472,000 | 390 | 1.000 | 8,903 | 4,756,654 | 0.820 |
|  |  |  | Severity Trend Factors |  | Frequency Trend Factors |  |
|  | 2010-2011 through 2019-2020 |  |  | 0.978 |  | 0.995 |
|  | 2011-2012 through 2020-2021 |  |  | 0.995 |  | 0.973 |
|  | 2016-2017 through 2020-2021 |  |  | 1.129 |  | 0.923 |
|  |  |  | Prior | 1.025 |  | 1.005 |
|  |  | Default |  | 1.030 |  | 0.975 |
|  |  | Selected | ual Trend | 1.035 |  | 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) \$100K and \$1M Rate Analysis Appendix D, Page 3, Column (C).
(C) \$100K and \$1M Rate Analysis Appendix E, Page 1, (A).
(D) $(\mathrm{A}) \times(\mathrm{C}) /(\mathrm{B})$.
(E) From \$100K and \$1M 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 | 0.3\% | 2.0\% | 0.008 | 0.008 | 0.968 |
| 10 | 0.5\% | 2.0\% | 0.012 | 0.013 | 0.965 |
| 9 | 1.4\% | 2.0\% | 0.026 | 0.027 | 0.969 |
| 8 | 2.6\% | 2.0\% | 0.051 | 0.053 | 0.970 |
| 7 | 4.4\% | 2.0\% | 0.094 | 0.097 | 0.969 |
| 6 | 6.4\% | 2.0\% | 0.156 | 0.162 | 0.966 |
| 5 | 10.7\% | 2.0\% | 0.259 | 0.269 | 0.964 |
| 4 | 21.4\% | 2.0\% | 0.466 | 0.483 | 0.965 |
| 3 | 25.6\% | 2.0\% | 0.711 | 0.739 | 0.961 |
| 2 | 18.3\% | 2.0\% | 0.878 | 0.922 | 0.952 |
| 1 | 7.8\% | 2.0\% | 0.938 | 1.000 | 0.938 |
| (G) Discount Factor for Future Funding: |  |  |  | 2022-2023 | 0.947 |
|  |  |  |  | 2023-2024 | 0.947 |

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 $2,87.8 \%=[71.1 \% / 1.020]+[18.3 \% /(1.010)]$.
(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 0.95 , on a discounted basis, $\$ 0.95$ must be budgeted for every $\$ 1$ that will actually be paid on claims that will be incurred in the next fiscal year.

Confidence Level Table

| Probability | Projected Losses | Outstanding Losses |
| :---: | :---: | :---: |
|  |  |  |
| 95\% | 1.820 | 1.550 |
| $90 \%$ | 1.577 | 1.378 |
| $85 \%$ | 1.431 | 1.284 |
| $80 \%$ | 1.321 | 1.214 |
| $75 \%$ | 1.232 | 1.159 |
| $70 \%$ | 1.157 | 1.112 |
| $65 \%$ | 1.091 | 1.072 |
| $60 \%$ | 1.031 | 1.034 |
| $55 \%$ | 0.977 | 1.001 |
| $50 \%$ | 0.925 | 0.969 |
| $45 \%$ | 0.876 | 0.938 |
| $40 \%$ | 0.827 | 0.908 |
| $35 \%$ | 0.780 | 0.849 |
| $30 \%$ | 0.732 | 0.817 |
| $25 \%$ | 0.682 |  |
|  |  |  |
| To read table: | For the above retention, there is a $90 \%$ chance |  |
|  | that final loss settlements will be less than |  |
|  | 1.577 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 12/31/22 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident Year <br> (A) | Unlimited Incurred <br> (B) | Additions to Losses (C) | Subtractions from Losses (D) | Adjusted Incurred <br> (E) | Incurred Over SIR (F) | Incurred Over \$100,000 <br> (G) | Incurred Capped at \$100,000 <br> (H) | $\begin{array}{r} \text { Incurred } \\ \$ 100,000 \end{array}$ to SIR Layer <br> (I) | Incurred Capped at SIR <br> (J) | Incurred Capped at SIR \& Aggregate (K) |
| 2001-2002 | \$7,250,903 | \$0 | \$0 | \$7,250,903 | \$1,452,906 | \$4,402,447 | \$2,848,456 | \$2,949,541 | \$5,797,997 | \$5,797,997 |
| 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 | 4,547,760 | 0 | 0 | 4,547,760 | 0 | 1,419,184 | 3,128,576 | 1,419,184 | 4,547,760 | 4,547,760 |
| 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 | 6,315,380 | 0 | 0 | 6,315,380 | 22,224 | 3,490,733 | 2,824,647 | 3,468,509 | 6,293,156 | 6,293,156 |
| 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 | 8,501,264 | 0 | 0 | 8,501,264 | 2,240,574 | 5,375,520 | 3,125,745 | 3,134,946 | 6,260,691 | 6,260,691 |
| 2016-2017 | 36,062,292 | 0 | 0 | 36,062,292 | 27,817,119 | 33,136,572 | 2,925,720 | 5,319,453 | 8,245,173 | 8,245,173 |
| 2017-2018 | 2,625,026 | 0 | 0 | 2,625,026 | 0 | 775,051 | 1,849,975 | 775,051 | 2,625,026 | 2,625,026 |
| 2018-2019 | 2,598,995 | 0 | 0 | 2,598,995 | 0 | 1,028,207 | 1,570,788 | 1,028,207 | 2,598,995 | 2,598,995 |
| 2019-2020 | 2,948,177 | 0 | 0 | 2,948,177 | 0 | 456,550 | 2,491,627 | 456,550 | 2,948,177 | 2,948,177 |
| 2020-2021 | 15,350,458 | 0 | 0 | 15,350,458 | 9,176,800 | 12,449,083 | 2,901,375 | 3,272,283 | 6,173,658 | 6,173,658 |
| 2021-2022 | 2,654,851 | 0 | 0 | 2,654,851 | 0 | 569,442 | 2,085,409 | 569,442 | 2,654,851 | 2,654,851 |
| 2022-2023 | 113,903 | 0 | 0 | 113,903 | 0 | 0 | 113,903 | 0 | 113,903 | 113,903 |
| Total | \$161,340,714 | \$0 | \$0 | \$161,340,714 | \$52,307,298 | \$103,038,242 | \$58,302,472 | \$50,730,944 | \$109,033,416 | \$109,033,416 |

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 $(\mathrm{J})$ 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)

| Paid Losses as of 12/31/22 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 (H) | Paid <br> \$100,000 to SIR Layer <br> (I) | Paid <br> Capped at SIR <br> (J) | Paid Capped at SIR \& Aggregate (K) |
| 2001-2002 | \$7,250,903 | \$0 | \$0 | \$7,250,903 | \$1,452,906 | \$4,402,447 | \$2,848,456 | \$2,949,541 | \$5,797,997 | \$5,797,997 |
| 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 | 4,547,760 | 0 | 0 | 4,547,760 | 0 | 1,419,184 | 3,128,576 | 1,419,184 | 4,547,760 | 4,547,760 |
| 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 | 6,260,218 | 0 | 0 | 6,260,218 | 22,224 | 3,435,571 | 2,824,647 | 3,413,347 | 6,237,994 | 6,237,994 |
| 2012-2013 | 6,532,045 | 0 | 0 | 6,532,045 | 0 | 3,223,444 | 3,308,601 | 3,223,444 | 6,532,045 | 6,532,045 |
| 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 | 8,367,697 | 0 | 0 | 8,367,697 | 2,240,574 | 5,241,953 | 3,125,745 | 3,001,379 | 6,127,124 | 6,127,124 |
| 2016-2017 | 34,766,444 | 0 | 0 | 34,766,444 | 27,192,489 | 31,883,155 | 2,883,289 | 4,690,666 | 7,573,955 | 7,573,955 |
| 2017-2018 | 2,624,026 | 0 | 0 | 2,624,026 | 0 | 775,051 | 1,848,975 | 775,051 | 2,624,026 | 2,624,026 |
| 2018-2019 | 2,337,555 | 0 | 0 | 2,337,555 | 0 | 791,792 | 1,545,763 | 791,792 | 2,337,555 | 2,337,555 |
| 2019-2020 | 1,735,905 | 0 | 0 | 1,735,905 | 0 | 19,385 | 1,716,520 | 19,385 | 1,735,905 | 1,735,905 |
| 2020-2021 | 12,786,696 | 0 | 0 | 12,786,696 | 9,106,053 | 11,045,065 | 1,741,631 | 1,939,012 | 3,680,643 | 3,680,643 |
| 2021-2022 | 597,050 | 0 | 0 | 597,050 | 0 | 0 | 597,050 | 0 | 597,050 | 597,050 |
| 2022-2023 | 19,868 | 0 | 0 | 19,868 | 0 | 0 | 19,868 | 0 | 19,868 | 19,868 |
| Total | \$153,089,855 | \$0 | \$0 | \$153,089,855 | \$51,511,921 | \$98,373,085 | \$54,716,770 | \$46,861,164 | \$101,577,934 | \$101,577,934 |

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) $(\mathrm{G})-(\mathrm{F})$.
(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)
Case Reserves as of $12 / 31 / 22$

| 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 \$100,000 <br> (G) | Reserves <br> Capped at \$100,000 <br> (H) | Reserves \$100,000 to SIR Layer <br> (I) | Reserves Capped at SIR <br> (J) | Reserves Capped at SIR \& Aggregate (K) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2001-2002 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2002-2003 | 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 | 55,162 | 0 | 0 | 55,162 | 0 | 55,162 | 0 | 55,162 | 55,162 | 55,162 |
| 2012-2013 | 575,972 | 0 | 0 | 575,972 | 100,000 | 575,972 | 0 | 475,972 | 475,972 | 475,972 |
| 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 | 133,567 | 0 | 0 | 133,567 | 0 | 133,567 | 0 | 133,567 | 133,567 | 133,567 |
| 2016-2017 | 1,295,848 | 0 | 0 | 1,295,848 | 624,630 | 1,253,417 | 42,432 | 628,787 | 671,218 | 671,218 |
| 2017-2018 | 1,000 | 0 | 0 | 1,000 | 0 | 0 | 1,000 | 0 | 1,000 | 1,000 |
| 2018-2019 | 261,441 | 0 | 0 | 261,441 | 0 | 236,415 | 25,026 | 236,415 | 261,441 | 261,441 |
| 2019-2020 | 1,212,272 | 0 | 0 | 1,212,272 | 0 | 437,165 | 775,107 | 437,165 | 1,212,272 | 1,212,272 |
| 2020-2021 | 2,563,762 | 0 | 0 | 2,563,762 | 70,747 | 1,404,018 | 1,159,744 | 1,333,271 | 2,493,015 | 2,493,015 |
| 2021-2022 | 2,057,800 | 0 | 0 | 2,057,800 | 0 | 569,442 | 1,488,358 | 569,442 | 2,057,800 | 2,057,800 |
| 2022-2023 | 94,036 | 0 | 0 | 94,036 | 0 | 0 | 94,036 | 0 | 94,036 | 94,036 |
| Total | \$8,250,859 | \$0 | \$0 | \$8,250,859 | \$795,377 | \$4,665,157 | \$3,585,702 | \$3,869,780 | \$7,455,482 | \$7,455,482 |

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) \$100K and \$1M Rate Analysis Appendix H, Page 1, Column (C) - \$100K and \$1M Rate Analysis Appendix H, Page 2, Column (C).
(D) \$100K and \$1M Rate Analysis Appendix H, Page 1, Column (D) - \$100K and \$1M 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 $\$ 100 \mathrm{~K}$ and $\$ 1 \mathrm{M}$ Rate Analysis Not Included.

| Claim Counts as of 12/31/22 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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) |
| 2001-2002 | 679 | 0 | 0 | 679 | 679 | 0 | 0 | 679 | 0 | 0 |
| 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 | 518 | 0 | 0 | 518 | 518 | 0 | 0 | 518 | 0 | 0 |
| 2010-2011 | 418 | 0 | 0 | 418 | 418 | 0 | 0 | 418 | 0 | 0 |
| 2011-2012 | 433 | 0 | 0 | 433 | 432 | 0 | 0 | 432 | 1 | 1 |
| 2012-2013 | 494 | 0 | 0 | 494 | 493 | 0 | 0 | 493 | 1 | 1 |
| 2013-2014 | 439 | 0 | 0 | 439 | 439 | 0 | 0 | 439 | 0 | 0 |
| 2014-2015 | 467 | 0 | 0 | 467 | 467 | 0 | 0 | 467 | 0 | 0 |
| 2015-2016 | 460 | 0 | 0 | 460 | 459 | 0 | 0 | 459 | 1 | 1 |
| 2016-2017 | 488 | 0 | 0 | 488 | 484 | 0 | 0 | 484 | 4 | 4 |
| 2017-2018 | 469 | 0 | 0 | 469 | 468 | 0 | 0 | 468 | 1 | 1 |
| 2018-2019 | 412 | 0 | 0 | 412 | 407 | 0 | 0 | 407 | 5 | 5 |
| 2019-2020 | 412 | 0 | 0 | 412 | 383 | 0 | 0 | 383 | 29 | 29 |
| 2020-2021 | 346 | 0 | 0 | 346 | 299 | 0 | 0 | 299 | 47 | 47 |
| 2021-2022 | 370 | 0 | 0 | 370 | 189 | 0 | 0 | 189 | 181 | 181 |
| 2022-2023 | 116 | 0 | 0 | 116 | 23 | 0 | 0 | 23 | 93 | 93 |
| Total | 10,860 | 0 | 0 | 10,860 | 10,497 | 0 | 0 | 10,497 | 363 | 363 |

## 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 and \$1M Analysis)
Exposure Measures

| Accident | Total <br> Payroll <br> (\$ear | Inflation <br> Trend <br> (A) | Trended <br> (B) |
| :---: | :---: | :---: | :---: |
| (B) | Payroll <br> (\$00) |  |  |
| $2001-2002$ | $2,926,632$ | 1.679 | $(C)$ |
| $2002-2003$ | $3,255,273$ | 1.638 | $4,913,815$ |
| $2003-2004$ | $3,401,137$ | 1.598 | $5,332,137$ |
| $2004-2005$ | $3,500,006$ | 1.559 | $5,435,017$ |
| $2005-2006$ | $3,557,514$ | 1.521 | $5,456,509$ |
| $2006-2007$ | $3,705,140$ | 1.484 | $5,410,979$ |
| $2007-2008$ | $3,909,370$ | 1.448 | $5,498,428$ |
| $2008-2009$ | $4,049,436$ | 1.413 | $5,660,768$ |
| $2009-2010$ | $3,940,725$ | 1.379 | $5,721,853$ |
| $2010-2011$ | $3,534,443$ | 1.345 | $5,434,260$ |
| $2011-2012$ | $3,457,490$ | 1.312 | $4,753,826$ |
| $2012-2013$ | $3,480,180$ | 1.280 | $4,536,227$ |
| $2013-2014$ | $3,430,028$ | 1.249 | $4,454,630$ |
| $2014-2015$ | $3,550,523$ | 1.219 | $4,284,105$ |
| $2015-2016$ | $3,697,212$ | 1.189 | $4,328,088$ |
| $2016-2017$ | $3,936,364$ | 1.160 | $4,395,985$ |
| $2017-2018$ | $4,135,396$ | 1.132 | $4,566,182$ |
| $2018-2019$ | $4,265,647$ | 1.104 | $4,681,268$ |
| $2019-2020$ | $4,346,148$ | 1.077 | $4,709,274$ |
| $2020-2021$ | $4,396,808$ | 1.051 | $4,680,801$ |
| $2021-2022$ | $4,640,638$ | 1.025 | $4,621,045$ |
| $2022-2023$ | $4,748,717$ | 1.000 | $4,756,654$ |
| $2023-2024$ | $4,891,178$ | 1.000 | $4,748,717$ |

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 Year | Ultimate |  | Trended | Trended | Trended |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
|  | Losses | Factor | Losses | (\$00) | Loss Rate |
|  | (A) | (B) | (C) | (D) | (E) |
| 2001-2002 | 2,949,541 | 1.679 | 4,952,279 | 4,913,815 | 1.008 |
| 2002-2003 | 4,237,463 | 1.638 | 6,940,964 | 5,332,137 | 1.302 |
| 2003-2004 | 2,205,881 | 1.598 | 3,524,998 | 5,435,017 | 0.649 |
| 2004-2005 | 1,424,731 | 1.559 | 2,221,156 | 5,456,509 | 0.407 |
| 2005-2006 | 2,684,321 | 1.521 | 4,082,852 | 5,410,979 | 0.755 |
| 2006-2007 | 1,419,184 | 1.484 | 2,106,069 | 5,498,428 | 0.383 |
| 2007-2008 | 2,651,368 | 1.448 | 3,839,181 | 5,660,768 | 0.678 |
| 2008-2009 | 2,653,385 | 1.412 | 3,746,580 | 5,721,853 | 0.655 |
| 2009-2010 | 1,335,978 | 1.378 | 1,840,978 | 5,434,260 | 0.339 |
| 2010-2011 | 1,557,549 | 1.344 | 2,093,346 | 4,753,826 | 0.440 |
| 2011-2012 | 3,489,000 | 1.312 | 4,577,568 | 4,536,227 | 1.009 |
| 2012-2013 | 3,736,000 | 1.280 | 4,782,080 | 4,454,630 | 1.074 |
| 2013-2014 | 2,088,304 | 1.249 | 2,608,292 | 4,284,105 | 0.609 |
| 2014-2015 | 3,799,380 | 1.218 | 4,627,645 | 4,328,088 | 1.069 |
| 2015-2016 | 3,260,000 | 1.188 | 3,872,880 | 4,395,985 | 0.881 |
| 2016-2017 | 5,569,000 | 1.160 | 6,460,040 | 4,566,182 | 1.415 |
| 2017-2018 | 1,233,000 | 1.132 | 1,395,756 | 4,681,268 | 0.298 |
| 2018-2019 | 1,614,000 | 1.104 | 1,781,856 | 4,709,274 | 0.378 |
| 2019-2020 | 1,773,000 | 1.077 | 1,909,521 | 4,680,801 | 0.408 |
| 2020-2021 | 5,082,000 | 1.051 | 5,341,182 | 4,621,045 | 1.156 |
| 2021-2022 | 3,856,000 | 1.025 | 3,952,400 | 4,756,654 | 0.831 |
| Totals | \$58,619,085 |  | \$76,657,623 | 103,631,851 | \$0.740 |
| 12/13-17/18 | 19,685,684 |  | 23,746,693 | 26,710,258 | 0.889 |
| 12/13-20/21 | 8,938,000 |  | 9,293,582 | 9,377,699 | 0.991 |
|  |  |  | (F) Selected Limited Rate: |  | \$0.970 |
|  |  |  |  | Prior: | \$1.020 |
| Program Year: |  | 2022-2023 | 2023-2024 |  |  |
| (G) Factor to SIR: |  | 1.000 | 1.000 |  |  |
| (H) Trend Factor: |  | 1.000 | 1.025 |  |  |
| (I) Program Rate: |  | \$0.970 | \$0.994 |  |  |
| (J) Trended Payroll (\$00): |  | 4,748,717 | 4,891,178 |  |  |
| (K) Projected Program Losses: |  | 4,606,000 | 4,862,000 |  |  |
| (L) Projected ULAE: |  | 0 | 0 |  |  |
| (M) Projected Loss and ULAE: |  | \$4,606,000 | \$4,862,000 |  |  |

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 $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix E, Page 1, Column (B).
(C) $(A) \times(B)$.
(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.

PLAN JPA - Liability Program (\$100K to \$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 to \$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 to \$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.

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 |
| 2001-2002 |  | 365,699 | 1,446,885 | 1,633,894 | 2,059,086 | 2,967,377 | 2,941,383 | 2,955,718 | 2,943,619 | 2,943,619 | 2,959,541 |
| 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 |  |
| 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 |  |  |
| 2015-2016 |  | 575,005 | 2,175,661 | 2,839,484 | 3,255,772 | 3,254,877 | 3,125,229 | 3,134,946 |  |  |  |
| 2016-2017 | 10,002 | 1,597,500 | 2,927,832 | 4,486,306 | 5,196,650 | 5,165,945 | 5,319,453 |  |  |  |  |
| 2017-2018 |  | 145,002 | 597,690 | 818,662 | 773,258 | 775,051 |  |  |  |  |  |
| 2018-2019 |  |  | 391,223 | 717,128 | 1,028,207 |  |  |  |  |  |  |
| 2019-2020 |  |  | 66,812 | 456,550 |  |  |  |  |  |  |  |
| 2020-2021 | 905,000 | 2,019,771 | 3,272,283 |  |  |  |  |  |  |  |  |
| 2021-2022 | 50,000 | 569,442 |  |  |  |  |  |  |  |  |  |
| 2022-2023 |  |  |  |  |  |  |  |  |  |  |  |


|  | 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 |
| 2001-2002 |  | 3.956 | 1.129 | 1.260 | 1.441 | 0.991 | 1.005 | 0.996 | 1.000 | 1.005 | 0.997 |
| 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 |  |
| 2013-2014 | 3.339 | 1.189 | 1.671 | 1.252 | 1.067 | 0.991 | 0.968 | 1.000 | 1.004 |  |  |
| 2014-2015 |  | 1.293 | 1.288 | 1.126 | 0.995 | 1.000 | 1.000 | 1.000 |  |  |  |
| 2015-2016 |  | 3.784 | 1.305 | 1.147 | 1.000 | 0.960 | 1.003 |  |  |  |  |
| 2016-2017 | 159.718 | 1.833 | 1.532 | 1.158 | 0.994 | 1.030 |  |  |  |  |  |
| 2017-2018 |  | 4.122 | 1.370 | 0.945 | 1.002 |  |  |  |  |  |  |
| 2018-2019 |  |  | 1.833 | 1.434 |  |  |  |  |  |  |  |
| 2019-2020 |  |  | 6.833 |  |  |  |  |  |  |  |  |
| 2020-2021 | 2.232 | 1.620 |  |  |  |  |  |  |  |  |  |
| 2021-2022 | 11.389 |  |  |  |  |  |  |  |  |  |  |


|  | 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 | 2.720 | 1.554 | 1.204 | 1.071 | 1.023 | 1.018 | 1.085 | 0.989 | 1.002 | 0.997 |
| Dollar-Weighted |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ |  |  | 1.887 | 1.162 | 0.997 | 1.002 | 0.992 | 1.141 | 1.001 | 1.020 | 1.000 |
| $4-\mathrm{yr}$ |  |  | 1.626 | 1.157 | 0.996 | 1.000 | 1.004 | 1.100 | 1.001 | 1.016 | 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 | 1.393 | 1.152 | 1.033 | 1.010 | 1.011 | 1.015 | 1.010 | 1.005 | 1.004 |
| Selected | 5.500 | 2.325 | 1.615 | 1.169 | 1.024 | 1.009 | 1.006 | 1.015 | 1.010 | 1.005 | 1.004 |
| Cumulated | 26.125 | 4.750 | 2.043 | 1.265 | 1.988 | 1.056 | 1.047 | 1.040 | 1.025 | 1.015 | 84010 |

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

| Limited Losses Reported as of: |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 138 | 150 | 162 | 174 | 186 | 198 | 210 |

Year
2001-2002

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

Page 3

| 138 | 150 | 162 | 174 | 186 | 198 | 210 | 222 | 234 | 246 | 258 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Months | Months | Months | Months | Months | Months | Months | Months | Months <br> Months | Months |  |
| $2,949,541$ | $2,949,541$ | $2,949,541$ | $2,949,541$ | $2,949,541$ | $2,949,541$ | $2,949,541$ | $2,949,541$ | $2,949,541$ | $2,949,541$ | $2,949,541$ |
| $4,512,327$ | $4,509,757$ | $4,509,756$ | $4,509,756$ | $4,509,756$ | $4,478,397$ | $4,478,397$ | $4,478,397$ | $4,478,397$ | $4,478,397$ |  |
| $2,205,881$ | $2,205,881$ | $2,205,881$ | $2,205,881$ | $2,205,881$ | $2,205,881$ | $2,205,881$ | $2,205,881$ | $2,205,881$ |  |  |
| $1,675,074$ | $1,675,074$ | $1,675,074$ | $1,675,074$ | $1,675,074$ | $1,675,074$ | $1,675,074$ | $1,675,074$ |  |  |  |
| $3,008,029$ | $3,008,029$ | $3,008,029$ | $3,008,029$ | $3,008,029$ | $3,008,029$ | $3,008,029$ |  |  |  |  |
| $1,413,623$ | $1,413,623$ | $1,436,261$ | $1,419,184$ | $1,419,184$ | $1,419,184$ |  |  |  |  |  |
| $4,015,369$ | $4,203,645$ | $4,203,645$ | $4,203,645$ | $4,203,645$ |  |  |  |  |  |  |
| $2,751,812$ | $2,751,812$ | $2,750,770$ | $2,751,812$ |  |  |  |  |  |  |  |
| $2,036,496$ | $2,036,496$ | $2,036,496$ |  |  |  |  |  |  |  |  |
| $1,709,837$ | $1,709,837$ |  |  |  |  |  |  |  |  |  |
| $3,672,332$ |  |  |  |  |  |  |  |  |  |  |

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 |  |
| 0.999 | 1.000 | 1.000 | 1.000 | 0.993 | 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 | 1.016 | 0.988 | 1.000 | 1.000 |  |  |  |  |  |  |
| 1.047 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |
| 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |  |
| 1.000 | 1.000 |  |  |  |  |  |  |  |  |  |
| 1.000 |  |  |  |  |  |  |  |  |  |  |

2011-2012
2012-2013
2013-2014
2014-2015
2015-2016
2016-2017
2017-2018
2018-2019
2019-2020
2020-2021
2021-2022

|  | $138-150$ <br> Months | $150-162$ <br> 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 | 1.005 | 1.002 | 0.999 | 1.000 | 0.999 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |
| Dollar-Weighted |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ | 1.000 | 1.000 | 0.998 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |
| 4-yr | 1.018 | 1.002 | 0.999 | 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 | 1.990 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 85000 |

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

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 $12 / 31 / 22$ <br> (B) | Factor <br> (C) | Losses <br> (D) | of $12 / 31 / 22$ <br> (E) | Factor (F) | Losses <br> (G) |
| 2001-2002 | \$2,949,541 | 1.000 | \$2,949,541 | \$2,949,541 | 1.000 | \$2,949,541 |
| 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 | 1.001 | 1,337,314 | 1,335,978 | 1.001 | 1,337,314 |
| 2010-2011 | 1,557,549 | 1.003 | 1,562,222 | 1,557,549 | 1.003 | 1,562,222 |
| 2011-2012 | 3,413,347 | 1.007 | 3,437,240 | 3,413,347 | 1.007 | 3,437,240 |
| 2012-2013 | 3,223,444 | 1.009 | 3,252,455 | 3,223,444 | 1.009 | 3,252,455 |
| 2013-2014 | 2,088,304 | 1.014 | 2,117,540 | 2,088,304 | 1.014 | 2,117,540 |
| 2014-2015 | 3,799,381 | 1.022 | 3,882,967 | 3,799,381 | 1.022 | 3,882,967 |
| 2015-2016 | 3,001,379 | 1.063 | 3,190,466 | 3,001,379 | 1.063 | 3,190,466 |
| 2016-2017 | 4,690,666 | 1.117 | 5,239,474 | 4,690,666 | 1.117 | 5,239,474 |
| 2017-2018 | 775,051 | 1.250 | 968,814 | 775,051 | 1.250 | 968,814 |
| 2018-2019 | 791,792 | 1.430 | 1,132,263 | 791,792 | 1.430 | 1,132,263 |
| 2019-2020 | 19,385 | 2.027 | 39,293 | 19,385 | 2.027 | 39,293 |
| 2020-2021 | 1,939,012 | 5.072 | 9,834,669 | 1,939,012 | 5.072 | 9,834,669 |
| 2021-2022 | 0 | 22.824 | 0 | 0 | 22.824 | 0 |
| Totals | \$46,861,163 |  | \$56,220,592 | \$46,861,163 |  | \$56,220,592 |

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 \$100K to \$1M 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.

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 |
| 2001-2002 |  | 309,735 | 1,022,186 | 1,490,294 | 1,947,824 | 2,029,466 | 2,041,384 | 2,943,619 | 2,943,619 | 2,943,619 | 2,949,541 |
| 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 |  |
| 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 |  |  |
| 2015-2016 |  |  | 155,478 | 1,714,285 | 2,562,714 | 2,787,512 | 2,991,237 | 3,001,379 |  |  |  |
| 2016-2017 |  |  | 1,417,546 | 2,996,157 | 3,400,847 | 4,466,711 | 4,690,666 |  |  |  |  |
| 2017-2018 |  | 56,752 | 356,919 | 681,757 | 719,295 | 775,051 |  |  |  |  |  |
| 2018-2019 |  |  | 73,233 | 515,432 | 791,792 |  |  |  |  |  |  |
| 2019-2020 |  |  |  | 19,385 |  |  |  |  |  |  |  |
| 2020-2021 |  | 947,057 | 1,939,012 |  |  |  |  |  |  |  |  |
| 2021-2022 |  |  |  |  |  |  |  |  |  |  |  |
| 2022-2023 |  |  |  |  |  |  |  |  |  |  |  |


| 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 |
| 2001-2002 |  | 3.300 | 1.458 | 1.307 | 1.042 | 1.006 | 1.442 | 1.000 | 1.000 | 1.002 | 1.000 |
| 2002-2003 | 11.960 | 2.464 | 1.548 | 1.145 | 0.991 | 1.132 | 1.003 | 1.000 | 0.998 | 1.000 | 1.005 |
| 2003-2004 |  | 23.173 | 1.044 | 1.797 | 1.124 | 1.321 | 1.267 | 1.749 | 0.982 | 1.000 | 1.000 |
| 2004-2005 |  | 47.128 | 5.387 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2005-2006 |  | 1.013 | 4.078 | 2.423 | 1.297 | 1.067 | 1.021 | 1.012 | 1.001 | 1.006 | 1.000 |
| 2006-2007 | 2.465 | 4.548 | 4.458 | 1.689 | 1.807 | 1.513 | 0.991 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2007-2008 |  | 11.107 | 2.324 | 1.835 | 1.332 | 1.227 | 1.000 | 1.000 | 1.000 | 1.000 | 0.955 |
| 2008-2009 |  | 11.489 | 7.543 | 1.193 | 1.095 | 1.206 | 1.013 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2009-2010 | 1.302 | 1.959 | 3.191 | 1.107 | 1.010 | 1.016 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 |
| 2010-2011 |  | 2.020 | 1.720 | 1.925 | 1.048 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2011-2012 |  | 6.138 | 2.507 | 1.227 | 0.988 | 1.040 | 1.007 | 1.003 | 1.004 | 1.001 | 1.002 |
| 2012-2013 |  | 2.198 | 1.909 | 1.165 | 1.159 | 1.137 | 1.039 | 1.437 | 1.006 | 1.037 |  |
| 2013-2014 |  | 12.346 | 2.739 | 1.516 | 1.015 | 1.089 | 1.010 | 1.000 | 1.004 |  |  |
| 2014-2015 |  | 1.182 | 1.183 | 1.918 | 1.021 | 1.000 | 1.000 | 1.000 |  |  |  |
| 2015-2016 |  |  | 11.026 | 1.495 | 1.088 | 1.073 | 1.003 |  |  |  |  |
| 2016-2017 |  |  | 2.114 | 1.135 | 1.313 | 1.050 |  |  |  |  |  |
| 2017-2018 |  | 6.289 | 1.910 | 1.055 | 1.078 |  |  |  |  |  |  |
| 2018-2019 |  |  | 7.038 | 1.536 |  |  |  |  |  |  |  |
| 2019-2020 |  |  |  |  |  |  |  |  |  |  |  |
| 2020-2021 |  | 2.047 |  |  |  |  |  |  |  |  |  |
| 2021-2022 |  |  |  |  |  |  |  |  |  |  |  |


|  | $6-18$ <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 | 8.650 | 3.510 | 1.470 | 1.142 | 1.117 | 1.053 | 1.086 | 1.000 | 1.004 | 0.997 |
| Dollar-Weighted Averages |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ |  |  |  | 1.171 | 1.201 | 1.037 | 1.004 | 1.105 | 1.005 | 1.014 | 1.001 |
| $4-\mathrm{yr}$ |  |  |  | 1.265 | 1.132 | 1.046 | 1.010 | 1.076 | 1.004 | 1.011 | 1.001 |
| 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 | 1.400 | 1.145 | 1.120 | 1.050 | 1.025 | 1.010 | 1.005 | 1.004 |
| Selected | 9.100 | 4.500 | 2.502 | 1.418 | 1.144 | 1.119 | 1.051 | 1.040 | 1.008 | 1.005 | 1.002 |
| Cumulated | 207.698 | 22.824 | 5.072 | 2.027 | 1.730 | 1.250 | 1.117 | 1.063 | 1.022 | 1.014 | 81.009 |

PLAN JPA - Liability Program (\$100K to \$1M Analysis)
Paid Loss Development
Accident
Limited Losses Paid as of:
Year
2001-2002
$2002-2003$

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

| 138 | 150 | 162 | 174 | 186 | 198 | 210 | 222 | 234 | 246 | 258 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Months | Months | Months | Months | Months | Months | Months <br> Months | Months <br> Months | Months |  |  |
| $2,949,541$ | $2,949,541$ | $2,949,541$ | $2,949,541$ | $2,949,541$ | $2,949,541$ | $2,949,541$ | $2,949,541$ | $2,949,541$ | $2,949,541$ | $2,949,541$ |
| $4,455,192$ | $4,470,710$ | $4,477,671$ | $4,478,398$ | $4,478,398$ | $4,478,398$ | $4,478,398$ | $4,478,398$ | $4,478,398$ | $4,478,398$ |  |
| $2,205,881$ | $2,205,881$ | $2,205,881$ | $2,205,881$ | $2,205,881$ | $2,205,881$ | $2,205,881$ | $2,205,881$ | $2,205,881$ |  |  |
| $1,675,075$ | $1,675,075$ | $1,675,075$ | $1,675,075$ | $1,675,075$ | $1,675,075$ | $1,675,075$ | $1,675,075$ |  |  |  |
| $3,008,028$ | $3,008,028$ | $3,008,028$ | $3,008,028$ | $3,008,028$ | $3,008,028$ | $3,008,028$ |  |  |  |  |
| $1,413,623$ | $1,413,623$ | $1,413,623$ | $1,419,184$ | $1,419,184$ | $1,419,184$ |  |  |  |  |  |
| $4,015,369$ | $4,203,646$ | $4,203,646$ | $4,203,646$ | $4,203,646$ |  |  |  |  |  |  |
| $2,751,812$ | $2,751,812$ | $2,750,770$ | $2,751,812$ |  |  |  |  |  |  |  |
| $2,036,496$ | $2,036,496$ | $2,036,496$ |  |  |  |  |  |  |  |  |

Paid Loss Development Factors:

| 138-150 Months | $150-162$ <br> 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |
| 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 | 1.004 | 1.000 | 1.000 |  |  |  |  |  |  |
| 1.047 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |
| 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |  |
| 1.000 | 1.000 |  |  |  |  |  |  |  |  |  |
| 1.000 |  |  |  |  |  |  |  |  |  |  |

2011-2012
2012-2013
2013-2014
2014-2015
2015-2016
2016-2017
2017-2018
2018-2019
2019-2020
2020-2021
2021-2022

|  | $138-150$ <br> Months | 150-162 <br> 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 | 1.005 | 1.000 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |
| Dollar-Weighted |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ | 1.000 | 1.000 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |
| $4-\mathrm{yr}$ | 1.018 | 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 | 1.003 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Selected | 1.004 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Cumulated | 1.007 | 1.003 | 1.001 | 1.000 | 1.808 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 88000 |

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

Exposure and Development Method
Based on Reported Losses

| Accident Year | Trended Payroll (\$00) (A) | Reported Losses as of $12 / 31 / 22$ <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) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2001-2002 | 4,913,815 | 2,949,541 | 1.000 | 0.000 | 0.600 | 0 | 2,949,541 |
| 2002-2003 | 5,332,137 | 4,237,463 | 1.000 | 0.000 | 0.795 | 0 | 4,237,463 |
| 2003-2004 | 5,435,017 | 2,205,881 | 1.000 | 0.000 | 0.406 | 0 | 2,205,881 |
| 2004-2005 | 5,456,509 | 1,424,731 | 1.000 | 0.000 | 0.261 | 0 | 1,424,731 |
| 2005-2006 | 5,410,979 | 2,684,321 | 1.000 | 0.000 | 0.496 | 0 | 2,684,321 |
| 2006-2007 | 5,498,428 | 1,419,184 | 1.000 | 0.000 | 0.258 | 0 | 1,419,184 |
| 2007-2008 | 5,660,768 | 2,651,368 | 1.000 | 0.000 | 0.468 | 0 | 2,651,368 |
| 2008-2009 | 5,721,853 | 2,653,385 | 1.000 | 0.000 | 0.464 | 0 | 2,653,385 |
| 2009-2010 | 5,434,260 | 1,335,978 | 1.001 | 0.001 | 0.246 | 1,337 | 1,337,315 |
| 2010-2011 | 4,753,826 | 1,557,549 | 1.003 | 0.003 | 0.328 | 4,678 | 1,562,227 |
| 2011-2012 | 4,536,227 | 3,468,509 | 1.006 | 0.006 | 0.769 | 20,930 | 3,489,439 |
| 2012-2013 | 4,454,630 | 3,699,416 | 1.010 | 0.010 | 0.839 | 37,374 | 3,736,790 |
| 2013-2014 | 4,284,105 | 2,088,304 | 1.015 | 0.015 | 0.487 | 31,295 | 2,119,599 |
| 2014-2015 | 4,328,088 | 3,799,380 | 1.025 | 0.024 | 0.878 | 91,201 | 3,890,581 |
| 2015-2016 | 4,395,985 | 3,134,946 | 1.040 | 0.038 | 0.742 | 123,949 | 3,258,895 |
| 2016-2017 | 4,566,182 | 5,319,453 | 1.047 | 0.045 | 1.220 | 250,683 | 5,570,136 |
| 2017-2018 | 4,681,268 | 775,051 | 1.056 | 0.053 | 0.773 | 191,787 | 966,838 |
| 2018-2019 | 4,709,274 | 1,028,207 | 1.082 | 0.076 | 0.793 | 283,819 | 1,312,026 |
| 2019-2020 | 4,680,801 | 456,550 | 1.265 | 0.209 | 0.812 | 794,369 | 1,250,919 |
| 2020-2021 | 4,621,045 | 3,272,283 | 2.043 | 0.511 | 0.833 | 1,967,008 | 5,239,291 |
| 2021-2022 | 4,756,654 | 569,442 | 4.750 | 0.789 | 0.854 | 3,205,062 | 3,774,504 |
| Totals | 103,631,851 | \$50,730,942 |  |  |  | \$7,003,492 | \$57,734,434 |

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 $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix C, Page 3, Column (H).
(F) $(\mathrm{A}) \times(\mathrm{D}) \times(\mathrm{E})$.
(G) $(\mathrm{B})+(\mathrm{F})$.

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 Year | Trended Payroll (\$00) (A) | Paid Losses as of $12 / 31 / 22$ <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) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2001-2002 | 4,913,815 | 2,949,541 | 1.000 | 0.000 | 0.600 | 0 | 2,949,541 |
| 2002-2003 | 5,332,137 | 4,237,463 | 1.000 | 0.000 | 0.795 | 0 | 4,237,463 |
| 2003-2004 | 5,435,017 | 2,205,881 | 1.000 | 0.000 | 0.406 | 0 | 2,205,881 |
| 2004-2005 | 5,456,509 | 1,424,731 | 1.000 | 0.000 | 0.261 | 0 | 1,424,731 |
| 2005-2006 | 5,410,979 | 2,684,321 | 1.000 | 0.000 | 0.496 | 0 | 2,684,321 |
| 2006-2007 | 5,498,428 | 1,419,184 | 1.000 | 0.000 | 0.258 | 0 | 1,419,184 |
| 2007-2008 | 5,660,768 | 2,651,369 | 1.000 | 0.000 | 0.468 | 0 | 2,651,369 |
| 2008-2009 | 5,721,853 | 2,653,385 | 1.000 | 0.000 | 0.464 | 0 | 2,653,385 |
| 2009-2010 | 5,434,260 | 1,335,978 | 1.001 | 0.001 | 0.246 | 1,337 | 1,337,315 |
| 2010-2011 | 4,753,826 | 1,557,549 | 1.003 | 0.003 | 0.328 | 4,678 | 1,562,227 |
| 2011-2012 | 4,536,227 | 3,413,347 | 1.007 | 0.007 | 0.769 | 24,419 | 3,437,766 |
| 2012-2013 | 4,454,630 | 3,223,444 | 1.009 | 0.009 | 0.839 | 33,637 | 3,257,081 |
| 2013-2014 | 4,284,105 | 2,088,304 | 1.014 | 0.014 | 0.487 | 29,209 | 2,117,513 |
| 2014-2015 | 4,328,088 | 3,799,381 | 1.022 | 0.022 | 0.878 | 83,601 | 3,882,982 |
| 2015-2016 | 4,395,985 | 3,001,379 | 1.063 | 0.059 | 0.742 | 192,447 | 3,193,826 |
| 2016-2017 | 4,566,182 | 4,690,666 | 1.117 | 0.105 | 1.220 | 584,928 | 5,275,594 |
| 2017-2018 | 4,681,268 | 775,051 | 1.250 | 0.200 | 0.773 | 723,724 | 1,498,775 |
| 2018-2019 | 4,709,274 | 791,792 | 1.430 | 0.301 | 0.793 | 1,124,071 | 1,915,863 |
| 2019-2020 | 4,680,801 | 19,385 | 2.027 | 0.507 | 0.812 | 1,927,011 | 1,946,396 |
| 2020-2021 | 4,621,045 | 1,939,012 | 5.072 | 0.803 | 0.833 | 3,091,012 | 5,030,024 |
| 2021-2022 | 4,756,654 |  | 22.824 | 0.956 | 0.854 | 3,883,446 | 3,883,446 |
| Totals | 103,631,851 | \$46,861,163 |  |  |  | \$11,703,520 | \$58,564,683 |

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) $(\mathrm{B})+(\mathrm{F})$.

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 Limited Losses <br> (B) | Trend Factor (C) | Trended <br> Limited <br> Losses <br> (D) | Trended Limited Loss Rate (E) | Limited Loss Rate (F) | Factor to SIR (G) | Program Loss Rate <br> (H) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 2001-2002 | 4,913,815 | 2,949,541 | 1.679 | 4,952,279 | 1.008 | 0.600 | 1.000 | 0.600 |
| 2002-2003 | 5,332,137 | 4,237,463 | 1.638 | 6,940,964 | 1.302 | 0.795 | 1.000 | 0.795 |
| 2003-2004 | 5,435,017 | 2,205,881 | 1.598 | 3,524,998 | 0.649 | 0.406 | 1.000 | 0.406 |
| 2004-2005 | 5,456,509 | 1,424,731 | 1.559 | 2,221,156 | 0.407 | 0.261 | 1.000 | 0.261 |
| 2005-2006 | 5,410,979 | 2,684,321 | 1.521 | 4,082,852 | 0.755 | 0.496 | 1.000 | 0.496 |
| 2006-2007 | 5,498,428 | 1,419,184 | 1.484 | 2,106,069 | 0.383 | 0.258 | 1.000 | 0.258 |
| 2007-2008 | 5,660,768 | 2,651,368 | 1.448 | 3,839,181 | 0.678 | 0.468 | 1.000 | 0.468 |
| 2008-2009 | 5,721,853 | 2,653,385 | 1.412 | 3,746,580 | 0.655 | 0.464 | 1.000 | 0.464 |
| 2009-2010 | 5,434,260 | 1,335,978 | 1.378 | 1,840,978 | 0.339 | 0.246 | 1.000 | 0.246 |
| 2010-2011 | 4,753,826 | 1,557,549 | 1.344 | 2,093,346 | 0.440 | 0.328 | 1.000 | 0.328 |
| 2011-2012 | 4,536,227 | 3,489,000 | 1.312 | 4,577,568 | 1.009 | 0.769 | 1.000 | 0.769 |
| 2012-2013 | 4,454,630 | 3,736,000 | 1.280 | 4,782,080 | 1.074 | 0.839 | 1.000 | 0.839 |
| 2013-2014 | 4,284,105 | 2,088,304 | 1.249 | 2,608,292 | 0.609 | 0.487 | 1.000 | 0.487 |
| 2014-2015 | 4,328,088 | 3,799,380 | 1.218 | 4,627,645 | 1.069 | 0.878 | 1.000 | 0.878 |
| 2015-2016 | 4,395,985 | 3,260,000 | 1.188 | 3,872,880 | 0.881 | 0.742 | 1.000 | 0.742 |
| 2016-2017 | 4,566,182 | 5,569,000 | 1.160 | 6,460,040 | 1.415 | 1.220 | 1.000 | 1.220 |
| 2017-2018 | 4,681,268 | 818,000 | 1.132 | 925,976 | 0.198 | 0.773 | 1.000 | 0.773 |
| 2018-2019 | 4,709,274 | 1,113,000 | 1.104 | 1,228,752 | 0.261 | 0.793 | 1.000 | 0.793 |
| 2019-2020 | 4,680,801 | 578,000 | 1.077 | 622,506 | 0.133 | 0.812 | 1.000 | 0.812 |
| 2020-2021 | 4,621,045 | 5,200,000 | 1.051 | 5,465,200 | 1.183 | 0.833 | 1.000 | 0.833 |
| 2021-2022 | 4,756,654 | 3,729,000 | 1.025 | 3,822,225 | 0.804 | 0.854 | 1.000 | 0.854 |
| Total/Avg | 103,631,851 | \$56,499,085 |  | \$74,341,567 | \$0.717 |  |  |  |
| 15/16-19/20 | 23,033,510 | 11,338,000 |  | 13,110,154 | 0.569 |  |  |  |
| 16/17-20/21 | 23,258,570 | 13,278,000 |  | 14,702,474 | 0.632 |  |  |  |
|  |  |  | Selected Limited Rate: <br> Prior: |  | \$0.875 |  |  |  |
|  |  |  |  |  | \$0.900 |  |  |  |

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) $(\mathrm{D}) /(\mathrm{A})$.
(F) Selected Limited Rate / (C). For 2016-2017 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

| Accident | Ultimate <br> Program <br> Severity <br> Year | Adjusted <br> Ultimate <br> Claims | Cltimate <br> Program <br> (B) |
| :---: | :---: | :---: | :---: |
| (B) |  |  |  |

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 <br> (G) | Program Severity (H) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Limited |  |  |  |  |  |  |  |
|  | Losses <br> (A) |  |  |  |  |  |  |  |
| 2001-2002 | \$2,949,541 | 10 | \$294,954 | 1.862 | \$549,204 | \$294,954 | 1.000 | \$294,954 |
| 2002-2003 | 4,237,463 | 20 | 211,873 | 1.808 | 383,066 | 211,873 | 1.000 | 211,873 |
| 2003-2004 | 2,205,881 | 12 | 183,823 | 1.755 | 322,609 | 183,823 | 1.000 | 183,823 |
| 2004-2005 | 1,424,731 | 4 | 356,183 | 1.704 | 606,936 | 356,183 | 1.000 | 356,183 |
| 2005-2006 | 2,684,321 | 12 | 223,693 | 1.654 | 369,988 | 223,693 | 1.000 | 223,693 |
| 2006-2007 | 1,419,184 | 13 | 109,168 | 1.606 | 175,324 | 109,168 | 1.000 | 109,168 |
| 2007-2008 | 2,651,368 | 12 | 220,947 | 1.559 | 344,456 | 220,947 | 1.000 | 220,947 |
| 2008-2009 | 2,653,385 | 11 | 241,217 | 1.513 | 364,961 | 241,217 | 1.000 | 241,217 |
| 2009-2010 | 1,335,978 | 14 | 95,427 | 1.469 | 140,182 | 95,427 | 1.000 | 95,427 |
| 2010-2011 | 1,557,549 | 9 | 173,061 | 1.426 | 246,785 | 173,061 | 1.000 | 173,061 |
| 2011-2012 | 3,489,000 | 14 | 249,214 | 1.385 | 345,161 | 249,214 | 1.000 | 249,214 |
| 2012-2013 | 3,736,000 | 15 | 249,067 | 1.345 | 334,995 | 249,067 | 1.000 | 249,067 |
| 2013-2014 | 2,088,304 | 9 | 232,034 | 1.306 | 303,036 | 232,034 | 1.000 | 232,034 |
| 2014-2015 | 3,799,380 | 9 | 422,153 | 1.267 | 534,868 | 422,153 | 1.000 | 422,153 |
| 2015-2016 | 3,260,000 | 16 | 203,750 | 1.231 | 250,816 | 203,750 | 1.000 | 203,750 |
| 2016-2017 | 5,569,000 | 14 | 397,786 | 1.195 | 475,354 | 397,786 | 1.000 | 397,786 |
| 2017-2018 | 1,233,000 | 6 | 205,500 | 1.160 | 238,380 | 297,414 | 1.000 | 297,414 |
| 2018-2019 | 1,614,000 | 7 | 230,571 | 1.126 | 259,623 | 306,394 | 1.000 | 306,394 |
| 2019-2020 | 1,599,000 | 8 | 199,875 | 1.093 | 218,463 | 315,645 | 1.000 | 315,645 |
| 2020-2021 | 5,135,000 | 18 | 285,278 | 1.061 | 302,680 | 325,165 | 1.000 | 325,165 |
| 2021-2022 | 3,829,000 | 10 | 382,900 | 1.030 | 394,387 | 334,951 | 1.000 | 334,951 |
|  |  | Average Limited Severity: |  |  | \$341,013 |  |  |  |
|  |  | Average 16/17-21/22 Limited Severity: |  |  | 314,815 |  |  |  |
|  |  | Average 20/21-21/22 Limited Severity: |  |  | 348,534 |  |  |  |
|  |  | Selected Limited Severity: |  |  | \$345,000 |  |  |  |
|  |  |  |  | Prior: | \$368,000 |  |  |  |

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) $(\mathrm{C}) \times(\mathrm{D})$.
(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.

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) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2001-2002 | 10 | 10 | 10 | 491.4 | 0.020 | 0.897 | 0.018 |
| 2002-2003 | 20 | 20 | 20 | 533.2 | 0.038 | 0.902 | 0.034 |
| 2003-2004 | 12 | 12 | 12 | 543.5 | 0.022 | 0.906 | 0.020 |
| 2004-2005 | 4 | 4 | 4 | 545.7 | 0.007 | 0.910 | 0.006 |
| 2005-2006 | 12 | 12 | 12 | 541.1 | 0.022 | 0.914 | 0.020 |
| 2006-2007 | 13 | 13 | 13 | 549.8 | 0.024 | 0.919 | 0.022 |
| 2007-2008 | 12 | 12 | 12 | 566.1 | 0.021 | 0.924 | 0.019 |
| 2008-2009 | 11 | 11 | 11 | 572.2 | 0.019 | 0.929 | 0.018 |
| 2009-2010 | 14 | 14 | 14 | 543.4 | 0.026 | 0.934 | 0.024 |
| 2010-2011 | 9 | 9 | 9 | 475.4 | 0.019 | 0.939 | 0.018 |
| 2011-2012 | 14 | 13 | 14 | 453.6 | 0.031 | 0.944 | 0.029 |
| 2012-2013 | 15 | 14 | 15 | 445.5 | 0.034 | 0.949 | 0.032 |
| 2013-2014 | 9 | 9 | 9 | 428.4 | 0.021 | 0.954 | 0.020 |
| 2014-2015 | 9 | 9 | 9 | 432.8 | 0.021 | 0.959 | 0.020 |
| 2015-2016 | 16 | 15 | 16 | 439.6 | 0.036 | 0.964 | 0.035 |
| 2016-2017 | 14 | 11 | 14 | 456.6 | 0.031 | 0.970 | 0.030 |
| 2017-2018 | 6 | 6 | 6 | 468.1 | 0.013 | 0.975 | 0.013 |
| 2018-2019 | 7 | 5 | 7 | 470.9 | 0.015 | 0.980 | 0.015 |
| 2019-2020 | 8 | 0 | 8 | 468.1 | 0.017 | 0.985 | 0.017 |
| 2020-2021 | 18 | 14 | 18 | 462.1 | 0.039 | 0.990 | 0.039 |
| 2021-2022 | 22 | 0 | 10 | 475.7 | 0.020 | 0.995 | 0.020 |
| Total | 255 | 213 | 243 | 10,363.2 |  |  | 0.022 |
| 16/17-20/21 | 53 | 36 | 53 | 2,325.9 |  |  | 0.022 |
|  |  |  |  |  | (H) Selected Frequency: |  | 0.028 |
|  |  |  |  |  |  |  | 0.028 |
| Program Year: |  |  |  | 2022-2023 | 2023-2024 |  |  |
| (I) | Trend Factor: |  |  | 1.000 | 0.995 |  |  |
| (J) | Selected Freque |  |  | 0.028 | 0.028 |  |  |
|  | Est. Payroll (\$000 | 000): |  | 474.9 | 489.1 |  |  |
| (K) | Ultimate Claims: |  |  | 13 | 14 |  |  |

Notes:
(A) From \$100K to \$1M Rate Analysis Appendix D, Page 4, (C).
(G) $(\mathrm{E}) \times(\mathrm{F})$.
(B) From \$100K to \$1M Rate Analysis Appendix D, Page 5, (C).
(H) The selected frequency of 0.028 is based on (G).
(C) Selected from (A) and (B).
(I) From $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix E, Pag
(D) From $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix I, Column (C) / 10,000.
(J) (H) $\times$ (I).
(E) (C) $/(\mathrm{D})$.
(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 12/31/2022 <br> (A) | Reported Claim Development Factor (B) | Ultimate Claims <br> (C) | Trended Claim Frequency (D) |
| :---: | :---: | :---: | :---: | :---: |
| 2001-2002 | 10 | 1.000 | 10 | 0.018 |
| 2002-2003 | 20 | 1.000 | 20 | 0.034 |
| 2003-2004 | 12 | 1.000 | 12 | 0.020 |
| 2004-2005 | 4 | 1.000 | 4 | 0.007 |
| 2005-2006 | 12 | 1.000 | 12 | 0.020 |
| 2006-2007 | 13 | 1.000 | 13 | 0.022 |
| 2007-2008 | 12 | 1.000 | 12 | 0.020 |
| 2008-2009 | 11 | 1.000 | 11 | 0.018 |
| 2009-2010 | 14 | 1.000 | 14 | 0.024 |
| 2010-2011 | 9 | 1.001 | 9 | 0.018 |
| 2011-2012 | 14 | 1.001 | 14 | 0.029 |
| 2012-2013 | 15 | 1.001 | 15 | 0.032 |
| 2013-2014 | 9 | 1.002 | 9 | 0.020 |
| 2014-2015 | 9 | 1.003 | 9 | 0.020 |
| 2015-2016 | 16 | 1.004 | 16 | 0.035 |
| 2016-2017 | 14 | 1.005 | 14 | 0.030 |
| 2017-2018 | 6 | 1.015 | 6 | 0.012 |
| 2018-2019 | 7 | 1.040 | 7 | 0.015 |
| 2019-2020 | 7 | 1.204 | 8 | 0.017 |
| 2020-2021 | 12 | 1.461 | 18 | 0.039 |
| 2021-2022 | 7 | 3.201 | 22 | 0.046 |
| Total | 233 |  | 255 | 0.023 |

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)] x [\$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 Year | Claims <br> Closed as of 12/31/2022 <br> (A) | Closed Claim Development Factor (B) | Ultimate Claims <br> (C) | Trended Claim Frequency (D) |
| :---: | :---: | :---: | :---: | :---: |
| 2001-2002 | 10 | 1.000 | 10 | 0.018 |
| 2002-2003 | 20 | 1.000 | 20 | 0.034 |
| 2003-2004 | 12 | 1.000 | 12 | 0.020 |
| 2004-2005 | 4 | 1.000 | 4 | 0.007 |
| 2005-2006 | 12 | 1.000 | 12 | 0.020 |
| 2006-2007 | 13 | 1.000 | 13 | 0.022 |
| 2007-2008 | 12 | 1.000 | 12 | 0.020 |
| 2008-2009 | 11 | 1.000 | 11 | 0.018 |
| 2009-2010 | 14 | 1.001 | 14 | 0.024 |
| 2010-2011 | 9 | 1.002 | 9 | 0.018 |
| 2011-2012 | 13 | 1.003 | 13 | 0.027 |
| 2012-2013 | 14 | 1.004 | 14 | 0.030 |
| 2013-2014 | 9 | 1.005 | 9 | 0.020 |
| 2014-2015 | 9 | 1.006 | 9 | 0.020 |
| 2015-2016 | 15 | 1.007 | 15 | 0.033 |
| 2016-2017 | 11 | 1.008 | 11 | 0.023 |
| 2017-2018 | 6 | 1.033 | 6 | 0.012 |
| 2018-2019 | 4 | 1.150 | 5 | 0.010 |
| 2019-2020 | 0 | 1.480 | 0 |  |
| 2020-2021 | 3 | 4.588 | 14 | 0.030 |
| 2021-2022 | 0 | 15.140 | 0 |  |
| Total | 201 |  | 213 | 0.019 |

Notes:
(A) Provided by the Authority.
(B) From $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix D, Page 7.
(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 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.

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 |
| 2001-2002 |  |  |  |  |  |  | 8 | 8 | 8 | 8 | 8 | 7 | 10 | 10 |
| 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 |  |
| 2011-2012 | 3 | 11 | 19 | 17 | 17 | 16 | 16 | 16 | 16 | 16 | 17 | 16 |  |  |
| 2012-2013 | 3 | 22 | 22 | 15 | 15 | 16 | 15 | 15 | 15 | 16 | 16 |  |  |  |
| 2013-2014 | 3 | 4 | 8 | 10 | 11 | 11 | 11 | 11 | 11 | 11 |  |  |  |  |
| 2014-2015 | 3 | 8 | 15 | 12 | 12 | 12 | 12 | 12 | 12 |  |  |  |  |  |
| 2015-2016 |  | 4 | 10 | 15 | 16 | 16 | 16 | 16 |  |  |  |  |  |  |
| 2016-2017 |  | 4 | 11 | 12 | 16 | 15 | 14 |  |  |  |  |  |  |  |
| 2017-2018 |  | 2 | 4 | 12 | 6 | 6 |  |  |  |  |  |  |  |  |
| 2018-2019 |  |  | 4 | 5 | 7 |  |  |  |  |  |  |  |  |  |
| 2019-2020 |  |  | 4 | 7 |  |  |  |  |  |  |  |  |  |  |
| 2020-2021 |  | 12 | 12 |  |  |  |  |  |  |  |  |  |  |  |
| 2021-2022 | 1 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2022-2023 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| 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 |
| 2001-2002 |  |  |  |  |  |  | 1.000 | 1.000 | 1.000 | 1.000 | 0.875 | 1.429 | 1.000 | 1.000 |
| 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 |  |
| 2010-2011 |  | 3.500 | 0.667 | 0.929 | 0.923 | 0.917 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |
| 2011-2012 | 3.667 | 1.727 | 0.895 | 1.000 | 0.941 | 1.000 | 1.000 | 1.000 | 1.000 | 1.063 | 0.941 |  |  |  |
| 2012-2013 | 7.333 | 1.000 | 0.682 | 1.000 | 1.067 | 0.938 | 1.000 | 1.000 | 1.067 | 1.000 |  |  |  |  |
| 2013-2014 | 1.333 | 2.000 | 1.250 | 1.100 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |
| 2014-2015 | 2.667 | 1.875 | 0.800 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |
| 2015-2016 |  | 2.500 | 1.500 | 1.067 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |
| 2016-2017 |  | 2.750 | 1.091 | 1.333 | 0.938 | 0.933 |  |  |  |  |  |  |  |  |
| 2017-2018 |  | 2.000 | 3.000 | 0.500 | 1.000 |  |  |  |  |  |  |  |  |  |
| 2018-2019 |  |  | 1.250 | 1.400 |  |  |  |  |  |  |  |  |  |  |
| 2019-2020 |  |  | 1.750 |  |  |  |  |  |  |  |  |  |  |  |
| 2020-2021 |  | 1.000 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2021-2022 | 7.000 |  |  |  |  |  |  |  |  |  |  |  |  |  |


|  | 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 | 2.073 | 1.240 | 1.172 | 0.963 | 1.183 | 0.948 | 1.114 | 1.053 | 1.015 | 1.061 | 1.049 | 1.000 | 1.000 |
| Claim-Weighted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ |  |  | 2.000 | 1.000 | 0.974 | 0.977 | 1.000 | 1.000 | 1.024 | 1.023 | 0.977 | 1.000 | 1.000 | 1.000 |
| $4-\mathrm{yr}$ |  |  | 1.565 | 1.023 | 0.980 | 0.981 | 1.000 | 1.000 | 1.019 | 1.017 | 0.982 | 1.018 | 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 | 3.700 | 2.250 | 1.200 | 1.150 | 1.025 | 1.010 | 1.001 | 1.001 | 1.001 | 1.001 | 1.000 | 1.000 | 1.001 | 1.000 |
| Selected | 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 |
| Cumulated | 12.119 | 3.201 | 1.461 | 1.204 | 1.040 | 1.0158 | 1.005 | 1.004 | 1.003 | 1.002 | 1.001 | 1.001 | 1.001 | 97.000 |

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 |
| 2001-2002 |  |  |  |  |  |  | 8 | 8 | 8 | 8 | 8 | 7 | 10 | 10 |
| 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 |  |
| 2011-2012 |  |  | 2 | 8 | 10 | 14 | 16 | 15 | 15 | 15 | 16 | 15 |  |  |
| 2012-2013 |  | 1 | 5 | 10 | 11 | 15 | 14 | 14 | 14 | 15 | 15 |  |  |  |
| 2013-2014 |  |  | 3 | 5 | 10 | 9 | 10 | 10 | 11 | 11 |  |  |  |  |
| 2014-2015 |  | 2 | 5 | 9 | 8 | 12 | 12 | 12 | 12 |  |  |  |  |  |
| 2015-2016 |  |  | 2 | 6 | 10 | 15 | 15 | 15 |  |  |  |  |  |  |
| 2016-2017 |  |  | 1 | 5 | 10 | 9 | 11 |  |  |  |  |  |  |  |
| 2017-2018 |  |  | 1 | 5 | 4 | 6 |  |  |  |  |  |  |  |  |
| 2018-2019 |  |  | 1 | 1 | 4 |  |  |  |  |  |  |  |  |  |
| 2019-2020 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2020-2021 |  |  | 3 |  |  |  |  |  |  |  |  |  |  |  |

2021-2022
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 | 114-126 | 126-138 | 138-150 | 150-162 | 162-174 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2001-2002 |  |  |  |  |  |  | 1.000 | 1.000 | 1.000 | 1.000 | 0.875 | 1.429 | 1.000 | 1.000 |
| 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 |  |
| 2010-2011 |  | 4.000 | 1.750 | 1.429 | 1.100 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |
| 2011-2012 |  |  | 4.000 | 1.250 | 1.400 | 1.143 | 0.938 | 1.000 | 1.000 | 1.067 | 0.938 |  |  |  |
| 2012-2013 |  | 5.000 | 2.000 | 1.100 | 1.364 | 0.933 | 1.000 | 1.000 | 1.071 | 1.000 |  |  |  |  |
| 2013-2014 |  |  | 1.667 | 2.000 | 0.900 | 1.111 | 1.000 | 1.100 | 1.000 |  |  |  |  |  |
| 2014-2015 |  | 2.500 | 1.800 | 0.889 | 1.500 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |
| 2015-2016 |  |  | 3.000 | 1.667 | 1.500 | 1.000 | 1.000 |  |  |  |  |  |  |  |
| 2016-2017 |  |  | 5.000 | 2.000 | 0.900 | 1.222 |  |  |  |  |  |  |  |  |
| 2017-2018 |  |  | 5.000 | 0.800 | 1.500 |  |  |  |  |  |  |  |  |  |
| 2018-2019 |  |  | 1.000 | 4.000 |  |  |  |  |  |  |  |  |  |  |

2019-2020
2020-2021
2021-2022

|  | 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 | 1.153 | 1.273 | 1.010 | 1.091 | 1.050 | 1.014 | 1.069 | 1.049 | 0.991 | 1.000 |
| Claim-Weighted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ |  |  |  | 1.636 | 1.250 | 1.056 | 1.000 | 1.028 | 1.025 | 1.024 | 0.977 | 1.000 | 1.000 | 1.000 |
| $4-\mathrm{yr}$ |  |  |  | 1.647 | 1.313 | 1.067 | 1.000 | 1.020 | 1.020 | 1.018 | 0.982 | 1.018 | 0.983 | 1.000 |
| 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 | 3.500 | 3.000 | 1.050 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 |
| Selected | 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 |
| Cumulated | 60.560 | 15.140 | 4.588 | 1.480 | 1.150 | 1.033 | 901.008 | 1.007 | 1.006 | 1.005 | 1.004 | 1.003 | 1.002 | 98.001 |

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

Loss Trend Factors

|  | Benefit | $\begin{gathered} \text { Factor to } \\ \text { 2022-2023 } \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ 2023-2024 \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ \text { 2024-2025 } \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ 2025-2026 \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ \text { 2022-2023 } \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ \text { 2023-2024 } \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ \text { 2024-2025 } \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ 2025-2026 \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ \text { 2022-2023 } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 <br> (F) | Level <br> (G) | Level (H) | Level <br> (I) | Level <br> (J) |
| 2001-2002 | 1.000 | 1.679 | 1.720 | 1.764 | 1.808 | 0.897 | 0.893 | 0.888 | 0.884 | 1.862 |
| 2002-2003 | 1.000 | 1.638 | 1.678 | 1.721 | 1.764 | 0.902 | 0.897 | 0.892 | 0.888 | 1.808 |
| 2003-2004 | 1.000 | 1.598 | 1.637 | 1.679 | 1.721 | 0.906 | 0.901 | 0.896 | 0.892 | 1.755 |
| 2004-2005 | 1.000 | 1.559 | 1.598 | 1.638 | 1.679 | 0.910 | 0.905 | 0.901 | 0.896 | 1.704 |
| 2005-2006 | 1.000 | 1.521 | 1.559 | 1.598 | 1.638 | 0.914 | 0.909 | 0.905 | 0.900 | 1.654 |
| 2006-2007 | 1.000 | 1.484 | 1.520 | 1.559 | 1.598 | 0.919 | 0.914 | 0.910 | 0.905 | 1.606 |
| 2007-2008 | 1.000 | 1.448 | 1.483 | 1.521 | 1.559 | 0.924 | 0.919 | 0.915 | 0.910 | 1.559 |
| 2008-2009 | 1.000 | 1.412 | 1.447 | 1.484 | 1.521 | 0.929 | 0.924 | 0.920 | 0.915 | 1.513 |
| 2009-2010 | 1.000 | 1.378 | 1.412 | 1.448 | 1.484 | 0.934 | 0.929 | 0.925 | 0.920 | 1.469 |
| 2010-2011 | 1.000 | 1.344 | 1.378 | 1.413 | 1.448 | 0.939 | 0.934 | 0.930 | 0.925 | 1.426 |
| 2011-2012 | 1.000 | 1.312 | 1.344 | 1.379 | 1.413 | 0.944 | 0.939 | 0.935 | 0.930 | 1.385 |
| 2012-2013 | 1.000 | 1.280 | 1.312 | 1.345 | 1.379 | 0.949 | 0.944 | 0.940 | 0.935 | 1.345 |
| 2013-2014 | 1.000 | 1.249 | 1.280 | 1.312 | 1.345 | 0.954 | 0.949 | 0.945 | 0.940 | 1.306 |
| 2014-2015 | 1.000 | 1.218 | 1.248 | 1.280 | 1.312 | 0.959 | 0.955 | 0.950 | 0.945 | 1.267 |
| 2015-2016 | 1.000 | 1.188 | 1.218 | 1.249 | 1.280 | 0.964 | 0.960 | 0.955 | 0.950 | 1.231 |
| 2016-2017 | 1.000 | 1.160 | 1.188 | 1.219 | 1.249 | 0.970 | 0.965 | 0.960 | 0.955 | 1.195 |
| 2017-2018 | 1.000 | 1.132 | 1.160 | 1.189 | 1.219 | 0.975 | 0.970 | 0.965 | 0.960 | 1.160 |
| 2018-2019 | 1.000 | 1.104 | 1.131 | 1.160 | 1.189 | 0.980 | 0.975 | 0.970 | 0.965 | 1.126 |
| 2019-2020 | 1.000 | 1.077 | 1.104 | 1.132 | 1.160 | 0.985 | 0.980 | 0.975 | 0.970 | 1.093 |
| 2020-2021 | 1.000 | 1.051 | 1.077 | 1.104 | 1.132 | 0.990 | 0.985 | 0.980 | 0.975 | 1.061 |
| 2021-2022 | 1.000 | 1.025 | 1.050 | 1.077 | 1.104 | 0.995 | 0.990 | 0.985 | 0.980 | 1.030 |
| 2022-2023 | 1.000 | 1.000 | 1.025 | 1.051 | 1.077 | 1.000 | 0.995 | 0.990 | 0.985 | 1.000 |
| 2023-2024 | 1.000 | -- | 1.000 | 1.025 | 1.051 | -- | 1.000 | 0.995 | 0.990 | -- |
| 2024-2025 | 1.000 | -- | -- | 1.000 | 1.025 | -- | -- | 1.000 | 0.995 | -- |
| 2025-2026 | 1.000 | -- | -- | -- | 1.000 | -- | -- | -- | 1.000 | -- |

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

| Accident <br> Year | Initial |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estimate of | Ultimate |  |  | Trended |  |
|  | Ultimate |  |  | Adjusted |  |  |
|  | Limited | Reported |  | Limited | Payroll | Ultimate |
|  | Losses | Claims | BLF | Severity |  | Frequency |
|  | (A) | (B) | (C) | (D) | (E) | (F) |
| 2001-2002 | \$2,949,541 | 10 | 1.000 | 294,954 | 4,913,815 | 0.020 |
| 2002-2003 | 4,237,463 | 20 | 1.000 | 211,873 | 5,332,137 | 0.038 |
| 2003-2004 | 2,205,881 | 12 | 1.000 | 183,823 | 5,435,017 | 0.022 |
| 2004-2005 | 1,424,731 | 4 | 1.000 | 356,183 | 5,456,509 | 0.007 |
| 2005-2006 | 2,684,321 | 12 | 1.000 | 223,693 | 5,410,979 | 0.022 |
| 2006-2007 | 1,419,184 | 13 | 1.000 | 109,168 | 5,498,428 | 0.024 |
| 2007-2008 | 2,651,368 | 12 | 1.000 | 220,947 | 5,660,768 | 0.021 |
| 2008-2009 | 2,653,385 | 11 | 1.000 | 241,217 | 5,721,853 | 0.019 |
| 2009-2010 | 1,335,978 | 14 | 1.000 | 95,427 | 5,434,260 | 0.026 |
| 2010-2011 | 1,557,549 | 9 | 1.000 | 173,061 | 4,753,826 | 0.019 |
| 2011-2012 | 3,489,000 | 14 | 1.000 | 249,214 | 4,536,227 | 0.031 |
| 2012-2013 | 3,736,000 | 15 | 1.000 | 249,067 | 4,454,630 | 0.034 |
| 2013-2014 | 2,088,304 | 9 | 1.000 | 232,034 | 4,284,105 | 0.021 |
| 2014-2015 | 3,799,380 | 9 | 1.000 | 422,153 | 4,328,088 | 0.021 |
| 2015-2016 | 3,260,000 | 16 | 1.000 | 203,750 | 4,395,985 | 0.036 |
| 2016-2017 | 5,569,000 | 14 | 1.000 | 397,786 | 4,566,182 | 0.031 |
| 2017-2018 | 818,000 | 6 | 1.000 | 136,333 | 4,681,268 | 0.013 |
| 2018-2019 | 1,113,000 | 7 | 1.000 | 159,000 | 4,709,274 | 0.015 |
| 2019-2020 | 578,000 | 8 | 1.000 | 72,250 | 4,680,801 | 0.017 |
| 2020-2021 | 5,200,000 | 18 | 1.000 | 288,889 | 4,621,045 | 0.039 |
| 2021-2022 | 3,729,000 | 10 | 1.000 | 372,900 | 4,756,654 | 0.021 |
|  |  |  | Severity Trend Factors |  | Frequency Trend Factors |  |
|  | 2008-2009 through 2017-2018 |  |  | 1.045 |  | 0.995 |
|  | 2009-2010 through 2018-2019 |  |  | 1.032 |  | 0.956 |
|  | 2010-2011 through 2019-2020 |  |  | 0.923 |  | 0.946 |
|  | Prior |  |  | 1.030 |  | 1.010 |
|  | Default |  |  | 1.030 |  | 0.975 |
| Selected Residual Trend |  |  |  | 1.030 |  | 0.995 |

Notes:
(A) Selected average of results from \$100K to \$1M Rate Analysis Appendix A and \$100K ts
(B) \$100K to \$1M 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 \$100K to \$1M Rate Analysis Appendix I, Column (C).
(F) $(B) /(E) \times 10,000$.

Calculation of Discount Factors

| Payment <br> Year | Payment <br> Pattern | Return on <br> Investment | Discounted <br> Reserves | Undiscounted <br> Reserves | Discount <br> Factor |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | (B) | (C) | (D) | $($ (E) | (F) |

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 \$100K to \$1M 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, $91.9 \%=[84.0 \% / 1.020]+[9.6 \% /(1.010)]$.
(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 |
| :---: | :---: | :---: |
|  |  |  |
| $95 \%$ | 1.978 | 1.527 |
| $90 \%$ | 1.679 | 1.372 |
| $85 \%$ | 1.501 | 1.279 |
| $80 \%$ | 1.368 | 1.211 |
| $75 \%$ | 1.263 | 1.155 |
| $70 \%$ | 1.174 | 1.108 |
| $65 \%$ | 1.095 | 1.067 |
| $60 \%$ | 1.026 | 1.029 |
| $55 \%$ | 0.962 | 0.995 |
| $50 \%$ | 0.902 | 0.962 |
| $45 \%$ | 0.844 | 0.930 |
| $40 \%$ | 0.790 | 0.899 |
| $35 \%$ | 0.737 | 0.869 |
| $30 \%$ | 0.683 | 0.838 |
| $25 \%$ | 0.629 | 0.805 |
|  |  |  |
|  |  |  |
| To read table: | For the above retention, there is a 90\% chance |  |
|  | that final loss settlements will be less than |  |
|  | 1.679 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)

| Incurred Losses as of 12/31/22 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 to SIR Layer (H) | $\begin{array}{r} \text { Incurred } \\ \$ 100,000 \end{array}$ <br> to SIR Layer <br> (I) | Incurred Capped at SIR <br> (J) | Incurred Capped at SIR \& Aggregate (K) |
| 2001-2002 | \$7,250,903 | \$0 | \$0 | \$7,250,903 | \$1,452,906 | \$4,402,447 | \$2,848,456 | \$2,949,541 | \$5,797,997 | \$5,797,997 |
| 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 | 4,547,760 | 0 | 0 | 4,547,760 | 0 | 1,419,184 | 3,128,576 | 1,419,184 | 4,547,760 | 4,547,760 |
| 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 | 6,315,380 | 0 | 0 | 6,315,380 | 22,224 | 3,490,733 | 2,824,647 | 3,468,509 | 6,293,156 | 6,293,156 |
| 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 | 8,501,264 | 0 | 0 | 8,501,264 | 2,240,574 | 5,375,520 | 3,125,745 | 3,134,946 | 6,260,691 | 6,260,691 |
| 2016-2017 | 36,062,292 | 0 | 0 | 36,062,292 | 27,817,119 | 33,136,572 | 2,925,720 | 5,319,453 | 8,245,173 | 8,245,173 |
| 2017-2018 | 2,625,026 | 0 | 0 | 2,625,026 | 0 | 775,051 | 1,849,975 | 775,051 | 2,625,026 | 2,625,026 |
| 2018-2019 | 2,598,995 | 0 | 0 | 2,598,995 | 0 | 1,028,207 | 1,570,788 | 1,028,207 | 2,598,995 | 2,598,995 |
| 2019-2020 | 2,948,177 | 0 | 0 | 2,948,177 | 0 | 456,550 | 2,491,627 | 456,550 | 2,948,177 | 2,948,177 |
| 2020-2021 | 15,350,458 | 0 | 0 | 15,350,458 | 9,176,800 | 12,449,083 | 2,901,375 | 3,272,283 | 6,173,658 | 6,173,658 |
| 2021-2022 | 2,654,851 | 0 | 0 | 2,654,851 | 0 | 569,442 | 2,085,409 | 569,442 | 2,654,851 | 2,654,851 |
| 2022-2023 | 113,903 | 0 | 0 | 113,903 | 0 | 0 | 113,903 | 0 | 113,903 | 113,903 |
| Total | \$161,340,714 | \$0 | \$0 | \$161,340,714 | \$52,307,298 | \$103,038,242 | \$58,302,472 | \$50,730,944 | \$109,033,416 | \$109,033,416 |

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 12/31/22 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 (H) | Paid <br> \$100,000 to SIR Layer <br> (I) | Paid <br> Capped at SIR <br> (J) | Paid Capped at SIR \& Aggregate (K) |
| 2001-2002 | \$7,250,903 | \$0 | \$0 | \$7,250,903 | \$1,452,906 | \$4,402,447 | \$2,848,456 | \$2,949,541 | \$5,797,997 | \$5,797,997 |
| 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 | 4,547,760 | 0 | 0 | 4,547,760 | 0 | 1,419,184 | 3,128,576 | 1,419,184 | 4,547,760 | 4,547,760 |
| 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 | 6,260,218 | 0 | 0 | 6,260,218 | 22,224 | 3,435,571 | 2,824,647 | 3,413,347 | 6,237,994 | 6,237,994 |
| 2012-2013 | 6,532,045 | 0 | 0 | 6,532,045 | 0 | 3,223,444 | 3,308,601 | 3,223,444 | 6,532,045 | 6,532,045 |
| 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 | 8,367,697 | 0 | 0 | 8,367,697 | 2,240,574 | 5,241,953 | 3,125,745 | 3,001,379 | 6,127,124 | 6,127,124 |
| 2016-2017 | 34,766,444 | 0 | 0 | 34,766,444 | 27,192,489 | 31,883,155 | 2,883,289 | 4,690,666 | 7,573,955 | 7,573,955 |
| 2017-2018 | 2,624,026 | 0 | 0 | 2,624,026 | 0 | 775,051 | 1,848,975 | 775,051 | 2,624,026 | 2,624,026 |
| 2018-2019 | 2,337,555 | 0 | 0 | 2,337,555 | 0 | 791,792 | 1,545,763 | 791,792 | 2,337,555 | 2,337,555 |
| 2019-2020 | 1,735,905 | 0 | 0 | 1,735,905 | 0 | 19,385 | 1,716,520 | 19,385 | 1,735,905 | 1,735,905 |
| 2020-2021 | 12,786,696 | 0 | 0 | 12,786,696 | 9,106,053 | 11,045,065 | 1,741,631 | 1,939,012 | 3,680,643 | 3,680,643 |
| 2021-2022 | 597,050 | 0 | 0 | 597,050 | 0 | 0 | 597,050 | 0 | 597,050 | 597,050 |
| 2022-2023 | 19,868 | 0 | 0 | 19,868 | 0 | 0 | 19,868 | 0 | 19,868 | 19,868 |
| Total | \$153,089,855 | \$0 | \$0 | \$153,089,855 | \$51,511,921 | \$98,373,085 | \$54,716,770 | \$46,861,164 | \$101,577,934 | \$101,577,934 |

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) $(\mathrm{G})-(\mathrm{F})$.
(J) (E) - (F).
(K) Minimum of (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 12/31/22 |  |  |  |  |  |  |  |  |  |  |
| 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 \$100,000 (G) | Reserves Capped at to SIR Layer (H) | Reserves \$100,000 to SIR Layer <br> (I) | Reserves Capped at SIR <br> (J) | Reserves Capped at SIR \& Aggregate (K) |
| 2001-2002 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2002-2003 | 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 | 55,162 | 0 | 0 | 55,162 | 0 | 55,162 | 0 | 55,162 | 55,162 | 55,162 |
| 2012-2013 | 575,972 | 0 | 0 | 575,972 | 100,000 | 575,972 | 0 | 475,972 | 475,972 | 475,972 |
| 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 | 133,567 | 0 | 0 | 133,567 | 0 | 133,567 | 0 | 133,567 | 133,567 | 133,567 |
| 2016-2017 | 1,295,848 | 0 | 0 | 1,295,848 | 624,630 | 1,253,417 | 42,432 | 628,787 | 671,218 | 671,218 |
| 2017-2018 | 1,000 | 0 | 0 | 1,000 | 0 | 0 | 1,000 | 0 | 1,000 | 1,000 |
| 2018-2019 | 261,441 | 0 | 0 | 261,441 | 0 | 236,415 | 25,026 | 236,415 | 261,441 | 261,441 |
| 2019-2020 | 1,212,272 | 0 | 0 | 1,212,272 | 0 | 437,165 | 775,107 | 437,165 | 1,212,272 | 1,212,272 |
| 2020-2021 | 2,563,762 | 0 | 0 | 2,563,762 | 70,747 | 1,404,018 | 1,159,744 | 1,333,271 | 2,493,015 | 2,493,015 |
| 2021-2022 | 2,057,800 | 0 | 0 | 2,057,800 | 0 | 569,442 | 1,488,358 | 569,442 | 2,057,800 | 2,057,800 |
| 2022-2023 | 94,036 | 0 | 0 | 94,036 | 0 | 0 | 94,036 | 0 | 94,036 | 94,036 |
| Total | \$8,250,859 | \$0 | \$0 | \$8,250,859 | \$795,377 | \$4,665,157 | \$3,585,702 | \$3,869,780 | \$7,455,482 | \$7,455,482 |

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) - $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ Rate Analysis Appendix H, Page 2, Column (B).
(C) $\$ 100 \mathrm{~K}$ to $\$ 1 \mathrm{M}$ 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) $(\mathrm{B})+(\mathrm{C})-(\mathrm{D})$.
(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 12/31/22 in Excess of \$100K

| 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 Claims <br> (J) | Adjusted Open Claims (K) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2001-2002 | 10 | 0 | 0 | 10 | 10 | 0 | 0 | 10 | 0 | 0 |
| 2002-2003 | 20 | 0 | 0 | 20 | 20 | 0 | 0 | 20 | 0 | 0 |
| 2003-2004 | 12 | 0 | 0 | 12 | 12 | 0 | 0 | 12 | 0 | 0 |
| 2004-2005 | 4 | 0 | 0 | 4 | 4 | 0 | 0 | 4 | 0 | 0 |
| 2005-2006 | 12 | 0 | 0 | 12 | 12 | 0 | 0 | 12 | 0 | 0 |
| 2006-2007 | 13 | 0 | 0 | 13 | 13 | 0 | 0 | 13 | 0 | 0 |
| 2007-2008 | 12 | 0 | 0 | 12 | 12 | 0 | 0 | 12 | 0 | 0 |
| 2008-2009 | 11 | 0 | 0 | 11 | 11 | 0 | 0 | 11 | 0 | 0 |
| 2009-2010 | 14 | 0 | 0 | 14 | 14 | 0 | 0 | 14 | 0 | 0 |
| 2010-2011 | 9 | 0 | 0 | 9 | 9 | 0 | 0 | 9 | 0 | 0 |
| 2011-2012 | 14 | 0 | 0 | 14 | 13 | 0 | 0 | 13 | 1 | 1 |
| 2012-2013 | 15 | 0 | 0 | 15 | 14 | 0 | 0 | 14 | 1 | 1 |
| 2013-2014 | 9 | 0 | 0 | 9 | 9 | 0 | 0 | 9 | 0 | 0 |
| 2014-2015 | 9 | 0 | 0 | 9 | 9 | 0 | 0 | 9 | 0 | 0 |
| 2015-2016 | 16 | 0 | 0 | 16 | 15 | 0 | 0 | 15 | 1 | 1 |
| 2016-2017 | 14 | 0 | 0 | 14 | 11 | 0 | 0 | 11 | 3 | 3 |
| 2017-2018 | 6 | 0 | 0 | 6 | 6 | 0 | 0 | 6 | 0 | 0 |
| 2018-2019 | 7 | 0 | 0 | 7 | 4 | 0 | 0 | 4 | 3 | 3 |
| 2019-2020 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 7 | 7 |
| 2020-2021 | 12 | 0 | 0 | 12 | 3 | 0 | 0 | 3 | 9 | 9 |
| 2021-2022 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 7 | 7 |
| 2022-2023 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 233 | 0 | 0 | 233 | 201 | 0 | 0 | 201 | 32 | 32 |

## 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 to \$1M Analysis)
Exposure Measures

| Accident | Total <br> Payroll <br> Year | Inflation <br> Trend | Trended <br> Factor |
| :---: | :---: | :---: | :---: |
| (A) | (B) | $(\$ 00)$ |  |
| $2001-2002$ | $2,926,632$ | 1.679 | $(C)$ |

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

# PLAN JPA - Liability <br> Funding Guidelines for Outstanding Liabilities at June 30, 2023 

(A) Estimated Ultimate Losses
$\begin{array}{ll}\text { Incurred through 6/30/23: } & \$ 127,359,000\end{array}$
(From Reserve Appendix F)
(B) Estimated Paid Losses
through 6/30/23:
$108,733,000$
(From Reserve Appendix F)
(C) Estimated Liability for Claims

Outstanding at 6/30/23:
$\$ 18,626,000$
(From Reserve Appendix F)
(D) Estimated Liability for Outstanding

Claims Administration Fees at 6/30/23: 2,328,000
(From Reserve Not Included)
(E) Total Outstanding Liability for

Claims at 6/30/23: $\quad \begin{aligned} & \text { \$20,954,000 }\end{aligned}$
((C) + (D))
(F) Reserve Discount Factor (Based on a Discount Rate of 2.0\%.): 0.957
(Reserve Appendix H, Page 1, (H))
(G) Discounted Outstanding Liability for

Claims at 6/30/23:
$\$ 20,049,000$
( $(\mathrm{E}) \times(\mathrm{F})$ )

|  | Marginally Acceptable | Recommended |  |  | Conservative |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Confidence Level of Adequacy: | 70\% | 75\% | 80\% | 85\% | 90\% |
| Confidence Level Factor: (From Reserve Appendix I) | 1.109 | 1.155 | 1.209 | 1.278 | 1.370 |
| Margin for Adverse Experience: | 2,185,000 | 3,108,000 | 4,190,000 | 5,574,000 | 7,418,000 |

((G) $\times[(H)-1])$
(J) Total Required Assets

at $6 / 30 / 23$ : $\quad$| $\$ 22,234,000$ | $\$ 23,157,000$ | $\$ 24,239,000$ | $\$ 25,623,000$ |
| :--- | :--- | :--- | :--- |

$((\mathrm{G})+(\mathrm{I}))$
(K) Estimated Total Assets $\begin{array}{lllll}\text { at 6/30/23: } & 47,426,000 & 47,426,000 & 47,426,000 & 47,426,000\end{array}$
(L) Indicated Funding Redundancy/ (Deficiency):
\$25,192,000
\$24,269,000
\$23,187,000
\$21,803,000
\$19,959,000

| PLAN JPA - Liability |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IBNR as of 6/30/23 at Expected Claims Level |  |  |  |  |  |  |
|  |  |  |  | Estimated Percent of IBNR |  |  |
| Accident Year | Estimated Ultimate <br> (A) | Reported as of $12 / 31 / 22$ <br> (B) | Estimated IBNR as of 12/31/22 (C) | Reported Between 1/1/23 and 6/30/23 <br> (D) | Estimated IBNR Reported (E) | Estimated IBNR as of 6/30/23 (F) |
| 1986-2002 | \$34,629,654 | \$34,629,654 | \$0 | 100.0\% | \$0 | \$0 |
| 2002-2003 | 8,812,482 | 8,812,482 | 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 | 33.3\% | 0 | 0 |
| 2011-2012 | 3,902,000 | 3,878,185 | 23,815 | 33.2\% | 8,000 | 15,815 |
| 2012-2013 | 4,105,000 | 4,063,438 | 41,562 | 37.8\% | 16,000 | 25,562 |
| 2013-2014 | 7,074,000 | 6,969,125 | 104,875 | 19.8\% | 21,000 | 83,875 |
| 2014-2015 | 5,566,000 | 5,429,951 | 136,049 | 19.6\% | 27,000 | 109,049 |
| 2015-2016 | 5,157,000 | 4,957,912 | 199,088 | 19.4\% | 39,000 | 160,088 |
| 2016-2017 | 8,351,000 | 8,211,756 | 139,244 | 8.2\% | 11,000 | 128,244 |
| 2017-2018 | 1,075,000 | 870,473 | 204,527 | 22.8\% | 47,000 | 157,527 |
| 2018-2019 | 2,079,000 | 1,291,645 | 787,355 | 14.8\% | 117,000 | 670,355 |
| 2019-2020 | 2,690,000 | 701,961 | 1,988,039 | 32.0\% | 636,000 | 1,352,039 |
| 2020-2021 | 8,725,000 | 5,611,045 | 3,113,955 | 29.4\% | 916,000 | 2,197,955 |
| 2021-2022 | 4,978,000 | 514,442 | 4,463,558 | 17.7\% | 790,000 | 3,673,558 |
| 2022-2023 | 4,720,000 |  | 2,360,000 | 9.0\% | 425,000 | 4,295,000 |
| Totals | \$127,359,388 | \$111,437,321 | \$13,562,067 |  | \$3,053,000 | \$12,869,067 |

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 $1 / 1 / 23$ and $6 / 30 / 23$. 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 $6 / 30 / 23$. 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

|  | Reported | Paid | Exposure Method | Exposure Method |  | Selected |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Loss | Loss | Based on | Based on | Frequency- | Estimate of |
| Accident | Development | Development | Reported | Paid | Severity | Ultimate |
| Year | Method <br> (A) | Method <br> (B) | Losses (C) | Losses <br> (D) | Method <br> (E) | Losses <br> (F) |
| 1986-2002 | \$34,629,654 | \$34,629,654 |  |  | \$27,734,976 | \$34,629,654 |
| 2002-2003 | 8,812,482 | 8,812,482 | 8,812,482 | 8,812,482 | 6,056,820 | 8,812,482 |
| 2003-2004 | 2,574,481 | 2,574,481 | 2,574,481 | 2,574,481 | 2,881,140 | 2,574,481 |
| 2004-2005 | 1,874,487 | 1,874,487 | 1,874,487 | 1,874,487 | 2,117,187 | 1,874,487 |
| 2005-2006 | 4,756,022 | 4,756,022 | 4,756,022 | 4,756,022 | 3,673,824 | 4,756,022 |
| 2006-2007 | 1,662,124 | 1,662,124 | 1,662,124 | 1,662,124 | 1,903,146 | 1,662,124 |
| 2007-2008 | 6,755,660 | 6,755,660 | 6,755,660 | 6,755,660 | 5,684,280 | 6,755,660 |
| 2008-2009 | 3,472,680 | 3,472,680 | 3,472,680 | 3,472,680 | 3,936,486 | 3,472,680 |
| 2009-2010 | 2,355,305 | 2,355,305 | 2,355,716 | 2,355,716 | 2,767,280 | 2,352,952 |
| 2010-2011 | 2,052,987 | 2,052,987 | 2,054,149 | 2,054,149 | 2,439,073 | 2,046,846 |
| 2011-2012 | 3,901,454 | 3,849,784 | 3,906,321 | 3,855,848 | 4,688,920 | 3,902,000 |
| 2012-2013 | 4,104,072 | 3,518,853 | 4,113,401 | 3,532,432 | 4,996,698 | 4,105,000 |
| 2013-2014 | 7,073,662 | 7,066,693 | 7,025,854 | 7,022,072 | 3,784,395 | 7,074,000 |
| 2014-2015 | 5,565,700 | 5,549,410 | 5,576,914 | 5,564,668 | 6,125,364 | 5,566,000 |
| 2015-2016 | 5,156,228 | 5,128,279 | 5,127,632 | 5,087,858 | 4,466,500 | 5,157,000 |
| 2016-2017 | 8,597,709 | 7,772,465 | 8,538,055 | 7,719,704 | 7,227,360 | 8,351,000 |
| 2017-2018 | 919,219 | 1,088,091 | 1,229,484 | 2,225,232 | 2,230,641 | 1,075,000 |
| 2018-2019 | 1,397,560 | 1,508,980 | 1,839,597 | 3,225,410 | 3,196,400 | 2,079,000 |
| 2019-2020 | 887,981 | 220,428 | 2,231,741 | 3,819,743 | 4,488,372 | 2,690,000 |
| 2020-2021 | 7,812,865 | 5,167,816 | 9,613,615 | 10,118,581 | 9,362,215 | 8,725,000 |
| 2021-2022 | 2,443,600 |  | 5,727,359 | 6,316,285 | 6,186,875 | 4,978,000 |
| Totals |  |  |  |  |  | \$122,639,388 |


| Projected Losses for the Year 2022-2023 (G) | $\$ 4,720,000$ |
| :--- | :--- |
| Projected Losses for the Year 2023-2024 (H) | $\$ 5,100,000$ |

## 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.

PLAN JPA - Liability

Estimated Ultimate Limited Losses Capped at \$1,000,000 per Claim

|  | Reported | Paid | Exposure Method | Exposure Method |  | Selected |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Loss | Loss | Based on | Based on | Frequency- | Ultimate |
| Accident | Development | Development | Reported | Paid | Severity | Limited |
| Year | Method <br> (A) | Method <br> (B) | Losses <br> (C) | Losses <br> (D) | Method <br> (E) | Losses <br> (F) |
| 1986-2002 | \$25,985,454 | \$25,985,454 |  |  | \$25,985,472 | \$25,985,454 |
| 2002-2003 | 5,437,289 | 5,437,289 | 5,437,289 | 5,437,289 | 5,437,292 | 5,437,289 |
| 2003-2004 | 2,574,481 | 2,574,481 | 2,574,481 | 2,574,481 | 2,574,480 | 2,574,481 |
| 2004-2005 | 1,874,487 | 1,874,487 | 1,874,487 | 1,874,487 | 1,874,484 | 1,874,487 |
| 2005-2006 | 3,237,840 | 3,237,840 | 3,237,840 | 3,237,840 | 3,237,840 | 3,237,840 |
| 2006-2007 | 1,662,124 | 1,662,124 | 1,662,124 | 1,662,124 | 1,662,122 | 1,662,124 |
| 2007-2008 | 4,919,885 | 4,919,885 | 4,919,885 | 4,919,885 | 4,919,880 | 4,919,885 |
| 2008-2009 | 3,376,845 | 3,376,845 | 3,376,845 | 3,376,845 | 3,376,846 | 3,376,845 |
| 2009-2010 | 2,355,305 | 2,355,305 | 2,355,302 | 2,355,302 | 2,352,960 | 2,352,952 |
| 2010-2011 | 2,052,987 | 2,052,987 | 2,052,979 | 2,052,979 | 2,046,850 | 2,046,846 |
| 2011-2012 | 3,901,454 | 3,849,784 | 3,901,592 | 3,850,331 | 3,901,000 | 3,901,000 |
| 2012-2013 | 4,104,072 | 3,518,853 | 4,104,479 | 3,524,403 | 4,104,009 | 4,104,000 |
| 2013-2014 | 3,115,162 | 3,112,093 | 3,115,136 | 3,112,069 | 3,069,120 | 3,069,125 |
| 2014-2015 | 5,028,457 | 5,013,740 | 5,023,516 | 5,013,707 | 4,905,810 | 5,028,000 |
| 2015-2016 | 3,700,228 | 3,640,079 | 3,698,566 | 3,642,729 | 3,700,000 | 3,700,000 |
| 2016-2017 | 6,034,645 | 5,624,053 | 6,030,665 | 5,657,766 | 5,911,000 | 5,911,000 |
| 2017-2018 | 919,219 | 1,088,091 | 1,160,510 | 1,964,953 | 1,801,471 | 1,100,000 |
| 2018-2019 | 1,397,560 | 1,508,980 | 1,728,647 | 2,785,988 | 2,549,430 | 2,310,000 |
| 2019-2020 | 887,981 | 220,428 | 1,907,242 | 3,032,562 | 3,536,078 | 2,526,000 |
| 2020-2021 | 6,564,563 | 4,651,510 | 7,336,470 | 7,397,699 | 7,257,395 | 7,297,000 |
| 2021-2022 | 2,443,600 |  | 5,727,359 | 6,316,285 | 6,186,875 | 4,978,000 |
| Totals |  |  |  |  |  | \$97,392,328 |


| Projected Losses for the Year 2022-2023 (G) | $\$ 4,720,000$ |
| :--- | :--- |
| Projected Losses for the Year 2023-2024 (H) | $\$ 5,100,000$ |

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


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.

PLAN JPA - Liability
Reported Loss Development

| Program 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 |
| 2001-2002 |  | 486,199 | 2,720,670 | 2,906,359 | 3,303,530 | 4,806,236 | 6,530,242 | 4,585,777 | 4,573,678 | 4,573,678 | 4,664,570 |
| 2002-2003 | 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 |
| 2003-2004 | 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 |
| 2004-2005 |  | 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 |
| 2005-2006 | 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 |
| 2006-2007 | 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 |
| 2007-2008 | 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 |
| 2008-2009 | 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 |
| 2009-2010 | 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 |
| 2010-2011 |  | 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 |
| 2011-2012 | 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 |
| 2012-2013 | 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 |
| 2013-2014 | 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 |  |
| 2014-2015 |  | 2,581,639 | 3,391,765 | 4,496,980 | 5,649,691 | 5,428,532 | 5,429,951 | 5,429,951 | 4,905,812 |  |  |
| 2015-2016 |  | 816,550 | 4,031,962 | 4,652,451 | 5,078,739 | 5,077,844 | 4,948,195 | 3,557,912 |  |  |  |
| 2016-2017 | 10,002 | 1,838,105 | 4,617,897 | 6,101,188 | 7,084,535 | 7,845,241 | 5,763,749 |  |  |  |  |
| 2017-2018 |  | 213,377 | 680,850 | 921,662 | 868,680 | 870,473 |  |  |  |  |  |
| 2018-2019 |  | 5,000 | 568,156 | 1,002,487 | 1,291,645 |  |  |  |  |  |  |
| 2019-2020 |  | 63,500 | 367,323 | 701,961 |  |  |  |  |  |  |  |
| 2020-2021 | 2,330,000 | 4,118,968 | 4,234,245 |  |  |  |  |  |  |  |  |
| 2021-2022 | 60,000 | 514,442 |  |  |  |  |  |  |  |  |  |
| 2022-2023 |  |  |  |  |  |  |  |  |  |  |  |


|  | 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 |
| 2001-2002 |  | 5.596 | 1.068 | 1.137 | 1.455 | 1.359 | 0.702 | 0.997 | 1.000 | 1.020 | 0.989 |
| 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 |  |
| 2013-2014 | 3.040 | 1.340 | 4.399 | 1.087 | 1.017 | 0.997 | 0.988 | 1.000 | 0.441 |  |  |
| 2014-2015 |  | 1.314 | 1.326 | 1.256 | 0.961 | 1.000 | 1.000 | 0.903 |  |  |  |
| 2015-2016 |  | 4.938 | 1.154 | 1.092 | 1.000 | 0.974 | 0.719 |  |  |  |  |
| 2016-2017 | 183.774 | 2.512 | 1.321 | 1.161 | 1.107 | 0.735 |  |  |  |  |  |
| 2017-2018 |  | 3.191 | 1.354 | 0.943 | 1.002 |  |  |  |  |  |  |
| 2018-2019 |  | 113.631 | 1.764 | 1.288 |  |  |  |  |  |  |  |
| 2019-2020 |  | 5.785 | 1.911 |  |  |  |  |  |  |  |  |
| 2020-2021 | 1.768 | 1.028 |  |  |  |  |  |  |  |  |  |
| 2021-2022 | 8.574 |  |  |  |  |  |  |  |  |  |  |


|  | $6-18$ <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 | 8.299 | 1.483 | 1.142 | 1.122 | 1.003 | 0.975 | 1.069 | 0.946 | 1.007 | 0.997 |
| Dollar-Weighted |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ |  | 1.235 | 1.625 | 1.152 | 1.058 | 0.880 | 0.915 | 1.055 | 0.734 | 1.028 | 1.000 |
| $4-\mathrm{yr}$ |  | 1.329 | 1.400 | 1.130 | 1.029 | 0.912 | 0.932 | 1.044 | 0.767 | 1.023 | 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 | 1.393 | 1.152 | 1.033 | 1.010 | 1.011 | 1.015 | 1.010 | 1.005 | 1.004 |
| Selected | 5.500 | 2.325 | 1.615 | 1.169 | 1.024 | 1.009 | 1.006 | 1.015 | 1.010 | 1.005 | 1.004 |
| Cumulated | 26.125 | 4.750 | 2.043 | 1.265 | 1.085 | 1.056 | 1.047 | 1.040 | 1.025 | 1.015 | 113010 |

PLAN JPA - Liability
Reported Loss Development

Accident
Year 2001-2002 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
$\frac{\text { Program Losses Reported as of: }}{138} 160$

| 138 | 150 | 162 | 174 | 186 | 198 | 210 | 222 | 234 | 246 | 258 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 4,615,125 | 4,643,008 | 4,627,263 | 4,627,263 | 4,627,263 | 4,627,263 | 4,627,263 | 4,627,263 | 4,627,263 | 4,627,263 | 3,299,357 |
| 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 |  |
| 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 |  |  |
| 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 | 1,876,140 |  |  |  |
| 4,775,006 | 4,775,006 | 4,775,006 | 4,775,006 | 4,775,006 | 4,775,006 | 3,256,823 |  |  |  |  |
| 1,656,563 | 1,656,563 | 1,679,200 | 1,662,124 | 1,662,124 | 1,662,124 |  |  |  |  |  |
| 6,517,383 | 6,755,660 | 6,755,660 | 6,755,660 | 4,919,885 |  |  |  |  |  |  |
| 3,528,864 | 3,528,864 | 3,527,823 | 3,433,029 |  |  |  |  |  |  |  |
| 2,441,417 | 2,441,417 | 2,441,417 |  |  |  |  |  |  |  |  |
| 2,076,846 | 2,046,846 |  |  |  |  |  |  |  |  |  |
| 3,878,185 |  |  |  |  |  |  |  |  |  |  |

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 |

2011-2012
2012-2013
2013-2014
2014-2015
2015-2016
2016-2017
2017-2018
2018-2019
2019-2020
2020-2021
2021-2022

|  | $138-150$ <br> Months | $150-162$ <br> 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 | 1.003 | 1.001 | 0.995 | 0.961 | 0.999 | 0.936 | 1.000 | 1.000 | 0.809 | 0.713 |  |
| Dollar-Weighted |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ | 0.996 | 1.000 | 0.991 | 0.861 | 1.000 | 0.835 | 1.000 | 1.000 |  |  |  |
| $4-\mathrm{yr}$ | 1.014 | 1.002 | 0.993 | 0.878 | 1.000 | 0.916 | 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 | 1.006 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 114000 |

PLAN JPA - Liability
Paid Loss Development

|  | Program Paid | Program |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Paid Loss | Ultimate | Paid | Paid Loss | Ultimate |
| Accident | Losses as | Development | Program | Losses | Development | Program |
| Year <br> (A) | of $12 / 31 / 22$ <br> (B) | Factor <br> (C) | Losses <br> (D) | of $12 / 31 / 22$ <br> (E) | Factor <br> (F) | Losses <br> (G) |
| 1986-2002 | \$25,985,454 | 1.000 | \$25,985,454 | \$34,629,654 | 1.000 | \$34,629,654 |
| 2002-2003 | 5,437,289 | 1.000 | 5,437,289 | 8,812,482 | 1.000 | 8,812,482 |
| 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 | 1.001 | 2,355,305 | 2,352,952 | 1.001 | 2,355,305 |
| 2010-2011 | 2,046,846 | 1.003 | 2,052,987 | 2,046,846 | 1.003 | 2,052,987 |
| 2011-2012 | 3,823,023 | 1.007 | 3,849,784 | 3,823,023 | 1.007 | 3,849,784 |
| 2012-2013 | 3,487,466 | 1.009 | 3,518,853 | 3,487,466 | 1.009 | 3,518,853 |
| 2013-2014 | 3,069,125 | 1.014 | 3,112,093 | 6,969,125 | 1.014 | 7,066,693 |
| 2014-2015 | 4,905,812 | 1.022 | 5,013,740 | 5,429,951 | 1.022 | 5,549,410 |
| 2015-2016 | 3,424,345 | 1.063 | 3,640,079 | 4,824,345 | 1.063 | 5,128,279 |
| 2016-2017 | 5,034,962 | 1.117 | 5,624,053 | 6,958,339 | 1.117 | 7,772,465 |
| 2017-2018 | 870,473 | 1.250 | 1,088,091 | 870,473 | 1.250 | 1,088,091 |
| 2018-2019 | 1,055,231 | 1.430 | 1,508,980 | 1,055,231 | 1.430 | 1,508,980 |
| 2019-2020 | 108,746 | 2.027 | 220,428 | 108,746 | 2.027 | 220,428 |
| 2020-2021 | 2,522,774 | 5.072 | 4,651,510 | 3,828,828 | 5.072 | 5,167,816 |
| 2021-2022 | 0 | 22.824 | 0 | 0 | 22.824 | 0 |
| Totals | \$81,770,160 |  | \$85,704,308 | \$106,292,915 |  | \$109,816,681 |

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) $x$ (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 B, Page 2.
(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.

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 |
| 2001-2002 |  | 309,735 | 1,134,971 | 2,673,383 | 3,181,741 | 3,268,324 | 3,280,242 | 4,573,678 | 4,573,678 | 4,573,678 | 4,613,136 |
| 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 |  |
| 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 |  |  |
| 2015-2016 |  | 16,532 | 226,123 | 3,422,237 | 4,335,681 | 4,610,479 | 4,814,203 | 3,424,345 |  |  |  |
| 2016-2017 |  | 900 | 1,406,078 | 4,536,037 | 4,970,143 | 6,678,653 | 5,034,962 |  |  |  |  |
| 2017-2018 |  | 56,752 | 356,919 | 777,179 | 814,717 | 870,473 |  |  |  |  |  |
| 2018-2019 |  |  | 167,664 | 707,921 | 1,055,231 |  |  |  |  |  |  |
| 2019-2020 |  |  | 56,239 | 108,746 |  |  |  |  |  |  |  |
| 2020-2021 |  | 2,431,166 | 2,522,774 |  |  |  |  |  |  |  |  |
| 2021-2022 |  |  |  |  |  |  |  |  |  |  |  |
| 2022-2023 |  |  |  |  |  |  |  |  |  |  |  |


| 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 |
| 2001-2002 |  | 3.664 | 2.355 | 1.190 | 1.027 | 1.004 | 1.394 | 1.000 | 1.000 | 1.009 | 1.000 |
| 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 |  |
| 2013-2014 |  | 5.791 | 7.835 | 1.149 | 1.000 | 1.031 | 1.004 | 1.000 | 0.441 |  |  |
| 2014-2015 |  | 1.303 | 1.221 | 2.001 | 1.017 | 1.000 | 1.000 | 0.903 |  |  |  |
| 2015-2016 |  | 13.678 | 15.134 | 1.267 | 1.063 | 1.044 | 0.711 |  |  |  |  |
| 2016-2017 |  | 1,562.309 | 3.226 | 1.096 | 1.344 | 0.754 |  |  |  |  |  |
| 2017-2018 |  | 6.289 | 2.177 | 1.048 | 1.068 |  |  |  |  |  |  |
| 2018-2019 |  |  | 4.222 | 1.491 |  |  |  |  |  |  |  |
| 2019-2020 |  |  | 1.934 |  |  |  |  |  |  |  |  |
| 2020-2021 |  | 1.038 |  |  |  |  |  |  |  |  |  |

2021-2022

|  | 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 | 91.378 | 3.759 | 1.361 | 1.163 | 1.105 | 1.024 | 1.067 | 0.957 | 1.004 | 0.997 |
| Dollar-Weighted |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ |  |  | 2.744 | 1.136 | 1.201 | 0.914 | 0.921 | 1.032 | 0.727 | 1.013 | 1.001 |
| $4-\mathrm{yr}$ |  |  | 3.085 | 1.183 | 1.138 | 0.948 | 0.934 | 1.026 | 0.762 | 1.010 | 1.001 |
| 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 | 1.400 | 1.145 | 1.120 | 1.050 | 1.025 | 1.010 | 1.005 | 1.004 |
| Selected | 9.100 | 4.500 | 2.502 | 1.418 | 1.144 | 1.119 | 1.051 | 1.040 | 1.008 | 1.005 | 1.002 |
| Cumulated | 207.698 | 22.824 | 5.072 | 2.027 | 1.488 | 1.250 | 1.117 | 1.063 | 1.022 | 1.014 | 116009 |

PLAN JPA - Liability
Paid Loss Development

|  | Program Lo | es Paid as |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident | 138 | 150 | 162 | 174 | 186 | 198 | 210 | 222 | 234 | 246 | 258 |
| Year | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months | Months |
| 2001-2002 | 4,615,125 | 4,615,701 | 4,627,263 | 4,627,263 | 4,627,263 | 4,627,263 | 4,627,263 | 4,627,263 | 4,627,263 | 4,627,263 | 3,299,357 |
| 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 |  |
| 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 |  |  |
| 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 |  |  |  |
| 2005-2006 | 4,775,006 | 4,775,006 | 4,775,006 | 4,775,006 | 4,775,006 | 4,775,006 | 3,256,823 |  |  |  |  |
| 2006-2007 | 1,656,563 | 1,656,563 | 1,656,563 | 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 |  |  |  |  |  |  |
| 2008-2009 | 3,528,864 | 3,528,864 | 3,527,823 | 3,433,029 |  |  |  |  |  |  |  |
| 2009-2010 | 2,441,417 | 2,441,417 | 2,441,417 |  |  |  |  |  |  |  |  |
| 2010-2011 | 2,076,846 | 2,046,846 |  |  |  |  |  |  |  |  |  |
| 2011-2012 | 3,823,023 |  |  |  |  |  |  |  |  |  |  |
| 2012-2013 |  |  |  |  |  |  |  |  |  |  |  |

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 |
| 1.000 | 1.003 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 0.713 |  |
| 1.002 | 1.001 | 1.000 | 1.000 | 1.000 | 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 | 0.682 |  |  |  |  |  |
| 1.000 | 1.000 | 1.003 | 1.000 | 1.000 |  |  |  |  |  |  |
| 1.037 | 1.000 | 1.000 | 0.728 |  |  |  |  |  |  |  |
| 1.000 | 1.000 | 0.973 |  |  |  |  |  |  |  |  |
| 1.000 | 1.000 |  |  |  |  |  |  |  |  |  |
| 0.986 |  |  |  |  |  |  |  |  |  |  |

2010-2011
011-2012
2012-2013
2013-2014
2014-2015
2015-2016
2016-2017
2017-2018
2018-2019
2019-2020
2020-2021
2021-2022

|  | $138-150$ <br> Months | $150-162$ <br> 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 | 1.003 | 1.000 | 0.997 | 0.961 | 1.000 | 0.936 | 1.000 | 1.000 | 0.809 | 0.713 |  |
| Dollar-Weighted |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ | 0.996 | 1.000 | 0.993 | 0.861 | 1.000 | 0.835 | 1.000 | 1.000 |  |  |  |
| $4-\mathrm{yr}$ | 1.014 | 1.000 | 0.995 | 0.878 | 1.000 | 0.916 | 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 | 1.003 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Selected | 1.004 | 1.002 | 1.001 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| Cumulated | 1.007 | 1.003 | 1.001 | 1.000 | 1.688 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 111.000 |

## PLAN JPA - Liability

Exposure and Development Method
Based on Reported Losses

| Accident Year | Trended Payroll (\$00) (A) | Reported Losses as of $12 / 31 / 22$ (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) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1986-2002 | 0 |  | 1.000 | 0.000 | 0.625 | 0 |  |
| 2002-2003 | 5,636,399 | 8,812,482 | 1.000 | 0.000 | 1.075 | 0 | 8,812,482 |
| 2003-2004 | 5,747,065 | 2,574,481 | 1.000 | 0.000 | 0.501 | 0 | 2,574,481 |
| 2004-2005 | 6,561,932 | 1,874,487 | 1.000 | 0.000 | 0.323 | 0 | 1,874,487 |
| 2005-2006 | 6,538,260 | 4,756,022 | 1.000 | 0.000 | 0.562 | 0 | 4,756,022 |
| 2006-2007 | 6,684,323 | 1,662,124 | 1.000 | 0.000 | 0.285 | 0 | 1,662,124 |
| 2007-2008 | 6,906,572 | 6,755,660 | 1.000 | 0.000 | 0.823 | 0 | 6,755,660 |
| 2008-2009 | 6,964,700 | 3,472,680 | 1.000 | 0.000 | 0.565 | 0 | 3,472,680 |
| 2009-2010 | 6,564,472 | 2,352,952 | 1.001 | 0.001 | 0.421 | 2,764 | 2,355,716 |
| 2010-2011 | 5,908,601 | 2,046,846 | 1.003 | 0.003 | 0.412 | 7,303 | 2,054,149 |
| 2011-2012 | 4,925,749 | 3,878,185 | 1.006 | 0.006 | 0.952 | 28,136 | 3,906,321 |
| 2012-2013 | 4,695,731 | 4,063,438 | 1.010 | 0.010 | 1.064 | 49,963 | 4,113,401 |
| 2013-2014 | 4,551,061 | 6,969,125 | 1.015 | 0.015 | 0.831 | 56,729 | 7,025,854 |
| 2014-2015 | 4,618,008 | 5,429,951 | 1.025 | 0.024 | 1.326 | 146,963 | 5,576,914 |
| 2015-2016 | 4,395,985 | 4,957,912 | 1.040 | 0.038 | 1.016 | 169,720 | 5,127,632 |
| 2016-2017 | 4,566,182 | 8,211,756 | 1.047 | 0.045 | 1.588 | 326,299 | 8,538,055 |
| 2017-2018 | 4,681,268 | 870,473 | 1.056 | 0.053 | 1.447 | 359,011 | 1,229,484 |
| 2018-2019 | 4,709,274 | 1,291,645 | 1.082 | 0.076 | 1.531 | 547,952 | 1,839,597 |
| 2019-2020 | 4,526,605 | 701,961 | 1.265 | 0.209 | 1.617 | 1,529,780 | 2,231,741 |
| 2020-2021 | 4,564,579 | 5,611,045 | 2.043 | 0.511 | 1.716 | 4,002,570 | 9,613,615 |
| 2021-2022 | 4,756,654 | 514,442 | 4.750 | 0.789 | 1.389 | 5,212,917 | 5,727,359 |
| Totals | 108,503,420 | \$76,807,667 |  |  |  | \$12,440,107 | \$89,247,774 |

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) $(\mathrm{B})+(\mathrm{F})$.

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.

|  |  |  | Exposure and D Based on | - Liability <br> elopment Metho aid Losses |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident Year | Trended Payroll (\$00) (A) | Paid Losses as of $12 / 31 / 22$ <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 <br> (G) |
| 1986-2002 | 0 |  | 1.000 | 0.000 | 0.625 | 0 |  |
| 2002-2003 | 5,636,399 | 8,812,482 | 1.000 | 0.000 | 1.075 | 0 | 8,812,482 |
| 2003-2004 | 5,747,065 | 2,574,481 | 1.000 | 0.000 | 0.501 | 0 | 2,574,481 |
| 2004-2005 | 6,561,932 | 1,874,487 | 1.000 | 0.000 | 0.323 | 0 | 1,874,487 |
| 2005-2006 | 6,538,260 | 4,756,022 | 1.000 | 0.000 | 0.562 | 0 | 4,756,022 |
| 2006-2007 | 6,684,323 | 1,662,124 | 1.000 | 0.000 | 0.285 | 0 | 1,662,124 |
| 2007-2008 | 6,906,572 | 6,755,660 | 1.000 | 0.000 | 0.823 | 0 | 6,755,660 |
| 2008-2009 | 6,964,700 | 3,472,680 | 1.000 | 0.000 | 0.565 | 0 | 3,472,680 |
| 2009-2010 | 6,564,472 | 2,352,952 | 1.001 | 0.001 | 0.421 | 2,764 | 2,355,716 |
| 2010-2011 | 5,908,601 | 2,046,846 | 1.003 | 0.003 | 0.412 | 7,303 | 2,054,149 |
| 2011-2012 | 4,925,749 | 3,823,023 | 1.007 | 0.007 | 0.952 | 32,825 | 3,855,848 |
| 2012-2013 | 4,695,731 | 3,487,466 | 1.009 | 0.009 | 1.064 | 44,966 | 3,532,432 |
| 2013-2014 | 4,551,061 | 6,969,125 | 1.014 | 0.014 | 0.831 | 52,947 | 7,022,072 |
| 2014-2015 | 4,618,008 | 5,429,951 | 1.022 | 0.022 | 1.326 | 134,717 | 5,564,668 |
| 2015-2016 | 4,395,985 | 4,824,345 | 1.063 | 0.059 | 1.016 | 263,513 | 5,087,858 |
| 2016-2017 | 4,566,182 | 6,958,339 | 1.117 | 0.105 | 1.588 | 761,365 | 7,719,704 |
| 2017-2018 | 4,681,268 | 870,473 | 1.250 | 0.200 | 1.447 | 1,354,759 | 2,225,232 |
| 2018-2019 | 4,709,274 | 1,055,231 | 1.430 | 0.301 | 1.531 | 2,170,179 | 3,225,410 |
| 2019-2020 | 4,526,605 | 108,746 | 2.027 | 0.507 | 1.617 | 3,710,997 | 3,819,743 |
| 2020-2021 | 4,564,579 | 3,828,828 | 5.072 | 0.803 | 1.716 | 6,289,753 | 10,118,581 |
| 2021-2022 | 4,756,654 |  | 22.824 | 0.956 | 1.389 | 6,316,285 | 6,316,285 |
| Totals | 108,503,420 | \$71,663,261 |  |  |  | \$21,142,373 | \$92,805,634 |

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) $(\mathrm{B})+(\mathrm{F})$.

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

| Accident Year | Trended Payroll (\$00) (A) | Ultimate Program Losses (B) | Trend Factor (C) | Trended <br> Program Losses (D) | Trended <br> Program Loss Rate <br> (E) | Program Loss Rate (F) | Factor to SIR <br> (G) | Program Loss Rate (H) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1986-2002 | 0 |  | 2.473 |  |  | 0.586 | 1.067 | 0.625 |
| 2002-2003 | 5,636,399 | 5,437,289 | 2.368 | 12,875,500 | 2.284 | 0.965 | 1.114 | 1.075 |
| 2003-2004 | 5,747,065 | 2,574,481 | 2.268 | 5,838,923 | 1.016 | 0.448 | 1.119 | 0.501 |
| 2004-2005 | 6,561,932 | 1,874,487 | 2.172 | 4,071,386 | 0.620 | 0.286 | 1.129 | 0.323 |
| 2005-2006 | 6,538,260 | 3,237,840 | 2.081 | 6,737,945 | 1.031 | 0.495 | 1.135 | 0.562 |
| 2006-2007 | 6,684,323 | 1,662,124 | 1.993 | 3,312,613 | 0.496 | 0.249 | 1.145 | 0.285 |
| 2007-2008 | 6,906,572 | 4,919,885 | 1.909 | 9,392,060 | 1.360 | 0.712 | 1.155 | 0.823 |
| 2008-2009 | 6,964,700 | 3,376,845 | 1.828 | 6,172,873 | 0.886 | 0.485 | 1.166 | 0.565 |
| 2009-2010 | 6,564,472 | 2,352,952 | 1.750 | 4,117,666 | 0.627 | 0.358 | 1.176 | 0.421 |
| 2010-2011 | 5,908,601 | 2,046,846 | 1.677 | 3,432,561 | 0.581 | 0.346 | 1.192 | 0.412 |
| 2011-2012 | 4,925,749 | 3,901,000 | 1.606 | 6,265,006 | 1.272 | 0.792 | 1.202 | 0.952 |
| 2012-2013 | 4,695,731 | 4,104,000 | 1.539 | 6,316,056 | 1.345 | 0.874 | 1.218 | 1.064 |
| 2013-2014 | 4,551,061 | 3,069,125 | 1.474 | 4,523,890 | 0.994 | 0.674 | 1.233 | 0.831 |
| 2014-2015 | 4,618,008 | 4,905,812 | 1.411 | 6,922,101 | 1.499 | 1.062 | 1.249 | 1.326 |
| 2015-2016 | 4,395,985 | 3,700,000 | 1.351 | 4,998,700 | 1.137 | 0.842 | 1.207 | 1.016 |
| 2016-2017 | 4,566,182 | 5,932,000 | 1.294 | 7,676,008 | 1.681 | 1.299 | 1.223 | 1.588 |
| 2017-2018 | 4,681,268 | 919,000 | 1.240 | 1,139,560 | 0.243 | 1.169 | 1.238 | 1.447 |
| 2018-2019 | 4,709,274 | 1,398,000 | 1.188 | 1,660,824 | 0.353 | 1.221 | 1.254 | 1.531 |
| 2019-2020 | 4,526,605 | 888,000 | 1.138 | 1,010,544 | 0.223 | 1.274 | 1.269 | 1.617 |
| 2020-2021 | 4,564,579 | 6,565,000 | 1.090 | 7,155,850 | 1.568 | 1.330 | 1.290 | 1.716 |
| 2021-2022 | 4,756,654 | 3,711,000 | 1.044 | 3,874,284 | 0.814 | 1.389 | 1.000 | 1.389 |
| Total/Avg | 108,503,420 | \$66,575,686 |  | \$107,494,350 | \$0.991 |  |  |  |
| 20/21-21/22 | 9,321,233 | 10,276,000 |  | 11,030,134 | 1.183 |  |  |  |
| Selected Program Rate: <br> Prior: |  |  |  |  | $\begin{aligned} & \$ 1.450 \\ & \$ 1.550 \end{aligned}$ |  |  |  |

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) $(\mathrm{B}) \times(\mathrm{C})$.
(E) $(\mathrm{D}) /(\mathrm{A})$.
(F) Selected Program Rate / (C). For 2016-2017 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

Frequency and Severity Method

| Accident | Ultimate <br> Program <br> Severity <br> (A) | Adjusted <br> Ultimate <br> Claims | Cltimate <br> Program <br> (B) |
| :---: | :---: | :---: | ---: |
| (B) | (C) |  |  |
| 1986-2002 | $\$ 144,453$ | 192 | $\$ 27,734,976$ |
| $2002-2003$ | 216,315 | 28 | $6,056,820$ |
| $2003-2004$ | 144,057 | 20 | $2,881,140$ |
| $2004-2005$ | 235,243 | 9 | $2,117,187$ |
| $2005-2006$ | 229,614 | 16 | $3,673,824$ |
| $2006-2007$ | 135,939 | 14 | $1,903,146$ |
| $2007-2008$ | 236,845 | 24 | $5,684,280$ |
| $2008-2009$ | 231,558 | 17 | $3,936,486$ |
| $2009-2010$ | 138,364 | 20 | $2,767,280$ |
| $2010-2011$ | 187,621 | 13 | $2,439,073$ |
| $2011-2012$ | 234,446 | 20 | $4,688,920$ |
| $2012-2013$ | 237,938 | 21 | $4,996,698$ |
| $2013-2014$ | 252,293 | 15 | $3,784,395$ |
| $2014-2015$ | 340,298 | 18 | $6,125,364$ |
| $2015-2016$ | 223,325 | 20 | $4,466,500$ |
| $2016-2017$ | 361,368 | 20 | $7,227,360$ |
| $2017-2018$ | 318,663 | 7 | $2,230,641$ |
| $2018-2019$ | 319,640 | 10 | $3,196,400$ |
| $2019-2020$ | 320,598 | 14 | $4,488,372$ |
| $2020-2021$ | 322,835 | 29 | $9,362,215$ |
| $2021-2022$ | 247,475 | 25 | $6,186,875$ |
|  |  |  |  |
| Total |  |  | 552 |

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.

PLAN JPA - Liability
Frequency and Severity Method

| Accident Year | Ultimate | Adjusted | Ulitimate |  | Trended |  | Factor to SIR (G) | Program Severity (H) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Program | Ultimate | Program | Trend | Program | Program |  |  |
|  | Losses <br> (A) | Claims <br> (B) | Severity (C) | Factor (D) | Severity (E) | Severity <br> (F) |  |  |
| 1986-2002 | \$25,985,454 | 192 | \$135,341 | 0.810 | \$109,626 | \$135,341 | 1.067 | \$144,453 |
| 2002-2003 | 5,437,289 | 28 | 194,189 | 0.819 | 159,041 | 194,189 | 1.114 | 216,315 |
| 2003-2004 | 2,574,481 | 20 | 128,724 | 0.827 | 106,455 | 128,724 | 1.119 | 144,057 |
| 2004-2005 | 1,874,487 | 9 | 208,276 | 0.835 | 173,910 | 208,276 | 1.129 | 235,243 |
| 2005-2006 | 3,237,840 | 16 | 202,365 | 0.843 | 170,594 | 202,365 | 1.135 | 229,614 |
| 2006-2007 | 1,662,124 | 14 | 118,723 | 0.852 | 101,152 | 118,723 | 1.145 | 135,939 |
| 2007-2008 | 4,919,885 | 24 | 204,995 | 0.860 | 176,296 | 204,995 | 1.155 | 236,845 |
| 2008-2009 | 3,376,845 | 17 | 198,638 | 0.868 | 172,418 | 198,638 | 1.166 | 231,558 |
| 2009-2010 | 2,352,952 | 20 | 117,648 | 0.877 | 103,177 | 117,648 | 1.176 | 138,364 |
| 2010-2011 | 2,046,846 | 13 | 157,450 | 0.887 | 139,658 | 157,450 | 1.192 | 187,621 |
| 2011-2012 | 3,901,000 | 20 | 195,050 | 0.896 | 174,765 | 195,050 | 1.202 | 234,446 |
| 2012-2013 | 4,104,000 | 21 | 195,429 | 0.905 | 176,863 | 195,429 | 1.218 | 237,938 |
| 2013-2014 | 3,069,125 | 15 | 204,608 | 0.914 | 187,012 | 204,608 | 1.233 | 252,293 |
| 2014-2015 | 4,905,812 | 18 | 272,545 | 0.924 | 251,832 | 272,545 | 1.249 | 340,298 |
| 2015-2016 | 3,700,000 | 20 | 185,000 | 0.933 | 172,605 | 185,000 | 1.207 | 223,325 |
| 2016-2017 | 5,911,000 | 20 | 295,550 | 0.942 | 278,408 | 295,550 | 1.223 | 361,368 |
| 2017-2018 | 1,144,000 | 7 | 163,429 | 0.952 | 155,584 | 257,353 | 1.238 | 318,663 |
| 2018-2019 | 1,592,000 | 10 | 159,200 | 0.961 | 152,991 | 254,943 | 1.254 | 319,640 |
| 2019-2020 | 2,470,000 | 14 | 176,429 | 0.970 | 171,136 | 252,577 | 1.269 | 320,598 |
| 2020-2021 | 7,367,000 | 29 | 254,034 | 0.979 | 248,699 | 250,255 | 1.290 | 322,835 |
| 2021-2022 | 6,022,000 | 25 | 240,880 | 0.990 | 238,471 | 247,475 | 1.000 | 247,475 |
| Average Program Severity: Average 20/21-21/22 Program Severity: |  |  |  |  | $\begin{array}{r} \$ 172,414 \\ 243,585 \end{array}$ |  |  |  |

## Selected Program Severity: $\$ 245,000$

Prior: $\$ 400,000$
Notes:
(A) Selected average of results from Appendices $p, p$, 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.

PLAN JPA - Liability

Frequency and Severity Method
Projection of Ultimate Claims

| Accident Year | Reported Claim Development <br> (A) | Closed Claim Development (B) | Selected Ultimate Claims (C) | Trended Payroll $(\$ 000,000)$ (D) | Claim Frequency (E) | Trend Factor (F) | Trended Claim Frequency (G) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1986-2002 | 192 | 192 | 192 | 0.0 |  | 3.078 |  |
| 2002-2003 | 28 | 28 | 28 | 563.6 | 0.050 | 2.918 | 0.146 |
| 2003-2004 | 20 | 20 | 20 | 574.7 | 0.035 | 2.766 | 0.097 |
| 2004-2005 | 9 | 9 | 9 | 656.2 | 0.014 | 2.622 | 0.037 |
| 2005-2006 | 16 | 16 | 16 | 653.8 | 0.024 | 2.486 | 0.060 |
| 2006-2007 | 14 | 14 | 14 | 668.4 | 0.021 | 2.356 | 0.049 |
| 2007-2008 | 24 | 24 | 24 | 690.7 | 0.035 | 2.233 | 0.078 |
| 2008-2009 | 17 | 17 | 17 | 696.5 | 0.024 | 2.117 | 0.051 |
| 2009-2010 | 20 | 20 | 20 | 656.4 | 0.030 | 2.006 | 0.060 |
| 2010-2011 | 13 | 13 | 13 | 590.9 | 0.022 | 1.901 | 0.042 |
| 2011-2012 | 20 | 19 | 20 | 492.6 | 0.041 | 1.802 | 0.074 |
| 2012-2013 | 21 | 20 | 21 | 469.6 | 0.045 | 1.709 | 0.077 |
| 2013-2014 | 15 | 15 | 15 | 455.1 | 0.033 | 1.619 | 0.053 |
| 2014-2015 | 18 | 18 | 18 | 461.8 | 0.039 | 1.535 | 0.060 |
| 2015-2016 | 20 | 19 | 20 | 439.6 | 0.045 | 1.455 | 0.065 |
| 2016-2017 | 20 | 17 | 20 | 456.6 | 0.044 | 1.379 | 0.061 |
| 2017-2018 | 7 | 7 | 7 | 468.1 | 0.015 | 1.307 | 0.020 |
| 2018-2019 | 10 | 8 | 10 | 470.9 | 0.021 | 1.239 | 0.026 |
| 2019-2020 | 14 | 3 | 14 | 452.7 | 0.031 | 1.175 | 0.036 |
| 2020-2021 | 29 | 32 | 29 | 456.5 | 0.064 | 1.113 | 0.071 |
| 2021-2022 | 35 | 0 | 25 | 475.7 | 0.054 | 1.055 | 0.057 |
| Total | 562 | 511 | 552 | 10,850.3 |  |  | 0.061 |
| 16/17-20/21 | 80 | 67 | 80 | 2,304.8 |  |  | 0.042 |
| (H) Selected Frequency: |  |  |  |  |  |  | 0.045 |
|  |  |  |  |  |  |  | 0.035 |


|  | Program Year: | $2022-2023$ | $2023-2024$ |
| :--- | :--- | ---: | ---: |
| (I) | Trend Factor: | 1.000 | 1.055 |
| (J) Selected Frequency: | 0.045 | 0.047 |  |
| (K) | Est. Payroll (\$000,000): | 474.9 | 489.1 |
| (L) | Ultimate Claims: | 21 | 23 |

Notes:
(A) From Reserve Appendix D, Page 4, (C).
(G) (E) $\times(\mathrm{F})$.
(B) From Reserve Appendix D, Page 5, (C).
(H) The selected frequency of 0.045 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 <br> Year | Claims Reported as of 12/31/2022 <br> (A) | Reported Claim Development Factor (B) | Ultimate Claims (C) | Trended Claim <br> Frequency <br> (D) |
| :---: | :---: | :---: | :---: | :---: |
| 1986-2002 | 192 | 1.000 | 192 |  |
| 2002-2003 | 28 | 1.000 | 28 | 0.145 |
| 2003-2004 | 20 | 1.000 | 20 | 0.096 |
| 2004-2005 | 9 | 1.000 | 9 | 0.036 |
| 2005-2006 | 16 | 1.000 | 16 | 0.061 |
| 2006-2007 | 14 | 1.000 | 14 | 0.049 |
| 2007-2008 | 24 | 1.000 | 24 | 0.078 |
| 2008-2009 | 17 | 1.000 | 17 | 0.052 |
| 2009-2010 | 20 | 1.000 | 20 | 0.061 |
| 2010-2011 | 13 | 1.001 | 13 | 0.042 |
| 2011-2012 | 20 | 1.001 | 20 | 0.073 |
| 2012-2013 | 21 | 1.001 | 21 | 0.076 |
| 2013-2014 | 15 | 1.002 | 15 | 0.053 |
| 2014-2015 | 18 | 1.003 | 18 | 0.060 |
| 2015-2016 | 20 | 1.004 | 20 | 0.066 |
| 2016-2017 | 20 | 1.005 | 20 | 0.060 |
| 2017-2018 | 7 | 1.015 | 7 | 0.020 |
| 2018-2019 | 10 | 1.040 | 10 | 0.026 |
| 2019-2020 | 12 | 1.204 | 14 | 0.036 |
| 2020-2021 | 20 | 1.461 | 29 | 0.071 |
| 2021-2022 | 11 | 3.201 | 35 | 0.078 |
| Total | 527 |  | 562 | 0.062 |

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.

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

| Accident Year | Claims <br> Closed as of 12/31/2022 <br> (A) | Closed Claim Development Factor (B) | Ultimate Claims (C) | Trended Claim Frequency (D) |
| :---: | :---: | :---: | :---: | :---: |
| 1986-2002 | 192 | 1.000 | 192 |  |
| 2002-2003 | 28 | 1.000 | 28 | 0.145 |
| 2003-2004 | 20 | 1.000 | 20 | 0.096 |
| 2004-2005 | 9 | 1.000 | 9 | 0.036 |
| 2005-2006 | 16 | 1.000 | 16 | 0.061 |
| 2006-2007 | 14 | 1.000 | 14 | 0.049 |
| 2007-2008 | 24 | 1.000 | 24 | 0.078 |
| 2008-2009 | 17 | 1.000 | 17 | 0.052 |
| 2009-2010 | 20 | 1.001 | 20 | 0.061 |
| 2010-2011 | 13 | 1.002 | 13 | 0.042 |
| 2011-2012 | 19 | 1.003 | 19 | 0.070 |
| 2012-2013 | 20 | 1.004 | 20 | 0.073 |
| 2013-2014 | 15 | 1.005 | 15 | 0.053 |
| 2014-2015 | 18 | 1.006 | 18 | 0.060 |
| 2015-2016 | 19 | 1.007 | 19 | 0.063 |
| 2016-2017 | 17 | 1.008 | 17 | 0.051 |
| 2017-2018 | 7 | 1.033 | 7 | 0.020 |
| 2018-2019 | 7 | 1.150 | 8 | 0.021 |
| 2019-2020 | 2 | 1.480 | 3 | 0.008 |
| 2020-2021 | 7 | 4.588 | 32 | 0.078 |
| 2021-2022 | 0 | 15.140 | 0 |  |
| Total | 484 |  | 511 | 0.057 |

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.

PLAN JPA - Liability
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 |
| 2001-2002 |  |  |  |  | 13 | 13 | 14 | 14 | 14 | 14 | 15 | 15 | 15 | 15 |
| 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 |  |
| 2011-2012 | 1 | 19 | 19 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |  |  |
| 2012-2013 | 1 | 23 | 23 | 22 | 22 | 21 | 20 | 20 | 21 | 21 | 21 |  |  |  |
| 2013-2014 | 3 | 7 | 14 | 15 | 16 | 15 | 15 | 15 | 15 | 15 |  |  |  |  |
| 2014-2015 |  | 11 | 21 | 21 | 18 | 18 | 18 | 18 | 18 |  |  |  |  |  |
| 2015-2016 |  | 10 | 18 | 20 | 20 | 20 | 20 | 20 |  |  |  |  |  |  |
| 2016-2017 | 1 | 6 | 19 | 19 | 21 | 21 | 20 |  |  |  |  |  |  |  |
| 2017-2018 |  | 4 | 8 | 7 | 7 | 7 |  |  |  |  |  |  |  |  |
| 2018-2019 |  | 1 | 5 | 8 | 10 |  |  |  |  |  |  |  |  |  |
| 2019-2020 |  | 2 | 9 | 12 |  |  |  |  |  |  |  |  |  |  |
| 2020-2021 | 2 | 21 | 20 |  |  |  |  |  |  |  |  |  |  |  |
| 2021-2022 | 2 | 11 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2022-2023 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Reported Claim Count Development Factors:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 18-30 |  | 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 |
| 2001-2002 |  |  |  |  | 1.000 | 1.077 | 1.000 | 1.000 | 1.000 | 1.071 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2002-2003 |  |  |  | 0.962 | 1.080 | 1.000 | 1.000 | 1.074 | 1.000 | 0.966 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2003-2004 |  |  | 1.091 | 1.500 | 1.056 | 1.000 | 1.000 | 1.053 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 2004-2005 |  | 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 |
| 2005-2006 | 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 |
| 2006-2007 | 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 |
| 2007-2008 | 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 |
| 2008-2009 | 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 |
| 2009-2010 | 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 |  |
| 2010-2011 |  | 1.200 | 0.889 | 0.875 | 1.000 | 0.929 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |
| 2011-2012 | 19.000 | 1.000 | 1.053 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |
| 2012-2013 | 23.000 | 1.000 | 0.957 | 1.000 | 0.955 | 0.952 | 1.000 | 1.050 | 1.000 | 1.000 |  |  |  |  |
| 2013-2014 | 2.333 | 2.000 | 1.071 | 1.067 | 0.938 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |
| 2014-2015 |  | 1.909 | 1.000 | 0.857 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |
| 2015-2016 |  | 1.800 | 1.111 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |  |
| 2016-2017 | 6.000 | 3.167 | 1.000 | 1.105 | 1.000 | 0.952 |  |  |  |  |  |  |  |  |
| 2017-2018 |  | 2.000 | 0.875 | 1.000 | 1.000 |  |  |  |  |  |  |  |  |  |
| 2018-2019 |  | 5.000 | 1.600 | 1.250 |  |  |  |  |  |  |  |  |  |  |
| 2019-2020 |  | 4.500 | 1.333 |  |  |  |  |  |  |  |  |  |  |  |
| 2020-2021 | 10.500 | 0.952 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2021-2022 | 5.500 |  |  |  |  |  |  |  |  |  |  |  |  |  |


|  | 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 | 9.061 | 2.074 | 1.117 | 1.058 | 1.010 | 1.012 | 0.991 | 1.013 | 1.000 | 1.003 | 0.996 | 1.004 | 1.000 | 1.000 |
| Claim-Weighted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ |  | 1.417 | 1.227 | 1.118 | 1.000 | 0.983 | 1.000 | 1.019 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| 4 -yr |  | 1.500 | 1.122 | 1.074 | 1.000 | 0.986 | 1.000 | 1.014 | 1.000 | 1.000 | 1.000 | 1.014 | 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 | \#\#\#\#\#\#\# | 1.700 | 1.200 | 1.150 | 1.025 | 1.010 | 1.001 | 1.001 | 1.001 | 1.001 | 1.000 | 1.000 | 1.001 | 1.000 |
| Selected | 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 |
| Cumulated | 12.119 | 3.201 | 1.461 | 1.204 | 1.040 | 1.016 | 81.005 | 1.004 | 1.003 | 1.002 | 1.001 | 1.001 | 1.001 | 261.000 |

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 |
| 2001-2002 |  |  |  |  | 8 | 11 | 12 | 14 | 14 | 14 | 14 | 15 | 14 | 15 |
| 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 |  |
| 2011-2012 |  | 1 | 3 | 11 | 13 | 18 | 19 | 20 | 19 | 19 | 19 | 19 |  |  |
| 2012-2013 |  | 1 | 5 | 15 | 17 | 17 | 20 | 19 | 20 | 20 | 20 |  |  |  |
| 2013-2014 |  | 1 | 6 | 9 | 12 | 15 | 14 | 15 | 15 | 15 |  |  |  |  |
| 2014-2015 |  | 3 | 7 | 8 | 18 | 18 | 18 | 18 | 18 |  |  |  |  |  |
| 2015-2016 |  | 1 | 3 | 20 | 14 | 17 | 19 | 19 |  |  |  |  |  |  |
| 2016-2017 |  | 1 | 19 | 10 | 11 | 15 | 17 |  |  |  |  |  |  |  |
| 2017-2018 |  | 4 | 1 | 2 | 5 | 7 |  |  |  |  |  |  |  |  |
| 2018-2019 |  |  | 1 | 3 | 7 |  |  |  |  |  |  |  |  |  |
| 2019-2020 |  |  |  | 2 |  |  |  |  |  |  |  |  |  |  |
| 2020-2021 |  |  | 7 |  |  |  |  |  |  |  |  |  |  |  |

2021-2022
2022-2023

Closed Claim Count Development Factors:

|  |  |  | 1.375 | 1.091 | 1.167 | 1.000 | 1.000 | 1.000 | 1.071 | 0.933 | 1.071 | 1.000 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $2001-2002$ |  |  | 1.533 | 1.087 | 1.040 | 1.038 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| $2002-2003$ |  | 1.222 | 1.182 | 1.000 | 1.077 | 1.071 | 1.200 | 1.111 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| $2003-2004$ | 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 |
| $2004-2005$ | 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 |
| $2005-2006$ | 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 |
| $2006-2007$ |  | 5.500 | 1.545 | 1.294 | 1.091 | 1.000 | 1.000 | 1.000 | 1.000 | 0.958 | 1.043 | 1.000 | 1.000 |
| $2007-2008$ | 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 |
| $2008-2009$ | 3.000 | 2.167 | 1.385 | 1.000 | 1.056 | 1.000 | 1.053 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |
| $2009-2010$ |  | 2.250 | 1.222 | 1.182 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |
| $2010-2011$ | 3.000 | 3.667 | 1.182 | 1.385 | 1.056 | 1.053 | 0.950 | 1.000 | 1.000 | 1.000 |  |  |  |
| $2011-2012$ | 5.000 | 3.000 | 1.133 | 1.000 | 1.176 | 0.950 | 1.053 | 1.000 | 1.000 |  |  |  |  |
| $2012-2013$ | 6.000 | 1.500 | 1.333 | 1.250 | 0.933 | 1.071 | 1.000 | 1.000 |  |  |  |  |  |
| $2013-2014$ | 2.333 | 1.143 | 2.250 | 1.000 | 1.000 | 1.000 | 1.000 |  |  |  |  |  |  |
| $2014-2015$ | 3.000 | 6.667 | 0.700 | 1.214 | 1.118 | 1.000 |  |  |  |  |  |  |  |
| $2015-2016$ | 19.000 | 0.526 | 1.100 | 1.364 | 1.133 |  |  |  |  |  |  |  |  |
| $2016-2017$ | 0.250 | 2.000 | 2.500 | 1.400 |  |  |  |  |  |  |  |  |  |
| $2017-2018$ |  | 3.000 | 2.333 |  |  |  |  |  |  |  |  |  |  |
| $2018-2019$ |  |  |  |  |  |  |  |  |  |  |  |  |  |


|  | 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 | 2.923 | 1.411 | 1.190 | 1.094 | 1.039 | 1.018 | 1.014 | 1.006 | 1.003 | 0.998 | 1.000 | 1.010 |
| Claim-Weighted |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Averages |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $3-\mathrm{yr}$ |  |  |  | 1.533 | 1.300 | 1.080 | 1.020 | 1.019 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.019 |
| $4-\mathrm{yr}$ |  |  |  | 1.057 | 1.188 | 1.046 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.014 | 0.987 | 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 | 0.000 | 3.500 | 3.000 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 | 1.001 |
| Selected | 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 |
| Cumulated | 60.560 | 15.140 | 4.588 | 1.480 | 1.150 | 1.031 | 91.008 | 1.007 | 1.006 | 1.005 | 1.004 | 1.003 | 1.0021 | 271.001 |

Loss Trend Factors

|  | Benefit | Factor to 2022-2023 | $\begin{gathered} \text { Factor to } \\ 2023-2024 \end{gathered}$ | Factor to 2024-2025 | Factor to 2025-2026 | $\begin{gathered} \text { Factor to } \\ \text { 2022-2023 } \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ 2023-2024 \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ 2024-2025 \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ 2025-2026 \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ \text { 2022-2023 } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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) |
| 1986-2002 | 1.000 | 2.473 | 2.582 | 2.695 | 2.814 | 3.078 | 3.247 | 3.426 | 3.614 | 0.810 |
| 2002-2003 | 1.000 | 2.368 | 2.472 | 2.581 | 2.695 | 2.918 | 3.078 | 3.247 | 3.426 | 0.819 |
| 2003-2004 | 1.000 | 2.268 | 2.368 | 2.472 | 2.581 | 2.766 | 2.917 | 3.078 | 3.247 | 0.827 |
| 2004-2005 | 1.000 | 2.172 | 2.268 | 2.368 | 2.472 | 2.622 | 2.765 | 2.918 | 3.078 | 0.835 |
| 2005-2006 | 1.000 | 2.081 | 2.172 | 2.268 | 2.368 | 2.486 | 2.622 | 2.766 | 2.918 | 0.843 |
| 2006-2007 | 1.000 | 1.993 | 2.081 | 2.172 | 2.268 | 2.356 | 2.485 | 2.622 | 2.766 | 0.852 |
| 2007-2008 | 1.000 | 1.909 | 1.993 | 2.080 | 2.172 | 2.233 | 2.356 | 2.485 | 2.622 | 0.860 |
| 2008-2009 | 1.000 | 1.828 | 1.908 | 1.992 | 2.080 | 2.117 | 2.233 | 2.355 | 2.485 | 0.868 |
| 2009-2010 | 1.000 | 1.750 | 1.828 | 1.908 | 1.992 | 2.006 | 2.116 | 2.232 | 2.355 | 0.877 |
| 2010-2011 | 1.000 | 1.677 | 1.750 | 1.828 | 1.908 | 1.901 | 2.005 | 2.116 | 2.232 | 0.887 |
| 2011-2012 | 1.000 | 1.606 | 1.677 | 1.751 | 1.828 | 1.802 | 1.901 | 2.006 | 2.116 | 0.896 |
| 2012-2013 | 1.000 | 1.539 | 1.606 | 1.677 | 1.751 | 1.709 | 1.802 | 1.901 | 2.006 | 0.905 |
| 2013-2014 | 1.000 | 1.474 | 1.539 | 1.606 | 1.677 | 1.619 | 1.708 | 1.802 | 1.901 | 0.914 |
| 2014-2015 | 1.000 | 1.411 | 1.473 | 1.538 | 1.606 | 1.535 | 1.619 | 1.708 | 1.802 | 0.924 |
| 2015-2016 | 1.000 | 1.351 | 1.411 | 1.473 | 1.538 | 1.455 | 1.535 | 1.619 | 1.708 | 0.933 |
| 2016-2017 | 1.000 | 1.294 | 1.351 | 1.411 | 1.473 | 1.379 | 1.455 | 1.535 | 1.619 | 0.942 |
| 2017-2018 | 1.000 | 1.240 | 1.294 | 1.352 | 1.411 | 1.307 | 1.379 | 1.455 | 1.535 | 0.952 |
| 2018-2019 | 1.000 | 1.188 | 1.240 | 1.295 | 1.352 | 1.239 | 1.307 | 1.379 | 1.455 | 0.961 |
| 2019-2020 | 1.000 | 1.138 | 1.188 | 1.240 | 1.295 | 1.175 | 1.239 | 1.307 | 1.379 | 0.970 |
| 2020-2021 | 1.000 | 1.090 | 1.138 | 1.188 | 1.240 | 1.113 | 1.174 | 1.239 | 1.307 | 0.979 |
| 2021-2022 | 1.000 | 1.044 | 1.090 | 1.138 | 1.188 | 1.055 | 1.113 | 1.174 | 1.239 | 0.990 |
| 2022-2023 | 1.000 | 1.000 | 1.044 | 1.090 | 1.138 | 1.000 | 1.055 | 1.113 | 1.174 | 1.000 |
| 2023-2024 | 1.000 | -- | 1.000 | 1.044 | 1.090 | -- | 1.000 | 1.055 | 1.113 | -- |
| 2024-2025 | 1.000 | -- | -- | 1.000 | 1.044 | -- | -- | 1.000 | 1.055 | -- |
| 2025-2026 | 1.000 | -- | -- | -- | 1.000 | -- | -- | -- | 1.000 | -- |

## Notes:

(A) No benefit level adjustment applied.
(B) - (E) (A) adjusted for a $4.4 \%$ annual loss rate trend.
(F) - (I) (A) adjusted for a $5.5 \%$ 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.

| Accident Year |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estimate of |  |  |  |  |  |
|  | Ultimate | Ultimate |  | Adjusted | Trended |  |
|  | Limited | Reported |  | Limited | Payroll(\$00)(E) | Ultimate |
|  | Losses | Claims | BLF(C) | Severity (D) |  | (F) |
|  | (A) | (B) |  |  |  |  |
| 1986-2002 | \$25,985,454 | 192 | 1.000 | 135,341 |  |  |
| 2002-2003 | 5,437,289 | - 28 | 1.000 | 194,189 | 5,636,399 | 0.050 |
| 2003-2004 | 2,574,481 | 120 | 1.000 | 128,724 | 5,747,065 | 0.035 |
| 2004-2005 | 1,874,487 | - 9 | 1.000 | 208,276 | 6,561,932 | 0.014 |
| 2005-2006 | 3,237,840 | -16 | 1.000 | 202,365 | 6,538,260 | 0.024 |
| 2006-2007 | 1,662,124 | - 14 | 1.000 | 118,723 | 6,684,323 | 0.021 |
| 2007-2008 | 4,919,885 | - 24 | 1.000 | 204,995 | 6,906,572 | 0.035 |
| 2008-2009 | 3,376,845 | - 17 | 1.000 | 198,638 | 6,964,700 | 0.024 |
| 2009-2010 | 2,352,952 | 20 | 1.000 | 117,648 | 6,564,472 | 0.030 |
| 2010-2011 | 2,046,846 | - 13 | 1.000 | 157,450 | 5,908,601 | 0.022 |
| 2011-2012 | 3,901,000 | 020 | 1.000 | 195,050 | 4,925,749 | 0.041 |
| 2012-2013 | 4,104,000 | 21 | 1.000 | 195,429 | 4,695,731 | 0.045 |
| 2013-2014 | 3,069,125 | 15 | 1.000 | 204,608 | 4,551,061 | 0.033 |
| 2014-2015 | 4,905,812 | -18 | 1.000 | 272,545 | 4,618,008 | 0.039 |
| 2015-2016 | 3,700,000 | 20 | 1.000 | 185,000 | 4,395,985 | 0.045 |
| 2016-2017 | 5,932,000 | 20 | 1.000 | 296,600 | 4,566,182 | 0.044 |
| 2017-2018 | 919,000 | - 7 | 1.000 | 131,286 | 4,681,268 | 0.015 |
| 2018-2019 | 1,398,000 | - 10 | 1.000 | 139,800 | 4,709,274 | 0.021 |
| 2019-2020 | 888,000 | - 14 | 1.000 | 63,429 | 4,526,605 | 0.031 |
| 2020-2021 | 6,565,000 | - 29 | 1.000 | 226,379 | 4,564,579 | 0.064 |
| 2021-2022 | 3,711,000 | - 25 | 1.000 | 148,440 | 4,756,654 | 0.053 |
|  |  |  | Severity Trend Factors |  | Frequency Trend Factors |  |
|  |  | 2008-2009 throu | 017-2018 | 1.028 |  | 1.008 |
|  |  | 2009-2010 throu | 018-2019 | 1.015 |  | 0.968 |
|  |  | 2010-2011 throu | 019-2020 | 0.931 |  | 0.965 |
|  |  |  | Prior | 1.000 |  | 1.065 |
|  |  |  | Default | 1.030 |  | 0.975 |
|  |  | Selected | ual Trend | 0.990 |  | 1.055 |

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 | $\begin{gathered} \text { As of } \\ \underline{12 / 31 / 2022} \\ \hline \end{gathered}$ | $\begin{gathered} 1 / 1 / 2023 \\ \text { to } \\ 6 / 30 / 2023 \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 1 / 2023 \\ \text { to } \\ 6 / 30 / 2024 \\ \hline \end{gathered}$ |
| Prior |  |  |  |
| Ultimate Loss | \$52,647,126 | \$52,647,126 | \$52,647,126 |
| Paid in Calendar Period | - |  |  |
| Paid to Date | 52,647,126 | 52,647,126 | 52,647,126 |
| Outstanding Liability |  |  |  |
| 2006-2007 |  |  |  |
| Ultimate Loss | \$1,662,124 | \$1,662,124 | \$1,662,124 |
| Paid in Calendar Period | - |  |  |
| Paid to Date | 1,662,124 | 1,662,124 | 1,662,124 |
| 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 | \$3,902,000 | \$3,902,000 | \$3,902,000 |
| Paid in Calendar Period | - | 22,429 | 33,872 |
| Paid to Date | 3,823,023 | 3,845,452 | 3,879,324 |
| Outstanding Liability | 78,977 | 56,548 | 22,676 |
| 2012-2013 |  |  |  |
| Ultimate Loss | \$4,105,000 | \$4,105,000 | \$4,105,000 |
| Paid in Calendar Period |  | 67,929 | 205,003 |
| Paid to Date | 3,487,466 | 3,555,395 | 3,760,398 |
| Outstanding Liability | 617,534 | 549,605 | 344,602 |

PLAN JPA - Liability
Payment and Reserve Forecast


## PLAN JPA - Liability

Payment and Reserve Forecast


Notes appear on the next page.

## 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 2020-2021, \$905,792 is expected to be paid between $1 / 1 / 23$ and $6 / 30 / 23, \$ 4,734,620$ will have been paid by $6 / 30 / 23$, and the reserve for remaining payments on these claims should be $\$ 3,990,380$.
- 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, $\$ 1,528,316=\$ 3,990,380 \times 38.3 \%$.
- Paid to Date is Paid in Calendar Period plus Paid to Date from previous calendar period. For example, $\$ 6,262,936=\$ 1,528,316+\$ 4,734,620$.

Outstanding Liability is Ultimate Loss minus Paid to Date. For example, $\$ 3,990,380=\$ 8,725,000-\$ 4,734,620$.

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.

PLAN JPA - Liability
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 Year | Full Value of Reserve at $12 / 31 / 22$ <br> (A) | Discount Factor (B) | Discounted Reserve at $12 / 31 / 22$ <br> (C) | Full Value of Reserve at $6 / 30 / 23$ <br> (D) | Discount Factor (E) | Discounted Reserve at 6/30/23 (F) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1986-2002 | \$0 | 1.000 | \$0 | \$0 | 1.000 | \$0 |
| 2002-2003 | 0 | 1.000 | 0 | 0 | 1.000 | 0 |
| 2003-2004 | 0 | 1.000 | 0 | 0 | 1.000 | 0 |
| 2004-2005 | 0 | 1.000 | 0 | 0 | 1.000 | 0 |
| 2005-2006 | 0 | 1.000 | 0 | 0 | 1.000 | 0 |
| 2006-2007 | 0 | 1.000 | 0 | 0 | 1.000 | 0 |
| 2007-2008 | 0 | 1.000 | 0 | 0 | 1.000 | 0 |
| 2008-2009 | 0 | 1.000 | 0 | 0 | 1.000 | 0 |
| 2009-2010 | 0 | 0.995 | 0 | 0 | 1.000 | 0 |
| 2010-2011 | 0 | 0.986 | 0 | 0 | 0.990 | 0 |
| 2011-2012 | 78,977 | 0.978 | 77,222 | 56,548 | 0.982 | 55,550 |
| 2012-2013 | 617,534 | 0.969 | 598,097 | 549,605 | 0.973 | 534,870 |
| 2013-2014 | 104,875 | 0.963 | 101,005 | 89,721 | 0.964 | 86,478 |
| 2014-2015 | 136,049 | 0.966 | 131,424 | 111,696 | 0.962 | 107,490 |
| 2015-2016 | 332,655 | 0.970 | 322,733 | 282,757 | 0.970 | 274,182 |
| 2016-2017 | 1,392,661 | 0.970 | 1,351,012 | 1,253,395 | 0.971 | 1,216,635 |
| 2017-2018 | 204,527 | 0.968 | 197,932 | 177,223 | 0.970 | 171,821 |
| 2018-2019 | 1,023,769 | 0.965 | 987,639 | 852,800 | 0.966 | 823,801 |
| 2019-2020 | 2,581,254 | 0.963 | 2,485,025 | 2,057,259 | 0.963 | 1,982,007 |
| 2020-2021 | 4,896,172 | 0.959 | 4,693,440 | 3,990,380 | 0.962 | 3,838,823 |
| 2021-2022 | 4,978,000 | 0.948 | 4,721,387 | 4,579,760 | 0.955 | 4,374,441 |
| 2022-2023 | 2,360,000 | 0.933 | 2,202,620 | 4,625,600 | 0.942 | 4,356,080 |
| Totals | \$18,706,473 |  | \$17,869,536 | \$18,626,744 |  | \$17,822,178 |

[^1]Notes:
(A) From Reserve Appendix F, Outstanding Liability at 12/31/22.
(B) Based on Reserve Appendix H, Page 2, Column (E).
(C) $(A) x(B)$.
(D) From Reserve Appendix F, Outstanding Liability at 6/30/23.
(E) Based on Reserve Appendix H, Page 2, Column (E).
(F) (D) $\times(\mathrm{E})$.
(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 0.955 , the discounted liability for outstanding claims is $95.5 \%$ of the full value.

PLAN JPA - Liability

Confidence Level Table

| Probability | Projected Losses | Outstanding Losses |
| :---: | :---: | :---: |
|  |  |  |
| $95 \%$ | 1.882 | 1.531 |
| $90 \%$ | 1.618 | 1.370 |
| $85 \%$ | 1.460 | 1.278 |
| $80 \%$ | 1.342 | 1.209 |
| $75 \%$ | 1.247 | 1.155 |
| $70 \%$ | 1.167 | 1.109 |
| $65 \%$ | 1.096 | 1.069 |
| $60 \%$ | 1.032 | 1.032 |
| $55 \%$ | 0.974 | 0.998 |
| $50 \%$ | 0.919 | 0.966 |
| $45 \%$ | 0.867 | 0.936 |
| $40 \%$ | 0.816 | 0.876 |
| $35 \%$ | 0.715 | 0.846 |
| $30 \%$ | 0.663 |  |
| $25 \%$ |  |  |
|  |  |  |

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 History

| Policy Year Start Date | Policy Year | Policy | Self-Insured Retention |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Per |  |
|  | End Date | Year | Occurrence | Aggregate |
| 7/1/1986 | 6/30/2002 | 1986-2002 | \$5,000,000 | (none) |
| 7/1/2002 | 6/30/2003 | 2002-2003 | 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) |
|  | Third Party |  |  |  |
|  | Claims |  | Begin | End |
|  | Administrator |  | Date | Date |
|  | Sedgwick |  |  | Current |

[^2]PLAN JPA - Liability

## Estimated Total Assets as of 6/30/23

(A) Estimated Total Assets as of 6/30/22:
(B) Total Income to Fund during 2022-2023

| Premiums: | $\$ 19,831,000$ |
| :--- | ---: |
| Interest: | 0 |
| Total Income: | $\$ 19,831,000$ |

(C) Total Payments from Fund during 2022-2023

Loss Payments: \$5,102,000
Excess Insurance:
12,386,000
Other:
Total Payments:
(D) Estimated Total Assets as of 6/30/23:
\$47,425,677

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 12/31/22 |  |  |  |  |  |  |  |  |  |  |
| 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 \$1,000,000 (G) | Incurred Capped at \$1,000,000 (H) | Incurred \$1,000,000 to SIR Layer <br> (I) | Incurred Capped at SIR <br> (J) | Incurred Capped at SIR \& Aggregate (K) |
| 1986-2002 | \$34,482,929 | \$146,726 | \$0 | \$34,629,654 | \$0 | \$8,644,200 | \$25,985,454 | \$8,644,200 | \$34,629,654 | \$34,629,654 |
| 2002-2003 | 8,832,841 | $(20,359)$ | 0 | 8,812,482 | 0 | 3,375,194 | 5,437,289 | 3,375,194 | 8,812,482 | 8,812,482 |
| 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 | 3,878,185 | 0 | 0 | 3,878,185 | 0 | 0 | 3,878,185 | 0 | 3,878,185 | 3,878,185 |
| 2012-2013 | 4,063,438 | 0 | 0 | 4,063,438 | 0 | 0 | 4,063,438 | 0 | 4,063,438 | 4,063,438 |
| 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 | 4,957,912 | 0 | 0 | 4,957,912 | 0 | 1,400,000 | 3,557,912 | 1,400,000 | 4,957,912 | 4,957,912 |
| 2016-2017 | 8,211,756 | 0 | 0 | 8,211,756 | 0 | 2,448,007 | 5,763,749 | 2,448,007 | 8,211,756 | 8,211,756 |
| 2017-2018 | 870,473 | 0 | 0 | 870,473 | 0 | 0 | 870,473 | 0 | 870,473 | 870,473 |
| 2018-2019 | 1,291,645 | 0 | 0 | 1,291,645 | 0 | 0 | 1,291,645 | 0 | 1,291,645 | 1,291,645 |
| 2019-2020 | 701,961 | 0 | 0 | 701,961 | 0 | 0 | 701,961 | 0 | 701,961 | 701,961 |
| 2020-2021 | 5,611,045 | 0 | 0 | 5,611,045 | 0 | 1,376,800 | 4,234,245 | 1,376,800 | 5,611,045 | 5,611,045 |
| 2021-2022 | 514,442 | 0 | 0 | 514,442 | 0 | 0 | 514,442 | 0 | 514,442 | 514,442 |
| 2022-2023 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | \$111,471,443 | -\$34,120 | \$0 | \$111,437,323 | \$0 | \$25,118,133 | \$86,319,190 | \$25,118,133 | \$111,437,323 | \$111,437,323 |

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

PLAN JPA - Liability
Paid Losses as of 12/31/22

| Accident Year (A) | Unlimited Paid (B) | Additions to Losses (C) | Subtractions from Losses (D) | Adjusted Paid (E) | Paid <br> Over SIR <br> (F) | Paid Over \$1,000,000 (G) | Paid 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) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1986-2002 | \$34,482,929 | \$146,726 | \$0 | \$34,629,654 | \$0 | \$8,644,200 | \$25,985,454 | \$8,644,200 | \$34,629,654 | \$34,629,654 |
| 2002-2003 | 8,832,841 | $(20,359)$ | 0 | 8,812,482 | 0 | 3,375,194 | 5,437,289 | 3,375,194 | 8,812,482 | 8,812,482 |
| 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 | 3,823,023 | 0 | 0 | 3,823,023 | 0 | 0 | 3,823,023 | 0 | 3,823,023 | 3,823,023 |
| 2012-2013 | 3,487,466 | 0 | 0 | 3,487,466 | 0 | 0 | 3,487,466 | 0 | 3,487,466 | 3,487,466 |
| 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 | 4,824,345 | 0 | 0 | 4,824,345 | 0 | 1,400,000 | 3,424,345 | 1,400,000 | 4,824,345 | 4,824,345 |
| 2016-2017 | 6,958,339 | 0 | 0 | 6,958,339 | 0 | 1,923,377 | 5,034,962 | 1,923,377 | 6,958,339 | 6,958,339 |
| 2017-2018 | 870,473 | 0 | 0 | 870,473 | 0 | 0 | 870,473 | 0 | 870,473 | 870,473 |
| 2018-2019 | 1,055,231 | 0 | 0 | 1,055,231 | 0 | 0 | 1,055,231 | 0 | 1,055,231 | 1,055,231 |
| 2019-2020 | 108,746 | 0 | 0 | 108,746 | 0 | 0 | 108,746 | 0 | 108,746 | 108,746 |
| 2020-2021 | 3,828,828 | 0 | 0 | 3,828,828 | 0 | 1,306,053 | 2,522,774 | 1,306,053 | 3,828,828 | 3,828,828 |
| 2021-2022 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2022-2023 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | \$106,327,035 | -\$34,120 | \$0 | \$106,292,915 | \$0 | \$24,522,756 | \$81,770,159 | \$24,522,756 | \$106,292,915 | \$106,292,915 |

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) $(\mathrm{G})-(F)$.
(J) (E) - (F).
(K) Minimum of (J) and the aggregate stop loss. See Reserve Appendix J.

## PLAN JPA - Liability

Case Reserves as of $12 / 31 / 22$

| 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 <br> (H) | Reserves \$1,000,000 to SIR Layer <br> (I) | Reserves Capped at SIR <br> (J) | Reserves <br> Capped at SIR \& Aggregate (K) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1986-2002 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2002-2003 | 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 | 55,162 | 0 | 0 | 55,162 | 0 | 0 | 55,162 | 0 | 55,162 | 55,162 |
| 2012-2013 | 575,972 | 0 | 0 | 575,972 | 0 | 0 | 575,972 | 0 | 575,972 | 575,972 |
| 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 | 133,567 | 0 | 0 | 133,567 | 0 | 0 | 133,567 | 0 | 133,567 | 133,567 |
| 2016-2017 | 1,253,417 | 0 | 0 | 1,253,417 | 0 | 524,630 | 728,787 | 524,630 | 1,253,417 | 1,253,417 |
| 2017-2018 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2018-2019 | 236,415 | 0 | 0 | 236,415 | 0 | 0 | 236,415 | 0 | 236,415 | 236,415 |
| 2019-2020 | 593,215 | 0 | 0 | 593,215 | 0 | 0 | 593,215 | 0 | 593,215 | 593,215 |
| 2020-2021 | 1,782,218 | 0 | 0 | 1,782,218 | 0 | 70,747 | 1,711,471 | 70,747 | 1,782,218 | 1,782,218 |
| 2021-2022 | 514,442 | 0 | 0 | 514,442 | 0 | 0 | 514,442 | 0 | 514,442 | 514,442 |
| 2022-2023 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | \$5,144,407 | \$0 | \$0 | \$5,144,407 | \$0 | \$595,377 | \$4,549,030 | \$595,377 | \$5,144,407 | \$5,144,407 |

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 $(\mathrm{J})$ and the aggregate stop loss. See Reserve Appendix J .

PLAN JPA - Liability
Claim Counts as of $12 / 31 / 22$

| 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) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1986-2002 | 192 | 0 | 0 | 192 | 192 | 0 | 0 | 192 | 0 | 0 |
| 2002-2003 | 28 | 0 | 0 | 28 | 28 | 0 | 0 | 28 | 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 | 19 | 0 | 0 | 19 | 1 | 1 |
| 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 | 17 | 0 | 0 | 17 | 3 | 3 |
| 2017-2018 | 7 | 0 | 0 | 7 | 7 | 0 | 0 | 7 | 0 | 0 |
| 2018-2019 | 10 | 0 | 0 | 10 | 7 | 0 | 0 | 7 | 3 | 3 |
| 2019-2020 | 12 | 0 | 0 | 12 | 2 | 0 | 0 | 2 | 10 | 10 |
| 2020-2021 | 20 | 0 | 0 | 20 | 7 | 0 | 0 | 7 | 13 | 13 |
| 2021-2022 | 11 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 11 | 11 |
| 2022-2023 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 527 | 0 | 0 | 527 | 484 | 0 | 0 | 484 | 43 | 43 |

(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)

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

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

Agenda Item 7.B.

## LIABILITY PROGRAM

SUBJECT: State of the Market - Liability

## BACKGROUND AND HISTORY:

Annually, representatives from Alliant Insurance Services, Inc. (Alliant) provide an update on the status of the current excess market and a strategy for the upcoming renewal of PLAN's reinsurance and excess policies.

Seth Cole, Senior Vice President, Alliant, will provide the Board of Directors with a marketing report for the 2023/24 program year. Mr. Cole will be present at the meeting to discuss this strategy as well as answer questions.

## RECOMMENDATION:

None.
REFERENCE MATERIALS ATTACHED:
None

## LIABILITY PROGRAM

SUBJECT: PLAN JPA 2023/24 Projections - Liability

## BACKGROUND AND HISTORY:

The primary pooled layer funding has a slight decrease, while the reinsurance \& excess layer is projected to increase by $20 \%$. Staff has taken a conservative approach in estimating costs for the 2023/24 year. Broken down as follows:

| Liability | Layers | 2022-23 | Carrier | 2023-24 | Variance |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PLAN - 60\% CL | \$1M | \$5,102,000 |  | \$4,888,000 | -4.2\% |
| CARMA - 80\% CL | \$9M | 7,082,013 |  | 8,329,559 | 17.6\% |
| Excess | \$5M | 1,957,106 | Safety National | 2,348,527 | 20.0\% |
| Excess | \$5M | 1,450,950 | Everest | 1,741,140 | 20.0\% |
| Excess | \$5M | 860,416 | Hallmark | 1,032,499 | 20.0\% |
| Excess | \$5M | 826,000 | AXIS | 991,200 | 20.0\% |
|  | \$30M | \$17,278,485 |  | \$19,330,925 | 11.9\% |

Overall, staff estimates an $11.9 \%$ increase for PLAN's pooled layer, reinsurance, and excess coverage. The administration cost is not included for this discussion.

## RECOMMENDATION:

None.

## REFERENCE MATERIALS ATTACHED:

None

## PROPERTY AND GROUP PURCHASE PROGRAMS

SUBJECT: Actuarial Update for the Property Program

## BACKGROUND AND HISTORY:

The preliminary actuarial report provides the funding information for the 2023/24 year. The actuary was able to compile the report using December 31, 2022, loss run and estimated insured property values on February 22, 2023.

## Property Program

PLAN JPA's current Property program structure is:


In the 2022/23 Program Year, the Property Program has been funded at the 70\% Confidence Level (CL). As directed by the Board at the December 8, 2022, Strategic Planning Session and Board Meeting, to build equity in the Property Program and fund at the 85\% CL by the 2025/26 Program Year, staff is presenting the 2023/24 Preliminary Budget at the $75 \%$ CL. This will be discussed in further detail during Agenda Item 9.A.

The following is a comparison of the funding for the PLAN JPA Primary Pool Layer:

| Property Program | Factor | Expected |  | 70\% |  | 75\% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
| 2023/24 | 2.0\% | \$ | 1,373,000 | \$ | 1,635,000 | \$ | 1,766,000 |
| 2022/23 | 2.0\% | \$ | 1,128,000 | \$ | 1,350,000 | \$ | 1,464,000 |
|  | Change |  | 245,000 |  | 285,000 |  | 302,000 |
|  | \% Change |  | 21.7\% |  | 21.1\% |  | 20.6\% |

In 2023/24, PLAN's Property Program pooled layer is experiencing an increase of $\$ 416,000$, or $30.8 \%$, over 2022/23 Actuals. Part of the $30.8 \%$ increase, is attributable to moving from $70 \%$ CL funding to $75 \%$, or $\$ 1,350,000$ to $\$ 1,766,000$. The other is due to valuation increases in Total Insured Values (TIV) of $8.1 \%$ over prior year's insured values. However, TIV information is still being collected by Alliant. In addition, the actuarial report may need to be modified if the coverage structure of PLAN's participation in Alliant Property Insurance Program (APIP) changes. The current Property Program is $\$ 500 \mathrm{~K}$ per occurrence with no pool aggregate deductible.

Ms. Becky Richard, ACAS, MAAA, Senior Actuarial Manager from Bickmore Actuarial, will be in attendance to review the Draft Actuarial Study for the Property Program.

## RECOMMENDATION:

None.

## REFERENCE MATERIALS ATTACHED:

- Draft Property Program Actuarial Report as of March 13, 2023


# Bickmore Actuarial 

# Actuarial Review of the Self-Insured Property Program 

Forecast for Program Year 2023-24

Presented to
PLAN JPA

March 13, 2023 - DRAFT

Monday, March 13, 2023

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 2023-24 program year to be \$1,373,000 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 2023-24 claims translates to a rate of $\$ 0.039$ per $\$ 100$ TIV.

The table below shows funding recommendations for the 2023-24 fiscal year.

> PLAN JPA

Self-Insured Property Program
Loss and ALAE Funding Guidelines for 2023-24
Pool Retention of $\$ 500,000$, Member Deductible of $\$ 5,000$

|  | Expected | Marginally Acceptable 70\% CL | Recommended Range |  |  | Conservative 90\% CL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Low } \\ 75 \% \text { CL } \end{gathered}$ | Target 80\% CL | $\begin{gathered} \text { High } \\ 85 \% \text { CL } \end{gathered}$ |  |
| Loss and ALAE | \$1,399,000 |  |  |  |  |  |
| Investment Income Offset | $(26,000)$ |  |  |  |  |  |
| Discounted Loss and ALAE | \$1,373,000 | \$1,635,000 | \$1,766,000 | \$1,921,000 | \$2,116,000 | \$2,375,000 |
| Excess Insurance | 7,637,000 | 7,637,000 | 7,637,000 | 7,637,000 | 7,637,000 | 7,637,000 |
| Total Funding | \$9,010,000 | \$9,272,000 | \$9,403,000 | \$9,558,000 | \$9,753,000 | \$10,012,000 |
| Rate per \$100 of 2023-24 TIV | \$0.254 | \$0.262 | \$0.265 | \$0.270 | \$0.275 | \$0.283 |

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, Mike Harrington at (916) 244-1162 or David Kim at (916) 244-1166 with any questions you may have about this report.

Sincerely,
Bickmore Actuarial

## DRAFT

## Becky Richard, ACAS, MAAA

Senior Actuarial Manager, Bickmore Actuarial
Associate, Casualty Actuarial Society
Member, American Academy of Actuaries

## DRAFT

Mike Harrington, FCAS, MAAA
President and Principal, Bickmore Actuarial
Fellow, Casualty Actuarial Society
Member, American Academy of Actuaries

## DRAFT

## David Kim

Senior Actuarial Analyst, Bickmore Actuarial

TABLE OF CONTENTS
I. BACKGROUND ..... 4
II. CONCLUSIONS AND RECOMMENDATIONS ..... 5
A. COSTS OF 2023-24 CLAIMS ..... 5
B. PROGRAM FUNDING: GOALS AND OBJECTIVES ..... 6
C. HISTORICAL TRENDS ..... 7
D. COMPARISON WITH OUR PREVIOUS RESULTS ..... 10
E. DATA ISSUES ..... 15
III. ASSUMPTIONS AND LIMITATIONS ..... 16
IV. GLOSSARY OF ACTUARIAL TERMS ..... 18
V. EXHIBITS ..... 19
VI. APPENDICES ..... 24

## 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 \$10K 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 and \#30. The specific objectives of the study are to estimate PLAN JPA's ultimate loss cost for 2023-24 and provide funding guidelines to meet these future costs.

## II. CONCLUSIONS AND RECOMMENDATIONS

## A. COSTS OF 2023-24 CLAIMS

The following chart shows our funding recommendations for the PLAN JPA property program for the 2023-24 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 2023-24
Pool Retention of $\$ 500,000$, Member Deductible of $\$ 5,000$

|  | Expected | Marginally Acceptable 70\% CL | Recommended Range |  |  | $\begin{aligned} & \text { Conservative } \\ & 90 \% \mathrm{CL} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Low } \\ 75 \% \mathrm{CL} \end{gathered}$ | $\begin{gathered} \text { Target } \\ 80 \% \mathrm{CL} \end{gathered}$ | $\begin{gathered} \text { High } \\ 85 \% \text { CL } \end{gathered}$ |  |
| Loss and ALAE | \$1,399,000 |  |  |  |  |  |
| Investment Income Offset | $(26,000)$ |  |  |  |  |  |
| Discounted Loss and ALAE | \$1,373,000 | \$1,635,000 | \$1,766,000 | \$1,921,000 | \$2,116,000 | \$2,375,000 |
| Excess Insurance | 7,637,000 | 7,637,000 | 7,637,000 | 7,637,000 | 7,637,000 | 7,637,000 |
| Total Funding | \$9,010,000 | \$9,272,000 | \$9,403,000 | \$9,558,000 | \$9,753,000 | \$10,012,000 |
| Rate per $\$ 100$ of 2023-24 TIV | \$0.254 | \$0.262 | \$0.265 | \$0.270 | \$0.275 | \$0.283 |

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 relativity stable over the past eight years, with the exception of 2019-20. The projected 2022-23 loss rate of $\$ 0.046$ is based on the most recent eight years.

-Loss Rate

The program's cost per claim (limited to $\$ 500,000$ ) has generally increased since 2013-14. The projected 2022-23 severity of $\$ 13,200$ is based on this increasing trend.

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


aSeverity

PLAN JPA's claims frequency per \$1 million of TIV has generally decreased over the past ten years. The projected 2022-23 frequency of 0.035 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 May 31, 2022. In the table below we display actual versus expected development of incurred losses and ALAE by accident year between the December 31, 2021 evaluation date of the prior report and the December 31, 2022 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 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| $2015-16$ | 1,000 | 0 | $(1,000)$ |
| $2016-17$ | 3,000 | 0 | $(3,000)$ |
| $2017-18$ | 3,000 | 0 | $(3,000)$ |
| $2018-19$ | 16,000 | $(11,000)$ | $(27,000)$ |
| $2019-20$ | 90,000 | $(18,000)$ | $(108,000)$ |
| $2020-21$ | 85,000 | 39,000 | $(46,000)$ |
| $2021-22$ | 490,000 | 961,000 | 471,000 |
|  |  |  |  |
| Total | $\$ 688,000$ | $\$ 971,000$ | $\$ 283,000$ |

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 2021-22 would increase by $\$ 688,000$ between the two evaluation dates. However, actual development was approximately $\$ 971,000$; or about $\$ 283,000$ 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, 2021 evaluation date of the prior report and the December 31, 2022 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 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| $2015-16$ | 15,000 | 0 | $(15,000)$ |
| $2016-17$ | 160,000 | 0 | $(160,000)$ |
| $2017-18$ | 2,000 | 0 | $(2,000)$ |
| $2018-19$ | 24,000 | 25,000 | 1,000 |
| $2019-20$ | 164,000 | 123,000 | $(41,000)$ |
| $2020-21$ | 233,000 | 61,000 | $(172,000)$ |
| $2021-22$ | 634,000 | 307,000 | $(327,000)$ |
|  |  |  |  |
| Total | $\$ 1,232,000$ | $\$ 516,000$ | $(\$ 716,000)$ |

As shown, actual paid development was less 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 $\$ 1,232,000$ between the two evaluation dates. However, actual development was approximately \$516,000; or about $\$ 716,000$ less 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 | $\$ 0$ | $\$ 0$ | $\$ 0$ |
| $2011-12$ | 878,000 | 878,000 | $\$ 0$ |
| $2012-13$ | $1,212,000$ | $1,212,000$ | 0 |
| $2013-14$ | 769,000 | 769,000 | 0 |
| $2014-15$ | 768,000 | 768,000 | 0 |
| $2015-16$ | 731,000 | 730,000 | $(1,000)$ |
| $2016-17$ | $1,191,000$ | $1,188,000$ | $(3,000)$ |
| $2017-18$ | 626,000 | 620,000 | $(6,000)$ |
| $2018-19$ | $1,067,000$ | $1,039,000$ | $(28,000)$ |
| $2019-20$ | $2,580,000$ | $2,450,000$ | $(130,000)$ |
| $2020-21$ | 960,000 | 884,000 | $(76,000)$ |
| $2021-22$ | $1,165,000$ | $1,654,000$ | 489,000 |
|  |  |  |  |
| Total | $\$ 11,947,000$ | $\$ 12,192,000$ | $\$ 245,000$ |

As shown, overall we have increased our estimated ultimate losses by $\$ 245,000$ 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 2022-23 year was $\$ 1,128,000$ 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 2023-24 year is $\$ 1,373,000$ 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 |  |
|  | $2022-23$ | $2023-24$ |  |
|  | Deductible $=$ | Deductible $=$ |  |
|  | $\$ 500,000$ | $\$ 500,000$ | Change |
|  | $\$ 1,151,000$ | $\$ 1,399,000$ | $\$ 248,000$ |
| (A) Ultimate Loss and ALAE: | $(23,000)$ | $(26,000)$ | $(3,000)$ |
| (B) Offset for Investment Income: | $1,128,000$ | $\$ 1,373,000$ | $\$ 245,000$ |
| (C) Total Recommended Funding: | $\$ 0.0345$ | $\$ 0.0390$ | $\$ 0.0045$ |
| (D) Funding per $\$ 100$ of TIV: |  |  |  |

As you can see, our funding recommendations at the discounted, expected level have increased between 2022-22 and 2023-24, as shown in our prior and current reports respectively.

Our estimates of ultimate loss and ALAE have increased by $\$ 248,000$ 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 $\$ 245,000$ in our annual funding estimate for loss and ALAE.

We provide the following comparison of property premiums, which include ultimate loss and ALAE and excess insurance costs at the $75 \%$ confidence level on a discounted basis (2.0\%).

|  | 2022-23 <br> $\$ 500 \mathrm{~K}$ |  |  |  |  |  | 2023-24 <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, 2022.

## 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 $1.2 \%$ per year. We have assumed that the average claim size increases at $6.5 \%$ 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 2023-2024 (Pool Layer: \$5,000-\$500,000) <br> One-Year Funding Plan 



TIV rates are per hundred dollars of 2023-2024 TIV of \$3,542,790,600.

PLAN JPA - Property

## Estimated Ultimate Program Losses

|  |  |  | Exposure | Exposure |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Reported | Paid | Method | Method |  | Selected |
|  | Loss | Loss | Based on | Based on | Frequency- | Estimate of |
| Accident Year | Development | Development | Reported | Paid | Severity | Ultimate |
|  | Method | Method | Losses | Losses | Method | Losses |
|  | (A) | (B) | (C) | (D) | (E) | (F) |
| 2011-2012 | 877,854 | 879,610 | 877,854 | 879,830 | 976,800 | 877,854 |
| 2012-2013 | 1,211,570 | 1,215,205 | 1,211,570 | 1,215,584 | 1,353,811 | 1,211,570 |
| 2013-2014 | 768,874 | 772,718 | 768,874 | 773,124 | 862,740 | 768,874 |
| 2014-2015 | 768,041 | 774,953 | 768,041 | 775,718 | 865,214 | 768,041 |
| 2015-2016 | 729,739 | 695,507 | 729,739 | 696,814 | 786,240 | 730,000 |
| 2016-2017 | 1,187,751 | 699,088 | 1,187,488 | 706,462 | 1,034,860 | 1,188,000 |
| 2017-2018 | 622,982 | 638,479 | 625,750 | 653,910 | 1,083,915 | 619,883 |
| 2018-2019 | 1,039,428 | 1,079,564 | 1,041,291 | 1,086,258 | 1,259,814 | 1,039,000 |
| 2019-2020 | 2,468,938 | 2,483,498 | 2,438,647 | 2,392,572 | 1,312,020 | 2,450,000 |
| 2020-2021 | 906,476 | 750,241 | 928,531 | 815,190 | 973,357 | 884,000 |
| 2021-2022 | 1,753,054 | 459,887 | 1,695,744 | 759,040 | 1,516,032 | 1,654,000 |
| Totals |  |  |  |  |  | \$12,191,222 |


| Projected Losses for the Year 2022-2023 (G) | $\$ 1,503,000$ |
| :--- | :--- |
| Projected Losses for the Year 2023-2024 (H) | $\$ 1,630,000$ |

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 | Paid | Exposure Method | Exposure Method |  | Selected |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Loss | Loss | Based on | Based on | Frequency- | Ultimate |
| Accident | Development | Development | Reported | Paid | Severity | Limited |
| Year | Method <br> (A) | Method (B) | Losses <br> (C) | Losses <br> (D) | Method (E) | Losses <br> (F) |
| 2011-2012 | 877,854 | 877,854 | 877,854 | 877,854 | 877,800 | 877,854 |
| 2012-2013 | 1,211,570 | 1,211,570 | 1,211,570 | 1,211,570 | 1,211,569 | 1,211,570 |
| 2013-2014 | 768,874 | 768,874 | 768,874 | 768,874 | 768,960 | 768,874 |
| 2014-2015 | 768,041 | 768,041 | 768,041 | 768,041 | 767,970 | 768,041 |
| 2015-2016 | 694,403 | 651,245 | 694,403 | 651,245 | 694,460 | 694,403 |
| 2016-2017 | 910,380 | 685,380 | 910,380 | 685,380 | 910,370 | 910,380 |
| 2017-2018 | 619,883 | 619,883 | 619,883 | 619,883 | 949,620 | 619,883 |
| 2018-2019 | 1,029,137 | 1,032,223 | 1,029,137 | 1,032,285 | 1,098,390 | 1,029,137 |
| 2019-2020 | 1,761,372 | 1,694,947 | 1,761,372 | 1,689,354 | 1,138,416 | 1,762,000 |
| 2020-2021 | 709,504 | 614,754 | 711,589 | 626,710 | 841,225 | 711,000 |
| 2021-2022 | 1,479,608 | 404,022 | 1,459,835 | 583,608 | 1,304,016 | 1,470,000 |
| Totals |  |  |  |  |  | \$10,823,142 |


| Projected Losses for the Year 2022-2023 (G) | $\$ 1,287,000$ |
| :--- | :--- |
| Projected Losses for the Year 2023-2024 (H) | $\$ 1,389,000$ |

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.

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

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

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) $(A) \times(B)$.
(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) $(K)+(L)$.

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

|  | Limited | Reported |  | Program | Reported |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Reported | Loss | Ultimate | Reported | Loss | Ultimate |
| Accident | Losses as | Development | Limited | Losses | Development | Program |
| Year <br> (A) | of $12 / 31 / 22$ <br> (B) | Factor <br> (C) | Losses <br> (D) | of $12 / 31 / 22$ <br> (E) | Factor <br> (F) | Losses <br> (G) |
| 2011-2012 | 877,854 | 1.000 | 877,854 | 877,854 | 1.000 | 877,854 |
| 2012-2013 | 1,211,570 | 1.000 | 1,211,570 | 1,211,570 | 1.000 | 1,211,570 |
| 2013-2014 | 768,874 | 1.000 | 768,874 | 768,874 | 1.000 | 768,874 |
| 2014-2015 | 768,041 | 1.000 | 768,041 | 768,041 | 1.000 | 768,041 |
| 2015-2016 | 694,403 | 1.000 | 694,403 | 729,739 | 1.000 | 729,739 |
| 2016-2017 | 910,380 | 1.000 | 910,380 | 1,185,380 | 1.002 | 1,187,751 |
| 2017-2018 | 619,883 | 1.000 | 619,883 | 619,883 | 1.005 | 622,982 |
| 2018-2019 | 1,029,137 | 1.000 | 1,029,137 | 1,029,137 | 1.010 | 1,039,428 |
| 2019-2020 | 1,761,372 | 1.000 | 1,761,372 | 2,406,372 | 1.026 | 2,468,938 |
| 2020-2021 | 705,974 | 1.005 | 709,504 | 855,974 | 1.059 | 906,476 |
| 2021-2022 | 1,384,105 | 1.069 | 1,479,608 | 1,494,505 | 1.173 | 1,753,054 |
| Totals | \$10,731,593 |  | \$10,830,626 | \$11,947,329 |  | \$12,334,707 |

## 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. Interpolated to apply to data as of 12/31/22.
(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. Interpolated to apply to data as of 12/31/22.
(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.

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 <br> (A) | of $12 / 31 / 22$ <br> (B) | Factor <br> (C) | Losses <br> (D) | of $12 / 31 / 22$ <br> (E) | Factor <br> (F) | Losses <br> (G) |
| 2011-2012 | 877,854 | 1.000 | 877,854 | 877,854 | 1.002 | 879,610 |
| 2012-2013 | 1,211,570 | 1.000 | 1,211,570 | 1,211,570 | 1.003 | 1,215,205 |
| 2013-2014 | 768,874 | 1.000 | 768,874 | 768,874 | 1.005 | 772,718 |
| 2014-2015 | 768,041 | 1.000 | 768,041 | 768,041 | 1.009 | 774,953 |
| 2015-2016 | 651,245 | 1.000 | 651,245 | 686,581 | 1.013 | 695,507 |
| 2016-2017 | 685,380 | 1.000 | 685,380 | 685,380 | 1.020 | 699,088 |
| 2017-2018 | 619,883 | 1.000 | 619,883 | 619,883 | 1.030 | 638,479 |
| 2018-2019 | 1,029,136 | 1.003 | 1,032,223 | 1,029,136 | 1.049 | 1,079,564 |
| 2019-2020 | 1,678,165 | 1.010 | 1,694,947 | 2,293,165 | 1.083 | 2,483,498 |
| 2020-2021 | 599,760 | 1.025 | 614,754 | 661,005 | 1.135 | 750,241 |
| 2021-2022 | 308,649 | 1.309 | 404,022 | 308,649 | 1.490 | 459,887 |
| Totals | \$9,198,557 |  | \$9,328,793 | \$9,910,138 |  | \$10,448,750 |

## 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. Interpolated to apply to data as of 12/31/22.
(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. Interpolated to apply to data as of 12/31/22.
(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.

PLAN JPA - Property

Exposure and Development Method
Based on Reported Losses

| Accident <br> Year | Trended TIV (\$00) (A) | Reported Losses as of $12 / 31 / 22$ <br> (B) | Loss <br> Development Factor <br> (C) | Percentage of Losses Yet to Be Reported (D) | Program Rate (E) | Incurred but not Reported (IBNR) (F) | Ultimate Program Losses <br> (G) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2011-2012 | 26,704,247 | 877,854 | 1.000 | 0.000 | 0.037 | 0 | 877,854 |
| 2012-2013 | 27,876,628 | 1,211,570 | 1.000 | 0.000 | 0.048 | 0 | 1,211,570 |
| 2013-2014 | 30,357,358 | 768,874 | 1.000 | 0.000 | 0.028 | 0 | 768,874 |
| 2014-2015 | 30,465,070 | 768,041 | 1.000 | 0.000 | 0.028 | 0 | 768,041 |
| 2015-2016 | 27,144,230 | 729,739 | 1.000 | 0.000 | 0.029 | 0 | 729,739 |
| 2016-2017 | 27,028,339 | 1,185,380 | 1.002 | 0.002 | 0.039 | 2,108 | 1,187,488 |
| 2017-2018 | 27,287,225 | 619,883 | 1.005 | 0.005 | 0.043 | 5,867 | 625,750 |
| 2018-2019 | 27,621,785 | 1,029,137 | 1.010 | 0.010 | 0.044 | 12,154 | 1,041,291 |
| 2019-2020 | 28,688,860 | 2,406,372 | 1.026 | 0.025 | 0.045 | 32,275 | 2,438,647 |
| 2020-2021 | 28,792,638 | 855,974 | 1.059 | 0.056 | 0.045 | 72,557 | 928,531 |
| 2021-2022 | 29,127,022 | 1,494,505 | 1.173 | 0.147 | 0.047 | 201,239 | 1,695,744 |
| Totals | 311,093,402 | \$11,947,329 |  |  |  | \$326,200 | \$12,273,529 |

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) $(\mathrm{B})+(\mathrm{F})$.

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 - Property

Based on Paid Losses

| Accident Year | Trended TIV (\$00) (A) | Paid Losses as of $12 / 31 / 22$ (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) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2011-2012 | 26,704,247 | 877,854 | 1.002 | 0.002 | 0.037 | 1,976 | 879,830 |
| 2012-2013 | 27,876,628 | 1,211,570 | 1.003 | 0.003 | 0.048 | 4,014 | 1,215,584 |
| 2013-2014 | 30,357,358 | 768,874 | 1.005 | 0.005 | 0.028 | 4,250 | 773,124 |
| 2014-2015 | 30,465,070 | 768,041 | 1.009 | 0.009 | 0.028 | 7,677 | 775,718 |
| 2015-2016 | 27,144,230 | 686,581 | 1.013 | 0.013 | 0.029 | 10,233 | 696,814 |
| 2016-2017 | 27,028,339 | 685,380 | 1.020 | 0.020 | 0.039 | 21,082 | 706,462 |
| 2017-2018 | 27,287,225 | 619,883 | 1.030 | 0.029 | 0.043 | 34,027 | 653,910 |
| 2018-2019 | 27,621,785 | 1,029,136 | 1.049 | 0.047 | 0.044 | 57,122 | 1,086,258 |
| 2019-2020 | 28,688,860 | 2,293,165 | 1.083 | 0.077 | 0.045 | 99,407 | 2,392,572 |
| 2020-2021 | 28,792,638 | 661,005 | 1.135 | 0.119 | 0.045 | 154,185 | 815,190 |
| 2021-2022 | 29,127,022 | 308,649 | 1.490 | 0.329 | 0.047 | 450,391 | 759,040 |
| Totals | 311,093,402 | \$9,910,138 |  |  |  | \$844,364 | \$10,754,502 |

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) $(\mathrm{A}) \times(\mathrm{D}) \times(\mathrm{E})$.
(G) (B) $+(\mathrm{F})$.

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 - Property
Exposure and Development Method

| Accident Year | Trended <br> TIV (\$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 <br> (G) | Program Loss Rate (H) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
| 2011-2012 | 26,704,247 | 877,854 | 1.141 | 1,001,631 | 0.038 | 0.033 | 1.113 | 0.037 |
| 2012-2013 | 27,876,628 | 1,211,570 | 1.127 | 1,365,439 | 0.049 | 0.043 | 1.117 | 0.048 |
| 2013-2014 | 30,357,358 | 768,874 | 1.114 | 856,526 | 0.028 | 0.025 | 1.122 | 0.028 |
| 2014-2015 | 30,465,070 | 768,041 | 1.100 | 844,845 | 0.028 | 0.025 | 1.127 | 0.028 |
| 2015-2016 | 27,144,230 | 694,403 | 1.087 | 754,816 | 0.028 | 0.026 | 1.132 | 0.029 |
| 2016-2017 | 27,028,339 | 910,380 | 1.074 | 977,748 | 0.036 | 0.034 | 1.137 | 0.039 |
| 2017-2018 | 27,287,225 | 619,883 | 1.062 | 658,316 | 0.024 | 0.038 | 1.141 | 0.043 |
| 2018-2019 | 27,621,785 | 1,029,137 | 1.049 | 1,079,565 | 0.039 | 0.038 | 1.147 | 0.044 |
| 2019-2020 | 28,688,860 | 1,762,000 | 1.037 | 1,827,194 | 0.064 | 0.039 | 1.152 | 0.045 |
| 2020-2021 | 28,792,638 | 710,000 | 1.024 | 727,040 | 0.025 | 0.039 | 1.157 | 0.045 |
| 2021-2022 | 29,127,022 | 1,480,000 | 1.012 | 1,497,760 | 0.051 | 0.040 | 1.163 | 0.047 |
| Total/Avg | 311,093,402 | \$10,832,142 |  | \$11,590,880 | \$0.037 |  |  |  |
| 16/17-20/21 | 139,418,847 | 5,031,400 |  | 5,269,863 | 0.038 |  |  |  |
| 17/18-21/22 | 141,517,530 | 5,601,020 |  | 5,789,875 | 0.041 |  |  |  |
|  |  |  | Selec | Limited Rate: <br> Prior: | $\begin{aligned} & \$ 0.040 \\ & \$ 0.035 \end{aligned}$ |  |  |  |

Notes:
(A) From Appendix I, Column (C).
(B) Selected average of results from Appendices $A$ and $B$.
(C) From Appendix E, Column (B).
(D) $(\mathrm{B}) \times(\mathrm{C})$.
(E) (D)/(A).
(F) Selected Limited Rate / (C). For 2016-2017 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 | Cltimate <br> Program <br> Losses |
| :---: | :---: | :---: | ---: |
| (B) | (C) |  |  |

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

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 |  | Adjusted Ultimate | Ultimate |  | Trended |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ultimate Limited |  |  |  |  |  |  |  |
|  | Losses | Ultimate | Severity | Factor | Severity | Severity | SIR | Severity |
|  | (A) | (B) | (C) | (D) | (E) | (F) | (G) | (H) |
| 2011-2012 | 877,854 | 165 | 5,320 | 2.002 | 10,651 | 5,320 | 1.113 | 5,920 |
| 2012-2013 | 1,211,570 | 157 | 7,717 | 1.879 | 14,500 | 7,717 | 1.117 | 8,623 |
| 2013-2014 | 768,874 | 180 | 4,272 | 1.764 | 7,536 | 4,272 | 1.122 | 4,793 |
| 2014-2015 | 768,041 | 161 | 4,770 | 1.656 | 7,899 | 4,770 | 1.127 | 5,374 |
| 2015-2016 | 694,403 | 130 | 5,342 | 1.555 | 8,307 | 5,342 | 1.132 | 6,048 |
| 2016-2017 | 910,380 | 118 | 7,715 | 1.460 | 11,264 | 7,715 | 1.137 | 8,770 |
| 2017-2018 | 619,883 | 105 | 5,904 | 1.371 | 8,094 | 9,044 | 1.141 | 10,323 |
| 2018-2019 | 1,029,137 | 114 | 9,028 | 1.287 | 11,619 | 9,635 | 1.147 | 11,051 |
| 2019-2020 | 1,762,000 | 111 | 15,874 | 1.209 | 19,192 | 10,256 | 1.152 | 11,820 |
| 2020-2021 | 711,000 | 77 | 9,234 | 1.135 | 10,481 | 10,925 | 1.157 | 12,641 |
| 2021-2022 | 1,470,000 | 112 | 13,125 | 1.065 | 13,978 | 11,643 | 1.163 | 13,536 |
|  |  | Average Limited Severity: |  |  | \$11,229 |  |  |  |
|  |  | Average 16/17-20/21 Limited Severity: |  |  | 12,130 |  |  |  |
|  |  | Average 17/18-21/22 Limited Severity: |  |  | 12,673 |  |  |  |
|  |  | Selected Limited Severity: |  |  | \$12,400 |  |  |  |
|  |  |  |  | Prior: | \$8,100 |  |  |  |

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) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2011-2012 | 165 | 165 | 165 | 2,670.4 | 0.062 | 0.569 | 0.035 |
| 2012-2013 | 157 | 157 | 157 | 2,787.7 | 0.056 | 0.599 | 0.034 |
| 2013-2014 | 180 | 180 | 180 | 3,035.7 | 0.059 | 0.631 | 0.037 |
| 2014-2015 | 161 | 161 | 161 | 3,046.5 | 0.053 | 0.663 | 0.035 |
| 2015-2016 | 130 | 129 | 130 | 2,714.4 | 0.048 | 0.698 | 0.034 |
| 2016-2017 | 118 | 118 | 118 | 2,702.8 | 0.044 | 0.734 | 0.032 |
| 2017-2018 | 105 | 106 | 105 | 2,728.7 | 0.038 | 0.773 | 0.029 |
| 2018-2019 | 114 | 114 | 114 | 2,762.2 | 0.041 | 0.814 | 0.033 |
| 2019-2020 | 111 | 104 | 111 | 2,868.9 | 0.039 | 0.857 | 0.033 |
| 2020-2021 | 77 | 66 | 77 | 2,879.3 | 0.027 | 0.902 | 0.024 |
| 2021-2022 | 112 | 70 | 112 | 2,912.7 | 0.038 | 0.950 | 0.036 |
| Total | 1,430 | 1,370 | 1,430 | 31,109.3 |  |  | 0.033 |
| 16/17-20/21 | 525 | 508 | 525 | 13,941.9 |  |  | 0.030 |
| (H) Selected Frequency: Prior: |  |  |  |  |  |  | 0.035 |
|  |  |  |  |  |  |  | 0.040 |


|  | Program Year: | $2022-2023$ | $2023-2024$ |
| :--- | :--- | ---: | ---: |
| (I) | Trend Factor: | 1.000 | 0.950 |
| (J) Selected Frequency: | 0.035 | 0.033 |  |
| (K) | Est. TIV (\$000,000): | $3,268.0$ | $3,542.8$ |
| (L) Ultimate Claims: | 114 | 117 |  |

Notes:
(A) From Appendix D, Page 4, (C).
(G) $(E) \times(F)$.
(B) From Appendix D, Page 5, (C).
(H) The selected frequency of . 035 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) $(\mathrm{H}) \times(\mathrm{I})$.
(E) (C)/ (D).
(K) From Appendix I, Column (C)/ 10,000.
(F) From Appendix E, 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 - Property

Frequency and Severity Method
Reported Claim Count Development

| Accident Year | Claims Reported as of 12/31/2022 <br> (A) | Reported Claim Development Factor (B) | Ultimate Claims (C) | Trended Claim Frequency (D) |
| :---: | :---: | :---: | :---: | :---: |
| 2011-2012 | 165 | 1.000 | 165 | 0.035 |
| 2012-2013 | 157 | 1.000 | 157 | 0.034 |
| 2013-2014 | 180 | 1.000 | 180 | 0.037 |
| 2014-2015 | 161 | 1.000 | 161 | 0.035 |
| 2015-2016 | 130 | 1.000 | 130 | 0.033 |
| 2016-2017 | 118 | 1.000 | 118 | 0.032 |
| 2017-2018 | 105 | 1.000 | 105 | 0.030 |
| 2018-2019 | 114 | 1.000 | 114 | 0.034 |
| 2019-2020 | 111 | 1.000 | 111 | 0.033 |
| 2020-2021 | 76 | 1.012 | 77 | 0.024 |
| 2021-2022 | 100 | 1.115 | 112 | 0.037 |
| Total | 1,417 |  | 1,430 | 0.033 |

## Notes:

(A) Provided by the Pool.
(B) From Appendix D, Page 6.
(C) $(\mathrm{A}) \times(\mathrm{B})$.
(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


## 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 | $\begin{aligned} & \text { Factor to } \\ & \text { FO?2-0 } \end{aligned}$ | $\begin{aligned} & \text { Factor to } \end{aligned}$ 2023-2024 | $\begin{aligned} & \text { Factor to } \\ & \hline \text { FOPA-0 } \end{aligned}$ 2024-2025 | $\begin{aligned} & \text { Factor to } \\ & \text { 2025-2026 } \end{aligned}$ | $\begin{gathered} \text { Factor to } \\ \text { 2022-2023 } \end{gathered}$ | Factor to 2023-2024 | $\begin{gathered} \text { Factor to } \\ 2024-2025 \end{gathered}$ | $\begin{gathered} \text { Factor to } \\ 2025-2026 \end{gathered}$ | Factor to 2022-2023 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accident | Level | Loss Rate | Loss Rate | Loss Rate | Loss Rate | Frequency | Frequency | Frequency | Frequency | Severity |
| Year | Factor <br> (A) | Level (B) | Level <br> (C) | Level <br> (D) | Level (E) | Level <br> (F) | Level <br> (G) | Level <br> (H) | Level <br> (I) | Level <br> (J) |
| 2001-2002 | 1.000 | 1.286 | 1.301 | 1.316 | 1.332 | 0.341 | 0.324 | 0.308 | 0.293 | 3.756 |
| 2002-2003 | 1.000 | 1.270 | 1.285 | 1.300 | 1.316 | 0.359 | 0.341 | 0.324 | 0.308 | 3.526 |
| 2003-2004 | 1.000 | 1.255 | 1.270 | 1.285 | 1.300 | 0.378 | 0.359 | 0.341 | 0.324 | 3.311 |
| 2004-2005 | 1.000 | 1.240 | 1.255 | 1.270 | 1.285 | 0.397 | 0.378 | 0.359 | 0.341 | 3.109 |
| 2005-2006 | 1.000 | 1.226 | 1.240 | 1.255 | 1.270 | 0.418 | 0.398 | 0.378 | 0.359 | 2.920 |
| 2006-2007 | 1.000 | 1.211 | 1.226 | 1.240 | 1.255 | 0.441 | 0.419 | 0.398 | 0.378 | 2.742 |
| 2007-2008 | 1.000 | 1.197 | 1.211 | 1.225 | 1.240 | 0.464 | 0.441 | 0.419 | 0.398 | 2.575 |
| 2008-2009 | 1.000 | 1.182 | 1.196 | 1.210 | 1.225 | 0.488 | 0.464 | 0.441 | 0.419 | 2.417 |
| 2009-2010 | 1.000 | 1.168 | 1.182 | 1.196 | 1.210 | 0.514 | 0.488 | 0.464 | 0.441 | 2.270 |
| 2010-2011 | 1.000 | 1.154 | 1.168 | 1.182 | 1.196 | 0.541 | 0.514 | 0.488 | 0.464 | 2.132 |
| 2011-2012 | 1.000 | 1.141 | 1.154 | 1.168 | 1.182 | 0.569 | 0.540 | 0.514 | 0.488 | 2.002 |
| 2012-2013 | 1.000 | 1.127 | 1.141 | 1.154 | 1.168 | 0.599 | 0.569 | 0.541 | 0.514 | 1.879 |
| 2013-2014 | 1.000 | 1.114 | 1.127 | 1.140 | 1.154 | 0.631 | 0.599 | 0.569 | 0.541 | 1.764 |
| 2014-2015 | 1.000 | 1.100 | 1.113 | 1.126 | 1.140 | 0.663 | 0.630 | 0.599 | 0.569 | 1.656 |
| 2015-2016 | 1.000 | 1.087 | 1.100 | 1.113 | 1.126 | 0.698 | 0.663 | 0.631 | 0.599 | 1.555 |
| 2016-2017 | 1.000 | 1.074 | 1.087 | 1.100 | 1.113 | 0.734 | 0.698 | 0.663 | 0.630 | 1.460 |
| 2017-2018 | 1.000 | 1.062 | 1.074 | 1.087 | 1.100 | 0.773 | 0.734 | 0.698 | 0.663 | 1.371 |
| 2018-2019 | 1.000 | 1.049 | 1.062 | 1.074 | 1.087 | 0.814 | 0.773 | 0.735 | 0.698 | 1.287 |
| 2019-2020 | 1.000 | 1.037 | 1.049 | 1.061 | 1.074 | 0.857 | 0.814 | 0.774 | 0.735 | 1.209 |
| 2020-2021 | 1.000 | 1.024 | 1.036 | 1.048 | 1.061 | 0.902 | 0.857 | 0.815 | 0.774 | 1.135 |
| 2021-2022 | 1.000 | 1.012 | 1.023 | 1.036 | 1.048 | 0.950 | 0.903 | 0.858 | 0.815 | 1.065 |
| 2022-2023 | 1.000 | 1.000 | 1.012 | 1.024 | 1.036 | 1.000 | 0.950 | 0.903 | 0.858 | 1.000 |
| 2023-2024 | 1.000 | -- | 1.000 | 1.012 | 1.024 | -- | 1.000 | 0.951 | 0.903 | -- |
| 2024-2025 | 1.000 | -- | -- | 1.000 | 1.012 | -- | -- | 1.000 | 0.950 | -- |
| 2025-2026 | 1.000 | -- | -- | -- | 1.000 | -- | -- | -- | 1.000 | -- |

## Notes:

(A) No benefit level adjustment applied.
(B) - (E) (A) adjusted for a $1.2 \%$ annual loss rate trend.
(F) - (I) (A) adjusted for a - $5.0 \%$ annual frequency trend.
(J) (A) adjusted for a $6.5 \%$ 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 - Property

## Calculation of Discount Factors

| Payment <br> Year | Payment <br> Pattern <br> (A) | (B) | Return on <br> Investment | Discounted <br> Reserves | Undiscounted <br> Reserves |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Discount <br> Factor |  |
| 22 | $0.0 \%$ | $2.0 \%$ | 0.000 | 0.000 | (E) |

## 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, $50.5 \%=[14.7 \% / 1.020]+[36.5 \% /(1.010)]$.
(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 0.98 , on a discounted basis, $\$ 0.98$ 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 |
| :---: | :---: | :---: |
|  |  |  |
| $95 \%$ | 2.047 | 1.679 |
| $90 \%$ | 1.730 | 1.480 |
| $85 \%$ | 1.541 | 1.360 |
| $80 \%$ | 1.399 | 1.270 |
| $75 \%$ | 1.286 | 1.198 |
| $70 \%$ | 1.191 | 1.136 |
| $65 \%$ | 1.106 | 1.082 |
| $60 \%$ | 1.032 | 1.032 |
| $55 \%$ | 0.963 | 0.987 |
| $50 \%$ | 0.898 | 0.943 |
| $45 \%$ | 0.836 | 0.902 |
| $40 \%$ | 0.718 | 0.862 |
| $35 \%$ | 0.660 | 0.600 |
| $30 \%$ |  |  |
| $25 \%$ | For the above retention, there is a $90 \%$ chance |  |
|  | that final loss settlements will be less than |  |
|  | 1.730 times the average expected amount of losses. |  |
| To read table: |  |  |
|  |  |  |

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 12/31/22


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.

## DRAFT

PLAN JPA - Property
Paid Losses as of 12/31/22

| 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 \$225,000 (G) | Paid Capped at \$225,000 <br> (H) | Paid \$225,000 to SIR Layer <br> (I) | Paid <br> Capped at SIR <br> (J) | Paid <br> Capped at SIR \& Aggregate (K) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2011-2012 | 877,854 | 0 | 0 | 877,854 | 0 | 0 | 877,854 | 0 | 877,854 | 877,854 |
| 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 | 686,581 | 0 | 0 | 686,581 | 0 | 35,337 | 651,245 | 35,337 | 686,581 | 686,581 |
| 2016-2017 | 685,380 | 0 | 0 | 685,380 | 0 | 0 | 685,380 | 0 | 685,380 | 685,380 |
| 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 | 2,588,165 | 0 | 0 | 2,588,165 | 295,000 | 910,000 | 1,678,165 | 615,000 | 2,293,165 | 2,293,165 |
| 2020-2021 | 661,005 | 0 | 0 | 661,005 | 0 | 61,245 | 599,760 | 61,245 | 661,005 | 661,005 |
| 2021-2022 | 308,649 | 0 | 0 | 308,649 | 0 | 0 | 308,649 | 0 | 308,649 | 308,649 |
| 2022-2023 | 112,471 | 0 | 0 | 112,471 | 0 | 0 | 112,471 | 0 | 112,471 | 112,471 |
| Total | \$10,317,609 | \$0 | \$0 | \$10,317,609 | \$295,000 | \$1,006,582 | \$9,311,027 | \$711,582 | \$10,022,609 | \$10,022,609 |

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.

## DRAFT



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 $12 / 31 / 22$

| 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 (I) | Open Claims (J) | Adjusted Open Claims (K) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2011-2012 | 165 | 0 | 0 | 165 | 165 | 0 | 0 | 165 | 0 | 0 |
| 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 | 161 | 0 | 0 | 161 | 161 | 0 | 0 | 161 | 0 | 0 |
| 2015-2016 | 130 | 0 | 0 | 130 | 129 | 0 | 0 | 129 | 1 | 1 |
| 2016-2017 | 118 | 0 | 0 | 118 | 117 | 0 | 0 | 117 | 1 | 1 |
| 2017-2018 | 105 | 0 | 0 | 105 | 105 | 0 | 0 | 105 | 0 | 0 |
| 2018-2019 | 114 | 0 | 0 | 114 | 113 | 0 | 0 | 113 | 1 | 1 |
| 2019-2020 | 111 | 0 | 0 | 111 | 101 | 0 | 0 | 101 | 10 | 10 |
| 2020-2021 | 76 | 0 | 0 | 76 | 62 | 0 | 0 | 62 | 14 | 14 |
| 2021-2022 | 100 | 0 | 0 | 100 | 52 | 0 | 0 | 52 | 48 | 48 |
| 2022-2023 | 36 | 0 | 0 | 36 | 4 | 0 | 0 | 4 | 32 | 32 |
| Total | 1,453 | 0 | 0 | 1,453 | 1,346 | 0 | 0 | 1,346 | 107 | 107 |

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) $(\mathrm{B})-(\mathrm{F})$.
(K) (E) - (I).

|  | Total | Inflation <br> Trend | Trended <br> TIV |
| :---: | :---: | :---: | :---: |
| Tccident <br> Year | TIV | (\$00) | (B) |

## Notes:

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

Agenda Item 8.B.

## PROPERTY AND GROUP PURCHASE PROGRAMS

SUBJECT: State of the Market - Property and Group Purchase Programs

## BACKGROUND AND HISTORY:

Annually, representatives from Alliant Insurance Services, Inc. (Alliant) provide an update on the status of the current excess market and a strategy for the upcoming renewal of PLAN's excess Property policies.

Seth Cole, Senior Vice President with Alliant, will provide the Board of Directors with a marketing report for the 2023/24 program year. Mr. Cole will be present at the meeting to discuss this strategy as well as answer questions.

## RECOMMENDATION:

None.
REFERENCE MATERIALS ATTACHED:
None

## PROPERTY AND GROUP PURCHASE PROGRAMS

SUBJECT: PLAN JPA 2023/24 Projections - Property and Group Purchase Programs

## BACKGROUND AND HISTORY:

The primary pooled layer SIR for the Property Program is projected to remain at $\$ 500 \mathrm{~K}$ per occurrence. Additionally, the excess coverage cost is expected to increase. Staff has taken a conservative approach in estimating cost for the 2023/24 program year. Below is a breakdown:

| Property | Layers | 2022-23 | Carrier | 2023-24 | Variance |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PLAN - prior 70\%, now 75\% | \$500K | \$1,350,000 |  | \$1,766,000 | 30.8\% |
| Excess Property \& Flood | Above \$500K | 5,003,137 | APIP | 6,485,091 | 29.6\% |
| Excess Cyber Coverage |  | 382,887 | Ironshore | 471,609 | 23.2\% |
|  |  | \$6,736,024 |  | \$8,722,699 | 29.5\% |

Overall, staff estimates a $29.5 \%$ increase for PLAN's pooled layer, excess Property, and excess Cyber coverage.

## RECOMMENDATION:

None.

## REFERENCE MATERIALS ATTACHED:

None

## FINANCIAL MATTERS

## SUBJECT: Review of the PLAN JPA 2023/24 Preliminary Operating Budget

## BACKGROUND AND HISTORY:

Enclosed is Preliminary Operating Budget (Budget) for PLAN JPA for the 2023/24 Fiscal Year. The funding model is similar to what the Board of Directors has approved in the past. Funding rates were compiled by PLAN's actuary. 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's Self-Insured Retention (SIR) is up to $\$ 1$ million above each member's SIR, currently $\$ 25 \mathrm{~K}$, $\$ 50 \mathrm{~K}, \$ 100 \mathrm{~K}$, and $\$ 250 \mathrm{~K}$. PLAN JPA joined California Affiliated Risk Management Authority (CARMA) JPA in 2021/22 at the $\$ 9$ million excess of $\$ 1$ million layer. Above CARMA's pooled layer, PLAN purchases Reinsurance and Excess above $\$ 10$ million; these coverage layers are conservatively estimated at $20 \%$ over prior year.
- For the Property Program, member contributions are presented at the increased 75\% confidence level with a $2 \%$ discount factor. The proposed coverage includes losses pooled from each member's SIR, currently $\$ 5 \mathrm{~K}$, with a maximum of $\$ 500 \mathrm{~K}$ per occurrence with zero aggregate deductible, as well as excess coverage purchased up to $\$ 1$ billion through Alliant Property Insurance Program (APIP). In addition, valuation increases continue into the 2023/24 program 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 a $30.8 \%$ increase in the risk sharing layer, a $29.6 \%$ increase for excess property, and $23.2 \%$ increase for excess cyber.
- As mentioned in Agenda Item 8.A., the PLAN Board of Directors has determined to strengthen their confidence in the funding ability of the Property Program by increasing the confidence level from $70 \%$ to $85 \%$ in 5-point increments over the next three (3) program years, in addition to providing immediate equity relief. This plan requires the passing of a resolution outlining the program fund transfer. The details have been presented to the Finance Committee and will proceed to the Executive Committee prior to being presented to the Board of Directors for approval.

The major components of the Budget are outlined below:

## 1. Overall Rates for Coverage

With an increase in estimated payroll of $2.7 \%$ and $8.1 \%$ increase in Total Insured Values, combined with $17.6 \%$ CARMA, Reinsurance/Excess $20 \%$ estimations, and Property Program member contributions of $40.3 \%$ over prior year, the budgeted contributions are projected to increase from $\$ 26.6$ million to $\$ 31.5$ million for $2023 / 24$. This is an increase of $18 \%$, or $\$ 4.9$ million over the prior year. Below is a summary by program.

## Liability Program

The Liability program is projecting an $11 \%$ increase in contribution over the 2022/23 Approved Budget. No members are capped at the $60 \%$ change in $2023 / 24$, compared to three members capped at $50 \%$ in 2022/23. The underlying assumption used in compiling the preliminary budget include:

- Payroll - overall, is estimated to increase by $2.7 \%$ from prior year. The 2023/24 estimated payroll is based upon the actual payroll collected on a quarterly basis, annualized, with a conservative $3 \%$ trend increase.
- Primary Funding Layer - decrease of $\$ 214$ thousand, or $4.2 \%$ from the prior year due to favorable claims development. Total Ultimate Loss decreased by $\$ 2.2$ million.
- Insurance cost - The insurance cost is projected to increase by $18.6 \%$ over the prior year.
a. CARMA is projected to increase by $17.6 \%$.
b. Reinsurance and Excess are projected to increase by $20 \%$.
- Administrative Expenses - budgeted an increase $3.6 \%$ in administration expenses. 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 2017/18 through 2021/22. The losses were limited to $\$ 250,000$ per occurrence, with a loss weighting (Credibility), limited to a minimum of $10 \%$ and maximum of $90 \%$. Ex-mod change, from year over year, has been capped at plus, minus $30 \%$.

## Allocation of Administrative Cost:

Administrative costs are first split 80/20 between Liability and Property Programs, then split again into fixed and variable portions. The fixed costs (33\%) are allocated among the members evenly. The remaining variable 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) twothirds of the costs are allocated based upon paid losses in the period of 2017/18 to 2021/22. The allocation of administrative costs is same as it has been in the past years.

## Property Program

The Property program is projected to increase $40.3 \%$, or $\$ 2.8$ million, over the $2022 / 23$ Approved Budget. As previously mentioned, $\$ 784$ thousand is due to repayment Year 1 of 3. Additional details in the proposed budget includes:

- Increased funding in $2023 / 24$ program year at the $\mathbf{7 5 \%} \mathbf{C L}$, or $\$ 416$ thousand more than the previously funded year at $70 \% \mathrm{CL}$;
- Total Insured Values (TIV) increasing by $8.1 \%$; these are preliminary numbers as Alliant is still gathering the data;
- Excess premium includes a $29.6 \%$ increase, or $\$ 1.5$ million. The proposed rate increase takes into the account the same property coverage as $2022 / 23$ of $\$ 500 \mathrm{~K}$ per occurrence, with no aggregate deductible;
- Excess Cyber liability is projected to increase $23.2 \%$; and
- Draft Actuarial Report, dated on March 13, 2023, was used to compile the proposed contributions for the 2023/24 Budget.


## 2. Claims Expense

The overall claims expenses for program year 2023/24 is budgeted at the expected CL and remained flat over $2022 / 23$, at $\$ 6.1$ million. The Liability Program is projected to decrease by $4.2 \%$ due to favorable claims development, and the Property Program is projected to increase $21.7 \%$ due to both increases in TIV and property valuations.

## 3. Insurance Expense

Total insurance expense is projected to increase by $21.6 \%$ over the prior year budget. Liability insurance expense is projected to increase $18.6 \%$ as the liability market continues to harden, while the Property Program is also projected to increase $29 \%$ as the property market is continuing an upward trend. Excess Cyber Coverage is projected to increase by $23.2 \%$ due to high dollar payouts in the cyber market, while employment liability is estimated to increase $10 \%$ over prior year actuals. These are conservative estimates and will be revised once more information is received from Alliant.

## 4. Risk Management Grants

Risk Management Grants were subject to a one-year moratorium in 2022/23. The reactivation of Risk Management Grants for 2023/24, which will be funded out of equity, is budgeted at \$500,000.

## 5. Administration Expenses

Administrative expenses are projected to increase by $3.6 \%$, or $\$ 83,810$, over the prior year. The 2023/24 proposed budget includes the following line-item variances from the prior year:

- Program Administration: contractual 3\% increase from prior year;
- Financial Audit: flat, no contractual increase;
- Actuarial Studies: $11.2 \%$ increase, or $\$ 5,298$, for potential additional studies;
- Claims Admin \& Audit: contractual $3.1 \%$ increase for claims administration, management of APD claims of $\$ 30 \mathrm{~K}$, and claims audit cost of $\$ 8 \mathrm{~K}$ budgeted for 2023/24;
- Legal Counsel: increase of $5.0 \%$ or $\$ 2,716$, from prior year budget for legal services of claims activity and coverage opinions;
- Risk Control Services: contractual 3\% increase over prior year;
- Other Insurance: projected 6\% increase, or $\$ 3,458$, for Deadly Weapon Response, E\&O and Crime coverages;
- Meetings \& Conferences: in anticipation of in-person meetings for the 2023/24 program year, proposing an increase of $\$ 7$ thousand due to rising costs of meetings/conferences in Bay Area cities.
- Allowance for Contingencies: continue with $\$ 10$ thousand for $2023 / 24$, similar to prior years.


## RECOMMENDATION:

None.

## REFERENCE MATERIALS ATTACHED:

- 2023/24 PLAN Preliminary Operating Budget


## PLAN JPA

2023/2024 Preliminary Operating Budget
Summary of Contributions by Program

| Member | Liability <br> Program |  | Property <br> Program |  | EPLLiability |  | 2023/24 <br> Total <br> Contributions |  | Prior Year Comparison |  |  |  |  | Payroll Comparison |  |  |  |  | Ex-mod Comparison |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2022/23 <br> Total <br> Contributions |  |  |  | Increase/ <br> Decrease) | Percent <br> Change |  | Estimated Payroll $2023 / 24$ |  | $\begin{gathered} \hline \text { Estimated } \\ \text { Payroll } \\ 2022 / 23 \\ \hline \end{gathered}$ | \% <br> Change | 2023/24 | 2022/23 | Change |
|  |  | Page 2 |  |  |  | Page 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| American Canyon | \$ | 512,470 | \$ | 259,680 | \$ | 55,124 |  | \$ 827,274 |  | \$ 664,687 | \$ | 162,587 | 24\% | \$ | 8,431,800 | \$ | 8,503,800 | -1\% | 60\% | 58\% | 3\% |
| Atherton |  | 279,818 |  | 172,086 |  | 38,941 |  | 490,845 |  | 473,812 |  | 17,033 | 4\% |  | 6,742,700 |  | 7,486,700 | -10\% | 121\% | 140\% | -14\% |
| Benicia |  | 1,086,477 |  | 737,140 |  | - |  | 1,823,617 |  | 1,432,789 |  | 390,828 | 27\% |  | 24,540,400 |  | 23,954,000 | 2\% | 148\% | 114\% | 30\% |
| Burlingame |  | 1,015,856 |  | 612,764 |  | - |  | 1,628,620 |  | 1,317,060 |  | 311,560 | 24\% |  | 26,215,500 |  | 27,115,100 | -3\% | 132\% | 107\% | 23\% |
| Campbell |  | 1,074,950 |  | 310,469 |  | - |  | 1,385,419 |  | 1,100,330 |  | 285,089 | 26\% |  | 26,083,400 |  | 23,557,700 | 11\% | 92\% | 73\% | 26\% |
| Colma |  | 145,302 |  | 89,201 |  | - |  | 234,503 |  | 185,500 |  | 49,003 | 26\% |  | 6,113,600 |  | 4,065,300 | 50\% | 100\% | 100\% | 0\% |
| Cupertino |  | 1,181,979 |  | 380,112 |  | - |  | 1,562,091 |  | 1,263,191 |  | 298,900 | 24\% |  | 26,692,400 |  | 25,593,400 | 4\% | 57\% | 44\% | 30\% |
| Dublin |  | 1,548,974 |  | 799,070 |  | - |  | 2,348,044 |  | 1,600,006 |  | 748,038 | 47\% |  | 11,560,400 |  | 10,171,800 | 14\% | 142\% | 109\% | 30\% |
| East Palo Alto |  | 690,014 |  | 97,635 |  | - |  | 787,649 |  | 806,859 |  | $(19,210)$ | -2\% |  | 12,825,000 |  | 14,354,600 | -11\% | 94\% | 132\% | -29\% |
| Foster City |  | 769,114 |  | 490,088 |  | - |  | 1,259,202 |  | 1,017,425 |  | 241,777 | 24\% |  | 23,744,600 |  | 24,874,900 | -5\% | 51\% | 40\% | 28\% |
| Half Moon Bay |  | 299,693 |  | 99,641 |  | - |  | 399,334 |  | 343,329 |  | 56,005 | 16\% |  | 5,100,900 |  | 4,748,600 | 7\% | 105\% | 82\% | 28\% |
| Hillsborough |  | 389,044 |  | 254,564 |  | - |  | 643,608 |  | 563,887 |  | 79,721 | 14\% |  | 11,918,200 |  | 12,861,200 | -7\% | 90\% | 83\% | 8\% |
| Los Altos Hills |  | 215,244 |  | 57,327 |  | - |  | 272,571 |  | 251,051 |  | 21,520 | 9\% |  | 3,296,500 |  | 2,817,400 | 17\% | 84\% | 121\% | -31\% |
| Los Gatos |  | 738,183 |  | 223,967 |  | - |  | 962,150 |  | 766,700 |  | 195,450 | 25\% |  | 22,514,800 |  | 20,772,900 | 8\% | 40\% | 39\% | 3\% |
| Millbrae |  | 604,013 |  | 410,975 |  | - |  | 1,014,988 |  | 846,441 |  | 168,547 | 20\% |  | 9,527,200 |  | 8,016,500 | 19\% | 160\% | 165\% | -3\% |
| Milpitas |  | 2,044,749 |  | 741,278 |  | - |  | 2,786,027 |  | 2,360,851 |  | 425,176 | 18\% |  | 61,670,900 |  | 62,317,100 | -1\% | 80\% | 83\% | -4\% |
| Morgan Hill |  | 1,184,534 |  | 495,163 |  | - |  | 1,679,698 |  | 1,562,093 |  | 117,605 | 8\% |  | 34,313,500 |  | 30,223,300 | 14\% | 83\% | 93\% | -11\% |
| Newark |  | 1,092,217 |  | 505,435 |  | - |  | 1,597,652 |  | 1,430,134 |  | 167,518 | 12\% |  | 25,484,300 |  | 22,383,200 | 14\% | 80\% | 103\% | -22\% |
| Pacifica |  | 1,224,324 |  | 723,769 |  | - |  | 1,948,093 |  | 1,590,865 |  | 357,228 | 22\% |  | 20,371,600 |  | 21,633,500 | -6\% | 153\% | 136\% | 13\% |
| Portola Valley |  | 131,659 |  | 50,601 |  | - |  | 182,260 |  | 159,223 |  | 23,037 | 14\% |  | 2,324,800 |  | 2,093,500 | 11\% | 81\% | 81\% | 0\% |
| Ross |  | 91,705 |  | 26,272 |  | - |  | 117,977 |  | 114,589 |  | 3,388 | 3\% |  | 2,290,100 |  | 2,612,300 | -12\% | 71\% | 70\% | 1\% |
| San Bruno |  | 1,297,213 |  | 329,148 |  | - |  | 1,626,361 |  | 1,596,785 |  | 29,576 | 2\% |  | 32,417,400 |  | 32,064,600 | 1\% | 125\% | 132\% | -5\% |
| San Carlos |  | 825,824 |  | 224,039 |  | - |  | 1,049,864 |  | 962,451 |  | 87,413 | 9\% |  | 10,945,800 |  | 10,624,400 | 3\% | 205\% | 259\% | -21\% |
| Saratoga |  | 748,062 |  | 153,440 |  | - |  | 901,502 |  | 756,507 |  | 144,995 | 19\% |  | 8,193,100 |  | 8,436,600 | -3\% | 141\% | 153\% | -8\% |
| South San Francisco |  | 1,414,773 |  | 1,168,722 |  | - |  | 2,583,495 |  | 2,263,829 |  | 319,666 | 14\% |  | 49,221,500 |  | 48,319,000 | 2\% | 43\% | 58\% | -26\% |
| Suisun City |  | 734,596 |  | 147,190 |  | - |  | 881,786 |  | 693,216 |  | 188,570 | 27\% |  | 10,109,000 |  | 9,635,800 | 5\% | 123\% | 97\% | 27\% |
| Tiburon |  | 266,335 |  | 51,918 |  | - |  | 318,253 |  | 278,098 |  | 40,155 | 14\% |  | 4,088,100 |  | 4,579,200 | -11\% | 128\% | 103\% | 24\% |
| Woodside |  | 159,582 |  | 37,191 |  | 16,470 |  | 213,243 |  | 207,362 |  | 5,881 | 3\% |  | 2,380,300 |  | 2,350,600 | 1\% | 100\% | 129\% | -22\% |
| Total | \$ | 21,766,706 | \$ | 9,648,883 | \$ | 110,536 |  | \$ 31,526,125 |  | \$ 26,609,070 |  | 4,917,055 | 18\% | \$ | 489,117,800 | \$ | 476,167,000 | 2.7\% |  |  |  |
| Prior Year Actuals |  | 19,630,455 |  | 6,878,124 |  | \$100,487 |  | 26,609,070 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \$ Incr./ (Decr.) | \$ | 2,136,251 | \$ | 2,770,759 | \$ | 10,049 |  | \$ 4,917,055 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \% Change |  | 11\% |  | 40\% |  | 10\% |  | 18\% |  |  |  |  |  |  |  |  |  |  |  |  |  |

## 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
2023/2024 Preliminary Operating Budget
Liability Program Contribution Schedule
Pool Funding @ 60\% Confidence Level, 2.0\% Discount Factor

| Members | Member SIR | Funding for Losses SIR-\$1M | Reinsurance/Excess Insurance |  |  |  | Administration Expense |  | $\begin{gathered} \text { Deposit from PY } \\ 60 \% \\ \hline \end{gathered}$ | Unallocated Contributions |  | Members capped at 60\% | Uncapped Members | Allocation <br> of <br> Contributions | $\begin{array}{c\|} \hline 2023 / 24 \\ 60 \% \mathrm{CL} \\ \text { Liability Budget } \\ \hline \end{array}$ |  | Budget Comparison |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | 2022/23 |  |  |  | Percent |  |  |  |  |
|  |  |  | CARMA $\$ 9 M \times \$ 1 M$ | $\begin{aligned} & \text { Rein/Excess } \\ & \$ 20 M \times \$ 10 \mathrm{M} \end{aligned}$ | Total Insurance |  |  |  |  |  |  | 60\% CL <br> iability Budget |  |  |  |  | Increase / <br> (Decrease) |
|  | Note 1 | Note 2 |  |  |  | Note 3 |  |  |  | ote 4 |  |  |  | Note 5 | Note 6 | Note 7 | Note 8 |  | Note 9 |  | Note 10 |  |
| American Canyon | \$25,000 | 69,916 | \$ 214,831 | \$ 157,672 | \$ | 372,504 | \$ | 70,050 |  | \$707,472 | \$ |  | 512,470 |  | \$ 512,470 | \$ 512,470 | \$ | 512,470 |  | 442,170 | 15.9\% |
| Atherton | \$25,000 | 112,808 | 66,638 | 48,908 |  | 115,545 |  | 51,465 | 489,478 |  | 279,818 | - | 279,818 | 279,818 |  | 279,818 |  | 305,924 | -8.5\% |
| Benicia | \$25,000 | 501,055 | 264,407 | 194,058 |  | 458,466 |  | 126,957 | 1,458,355 |  | 1,086,477 | - | 1,086,477 | 1,086,477 |  | 1,086,477 |  | 911,472 | 19.2\% |
| Burlingame | \$250,000 | 214,117 | 300,384 | 220,463 |  | 520,848 |  | 280,892 | 1,410,611 |  | 1,015,856 | - | 1,015,856 | 1,015,856 |  | 1,015,856 |  | 881,632 | 15.2\% |
| Campbell | \$100,000 | 237,342 | 424,871 | 311,828 |  | 736,699 |  | 100,909 | 1,408,320 |  | 1,074,950 | - | 1,074,950 | 1,074,950 |  | 1,074,950 |  | 880,200 | 22.1\% |
| Colma | \$50,000 | 74,155 | 13,590 | 9,974 |  | 23,563 |  | 47,584 | 194,960 |  | 145,302 |  | 145,302 | 145,302 |  | 145,302 |  | 121,850 | 19.2\% |
| Cupertino | \$250,000 | 93,582 | 591,286 | 433,966 |  | 1,025,253 |  | 63,144 | 1,583,418 |  | 1,181,979 | - | 1,181,979 | 1,181,979 |  | 1,181,979 |  | 989,636 | 19.4\% |
| Dublin | \$50,000 | 198,621 | 723,431 | 530,952 |  | 1,254,383 |  | 95,970 | 1,700,201 |  | 1,548,974 | - | 1,548,974 | 1,548,974 |  | 1,548,974 |  | 1,062,626 | 45.8\% |
| East Palo Alto | \$100,000 | 118,607 | 287,291 | 210,854 |  | 498,145 |  | 73,262 | 1,173,708 |  | 690,014 | - | 690,014 | 690,014 |  | 690,014 |  | 733,568 | -5.9\% |
| Foster City | \$100,000 | 119,205 | 327,890 | 240,651 |  | 568,541 |  | 81,368 | 1,061,242 |  | 769,114 | - | 769,114 | 769,114 |  | 769,114 |  | 663,276 | 16.0\% |
| Half Moon Bay | \$50,000 | 65,124 | 112,167 | 82,323 |  | 194,490 |  | 40,079 | 432,421 |  | 299,693 | - | 299,693 | 299,693 |  | 299,693 |  | 270,263 | 10.9\% |
| Hillsborough | \$50,000 | 129,735 | 109,290 | 80,212 |  | 189,502 |  | 69,807 | 609,838 |  | 389,044 | - | 389,044 | 389,044 |  | 389,044 |  | 381,149 | 2.1\% |
| Los Altos Hills | \$25,000 | 38,492 | 83,322 | 61,153 |  | 144,475 |  | 32,277 | 334,113 |  | 215,244 | - | 215,244 | 215,244 |  | 215,244 |  | 208,820 | 3.1\% |
| Los Gatos | \$50,000 | 109,117 | 327,950 | 240,695 |  | 568,645 |  | 60,421 | 993,455 |  | 738,183 | - | 738,183 | 738,183 |  | 738,183 |  | 620,909 | 18.9\% |
| Millbrae | \$100,000 | 151,007 | 223,302 | 163,890 |  | 387,192 |  | 65,814 | 880,056 |  | 604,013 | - | 604,013 | 604,013 |  | 604,013 |  | 550,035 | 9.8\% |
| Milpitas | \$100,000 | 486,781 | 801,862 | 588,516 |  | 1,390,378 |  | 167,590 | 2,920,249 |  | 2,044,749 | - | 2,044,749 | 2,044,749 |  | 2,044,749 |  | 1,825,156 | 12.0\% |
| Morgan Hill | \$100,000 | 281,904 | 460,759 | 338,168 |  | 798,927 |  | 103,704 | 1,936,276 |  | 1,184,534 | - | 1,184,534 | 1,184,534 |  | 1,184,534 |  | 1,210,173 | -2.1\% |
| Newark | \$100,000 | 200,501 | 468,476 | 343,832 |  | 812,308 |  | 79,408 | 1,703,560 |  | 1,092,217 | - | 1,092,217 | 1,092,217 |  | 1,092,217 |  | 1,064,725 | 2.6\% |
| Pacifica | \$50,000 | 379,127 | 372,299 | 273,244 |  | 645,543 |  | 199,654 | 1,723,429 |  | 1,224,324 | - | 1,224,324 | 1,224,324 |  | 1,224,324 |  | 1,077,143 | 13.7\% |
| Portola Valley | \$25,000 | 26,070 | 42,544 | 31,224 |  | 73,768 |  | 31,821 | 195,299 |  | 131,659 | - | 131,659 | 131,659 |  | 131,659 |  | 122,062 | 7.9\% |
| Ross | \$25,000 | 22,603 | 22,824 | 16,751 |  | 39,575 |  | 29,527 | 149,867 |  | 91,705 | - | 91,705 | 91,705 |  | 91,705 |  | 93,667 | -2.1\% |
| San Bruno | \$100,000 | 400,129 | 423,115 | 310,540 |  | 733,655 |  | 163,429 | 2,175,742 |  | 1,297,213 | - | 1,297,213 | 1,297,213 |  | 1,297,213 |  | 1,359,839 | -4.6\% |
| San Carlos | \$100,000 | 221,338 | 295,960 | 217,216 |  | 513,176 |  | 91,310 | 1,281,129 |  | 825,824 | - | 825,824 | 825,824 |  | 825,824 |  | 800,706 | 3.1\% |
| Saratoga | \$25,000 | 160,308 | 304,193 | 223,259 |  | 527,452 |  | 60,302 | 1,032,739 |  | 748,062 | - | 748,062 | 748,062 |  | 748,062 |  | 645,462 | 15.9\% |
| South San Francisco | \$100,000 | 207,859 | 639,712 | 469,508 |  | 1,109,220 |  | 97,694 | 2,270,850 |  | 1,414,773 | - | 1,414,773 | 1,414,773 |  | 1,414,773 |  | 1,419,281 | -0.3\% |
| Suisun City | \$25,000 | 171,890 | 286,627 | 210,366 |  | 496,992 |  | 65,714 | 935,741 |  | 734,596 | - | 734,596 | 734,596 |  | 734,596 |  | 584,838 | 25.6\% |
| Tiburon | \$50,000 | 63,624 | 88,837 | 65,201 |  | 154,037 |  | 48,674 | 383,189 |  | 266,335 | - | 266,335 | 266,335 |  | 266,335 |  | 239,493 | 11.2\% |
| Woodside | \$25,000 | 32,985 | 51,699 | 37,944 |  | 89,643 |  | 36,954 | 263,013 |  | 159,582 | - | 159,582 | 159,582 |  | 159,582 |  | 164,383 | -2.9\% |
| Total |  | \$ 4,888,000 | \$ 8,329,559 | \$ 6,113,366 | \$ | 14,442,925 | \$ | 2,435,780 |  | \$ | 21,766,706 | - | \$ 21,766,706 | \$ 21,766,706 | \$ | 21,766,706 |  | \$ 19,630,455 | 11\% |
| Prior Year Actuals |  | 5,102,000 | 7,082,013 | 5,094,472 |  | 12,176,485 |  | 2,351,970 |  |  |  |  |  |  |  | 19,630,455 |  |  |  |
| \$ Incr./ (Decr.) |  | \$ (214,000) | \$ 1,247,546 | \$ 1,018,894 | \$ | 2,266,440 | \$ | 83,810 |  |  |  |  |  |  | \$ | 2,136,251 |  |  |  |
| \% Change |  | -4.2\% | 17.6\% | 20.0\% |  | 18.6\% |  | 3.6\% |  |  |  |  |  |  |  | 11\% |  |  |  |
| NOTES: |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Funding for the Pool Layer @ 2.0\% |  |  |  |  |
| Note 1: Member Selected Self-Insured Retention |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | \$1M SIR | \$1M SIR |
| Note 2: Adjusted funding needed for SIR to \$1,000,000 at the 60\% confidence level from draft Actuarial Study dated March 13, 2023. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 22/23 | 23/24 |
| Note 3: CARMA preliminary budget. In excess of CARMA, trended $20 \%$ over prior year. Allocation based upon draft actuarial study dated March 13, 2023 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ected Undisc. |  | 5,318,000 | 5,100,000 |
| Note 4: Administrative Expense allocation: $33 \%$ allocated to the member equally. Of the remaining $67 \%$, |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | xpected Disc. |  | 4,972,000 | 4,764,000 |
| one-third is allocated using reported claims and two-thirds using paid losses; these numbers were provided in the draft actuarial study. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 60\% CL Disc. |  | 5,102,000 | 4,888,000 |
| Note 5: Unallocated contributions: (Note $2+$ Note $3+$ Note 4) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 70\% CL Disc. |  | 5,828,000 | 5,593,000 |
| Note 6: Capping members who have more than $60 \%$ change in contributions from the prior year. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 80\% CL Disc. |  | 6,787,000 | 6,517,000 |
| Note 7: Members with contributions below the $60 \%$ cap. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 90\% CL Disc. |  | 8,309,000 | 7,999,000 |
| Note 8: Allocation of remaining contributions among uncapped members. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Note 8: Allocation of remaining contributions among uncapped members.
Note 9: Total 2023/24 Liability Contributions by members
Note 10: 2022/23 Liability Contributions by members.

## PLAN JPA

## 2023/2024 Preliminary Operating Budget

Property Program Contributions Schedule
Pool Funding @ 75\% Confidence Level, 2.0\% Discount Factor

| Member | SIR | Insured Values |  |  |  | Pool Funding SIR-\$500K |  | Excess Prop. Premium \$500k-\$1B |  | Flood <br> Premium |  | Excess <br> Cyber <br> Coverage |  | Resolute Guard |  | Repayment Year 1 of 3 |  | 2023/24 <br> Program <br> Deposit |  | Budget Comparison |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $2022 / 23$ <br> Insured Values |  |  |  |  | 2022/23 Percent <br> Program Increase / <br> Deposit (Decrease) |  |  |  |  |  |  |  |  |  |  |
|  |  |  | Note 1 |  | Note 2 |  | Note 3 |  |  |  | te 4 |  | ote 5 |  | Note 6 |  | Note 7 |  | Note 8 |  | ote 9 |  | Note 10 |  |
| American Canyon | \$5,000 | \$ | 82,739,502 | \$ | 96,332,759 | \$ | 48,020 | \$ | 174,616 | \$ | 1,826 | \$ | 8,647 | \$ | 4,500 | \$ | 22,070 | \$ | 259,680 | \$ | 172,404 | 50.6\% |
| Atherton | 5,000 |  | 63,202,126 |  | 67,691,702 |  | 33,743 |  | 122,701 |  | - |  | 7,115 |  | 4,500 |  | 4,027 |  | 172,086 |  | 132,487 | 29.9\% |
| Benicia | 5,000 |  | 256,510,580 |  | 274,652,385 |  | 136,908 |  | 497,845 |  | 4,567 |  | 23,257 |  | 5,650 |  | 68,912 |  | 737,140 |  | 521,317 | 41.4\% |
| Burlingame | 5,000 |  | 211,536,210 |  | 226,684,224 |  | 112,997 |  | 410,897 |  | 2,491 |  | 24,776 |  | 5,650 |  | 55,953 |  | 612,764 |  | 435,428 | 40.7\% |
| Campbell | 5,000 |  | 101,992,873 |  | 110,479,076 |  | 55,071 |  | 200,259 |  | - |  | 24,657 |  | 5,650 |  | 24,833 |  | 310,469 |  | 220,130 | 41.0\% |
| Colma | 5,000 |  | 27,846,112 |  | 29,734,484 |  | 14,822 |  | 53,898 |  | 1,827 |  | 6,545 |  | 4,500 |  | 7,609 |  | 89,201 |  | 63,650 | 40.1\% |
| Cupertino | 5,000 |  | 128,166,947 |  | 136,921,873 |  | 68,252 |  | 248,190 |  | 1,827 |  | 25,209 |  | 5,650 |  | 30,984 |  | 380,112 |  | 273,555 | 39.0\% |
| Dublin | 5,000 |  | 272,090,670 |  | 311,852,016 |  | 155,451 |  | 565,275 |  | 1,827 |  | 11,485 |  | 4,500 |  | 60,532 |  | 799,070 |  | 537,380 | 48.7\% |
| East Palo Alto | 5,000 |  | 29,721,112 |  | 31,755,720 |  | 15,829 |  | 57,562 |  | - |  | 12,632 |  | 4,500 |  | 7,112 |  | 97,635 |  | 73,291 | 33.2\% |
| Foster City | 5,000 |  | 171,249,333 |  | 182,765,587 |  | 91,104 |  | 331,288 |  | - |  | 22,535 |  | 5,650 |  | 39,511 |  | 490,088 |  | 354,149 | 38.4\% |
| Half Moon Bay | 5,000 |  | 33,330,839 |  | 35,774,409 |  | 17,833 |  | 64,846 |  | - |  | 5,626 |  | 4,500 |  | 6,836 |  | 99,641 |  | 73,066 | 36.4\% |
| Hillsborough | 5,000 |  | 87,276,218 |  | 93,275,856 |  | 46,496 |  | 169,075 |  | - |  | 11,809 |  | 4,500 |  | 22,683 |  | 254,564 |  | 182,738 | 39.3\% |
| Los Altos Hills | 5,000 |  | 18,027,866 |  | 19,097,521 |  | 9,520 |  | 34,617 |  | - |  | 3,990 |  | 4,500 |  | 4,701 |  | 57,327 |  | 42,230 | 35.7\% |
| Los Gatos | 5,000 |  | 64,373,829 |  | 77,720,158 |  | 38,742 |  | 140,879 |  | - |  | 21,420 |  | 5,650 |  | 17,277 |  | 223,967 |  | 145,790 | 53.6\% |
| Millbrae | 5,000 |  | 147,061,725 |  | 157,243,761 |  | 78,382 |  | 285,026 |  | 2,730 |  | 9,641 |  | 4,500 |  | 30,696 |  | 410,975 |  | 296,406 | 38.7\% |
| Milpitas | 5,000 |  | 248,267,527 |  | 264,950,001 |  | 132,072 |  | 480,259 |  | 5,095 |  | 56,933 |  | 6,800 |  | 60,120 |  | 741,278 |  | 535,695 | 38.4\% |
| Morgan Hill | 5,000 |  | 167,166,110 |  | 178,392,070 |  | 88,924 |  | 323,360 |  | 1,827 |  | 32,121 |  | 5,650 |  | 43,281 |  | 495,163 |  | 351,921 | 40.7\% |
| Newark | 5,000 |  | 178,077,670 |  | 189,828,178 |  | 94,625 |  | 344,090 |  | - |  | 24,113 |  | 5,650 |  | 36,957 |  | 505,435 |  | 365,409 | 38.3\% |
| Pacifica | 5,000 |  | 249,217,975 |  | 267,348,423 |  | 133,267 |  | 484,606 |  | 13,700 |  | 19,476 |  | 5,650 |  | 67,070 |  | 723,769 |  | 513,722 | 40.9\% |
| Portola Valley | 5,000 |  | 15,669,809 |  | 16,830,091 |  | 8,389 |  | 30,507 |  | - |  | 3,108 |  | 4,500 |  | 4,097 |  | 50,601 |  | 37,161 | 36.2\% |
| Ross | 5,000 |  | 6,166,661 |  | 6,584,981 |  | 3,282 |  | 11,936 |  | 1,827 |  | 3,077 |  | 4,500 |  | 1,649 |  | 26,272 |  | 20,922 | 25.6\% |
| San Bruno | 5,000 |  | 107,446,679 |  | 114,675,265 |  | 57,163 |  | 207,865 |  | - |  | 30,401 |  | 5,650 |  | 28,069 |  | 329,148 |  | 236,946 | 38.9\% |
| San Carlos | 5,000 |  | 76,367,403 |  | 81,835,578 |  | 40,793 |  | 148,338 |  | 1,827 |  | 10,927 |  | 4,500 |  | 17,654 |  | 224,039 |  | 161,745 | 38.5\% |
| Saratoga | 5,000 |  | 50,823,366 |  | 54,457,911 |  | 27,146 |  | 98,713 |  | 1,827 |  | 8,431 |  | 4,500 |  | 12,823 |  | 153,440 |  | 111,045 | 38.2\% |
| South San Francisco | 5,000 |  | 410,486,058 |  | 438,204,737 |  | 218,435 |  | 794,307 |  | 13,700 |  | 45,642 |  | 6,800 |  | 89,838 |  | 1,168,722 |  | 844,548 | 38.4\% |
| Suisun City | 5,000 |  | 47,697,428 |  | 50,543,816 |  | 25,195 |  | 91,618 |  | 4,567 |  | 10,168 |  | 4,500 |  | 11,141 |  | 147,190 |  | 108,378 | 35.8\% |
| Tiburon | 5,000 |  | 14,609,067 |  | 15,605,016 |  | 7,779 |  | 28,286 |  | 1,827 |  | 4,708 |  | 4,500 |  | 4,818 |  | 51,918 |  | 38,605 | 34.5\% |
| Woodside | 5,000 |  | 10,804,161 |  | 11,552,992 |  | 5,759 |  | 20,941 |  | - |  | 3,159 |  | 4,500 |  | 2,831 |  | 37,191 |  | 28,006 | 32.8\% |
| Total |  | \$ | 3,277,925,856 | \$ | 3,542,790,590 | \$ | 1,766,000 | \$ | 6,421,798 | \$ | 63,292 | \$ | 471,609 | \$ | 142,100 | \$ | 784,084 | \$ | 9,648,883 | \$ | 6,878,124 | 40.3\% |
| Prior Year Actuals |  |  |  |  | 3,277,925,856 |  | 1,350,000 |  | 4,946,701 |  | 56,436 |  | 382,887 |  | 142,100 |  |  |  | 6,878,124 |  |  |  |
| \$ Incr./ (Decr.) |  |  |  | \$ | 264,864,734 | \$ | 416,000 | \$ | 1,475,097 | \$ | 6,856 | \$ | 88,722 | \$ | - |  |  | \$ | 2,770,759 |  |  |  |
| \% Change |  |  |  |  | 8.1\% |  | 30.8\% |  | 29.8\% |  | 12.1\% |  | 23.2\% |  | 0.0\% |  |  |  | 40.3\% |  |  |  |

## Notes:

Note 1: 2022/23 Total Insured property values obtained from Alliant.
Note 2: 2023/24 Total Insured property values as submitted by members, updated as of 2/22/23 Note 3: Rate for PLAN pool (from actuarial draft report dated March 13, 2023) allocated using Note 2. Note 4: Premium, trended 30\%, for Alliant Property Insurance Program (APIP) allocated using Note 2 Note 5: Flood cost are based upon 2022/23 expiring premiums, trended with a $12 \%$ increase.
Note 6: Excess Cyber coverage: minimum \$1K per member and remaining allocated based upon payroll.
Note 7: Continuation of Resolute Guard Services, no increase over prior year.
Note 8: Year 1 of 3 Repayment
Note 9: Total 2023/24 Property Contributions by member (Total Notes 3 through 8).
Note 10: 2022/23 Property Contributions.
Funding for the Pooled Layer

|  | $\underline{\mathbf{2 2 / 2 3}}$ | $\underline{\mathbf{2 3 / 2 4}}$ |  |
| :---: | :---: | :---: | :---: |
| Expected | Undiscounted | $\mathbf{1 , 1 5 1 , 0 0 0}$ | $1,399,000$ |
| Expected | Discounted | $1,128,000$ | $1,373,000$ |
| $70 \%$ confidence Level | Discounted | $1,350,000$ | $1,635,000$ |
| $75 \%$ confidence Level | Discounted | $1,464,000$ | $1,766,000$ |
| $80 \%$ confidence Level | Discounted | $1,598,000$ | $1,921,000$ |
| $85 \%$ confidence Level | Discounted | $1,768,000$ | $2,116,000$ |

## PLAN JPA

|  | 2022/23 |  |  |  | 2023/24 <br> Draft <br> Operating <br> Budget |  | Prior Year |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Approved Budget |  | Projected Actuals |  |  |  |  | ncrease/ ecrease) | Percent Incr./(Decr.) |
| Revenues: |  |  |  |  |  |  |  |  |  |
| Contributions | \$ | 26,609,066 | \$ | 26,609,070 | \$ | 31,526,125 | \$ | 4,917,059 | 18.5\% |
| Funding from Equity |  |  |  |  |  | 500,000 |  | 500,000 | 0.0\% |
| Investment Income |  | 221,725 |  | 108,570 |  | 116,406 |  | $(105,319)$ | -47.5\% |
| Less: Investment Fees |  | $(36,000)$ |  | $(36,139)$ |  | $(38,000)$ |  | $(2,000)$ | 5.6\% |
| Total Revenues |  | 26,794,791 |  | 26,681,501 |  | 32,104,530 |  | 5,309,739 | 19.8\% |
| Expenses |  |  |  |  |  |  |  |  |  |
| Claims Expense |  | 6,100,000 |  | 4,456,638 |  | 6,137,000 |  | 37,000 | 0.6\% |
| Insurance Expense |  |  |  |  |  |  |  |  |  |
| Insurance - Liability |  | 12,176,485 |  | 12,176,485 |  | 14,442,925 |  | 2,266,440 | 18.6\% |
| Insurance - Property |  | 4,946,701 |  | 4,959,376 |  | 6,421,798 |  | 1,475,097 | 29.8\% |
| Flood Insurance |  | 56,436 |  | 43,761 |  | 63,292 |  | 6,856 | 12.1\% |
| Excess Cyber Coverage |  | 382,887 |  | 382,887 |  | 471,609 |  | 88,722 | 23.2\% |
| Resolute Guard |  | 142,100 |  | 86,300 |  | 142,100 |  | - | 0.0\% |
| Employment Liability Coverage |  | 100,487 |  | 100,487 |  | 110,536 |  | 10,049 | 10.0\% |
|  |  | 17,805,096 |  | 17,749,297 |  | 21,652,260 |  | 3,847,164 | 21.6\% |
| Risk Management Grants |  |  |  |  |  |  |  |  |  |
| Risk Management Fund |  |  |  |  |  | 500,000 |  | 500,000 | 0.0\% |
| Administration |  |  |  |  |  |  |  |  |  |
| Program Administration |  | 997,482 |  | 997,482 |  | 1,027,406 |  | 29,924 | 3.0\% |
| Financial Audit |  | 22,900 |  | 22,900 |  | 22,900 |  | - | 0.0\% |
| Actuarial Studies |  | 47,150 |  | 42,840 |  | 52,448 |  | 5,298 | 11.2\% |
| Claims Admin \& Audit |  | 784,704 |  | 766,714 |  | 809,165 |  | 24,461 | 3.1\% |
| Legal Counsel |  | 54,661 |  | 42,502 |  | 57,377 |  | 2,716 | 5.0\% |
| Risk Control Services |  | 298,440 |  | 298,440 |  | 307,393 |  | 8,953 | 3.0\% |
| Sewer Summit |  | 18,000 |  | 13,000 |  | 20,000 |  | 2,000 | 11.1\% |
| Other Insurance |  | 57,633 |  | 56,020 |  | 61,091 |  | 3,458 | 6.0\% |
| CAJPA Accreditation |  | 12,000 |  | - |  | 12,000 |  | - | 0.0\% |
| Bank Fees |  | 6,000 |  | 5,723 |  | 6,000 |  | - | 0.0\% |
| Meetings \& Conferences: |  |  |  |  |  |  |  |  |  |
| Meetings |  | 40,000 |  | 15,227 |  | 45,000 |  | 5,000 | 12.5\% |
| Training \& Workshops |  | 3,000 |  | - |  | 5,000 |  | 2,000 | 66.7\% |
| Allowance for Contingencies |  | 10,000 |  | - |  | 10,000 |  | - | 0.0\% |
| Total Administration Expenses: |  | 2,351,970 |  | 2,260,848 |  | 2,435,780 |  | 83,810 | 3.6\% |
| Total Expenses |  | 26,257,066 |  | 24,466,783 |  | 30,725,041 |  | 4,467,975 | 17.0\% |
| Budgeted Net Income (Loss) |  | 537,725 |  | 2,214,718 |  | 1,379,490 |  | 841,765 | 156.5\% |

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

|  | 2022/23 | 2023/24 | Difference | \% Difference |
| :---: | :---: | :---: | :---: | :---: |
| Liability | \$4,972,000 | \$4,764,000 | $(\$ 208,000)$ | -4.2\% |
| Property | 1,128,000 | 1,373,000 | 245,000 | 21.7\% |
| Total | \$6,100,000 | \$6,137,000 | \$37,000 | 0.6\% |

b Insurance expenses are budgeted to increase by $21.6 \%$ in comparison to $22 / 23$ budget. Liability insurance expense are budgeted to increase $18.6 \%$ due to a continued hardening insurance market. Property rates are budgeted to increase 29.8\% as the property market is continuing an upward trend. Cyber excess coverage is budgeted to increase $23.2 \%$ \& employment liability coverage is budgeted to increase $10 \%$ for those members who are participating in ERMA.
c Reactivation of Risk Management Grant, funded from equity. A corresponding revenue has been recorded for budgeting
d Administration expenses are expected to increase by $3.6 \%$ in comparison to $22 / 23$ budget. While majority of the expenses are related to contractual increase, actuarial studies have increased due to potential additional studies $\$ 5 \mathrm{~K}$. In addition to claims admin and audit contractual increases, management of APD claims are budgeted at $\$ 30 \mathrm{~K}$. Due to rising costs and in anticipation of in-person meetings for $23 / 24$, meeting expenses have been increased by $\$ 5 \mathrm{~K}$.


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

[^1]:    (G) Discount Factor at 12/31/22 for Overall Reserve:
    0.955
    (H) Discount Factor at 6/30/23 for Overall Reserve:
    0.957

[^2]:    This exhibit summarizes some of the key facts about the history of the program

