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### SPECIAL BOARD OF DIRECTORS MEETING AGENDA

Friday, March 26, 2021 1:00 p.m.

Zoom Videoconference Please contact Katie Sullivan for Videoconference Information

All portions of this meeting will be conducted by teleconferencing in accordance with the State of California Executive Order N-29-20.

Members of the public may observe and listen to the meeting telephonically. No physical location will be available from which members of the public may observe the meeting and offer public comment. Public comments may be submitted in advance of the meeting by emailing Katie Sullivan at <u>katie.sullivan@sedgwick.com</u> no later than 5 p.m. on Thursday, March 25, 2021. If a member of the public would like to address the Board of Directors during the meeting, the person may email Ms. Sullivan during the meeting and, if timely received, Ms. Sullivan will read or summarize the email to the Board members.

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 <u>katie.sullivan@sedgwick.com</u> (email). Requests must be made as early as possible, and at least one full business day before the start of the meeting.

Documents and materials relating to an open session agenda item that are provided to the Pooled Liability Assurance Network Joint Powers Authority (PLAN JPA) 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)

\* Reference materials enclosed with staff report.

#### PLAN JPA Special Board of Directors Agenda Meeting of March 26, 2021 Page 2

**Page** 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. LIABILITY PROGRAM

4		*A.	Excess Liability Options
			Recommendation: Staff recommends the Board provide direction on advancing the option provided by PRISM.
43		*B.	Actuarial Update for the General Liability Program
			Recommendation: None. Information only.
136		*C.	State of the Market - Liability
			Recommendation: None. Information only.
183		D.	PLAN JPA 2021/22 Projections – Liability
			Recommendation: None. Information only.
184		E.	Presentation of CARMA Excess Coverage
			Recommendation: None. Information only.
185		F.	Consideration of Member Allocations
			Recommendation: None. Information only.
	6.	PROPERTY PROGRAM	
186		*A.	Actuarial Update for the Property Program

- Recommendation: None. Information only.
  \*B. State of the Market Property Recommendation: None. Information only.
- 233 C. PLAN JPA 2021/22 Projections Property Recommendation: None. Information only.

# 7. FINANCIAL MATTERS

234

\*A. Review of the PLAN JPA 2021/22 Draft Operating Budget *Recommendation: None. Information only.* 

# 8. 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

# 9. ADJOURNMENT

\* Reference materials attached with staff report.

### **NOTICES:**

- > The next Executive Committee meeting will be held on May 13, 2021 via teleconference.
- > The next Board of Directors meeting will be held on June 17, 2021 via teleconference.

\* Reference materials attached with staff report.

# PLAN JPA SPECIAL BOARD OF DIRECTORS MEETING

March 26, 2021

Agenda Item 5.A.

### **LIABILITY PROGRAM**

#### **SUBJECT:** Consideration of Excess Liability Options

#### **BACKGROUND AND HISTORY:**

On January 29, 2021, PLAN staff and Alliant presented the current excess liability program structure and advised the PLAN Board of a significant claim incurred in September 2020 which may erode the aggregate excess liability limit of \$5 million excess of \$25 million provided by Arch. Staff and Alliant attempted to negotiate an additional aggregate limit from Arch, but Arch ultimately declined to provide an option.

At that time the Board authorized staff and Alliant to attempt to negotiate retroactive (to July 1, 2020) coverage for the \$5 million excess of \$25 million layer from Munich Re or Public Risk Innovation, Solutions, and Management JPA (PRISM). Pricing was established as not to exceed \$450,000. Munich Re has since provided an option under the pricing threshold, but retroactive to January 19, 2021. At the January 29, 2021 Board meeting, the Board discussed potential options that are not retroactive to July 1, 2020 and declined them as not viable.

PRISM has extended an option to PLAN JPA to provide retroactive (to July 1, 2020) excess liability coverage of \$5 million excess of \$25 million at \$425,000. The \$5 million coverage is both per occurrence and in the aggregate. In order to exercise this option, PLAN JPA would need to join PRISM JPA. The required documents are attached and have been reviewed by Board Counsel.

Specific to PRISM, the PLAN Board has previously reviewed joining other JPAs for consideration of any unintended liabilities or obligations to PLAN JPA. Specifically, that California Public Employee's Retirement System (CALPERS) obligations for other JPA employees may extend to PLAN in an adverse circumstance. PRISM currently employs approximately 90 full-time staff and has over 1,000 total public entity members. Additionally, PLAN JPA would be subject to the deficit and surplus provisions of the PRISM General Liability I (GLI) program and thereby the overall loss performance of that specific group of public agencies.

#### **<u>RECOMMENDATION</u>**:

Staff recommends the Board provide direction on advancing the option provided by PRISM.

#### **<u>REFERENCE MATERIALS ATTACHED</u>**:

- PRISM General Liability I (GLI) Memorandum of Understanding (MOU)
- PRISM JPA Agreement
- PRISM Loss Data Authorization
- PRISM Board Resolution



Adopted: March 5, 1993 Amended: October 2, 1998 Amended: October 6, 2006 Amended: March 6, 2009

### MEMORANDUM OF UNDERSTANDING EXCESS LIABILITY PROGRAM

This Memorandum of Understanding is entered into by and between Public Risk Innovation, Solutions, and Management (hereinafter referred to as "PRISM") and the participating members who are signatories to this Memorandum.

1. **JOINT POWERS AGREEMENT.** Except as otherwise provided, all terms used herein shall be as defined in Article 1 of Joint Powers Agreement Creating PRISM (hereinafter referred to as "Agreement"), provisions of any applicable coverage agreement and all other provisions of the Agreement not in conflict with this Memorandum shall be applicable.

2. **ANNUAL PREMIUM.** The participating members, in accordance with the provisions of Article 14(b)(2) of the Agreement, shall be assessed an annual premium for the purpose of funding the Program. Annual premiums shall include the participating member's share of expected losses for the policy period, including Incurred But Not Reported (IBNR) losses, as well as margin for contingencies based upon a confidence level as determined by the Board of Directors of PRISM (hereinafter Board), and adjustments, if any, for a surplus or deficit from all program policy periods. In addition, the premium shall include program reinsurance costs and program administrative costs, plus PRISM's general expense allocated to the Program by the Board for the next policy period.

3. **COST ALLOCATION.** Each participating member's share of annual premium shall be determined pursuant to a cost allocation plan as described in Article 14(b)(2) of the Agreement. The Board approved cost allocation plan is attached hereto as Exhibit A and may be amended from time to time by an affirmative vote of the majority of the Board representing the members participating in the Program.

4. **DIVIDENDS AND ASSESSMENTS.** The Program shall be funded in accordance with paragraph 2 above. As a general rule, the annual premium, as determined by the Board, shall be established at a level which shall provide adequate overall funding without the need for adjustments to past policy period(s) in the form of dividends and assessments. Should the Program for any reason not be adequately funded, except as otherwise provided herein, pro-rata assessments to the participating members may be utilized to ensure the approved funding level for those policy periods individually or for a block of policy periods, in accordance with the provisions of Article 14(b)(3) of the Agreement. Pro-rata dividends shall be declared as provided herein. Dividends may also be declared as deemed appropriate by the Board.

5. **CLOSURE OF POLICY PERIODS.** Notwithstanding any other provision of this Memorandum, the following provisions are applicable:

- (a) Upon reaching ten (10) years of maturity after the end of a program period, that period shall be "closed" and there shall be no further dividends declared or assessments made with respect to those program periods, except as set forth in paragraph 6(a), below;
- (b) Notwithstanding subparagraph (a) above, the Board may take action to leave a policy period "open" even though it may otherwise qualify for closure. In addition, the last ten (10) policy periods shall always remain "open" unless the Board takes specific action to declare any of the last ten (10) policy periods closed.
- (c) Dividends and assessments, other than those set forth in paragraph 6(a) below, shall be administered to the participating members based upon the proportion of premiums paid to the Program in "open" periods only. For purposes of administering dividends and assessments pursuant to this subparagraph, all "open" policy periods shall be considered as one block. New members to the Program shall become eligible for dividends and assessments upon participating in the Program for three (3) consecutive policy periods (not less than twenty-four (24) months). Participating members who withdraw from the Program prior to the three (3) year policy period restriction are still eligible for any assessments that arose out of the policy years they participated in the Program.

6. **DECLARATION OF DIVIDENDS.** Dividends shall be payable from the Program to a participating member in accordance with its proportionate funding to the Program during all "open" policy periods except as follows:

(a) A dividend shall be declared at the time a program period is closed on all amounts, which represent premium surcharge amounts assessed pursuant to Article 14(b)(3) of the Agreement where the funding exceeds the 80% confidence level. This dividend shall be distributed based upon each member's proportionate share of assessment paid and accrued to the policy period being closed.

7. **MEMORANDUM OF COVERAGE.** A Memorandum of Coverage shall be issued by PRISM evidencing membership in the Program and setting forth terms and conditions of coverage.

8. **CLAIMS ADMINISTRATION.** Each participating member shall comply with PRISM's Underwriting and Claims Administration Standards (including Addendum B - Liability Claims Administration Guidelines) as amended from time-to-time, and which are attached hereto as Exhibit B and incorporated herein.

9. **LATE PAYMENTS.** Notwithstanding any other provision to the contrary regarding late payment of invoices or cancellation from a Program, at the discretion of the Executive

Committee, any member that fails to pay an invoice when due may be given a ten (10) day written notice of cancellation.

**RESOLUTIONS OF DISPUTES.** Any question or dispute with respect to the 10. rights and obligations of the parties to this Memorandum regarding coverage shall be determined in accordance with the Joint Powers Agreement Article 31. Dispute Resolution.

11. **AMENDMENT.** This Memorandum may be amended by a two-thirds vote of the Board and signature on the Memorandum by the member's designated representative who shall have authority to execute this Memorandum. Should a member of the Program fail to execute any amendment to this Memorandum within the time provided by the Board, the member shall be deemed to have withdrawn as of the end of the policy period.

COMPLETE AGREEMENT. 12. Except as otherwise provided herein, this Memorandum constitutes the full and complete agreement of the members.

13. SEVERABILITY. Should any provision of this Memorandum be judicially determined to be void or unenforceable such determination shall not affect any remaining provision.

14. EFFECTIVE DATE. This Memorandum shall become effective on the effective date of coverage for the member and upon approval by the Board of any amendment, whichever is later.

15. **EXECUTION IN COUNTERPARTS.** This Memorandum may be executed in several counterparts, each of which shall be an original, all of which shall constitute but one and the same instrument.

In Witness Hereof, the undersigned have executed this Memorandum as of the date set forth below:

Dated: 3/6/2009

Risk Public Innovation. Solutions.

Management

and

Dated:

Name

Member Entity:



# EXHIBIT A

### EXCESS LIABILITY PROGRAM COST ALLOCATION PLAN

As delegated by the Board of Directors, the Executive Committee will determine the specific allocation of all costs among the members subject to the following parameters:

### Actuarial Analysis

An annual actuarial analysis will be performed using loss and exposure data collected from the members. The analysis will determine the necessary funding rates at various confidence levels and using various discount assumptions. Different rates may be developed for different groups or classes of business as is deemed necessary or appropriate by the Executive Committee. At the March Board meeting, the Board of Directors will select the funding level rates and discount factors to be used based upon the actuarial analysis and recommendations from the actuary, the Underwriting Committee, and the Executive Committee.

### Pool Contributions

The total needed pool contribution will be determined by multiplying the rates described above by the exposure for all of the members participating in the Pool. For schools, the exposure base will be the reported Average Daily Attendance (ADA). For all other members, the exposure base will be estimated payroll for the year being funded. The Executive Committee may break the Pool into different layers for allocation purposes, and may apply a different loss experience modification for each layer as is deemed appropriate based on loss frequency. In general, the lower layers will be subject to greater experience modification or no experience modification. Within the layers, the larger members will be subject to greater experience modification has been applied for each layer, there will be a pro-rata adjustment back to the total needed pool contribution.

### Reinsurance Premiums

The reinsurance premium will be determined through negotiations with the reinsurer(s) and approved by the Board upon recommendation of the Underwriting and Executive Committees. This premium will then be allocated among the members based upon their exposure (ADA or estimated payroll).

### PRISM Administration Fees

The total PRISM Administration Fees will be determined through the annual budgeting process with an appropriate amount allocated to the Excess Liability Program. These fees will be allocated among the members as determined by

GL1 Program MOU Exhibit A Page 2 of 2

the Executive Committee. In general, the basis for this allocation will be each member's percentage of the total Pool contributions and reinsurance premium.

### **Deviation From the Standard**

The Executive Committee may establish policies to deviate from the standard allocation methodology selected for each year on a case-by-case basis, if necessary. They may also elect to further delegate some or all of the decision making herein to the Underwriting Committee.



# EXHIBIT A

# PUBLIC RISK INNOVATION, SOLUTIONS, AND MANAGEMENT (PRISM) UNDERWRITING AND CLAIMS ADMINISTRATION STANDARDS

# I. GENERAL

- A. Each Member shall appoint an official or employee of the Member to be responsible for the risk management function and to serve as a liaison between the Member and PRISM for all matters relating to risk management.
- B. Each Member shall maintain a loss prevention program and shall consider and act upon all recommendations of PRISM concerning the reduction of unsafe conditions.

# II. EXCESS WORKERS' COMPENSATION PROGRAM

- A. Members of the Excess Workers' Compensation Program, except those members of the Primary Workers' Compensation Program whose responsibilities are outlined in Section IV below, shall be responsible for the investigation, settlement, defense and appeal of any claim made, suit brought or proceeding instituted against the Member.
  - 1. The Member shall use only qualified personnel to administer its workers' compensation claims. At least one person in the claims office (whether in-house or outside administrator) shall be certified by the State of California as a qualified administrator of self-insured workers' compensation plans.
  - 2. Qualified defense counsel experienced in workers' compensation law and practice shall handle litigated claims. Members are encouraged to utilize attorneys who have the designation "Certified Workers' Compensation Specialist, the State Bar of California, Board of Legal Specialization".
  - 3. The Member shall use PRISM's Workers' Compensation Claims Administration Standards (Addendum A) and shall advise its claims administrator that these standards are utilized in PRISM's workers' compensation claims audits.
- B. The Member shall provide PRISM written notice of any potential excess workers' compensation claims in accordance with the requirements of PRISM's Bylaws. Updates on such claims shall be provided pursuant to the reporting provisions of PRISM's Workers'

Compensation Claims Administration Standards (Addendum A) or as requested by PRISM and/or PRISM's excess carrier.

- C. A claims administration audit utilizing PRISM's Workers' Compensation Claims Administration Standards (Addendum A) shall be performed once every two (2) years. In addition, an audit will be performed within twelve (12) months of any of the following events:
  - 1. There is an unusual fluctuation in the Member's claim experience or number of large claims, or
  - 2. There is a change of workers' compensation claims administration firms, or
  - 3. The Member is a new member of the Excess Workers' Compensation Program.

The claims audit shall be performed by a firm selected by PRISM unless an exception is approved. Recommendations made in the claims audit shall be addressed by the Member and a written response outlining a program for corrective action shall be provided to PRISM within sixty (60) days of receipt of the audit.

- D. Each Member shall maintain records of claims in each category of coverage (i.e. indemnity, medical, expense) or as defined by PRISM and shall provide such records to PRISM as directed by the Board of Directors, Claims Review Committee, Underwriting Committee, or Executive Committee. Such records shall include both open and closed claims, allocated expenses, and shall not be capped by the Member's self-insured retention.
- E. The Member shall obtain an actuarial study performed by a Fellow of the Casualty Actuarial Society (FCAS) at least once every three (3) years. Based upon the actuarial recommendations, the Member should maintain reserves and make funding contributions equal to or exceeding the present value of expected losses and a reasonable margin for contingencies.

# III. GENERAL LIABILITY PROGRAMS

- A. Members of the General Liability 1 or General Liability 2 Programs, except those members of the Deductible Buy-Down Program whose responsibilities are outlined in Section V below, shall be responsible for the investigation, settlement, defense and appeal of any claim made, suit brought or proceeding instituted against the Member.
  - 1. The Member shall use only qualified personnel to administer its liability claims.

- 2. Qualified defense counsel experienced in tort liability law shall handle litigated claims. Members are encouraged to utilize defense counsel experienced in the subject at issue in the litigation.
- 3. The Member shall use the Liability Claims Administration Standards (Addendum B) and shall advise its claims administrator that these standards are utilized in PRISM's liability claims audits.
- B. The Member shall provide PRISM written notice of any potential excess liability claim in accordance with the requirements of PRISM's Bylaws. Updates on such claims shall be provided pursuant to the reporting provisions of PRISM's Liability Claims Administration Standards (Addendum B) or as requested by PRISM and/or PRISM's excess carrier.
- C. A claims administration audit utilizing PRISM's Liability Claims Administration Standards (Addendum B) shall be performed once every two (2) years. In addition, an audit will be performed within twelve (12) months of any of the following events:
  - 1. There is an unusual fluctuation in the Member's claims experience or number of large claims, or
  - 2. There is a change of liability claims administration firms, or
  - 3. The Member is a new member of the General Liability 1 or General Liability 2 Program.

The claims audit shall be performed by a firm selected by PRISM unless an exception is approved. Recommendations made in the claims audit shall be addressed by the Member and a written response outlining a program for corrective action shall be provided to PRISM within sixty (60) days of receipt of the audit.

- D. Each Member shall maintain records of claims in each category of coverage (i.e. bodily injury, property damage, expense) or as defined by PRISM and shall provide such records to PRISM as directed by the Board of Directors or applicable committee. Such records shall include open and closed claims, allocated expenses, and shall not be capped by the Member's self-insured retention.
- E. The Member shall obtain an actuarial study performed by a Fellow of the Casualty Actuarial Society (FCAS) at least once every three (3) years. Based upon the actuarial recommendations, the Member should maintain reserves and make funding contributions equal to or exceeding the present value of expected losses and a reasonable margin for contingencies.

### IV. PRIMARY WORKERS' COMPENSATION PROGRAM

- A. Members of the Primary Workers' Compensation Program shall provide the third party administrator written notice of any claim in accordance with the requirements of PRISM. Members must also cooperate with the third party administrator in providing all necessary information in order for claims to be administered appropriately.
- B. PRISM shall be responsible for ensuring qualified personnel administer claims in the Primary Workers' Compensation Program and that claims are administered in accordance with PRISM's Workers' Compensation Claims Administration Standards (Addendum A).
- C. PRISM shall be responsible for ensuring a claims administration audit utilizing PRISM's Workers' Compensation Claims Administration Standards (Addendum A) is performed once every two (2) years.
- D. PRISM shall be responsible for obtaining an actuarial study performed by a Fellow of the Casualty Actuarial Society (FCAS) annually.

# V. DEDUCTIBLE BUY-DOWN PROGRAM

- A. Members of the Deductible Buy-Down Program shall provide the third party administrator written notice of any claim or incident in accordance with the requirements of PRISM. Members must also cooperate with the third party administrator in providing all necessary information in order for claims to be administered appropriately.
- B. PRISM shall be responsible for ensuring qualified personnel administer claims in the Deductible Buy-Down Program and that claims are administered in accordance with PRISM's Liability Claims Administration Standards (Addendum B).
- PRISM shall be responsible for ensuring a claims administration audit utilizing PRISM's Liability Claims Administration Standards (Addendum B) is performed once every two (2) years.
- D. PRISM shall be responsible for obtaining an actuarial study performed by a Fellow of the Casualty Actuarial Society (FCAS) annually.

# VI. PROPERTY PROGRAM

A. Members of the Property Program shall maintain appropriate records including a complete list of insured locations and schedule of values pertaining to all real property. Such records shall be provided to PRISM or its brokers as requested by the Executive or Property Committees.

B. Each Member shall perform a real property replacement valuation for all locations over \$250,000. Valuations shall be equivalent to the Marshall Swift system and shall be performed at least once every five (5) years for all locations over \$1,000,000 and at least once every ten (10) years for all locations with a valuation between \$250,000 and \$1,000,000. New members shall have an appraisal or valuation performed within one year from entry into the Program.

# VII. MEDICAL MALPRACTICE PROGRAM

- A. Program I
  - 1. Members of Medical Malpractice Program I (hereinafter Program I) shall be responsible for the investigation, settlement, defense and appeal of any claim made, suit brought or proceeding instituted against the Member.
    - a Members of Program I shall use only qualified personnel to administer its health facility claims.
    - b. Qualified defense counsel experienced in health facility law shall handle litigated claims.
    - c. Members of Program I shall use the "Claims Reporting and Handling Guidelines" in the PRISM Medical Malpractice Program Operating and Guidelines Manual (hereinafter Operating and Guidelines Manual), and shall advise its claims administrator that these claims handling guidelines are utilized in PRISM's medical malpractice claims audits.
  - 2. Members of Program I shall provide PRISM written notice of any potential excess claim or "major incident" in accordance with the requirements of PRISM and of the excess carrier as stated in the Operating and Guidelines Manual. Updates on such claims or major incidents shall be provided as requested by PRISM.
  - 3. A claims administration audit utilizing PRISM's Claims Reporting and Handling Guidelines in the Operating and Guidelines Manual shall be performed once every three (3) years. In addition, an audit will be performed within twelve (12) months of any of the following events:
    - a There is an unusual fluctuation in the Member's claims experience or number of large claims, or
    - b. There is a change of health facility claims administration firms, or

- c. The Member is a new member of the Medical Malpractice Program, or
- d The Medical Malpractice Committee requests an audit. The claims audit shall be performed by a firm(s) selected by PRISM. Recommendations made in the claims audit shall be addressed by the Member and a written response outlining a program for corrective action shall be provided to PRISM within sixty (60) days of receipt of the audit.
- 4. Each Member shall maintain records of claims in each category of coverage (i.e. bodily injury, property damage, expense) or as defined by PRISM and shall provide such records to PRISM as directed by the Board of Directors or applicable committee. Such records shall include open and closed claims, allocated expenses, and shall not be capped by the Member's self-insured retention.
- 5. Members of Program I shall obtain an actuarial study performed by a Fellow of the Casualty Actuarial Society (FCAS) at least once every three (3) years. Based upon the actuarial recommendations, the Member should maintain reserves and make funding contributions equal to or exceeding the present value of expected losses and a reasonable margin for contingencies.
- 6. The Member shall have an effective risk management program in accordance with the "Risk Management Guidelines" as stated in the Operating and Guidelines Manual.
- B. Program II
  - 1. For Medical Malpractice Program II (hereinafter Program II) Members, PRISM shall be responsible for the investigation, settlement, defense and appeal of any claim made, suit brought or proceeding instituted against the Member. PRISM may contract with a third party administrator for handling of such claims.
  - 2. PRISM shall be responsible for ensuring the third party administrator uses qualified personnel to administer Program II claims.
  - 3. PRISM shall be responsible for ensuring qualified defense counsel experienced in health facility law shall handle litigated claims.
  - 4. PRISM shall be responsible for ensuring a claims administration audit utilizing PRISM's Claims Reporting and Handing Guidelines in the Operating and Guidelines Manual shall be performed once every two (2) years.

The claims audit shall be performed by a firm(s) selected by PRISM. Recommendations made in the claims audit shall be addressed by the third party administrator and a written response outlining a program for corrective action shall be provided to PRISM within sixty (60) days of receipt of the audit.

- 5. PRISM shall be responsible for obtaining an actuarial study performed by a Fellow of the Casualty Actuarial Society (FCAS) annually.
- 6. The Member shall have an effective risk management program in accordance with the "Risk Management Guidelines" as stated in the Operating and Guidelines Manual.

### VIII. SANCTIONS

- A. PRISM shall provide the Member written notification of the Member's failure to meet any of the above-mentioned standards or of other concerns, which affect or could affect PRISM.
- B. The Member shall provide a written response outlining a program for corrective action within sixty (60) days of receipt of PRISM's notification.
- C. After approval by the Executive or applicable Program Committee of the Member's corrective program, the Member shall implement the approved program within ninety (90) days. The Member may request an additional sixty (60) days from the Executive or applicable Program Committee. Further requests for extensions shall be referred to the Board of Directors.
- D. Failure to comply with subsections B or C may result in cancellation of the Member from the affected PRISM Program in accordance with the provisions in the Joint Powers Agreement.
- E. Notwithstanding any other provision herein, any Member may be canceled pursuant to the provision of the Joint Powers Agreement.



# ADDENDUM B LIABILITY CLAIMS ADMINISTRATION STANDARDS

The following Standards have been adopted by Public Risk Innovation, Solutions, and Management (hereinafter PRISM) in accordance with Article 18(b) of the PRISM Joint Powers Agreement. It is the intent that these standards shall be followed by the Member and/or third party administrator.

#### I. CLAIMS INVESTIGATION

- A. Complete initial investigation answering questions such as who, what, where, when and why. Investigations shall be completed within forty-five (45) days of the Member's knowledge of claim, including statements from participants and witnesses, appropriate official reports, investigative reports, site inspections, relevant documents and photos/videos.
- B. Identify liability issues, including immunities, comparative negligence, joint tortfeasors and joint and several liability.
- C. Initiate the development of information on damages including, but not limited to:
  - 1. Property damage
  - 2. Nature and extent of injuries
  - 3. Medical costs (billed and paid)
  - 4. Lost wages (past and future)
  - 5. Other economic damages
  - 6. Non-economic damages
- D. Obtain and review relevant contracts and insurance documents, to determine whether there is any sharing or complete transfer of the risk.
  - 1. Hold-harmless and/or indemnity agreements
  - 2. Additional insured requirements
- E. Ensure proper preservation of evidence.
- F. Evaluate the need to utilize experts.
- G. Indexing.

1. All bodily injury claims shall be initially reported to the Index Bureau and re-indexed on an as needed basis thereafter.

PRISM maintains a membership with the Index Bureau that members can access.

- H. Secure estimates or appraisals for damaged property.
- I. All notices (pertaining to claim insufficiency, returning late claims, claims rejections, etc.) shall be done in accordance with the relevant Governmental Code provisions.

### II. PRISM REPORTING REQUIREMENTS

A. First Report

The Member shall give PRISM immediate written notice for any claims or suits which the Member becomes aware of that include injury of the following types:

- a. Death
- b. Paralysis, paraplegia, quadriplegia
- c. Loss of eye(s), or limbs
- d. Spinal cord or brain injury
- e. Dismemberment or amputation
- f. Sensory organ or nerve injury or neurological deficit
- g. Serious burns
- h. Severe scarring
- i. Sexual assault or battery including but not limited to rape, molestation or sexual abuse
- j. Substantial disability or disfigurement
- k. Any class action
- I. Any claim or suit in which PRISM is named as a defendant; or
- m. Any injury caused by lead.

Additionally, the covered party must report to PRISM an occurrence, offense, or wrongful act as follows:

As respect to the General Liability 1 Program members, this includes any occurrence, offense, or wrongful act in which the amount incurred has reached fifty (50) percent or more of their individual self- insured retention or \$500,000, whichever is lower.

As respect to the General Liability 2 Program members, this includes any occurrence, offense, or wrongful act in which the amount incurred has reached fifty (50) percent of their individual self-insured retention.

These reporting requirements are intended to be consistent with the requirements in the current year Memorandum of Coverage (MOC). Reporting requirements specific to a loss outside the current MOC year should be verified through the MOC effective for that loss year.

Utilize the current First Report Potential Excess Liability Claims form, available through PRISM's website, and transmit to PRISM by email to <u>liabilityclaims@csac-eia.org</u>.

First report forms shall, at a minimum, include the following:

- Entity name
- Entity's claim number
- Defense counsel's name and firm name
- Lead Claimant's first and last name
- Specific date of loss
- Brief description of the incident
- Established reserves for indemnity, litigation, and expense
- B. Status Reports

After the First Report to PRISM, status reports, whether provided by the Member, third party administrator or defense counsel, shall be provided at a minimum of every ninety (90) days (more frequently if warranted). Status reports shall focus on changes in liability analysis, damages, and reserves.

- C. Photos, diagrams, estimates, statements, contracts, medical, law enforcement and coroner's reports (where applicable), claim forms, lawsuits (including amended complaints), motions for summary judgment, demurrers, dismissals, appellate briefs and orders/rulings/judgments shall be in the claims file, and provided to PRISM, within ninety (90) days of receipt of the material.
- D. Closure Reports

When a claim or suit that has been reported to PRISM is settled, dismissed or closed in any other fashion, PRISM shall be provided with the closing documents and an accounting of the final paid amounts on the exposure for indemnity, litigation, and expense within 90 days from the day the final defense bill is paid.

### III. MEDICARE REPORTING

A. Proper verification of a claimant's status as to Medicare eligibility shall be Addendum B: Liability Claims Administration Guidelines completed and documented in every file involving a bodily injury. In those cases where the claimant does meet the eligibility requirements, mandatory reporting to the Center for Medicare and Medicaid Services (CMS) must be completed directly or through a reporting agent in compliance with State Children's Health Insurance Program (SCHIP) Section 111 of the Medicare Medicaid and SCHIP Extension Act of 2007.

#### IV. RESERVING

Each claim should be reviewed and evaluated according to the merits of the claim and based upon the most current and reliable information received, starting with the initial report of claim and continuing through final resolution. Delays result in understated reserves and, possibly, missed opportunities to settle.

A. An accurate and appropriate initial indemnity reserve shall be established on all reportable claims based on facts known, upon completion of the initial investigative report or when suit is filed, whichever occurs first. In addition, separate legal and adjusting reserves shall be established.

Indemnity reserves shall reflect the most probable outcome plus exposure to plaintiff attorney's fees and costs.

Most probable outcome is the potential total amount a plaintiff could expect to receive, either through settlement or verdict, after factoring in the Member's percentage of liability. (This approach is neither the best or worst case outcome).

Factors to consider for when evaluating the potential total settlement or verdict a plaintiff could expect to receive include but are not limited to:

- Extent of injuries and/or damages
- Medical expenses
- Loss of income
- Any other related expenses
- Future anticipated expenses
- Total of both gross and out-of-pocket expenses
- Permanent injury
- Disfigurement/scarring
- Pain and suffering
- Any other intangible factors which may result in a higher or lower claim value such as jurisdiction, credibility of parties/witnesses, etc.

Percentage of liability is determined by various factors that are discovered during an investigation. Reserves shall be adjusted accordingly, as facts are developed, to properly reflect the exposure. These factors include but are not limited to:

- a. Facts of loss
- b. Applicable laws
- c. Defense Counsel evaluations
- d. Jury Verdict evaluation
- e. The extent of plaintiff's liability (comparative negligence)
- f. The number of co-defendants and their percentage of liability
- g. The ability of the co-defendants to respond financially to any settlement or verdict.
- h. On cases occurring after June 3, 1986, Proposition 51 allows defendants to limit their liability on non-economic damages to their percentage of fault.
- i. On cases involving uninsured motorist claimants the recovery is limited to economic damages in accordance with California Code of Civil Procedures sections 3333.3 and 3333.4 (Prop 213).
- j. Any other mitigating factors
- 2. Reserves shall be set at the most probable outcome even if it exceeds the Member's Self-Insured Retention. In all litigated Excess reportable cases, the Member shall set a meaningful indemnity reserve.
- 3. Reserves shall be evaluated for adequacy at least every ninety (90) days. All reserve changes shall be documented in a paper or electronic file providing explanation of the reason for the reserve change or notation that the current reserve is adequate and why. PRISM shall be notified of all reserve changes within thirty (30) days of the change being made.

### V. DOCUMENTATION

A. Each file shall contain information necessary to document the decisions made, including all demands, offers of settlement and settlement authority.

For those cases in which the (1) Bodily Injury claims reserved above twentyfive (25) percent of the S.I.R., (2) Property Damage claims reserved above twenty-five (25) percent of the S.I.R., and (3) All claims that meet PRISM's excess reporting requirements regardless of reserves, the following information shall be contained in each file:

- 1. Claimant(s) Information
- 2. Date of Loss
- 3. Claim Number
- 4. Facts of accident or occurrence
- 5. Witness/Participant Statement
- 6. Reserve rationale
- 7. Assessment of liability
- 8. Damages/injuries, including medical costs, lost wages, dependency,

property damage estimates, total loss evaluations, loss of use claims, and other damages

- 9. Index Bureau reporting
- 10. Coverage questions
- 11. Excess potential
- 12. Structured Settlement possibilities (where applicable)
- 13. Alternative Dispute Resolution
- 14. Subrogation potential (where applicable)
- 12 Governmental Code compliance and immunities
- 13. Future course of action
- 14. Next diary date
- 15. If litigated, identify counsel on both sides
- 16. Offsets or liens that may need to be considered
- 17. Medicare eligibility and reporting
- 18. Risk and insurance transfer

### VI. CASE SETTLEMENT FACTORS

- A. Settlement evaluation and authority by the Member shall be documented. On cases exceeding the S.I.R., prior written settlement authority must be obtained from PRISM.
- B. The settlement shall be reasonable in light of damages, injuries, liability, and any obligations to Medicare.
- C. Settlements shall be effected in a timely manner, with consideration given to structures, statutory offers (Rule 68 or 998) where applicable, and/or alternative dispute resolution.
- D. Contributions from joint tortfeasors shall be considered.
- E. Proper releases and dismissals shall be secured and copies provided to PRISM.

### VII. LITIGATED FILES

- A. Defense litigation plan shall be in the file.
- B. Defense attorney's initial evaluation and budget shall be completed and in the file within sixty (60) days of assignment. If the billed amount of attorney's fees and costs exceeds seventy-five (75) percent of the total budget, then the defense attorney shall provide an updated budget.
- C. On litigated cases, defense counsel shall also include PRISM on their mailing lists for copies of correspondence, reports, evaluations, interrogatory summaries, deposition summaries and medical summaries. Actual

deposition transcripts, interrogatories, their answers to interrogatories and interim billings are not required.

Updated reports shall provide a summary of pertinent information based on the status of a case. Pertinent information includes, but is not limited to:

- Identified experts what their analysis has concluded, their credibility as a witness (both plaintiff and defense), and how their testimony will/will not influence the case potential.
- Witness deposition summaries including an evaluation of their credibility as a witness and how their testimony will/will not influence the case potential.
- A summary of relevant documents disclosed or obtained through discovery and an analysis of their impact on the case.
- A summary of applicable case law and immunities.
- Updated evaluation of damages including, but not limited to, billed and paid medical bills, estimated future medical expenses, past and future wage loss estimates, and general damage estimates.
- Analysis of liability and potential settlement/verdict value as well as suggested next steps (MSJ, Demurrer, Mediation, etc.).
- D. The defense attorney shall make proper follow-up requests for investigation.
- E. There shall be timely recommendations from defense firms regarding expert retention, settlements, and trial preparation.
- F. Defense costs shall be controlled by the Member. Depositions, retention of experts, expert costs, and other defense costs shall be approved by the Member.
- G. Litigation outcome and total costs shall be documented.
- H. There shall be timely notification to relevant employees and other parties regarding pending litigation.

No less than forty-five (45) days prior to trial, counsel shall provide a pre-trial report that discusses the following:

- 1. Case Summary
  - Plaintiff and any individual Defendants including counsel's opinion as to how each will be viewed by a jury

- List of claims
- Summary of Facts
- Expected percipient witness testimony
- Expected Liability Expert Testimony
- Critical Liability Issues
- Summary of Special and General Damages including expected damage expert testimony
- Summary of Punitive Damages and non-monetary relief requested (if applicable)
- Attorneys' fees and costs estimate for claims that involve the potential award of attorneys' fees
- 2. Evaluation
  - Potential Verdict Value
  - Comparative Fault Analysis
  - Settlement Discussion summary
  - Probability of Defense Verdict

Throughout trial, a daily trial status update shall be provided to PRISM by defense counsel, the Member, or the Third-Party Administrator. This can be informal, such as an email or voicemail advising of the day's activities, impressions of witnesses, any impacting developments, and an update regarding the next day's schedule.

I. Appropriate Dismissal Motions shall be made for failure to meet the applicable Code of Civil Procedure statutes for timely serving, conducting discovery or bringing a complaint to trial.

#### VIII. SUMMARY

The file shall be completely documented.

Audits conducted by the PRISM Auditor shall measure whether performance is consistent with these standards.

Following is the history of amendments to this document:

Adopted: December 6, 1985 Amended: January 23, 1987 Amended: October 6, 1995 Amended: October 1, 1999 Amended: March 2, 2007 Amended: March 5, 2010 Amended: March 2, 2012 Amended: June 1, 2012 Amended: July 1, 2019



Amended: June 30, 2020

Adopted: October 5, 1979 Amended: May 12, 1980 Amended: January 23, 1987 Amended: October 7, 1988 Amended: March 1993 Amended: November 18, 1996 Amended: October 4, 2005 Amended: February 28, 2006 Amended: June 30, 2020

#### JOINT POWERS AGREEMENT PUBLIC RISK INNOVATION, SOLUTIONS, AND MANAGEMENT

This Agreement is executed in the State of California by and among those counties and public entities organized and existing under the Constitution of the State of California, which are parties signatory to this Agreement. Public Risk Innovation, Solutions, and Management (referred to herein as PRISM), formerly known as CSAC Excess Insurance Authority, was formed under the sponsorship of CSAC. California counties, hereinafter called member counties, and public entities, hereinafter called member public entities, (collectively "members") shall be listed in Appendix A, which shall be attached hereto and made a part hereof.

#### RECITALS

**WHEREAS**, Article 1, Chapter 5, Division 7, Title 1 of the California Government Code (Section 6500 et seq.) permits two or more public agencies by agreement to exercise jointly powers common to the contracting parties; and

WHEREAS, Article 16, Section 6 of the California Constitution provides that insurance pooling arrangements under joint exercise of power agreements shall not be considered the giving or lending of credit as prohibited therein; and

**WHEREAS**, California Government Code Section 990.4 provides that a local public entity may self-insure, purchase insurance through an authorized carrier, or purchase insurance through a surplus line broker, or any combination of these; and

**WHEREAS**, pursuant to California Government Code Section 990.6, the cost of insurance provided by a local public entity is a proper charge against the local public entity; and

WHEREAS, California Government Code Section 990.8 provides that two or more local entities may, by a joint powers agreement, provide insurance for any purpose by any one or more of the methods specified in Government Code Section 990.4 and such pooling of self-insured claims or losses is not considered insurance nor subject to regulation under the Insurance Code; and

**WHEREAS**, the counties and public entities executing this Agreement desire to join together for the purpose of jointly funding and/or establishing excess and other insurance programs as determined;

NOW THEREFORE, the parties agree as follows:

#### ARTICLE 1 DEFINITIONS

"CSAC" shall mean the County Supervisors Association of California, dba California State Association of Counties.

"Board of Directors" or "Board" shall mean the governing body of PRISM.

**"Claim"** shall mean a claim made against a member arising out of an occurrence, which is covered by an excess or primary insurance program of PRISM in which the member is a participant.

"Executive Committee" shall mean the Executive Committee of the Board of Directors of PRISM.

"Fiscal year" shall mean that period of twelve months which is established by the Board of Directors as the fiscal year of PRISM.

"Government Code" shall mean the California Government Code.

**"Insurance program"** or **"program"** shall mean a program which has been designated as a major program of PRISM under which participating members are protected against designated losses, either through joint purchase of primary or excess insurance, pooling of self-insured claims or losses, purchased insurance or any other combination as determined by the Board of Directors. The Board of Directors, the Executive Committee, or a program's governing committee may determine applicable criteria for determining eligibility in any insurance program, as well as establishing program policies and procedures.

"Joint powers law" shall mean Article 1, Chapter 5, Division 7, Title 1 (commencing with Section 6500) of the Government Code.

**"Loss"** shall mean a liability or potential liability of a member, including litigation expenses, attorneys' fees and other costs, which is covered by an insurance program of PRISM in which the member is a participant.

"Member county" shall mean any county in the State of California which has executed this Agreement and become a member of PRISM. "Member County" shall also include those entities or other bodies set forth in Article 3 (c).

"Member Public Entity" shall mean any California public entity, which is not a California county, which has executed this Agreement, and become a member of PRISM, "Member Public Entity" shall also include those entities or other bodies set forth in Article 3(c).

"Miscellaneous Program" is an insurance program of PRISM that does not involve pooling of self-insured claims or losses and may be made available to members as well as non-member public entities that are not a party to this Agreement.

**"Occurrence"** shall mean an event which is more fully defined in the memorandums of coverage and/or policies of an insurance program in which the participating county or participating public entity is a member.

**"Participating county"** shall mean any member county which has entered into a program offered by PRISM pursuant to Article 14 of this Agreement and has not withdrawn or been canceled therefrom pursuant to Articles 20 or 21.

"**Participating public entity**" shall mean any member public entity which has entered into a program offered by PRISM pursuant to Article 14 of this Agreement and has not withdrawn or been canceled therefrom pursuant to Articles 20 or 21.

"Self-insured retention" shall mean that portion of a loss resulting from an occurrence experienced by a member, which is retained as a liability or potential liability of the member and is not subject to payment by PRISM.

"Reinsurance" shall mean insurance purchased by PRISM as part of an insurance program to cover that portion of any loss, which exceeds the joint funding capacity of that program.

#### ARTICLE 2 PURPOSES

This Agreement is entered into by the member counties and member public entities in order to jointly develop and fund insurance programs as determined. Such programs may include, but are not limited to, the creation of joint insurance funds, including primary and excess insurance funds, the pooling of self-insured claims and losses, purchased insurance, including reinsurance, and the provision of necessary administrative services. Such administrative services may include, but shall not be limited to, risk management consulting, loss prevention and control, centralized loss reporting, actuarial consulting, claims adjusting, and legal defense services.

#### ARTICLE 3 PARTIES TO AGREEMENT

- (a) There shall be two classes of membership of the parties pursuant to this Agreement consisting of one class designated as Member Counties and another class designated as Member Public Entities.
- (b) Each member county and member public entity, as a party to this Agreement, certifies that it intends to and does contract with all other members as parties to this Agreement and, with such other members as may later be added as parties to this Agreement pursuant to Article 19 as to all programs of which it is a participating member. Each member also certifies that the removal of any party from this Agreement, pursuant to Articles 20 or 21, shall not affect this Agreement or the member's obligations hereunder.
- (c) A member for purposes of providing insurance coverage under any program of PRISM, may contract on behalf of, and shall be deemed to include:

Any public entity as defined in Government Code § 811.2 which the member requests to be added and from the time that such request is approved by the Executive Committee of PRISM.

Any nonprofit entity, including a nonprofit public benefit corporation formed pursuant to Corporations Code §§ 5111, 5120 and, 5065, which the member requests to be added and from the time that such request is approved by the Executive Committee.

- (d) Any public entity or nonprofit so added shall be subject to and included under the member's SIR or deductible, and when so added, may be subject to such other terms and conditions as determined by the Executive Committee.
- (e) Such public entity or nonprofit shall not be considered a separate party to this Agreement. Any public entity or nonprofit so added, shall not affect the member's representation on the Board of Directors and shall be considered part of and represented by the member for all purposes under this Agreement.
- (f) The Executive Committee shall establish guidelines for approval of any public entity or nonprofit so added in accordance with Article 3(c) and (d).
- (g) Should any conflict arise between the provisions of this Article and any applicable Memorandum of Coverage or other document evidencing coverage, such Memorandum of Coverage or other document evidencing coverage shall prevail.

#### ARTICLE 4 TERM

This Agreement shall continue in effect until terminated as provided herein.

#### ARTICLE 5 CREATION OF PRISM

Pursuant to the joint powers law, there is hereby created a public entity separate and apart from the parties hereto, to be known as Public Risk Innovation, Solutions, and Management ("PRISM"), with such powers as are hereinafter set forth.

#### ARTICLE 6 POWERS OF PRISM

PRISM shall have all of the powers common to General Law counties in California, such as Alpine County and all additional powers set forth in the joint powers law, and is hereby authorized to do all acts necessary for the exercise of said powers. Such powers include, but are not limited to, the following:

- (a) To make and enter into contracts.
- (b) To incur debts, liabilities, and obligations.
- (c) To acquire, hold, or dispose of property, contributions and donations of property, funds, services, and other forms of assistance from persons, firms, corporations, and government entities.
- (d) To sue and be sued in its own name, and to settle any claim against it.
- (e) To receive and use contributions and advances from members as provided in Government Code Section 6504, including contributions or advances of personnel, equipment, or property.
- (f) To invest any money in its treasury that is not required for its immediate necessities, pursuant to Government Code Section 6509.5.
- (g) To allow non-member public entities and non-member counties to participate in Miscellaneous Programs and for risk management services to be provided to nonmember counties and non-member public entities including out-of-state participants in a PRISM program.
- (h) To carry out all provisions of this Agreement.

Said powers shall be exercised pursuant to the terms hereof and in the manner provided by law.

#### ARTICLE 7 BOARD OF DIRECTORS

PRISM shall be governed by the Board of Directors, which shall be composed as follows:

- (a) One director from each member county, appointed by the member county board of supervisors and serving at the pleasure of that body. Each member county board of supervisors shall also appoint an alternate director who shall have the authority to attend, participate in and vote at any meeting of the Board of Directors when the director is absent. A director or alternate director shall be a county supervisor, other county official, or staff person of the member county, and upon termination of office or employment with the county, shall automatically terminate membership or alternate membership on the Board of Directors.
- (b) Ten directors consisting of seven directors and three alternate directors chosen in the manner specified in the Bylaws from those participating as public entity members. A director or alternate public entity director shall be an official, or staff person of the public

entity member, and upon termination of office or employment with the public entity, shall automatically terminate membership or alternate membership on the Board of Directors.

(c) Member county directors shall consist of a minimum of 80% of the eligible voting members on the Board of Directors. The public entity member directors shall be reduced accordingly to ensure at least 80% of the Board of Directors consists of county director members (By way of example, if the number of county members is reduced from the current 54 by member withdrawals to a level of 28, then county members would be at the 80% level, 28/35. If the county members go to 27, then the public entity members would lose one seat and would only have 6 votes).

Any vacancy in a county director or alternate director position shall be filled by the appointing county's board of supervisors, subject to the Provisions of this Article. Any vacancy in a public entity director position shall be filled by vote of the public entity members.

A majority of the membership of the Board of Directors shall constitute a quorum for the transaction of business. Each member of the Board of Directors shall have one vote. Except as otherwise provided in this Agreement or any other duly executed agreement of the members, all actions of the Board of Directors shall require the affirmative vote of a majority of the members; provided, that any action which is restricted in effect to one of PRISM's insurance programs, shall require the affirmative vote of a majority of those Board of Directors members who represent counties and public entities participating in that program. For purposes of an insurance program vote, to the extent there are public entity members participating in a program, the public entity Board of Directors members as a whole shall have a minimum of one vote. The public entity Board of Directors members may in no event cast more votes than would constitute 20% of the number of total county members in that program (subject to the one vote minimum). Should the number of public entity Board of Directors votes authorized herein be less than the number of public entity Board of Directors members at a duly noticed meeting, the public entity Board of Directors members shall decide among themselves, which Board of Directors member shall vote. Should they be unable to decide, the President of PRISM shall determine which director(s) shall vote.

#### ARTICLE 8 POWERS OF THE BOARD OF DIRECTORS

The Board of Directors shall have the following powers and functions:

- (a) The Board of Directors shall exercise all powers and conduct all business of PRISM, either directly or by delegation to other bodies or persons unless otherwise prohibited by this Agreement, or any other duly executed agreement of the members or by law.
- (b) The Board of Directors may adopt such resolutions as deemed necessary in the exercise of those powers and duties set forth herein.
- (c) The Board of Directors shall form an Executive Committee, as provided in Article 11. The Board of Directors may delegate to the Executive Committee and the Executive Committee may discharge any powers or duties of the Board of Directors except adoption of PRISM's annual budget. The powers and duties so delegated shall be specified in resolutions adopted by the Board.
- (d) The Board of Directors may form, as provided in Article 12, such other committees as it deems appropriate to conduct the business of PRISM. The membership of any such other committee may consist in whole or in part of persons who are not members of the Board of Directors.

- (e) The Board of Directors shall elect the officers of PRISM and shall appoint or employ necessary staff in accordance with Article 13.
- (f) The Board of Directors shall cause to be prepared, and shall review, modify as necessary, and adopt the annual operating budget of PRISM. Adoption of the budget may not be delegated.
- (g) The Board of Directors shall develop, or cause to be developed, and shall review, modify as necessary, and adopt each insurance program of PRISM, including all provisions for reinsurance and administrative services necessary to carry out such program.
- (h) The Board of Directors, directly or through the Executive Committee, shall provide for necessary services to PRISM and to members, by contract or otherwise, which may include, but shall not be limited to, risk management consulting, loss prevention and control, centralized loss reporting, actuarial consulting, claims adjusting, and legal services.
- (i) The Board of Directors shall provide general supervision and policy direction to the Chief Executive Officer.
- (j) The Board of Directors shall receive and act upon reports of the committees and the Chief Executive Officer.
- (k) The Board of Directors shall act upon each claim involving liability of PRISM, directly or by delegation of authority to the Executive Committee or other committee, body or person, provided, that the Board of Directors shall establish monetary limits upon any delegation of claims settlement authority, beyond which a proposed settlement must be referred to the Board of Directors for approval.
- (I) The Board of Directors may require that PRISM review, audit, report upon, and make recommendations with regard to the safety or claims administration functions of any member, insofar as those functions affect the liability or potential liability of PRISM. The Board of Directors may forward any or all such recommendations to the member with a request for compliance and a statement of potential consequences for noncompliance.
- (m) The Board of Directors shall receive, review and act upon periodic reports and audits of the funds of PRISM, as required under Articles 15 and 16 of this Agreement.
- (n) The Board of Directors may, upon consultation with a casualty actuary, declare that any funds established for any program has a surplus of funds and determine a formula to return such surplus to the participating counties and participating public entities, which have contributed, to such fund.
- (o) The Board of Directors shall have such other powers and duties as are reasonably necessary to carry out the purposes of PRISM.

#### ARTICLE 9 MEETINGS OF THE BOARD OF DIRECTORS

- (a) The Board of Directors shall hold at least one regular meeting each year and shall provide for such other regular meetings and for such special meetings as it deems necessary.
- (b) The Chief Executive Officer of PRISM shall provide for the keeping of minutes of regular and special meetings of the Board of Directors, and shall provide a copy of the minutes to each member of the Board of Directors at the next scheduled meeting.
- (c) All meetings of the Board of Directors, the Executive Committee and such committees as established by the Board of Directors pursuant to Article 12 herein, shall be called,

noticed, held and conducted in accordance with the provisions of Government Code Section 54950 et seq.

#### ARTICLE 10 OFFICERS

The Board of Directors shall elect from its membership a President and Vice President of the Board, to serve for one-year terms.

The President, or in his or her absence, the Vice President, shall preside at and conduct all meetings of the Board of Directors and shall chair the Executive Committee.

#### ARTICLE 11 EXECUTIVE COMMITTEE

The Board of Directors shall establish an Executive Committee of the Board of Directors, which shall consist of eleven members: the President and Vice President of the Board of Directors, and nine members elected by the Board of Directors from its membership.

The terms of office of the nine non-officer members shall be as provided in the Bylaws of PRISM.

The Executive Committee shall conduct the business of PRISM between meetings of the Board of Directors, exercising all those powers as provided for in Article 8, or as otherwise delegated to it by the Board.

#### ARTICLE 12 COMMITTEES

The Board of Directors may establish committees, as it deems appropriate to conduct the business of PRISM. Members of the committees shall be appointed by the Board of Directors, to serve two year terms, subject to reappointment by the Board of Directors. The members of each committee shall annually select one of their members to chair the Committee.

Each committee shall be composed of at least five members and shall have those duties as determined by the Board of Directors, or as otherwise set forth in the Bylaws.

Each committee shall meet on the call of its chair, and shall report to the Executive Committee and the Board of Directors as directed by the Board of Directors.

#### ARTICLE 13 STAFF

- (a) Principal Staff. The Chief Executive Officer shall be appointed by and serve at the pleasure of the Board of Directors. The Chief Executive Officer shall serve as the Board Secretary and administer the business and activities of PRISM, subject to the general supervision and policy direction of the Board of Directors and Executive Committee; shall be responsible for all minutes, notices and records of PRISM and shall perform such other duties as are assigned by the Board and Executive Committee.
- (b) Treasurer and Auditor. Pursuant to Government Code Section 6505.6, the Chief Financial Officer shall serve as the Treasurer/Auditor. The duties of the Treasurer are set forth in Article 16 of this Agreement. The Chief Financial Officer shall draw warrants to pay demands against PRISM. The Chief Financial Officer shall comply with the provisions of Government Code Section 6505.5 (a-d) and shall be appointed by and serve at the pleasure of the Chief Executive Officer.
- (c) Other Staff. The Board of Directors, Executive Committee or Chief Executive Officer shall provide for the appointment of such other staff as may be necessary for the administration of PRISM.

#### ARTICLE 14 DEVELOPMENT, FUNDING AND IMPLEMENTATION OF INSURANCE PROGRAMS

- (a) **Program Coverage.** Insurance programs of PRISM may provide coverage, including excess insurance coverage for:
  - (1) Workers' compensation;
  - (2) Comprehensive liability, including but not limited to general, personal injury, contractual, public officials errors and omissions, and incidental malpractice liability;
  - (3) Comprehensive automobile liability;
  - (4) Hospital malpractice liability;
  - (5) Property and related programs;

and may provide any other coverages authorized by the Board of Directors. The Board of Directors shall determine, for each such program, a minimum number of participants required for program implementation and may develop specific program coverages requiring detailed agreements for implementation of the above programs.

- (b) Program and PRISM Funding. The members developing or participating in an insurance program shall fund all costs of that program, including administrative costs, as hereinafter provided. Costs of staffing and supporting PRISM, hereinafter called PRISM general expenses, shall be equitably allocated among the various programs by the Board of Directors, and shall be funded by the members developing or participating in such programs in accordance with such allocations, as hereinafter provided. In addition, the Board of Directors may, in its discretion, allocate a share of such PRISM general expense to those members, which are not developing or participating in any program, and require those counties and public entities to fund such share through a prescribed charge.
  - (1) **Annual Premium.** Except as provided in (2) below, all post-development costs of an insurance program shall be funded by annual premiums charged to the members participating in the program each policy year, and by interest earnings on the funds so accumulated. Such premiums shall be determined by the Board of Directors or the program's governing committee upon the basis of a cost allocation plan and rating formula developed by PRISM with the assistance of a casualty actuary, risk management consultant, or other qualified person. The premium for each participating member shall include that participant's share of expected program losses including a margin for contingencies as determined by the Board of Directors, program reinsurance costs, and program administrative costs for the year, plus that participant's share of PRISM general expense allocated to the program by the Board of Directors.

#### (2) **Premium Surcharge**

(i) If PRISM experiences an unusually large number of losses under a program during a policy year, such that notwithstanding reinsurance coverage for large individual losses, the joint insurance funds for the program may be exhausted before the next annual premiums are due, the Board of Directors or the program's governing committee may, upon consultation with a casualty actuary, impose premium surcharges on all participating members; or

- (ii) If it is determined by the Board of Directors or the program's governing committee, upon consultation with a casualty actuary, that the joint insurance funds for a program are insufficient to pay losses, fund known estimated losses, and fund estimated losses, which have been incurred but not reported, the Board of Directors or the program's governing committee may impose a surcharge on all participating members.
- (iii) Premium surcharges imposed pursuant to (i) and/or (ii) above shall be in an amount which will assure adequate funds for the program to be actuarially sound; provided that the surcharge to any participating member shall not exceed an amount equal to three (3) times the member's annual premium for that year, unless otherwise determined by the Board of Directors or the program's governing committee.

Provided, however, that no premium surcharge in excess of three times the member's annual premium for that year may be assessed unless, ninety days prior to the Board of Directors taking action to determine the amount of the surcharge, PRISM notifies the governing body of each participating member in writing of its recommendations regarding its intent to assess a premium surcharge and the amount recommended to be assessed each member. PRISM shall, concurrently with the written notification, provide each participating member with a copy of the actuarial study upon which the recommended premium surcharge is based.

- (iv) A member which is no longer a participating member at the time the premium surcharge is assessed, but which was a participating member during the policy year(s) for which the premium surcharge was assessed, shall pay such premium surcharges as it would have otherwise been assessed in accordance with the provisions of (i), (ii), and (iii) above.
- (c) Program Implementation and Effective Date. Upon establishment of an insurance program by the Board of Directors, PRISM shall determine the manner of program implementation and shall give written notice to all members of such program, which shall include, but not be limited to: program participation levels, coverages and terms of coverage of the program, estimates of first year premium charges, effective date of the program (or estimated effective date) and such other program provisions as deemed appropriate.
- (d) Late Entry Into Program. A member which does not elect to enter an insurance program upon its implementation, pursuant to (c) above, or a county or public entity which becomes a party to this Agreement following implementation of the program, may petition the Board of Directors for late entry into the program. Such request may be granted upon a majority vote of the Board of Directors members, plus a majority vote of those board members who represent participants in the program. Alternatively, a county or public entity may petition the Executive Committee for late entry into the program, or a program committee, when authorized by an MOU governing that specific program, may approve late entry into that program. Such request may be granted upon a majority vote of the Executive Committee.
- (e) Reentry Into A Program. Except as otherwise provided in a Program Memorandum of Understanding, any county or public entity that is a member of an insurance program of PRISM who withdraws or is cancelled from an insurance program under Articles 21 and 22, may not reenter such insurance program for a period of three years from the effective date of withdrawal or cancellation.

#### ARTICLE 15 ACCOUNTS AND RECORDS

- (a) **Annual Budget.** PRISM shall annually adopt an operating budget pursuant to Article 8 of this Agreement, which shall include a separate budget for each insurance program under development or adopted and implemented by PRISM.
- (b) Funds and Accounts. The Auditor of PRISM shall establish and maintain such funds and accounts as may be required by good accounting practices and by the Board of Directors. Separate accounts shall be established and maintained for each insurance program under development or adopted and implemented by PRISM. Books and records of PRISM in the hands of the Auditor shall be open to inspection at all reasonable times by authorized representatives of members.

PRISM shall adhere to the standard of strict accountability for funds set forth in Government Code Section 6505.

- (c) **Auditor's Report.** The Auditor, within one hundred and eighty (180) days after the close of each fiscal year, shall give a complete written report of all financial activities for such fiscal year to the Board and to each member.
- (d) Annual Audit. Pursuant to Government Code Section 6505, PRISM shall either make or contract with a certified public accountant to make an annual fiscal year audit of all accounts and records of PRISM, conforming in all respects with the requirements of that section. A report of the audit shall be filed as a public record with each of the members and also with the county auditor of the county where the home office of PRISM is located and shall be sent to any public agency or person in California that submits a written request to PRISM. The report shall be filed within six months of the end of the fiscal year or years under examination. Costs of the audit shall be considered a general expense of PRISM.

#### ARTICLE 16 RESPONSIBILITIES FOR FUNDS AND PROPERTY

- (a) The Treasurer shall have the custody of and disburse PRISM's funds. He or she may delegate disbursing authority to such persons as may be authorized by the Board of Directors to perform that function, subject to the requirements of (b) below.
- (b) Pursuant to Government Code Section 6505.6, the Treasurer shall:
  - (1) Receive and acknowledge receipt for all funds of PRISM and place them in the treasury of the Treasurer to the credit of PRISM.
  - (2) Be responsible upon his or her official bond for the safekeeping and disbursements of all PRISM funds so held by him or her.
  - (3) Pay any sums due from PRISM, as approved for payment by the Board of Directors or by any body or person to whom the Board of Directors has delegated approval authority, making such payments from PRISM funds upon warrants drawn by the Auditor.
- (c) Pursuant to Government Code Section 6505.1, the Chief Executive Officer, the Treasurer, and such other persons as the Board of Directors may designate shall have charge of, handle, and have access to the property of PRISM.
- (d) PRISM shall secure and pay for a fidelity bond or bonds, in an amount or amounts and in the form specified by the Board of Directors, covering all officers and staff of PRISM, and all officers and staff who are authorized to have charge of, handle, and have access to property of PRISM.

#### ARTICLE 17 RESPONSIBILITIES OF MEMBERS

Members shall have the following responsibilities under this Agreement.

- (a) The board of supervisors of each member county shall appoint a representative and one alternate representative to the Board of Directors, pursuant to Article 7.
- (b) Each member shall appoint an officer or employee of the member to be responsible for the risk management function for that member and to serve as a liaison between the member and PRISM for all matters relating to risk management.
- (c) Each member shall maintain an active risk control program, and shall consider and act upon all recommendations of PRISM concerning the reduction of unsafe practices.
- (d) Each member shall maintain its own claims and loss records in each category of liability covered by an insurance program of PRISM in which the member is a participant, and shall provide copies of such records to PRISM as directed by the Board of Directors or Executive Committee, or to such other committee as directed by the Board of Directors or Executive Committee.
- (e) Each member shall pay premiums and premium surcharges due to PRISM as required under Article 14. Penalties for late payment of such premiums and/or premium surcharges shall be as determined and assessed by the Board of Directors. After withdrawal, cancellation, or termination action under Articles 20, 21, or 23, each member shall pay promptly to PRISM any additional premiums due, as determined and assessed by the Board of Directors under Articles 22 or 23. Any costs incurred by PRISM associated with the collection of such premiums or other charges, shall be recoverable by PRISM.
- (f) Each member shall provide PRISM such other information or assistance as may be necessary for PRISM to develop and implement insurance programs under this Agreement.
- (g) Each member shall cooperate with and assist PRISM, and any insurer of PRISM, in all matters relating to this Agreement, and shall comply with all Bylaws, and other rules by the Board of Directors.
- (h) Each member shall have such other responsibilities as are provided elsewhere in this Agreement, and as are established by the Board of Directors in order to carry out the purposes of this Agreement.

#### ARTICLE 18 ADMINISTRATION OF CLAIMS

- (a) Subject to subparagraph (e), each member shall be responsible for the investigation, settlement or defense, and appeal of any claim made, suit brought, or proceeding instituted against the member arising out of a loss.
- (b) PRISM may develop standards for the administration of claims for each insurance program of PRISM so as to permit oversight of the administration of claims by the members.
- (c) Each participating member shall give PRISM timely written notice of claims in accordance with the provisions of the Bylaws and the applicable program Memorandum of Coverage.

- (d) A member shall not enter into any settlement involving liability of PRISM without the advance written consent of PRISM.
- (e) PRISM, at its own election and expense, shall have the right to participate with a member in the settlement, defense, or appeal of any claim, suit or proceeding, which, in the judgment of PRISM, may involve liability of PRISM.

#### ARTICLE 19 NEW MEMBERS

Any California public entity may become a party to this Agreement and participate in any insurance program in which it is not presently participating upon approval of the Board of Directors, by a majority vote of the members, or by majority vote of the Executive Committee.

#### ARTICLE 20 WITHDRAWAL

- (a) A member may withdraw as a party to this Agreement upon thirty (30) days advance written notice to PRISM if it has never become a participant in any insurance program pursuant to Article 14, or if it has previously withdrawn from all insurance programs in which it was a participant.
- (b) After becoming a participant in an insurance program, a member may withdraw from that program only at the end of a policy year for the program, and only if it gives PRISM at least sixty (60) days advance written notice of such action.

#### ARTICLE 21 CANCELLATION

- (a) Notwithstanding the provisions of Article 20, the Board of Directors may:
  - (1) Cancel any member from this Agreement and membership in PRISM, on a majority vote of the Board of Directors members. Such action shall have the effect of canceling the member's participation in all insurance programs of PRISM as of the date that all membership is canceled.
  - (2) Cancel any member's participation in an insurance program of PRISM, without canceling the member's membership in PRISM or participation in other programs, on a vote of two-thirds of the Board of Directors members present and voting who represent participants in the program.

The Board of Directors shall give sixty (60) days advance written notice of the effective date of any cancellation under the foregoing provisions. Upon such effective date, the member shall be treated the same as if it had voluntarily withdrawn from this Agreement, or from the insurance program, as the case may be.

- (b) Except as otherwise provided in a program Memorandum of Understanding, a member that does not enter one or more of the insurance programs developed and implemented by PRISM within the member's first year as a member of PRISM shall be considered to have withdrawn as a party to this Agreement at the end of such period, and its membership in PRISM shall be automatically canceled as of that time, without action of the Board of Directors.
- (c) A member which withdraws from all insurance programs of PRISM in which it was a participant and does not enter any program for a period of six (6) months thereafter shall be considered to have withdrawn as a party to the Agreement at the end of such period, and its membership in PRISM shall be automatically canceled as of that time, without action of the Board of Directors.
#### ARTICLE 22 EFFECT OF WITHDRAWAL OR CANCELLATION

- (a) If a member's participation in an insurance program of PRISM is canceled under Article 21, with or without cancellation of membership in PRISM, and such cancellation is effective before the end of the policy year for that program, PRISM shall promptly determine and return to that member the amount of any unearned premium payment from the member for the policy year, such amount to be computed on a pro-rata basis from the effective date of cancellation.
- (b) Except as provided in (a) above or as otherwise provided in a program Memorandum of Understanding, a member which withdraws or is canceled from this Agreement and membership in PRISM, or from any program of PRISM, shall not be entitled to the return of any premium or other payment to PRISM, or of any property contributed to PRISM. However, in the event of termination of this Agreement, such member may share in the distribution of assets of PRISM to the extent provided in Article 23 provided; however, that any withdrawn or canceled member, which has been assessed a premium surcharge pursuant to Article 14 (b) (3) (ii) shall be entitled to return of said member's unused surcharge, plus interest accrued thereon, at such time as the Board of Directors declares that a surplus exists in any insurance fund for which a premium surcharge was assessed.
- (c) Except as provided in (d) below, a member shall pay any premium charges, which the Board of Directors determines are due from the member for losses and costs incurred during the entire coverage year in which the member was a participant in such program regardless of the date of entry into such program. Such charges may include any deficiency in a premium previously paid by the member, as determined by audit under Article 14 (b) (2); any premium surcharge assessed to the member under Article 14 (b) (3); and any additional amount of premium, which the Board of Directors determines to be due from the member upon final disposition of all claims arising from losses under the program during the entire coverage year in which the member was a participant regardless of date of entry into such program. Any such premium charges shall be payable by the member in accordance with PRISM's invoice and payment policy.
- (d) Those members that have withdrawn or been canceled pursuant to Articles 20 and 21 from any program of PRISM during a coverage year shall pay any premium charges which the Board of Directors determines are due from the members for losses and costs which were incurred during the member's participation in any program.

#### ARTICLE 23 TERMINATION AND DISTRIBUTION OF ASSETS

- (a) A three-fourths vote of the total voting membership of PRISM, consisting of member counties, acting through their boards of supervisors, and the voting Board of Directors members from the member public entities, is required to terminate this Agreement; provided; however, that this Agreement and PRISM shall continue to exist after such election for the purpose of disposing of all claims, distributing all assets, and performing all other functions necessary to conclude the affairs of PRISM.
- (b) Upon termination of this Agreement, all assets of PRISM in each insurance program shall be distributed among those members which participated in that program in proportion to their cash contributions, including premiums paid and property contributed (at market value when contributed). The Board of Directors shall determine such distribution within six (6) months after disposal of the last pending claim or other liability covered by the program.
- (c) Following termination of this Agreement, any member which was a participant in an insurance program of PRISM shall pay any additional amount of premium, determined by the Board of Directors in accordance with a loss allocation formula, which may be

necessary to enable final disposition of all claims arising from losses under that program during the entire coverage year in which the member was a participant regardless of the date of entry into such program.

#### ARTICLE 24 LIABILITY OF BOARD OF DIRECTORS, OFFICERS, COMMITTEE MEMBERS AND LEGAL ADVISORS

The members of the Board of Directors, Officers, committee members and legal advisors to any Board of Directors or committees of PRISM shall use ordinary care and reasonable diligence in the exercise of their powers and in the performance of their duties pursuant to this Agreement. They shall not be liable for any mistake of judgment or any other action made, taken or omitted by them in good faith, nor for any action taken or omitted by any agent, employee or independent contractor selected with reasonable care, nor for loss incurred through investment of PRISM funds, or failure to invest.

No Director, Officer, committee member, or legal advisor to any Board of Directors or committee shall be responsible for any action taken or omitted by any other Director, Officer, committee member, or legal advisor to any committee. No Director, Officer, committee member or legal advisor to any committee shall be required to give a bond or other security to guarantee the faithful performance of their duties pursuant to this Agreement.

The funds of PRISM shall be used to defend, indemnify and hold harmless PRISM and any Director, Officer, committee member or legal advisor to any committee for their actions taken within the scope of the authority of PRISM. Nothing herein shall limit the right of PRISM to purchase insurance to provide such coverage, as is hereinabove set forth.

#### ARTICLE 25 BYLAWS

The Board of Directors may adopt Bylaws consistent with this Agreement, which shall provide for the administration and management of PRISM.

#### ARTICLE 26 NOTICES

PRISM shall address notices, billings and other communications to a member as directed by the member. Each member shall provide PRISM with the address to which communications are to be sent. Members shall address notices and other communications to PRISM to the Chief Executive Officer of PRISM, at the office address of PRISM as set forth in the Bylaws.

#### ARTICLE 27 AMENDMENT

A two-thirds vote of the total voting membership of PRISM, consisting of member counties, acting through their boards of supervisors, and the voting Board of Directors members from member public entities, is required to amend this Agreement. However, the Executive Committee is authorized to make non-substantive, clerical amendments to the Agreement and does not need to obtain approval from the Board of Directors to make such amendments.

#### ARTICLE 28 EFFECTIVE DATE OF AMENDMENTS

Any amendment of this Agreement shall become effective upon the date specified by the Board of Directors and upon approval of any Amended Agreement as required in Article 27. Approval of any amendment by the voting boards of supervisors and public entity board members must take place no later than 30 days from the effective date specified by the Board of Directors.

#### ARTICLE 29 PROHIBITION AGAINST ASSIGNMENT

No member may assign any right, claim or interest it may have under this Agreement, and no creditor, assignee or third party beneficiary of any member shall have any right, claim or title to any part, share, interest, fund, premium or asset of PRISM.

#### ARTICLE 30 AGREEMENT COMPLETE

This Agreement constitutes the full and complete Agreement of the parties.

#### ARTICLE 31 DISPUTE RESOLUTION

When a dispute arises between PRISM and a member, the following procedures are to be followed:

- (a) Request for Reconsideration. The member will make a written request to PRISM for the appropriate Committee to reconsider their position, citing the arguments in favor of the member and any applicable case law that applies. The member can also, request a personal presentation to that Committee, if it so desires.
- (b) Committee Appeal. The committee responsible for the program or having jurisdiction over the decision in question will review the matter and reconsider PRISM's position. This committee appeal process is an opportunity for both sides to discuss and substantiate their positions based upon legal arguments and the most complete information available. If the member requesting reconsideration is represented on the committee having jurisdiction, that committee member shall be deemed to have a conflict and shall be excluded from any vote.
- (c) Executive Committee Appeal. If the member is not satisfied with the outcome of the committee appeal, the matter will be brought to the Executive Committee for reconsideration upon request of the member. If the member requesting reconsideration is represented on the Executive Committee, that Executive Committee member shall be deemed to have a conflict and shall be excluded from any vote.
- (d) Arbitration. If the member is not satisfied with the outcome of the Executive Committee appeal, the next step in the appeal process is arbitration. The arbitration, whether binding or non-binding, is to be mutually agreed upon by the parties. The matter will be submitted to a mutually agreed arbitrator or panel of arbitrators for a determination. If Binding Arbitration is selected, then the decision of the arbitrator is final. Both sides agree to abide by the decision of the arbitrator. The cost of arbitration will be shared equally by the involved member and PRISM.
- (e) Litigation. If, after following the dispute resolution procedure paragraphs a-d, either party is not satisfied with the outcome of the non-binding arbitration process, either party may consider litigation as a possible remedy to the dispute.

#### ARTICLE 32 FILING WITH SECRETARY OF STATE

The Chief Executive Officer of PRISM shall file a notice of this Agreement with the office of California Secretary of State within 30 days of its effective date, as required by Government Code Section 6503.5 and within 70 days of its effective date as required by Government Code Section 53051.

**IN WITNESS WHEREOF,** the undersigned party hereto has executed this Agreement on the date indicated below.

DATE:	MEMBER:
	(Drint Nama of Mombor)

(Print Name of Member)

BY: \_\_\_\_\_\_ (Authorized signature of Member)

Seal:



# Authorization to Obtain Loss Data

Entity/JPA Name:

## Programs:

(Please check the appropriate coverage for which your organization extends its authority)

Workers' Compensation	General Liability	Medical Malpractice	Property
			порену

## Authorization:

In recognition of the need to obtain loss data, I authorize Public Risk Innovation, Solutions, and Management (PRISM) to obtain loss data on behalf of my organization from past, present and future Third Party Administrators. I further authorize past, present, and future Third Party Administrators to provide loss data directly to PRISM on my behalf, for the purposes designated below.

- Annual Renewal, Quarterly and Monthly Claims Reports to be used for actuarial work, underwriting analysis, premium allocations, submission to reinsurers, and to update PRISM's Claims System
- Agencies related to PRISM requesting the data for market placement, actuarial studies and statistical analysis/benchmarking:
  - Alliant Insurance Services (market placement)
  - Bickmore Actuarial (Member actuarial studies)
  - PRISM Member agencies (statistical analysis/benchmarking all personal identifying information will be removed)

By signing and returning this completed authorization form, I hereby give permission for my TPA(s) to provide loss data directly to PRISM as indicated above.

Signature

Date

# RESOLUTION NO.: \_\_\_\_\_

## RESOLUTION OF THE [INSERT NAME OF GOVERNING BODY] OF THE [INSERT NAME OF ENTITY] TO JOIN PUBLIC RISK INNOVATION, SOLUTIONS, AND MANAGEMENT

**WHEREAS**, Article 1, Chapter 5, Division 7, Title 1 of the California Government Code (Section 6500 et seq.) permits two or more public agencies by agreement to exercise jointly powers common to the contracting parties; and

WHEREAS, the [insert name of the entity] desires to join together with the members of the Public Risk Innovation, Solutions, and Management (PRISM) for the purpose of jointly funding and/or establishing excess and other insurance programs as determined; and

WHEREAS, PRISM has determined that it is necessary for each member of PRISM to delegate to a person[s] or position[s] authority to act on the member's behalf in matters relating to the member and PRISM;

**NOW THEREFORE, BE IT RESOLVED** by the [insert name of governing body] of the [insert name of the entity] that said [insert name of governing body] does hereby approve becoming a member of the Public Risk Innovation, Solutions, and Management, authorizes execution of the Public Risk Innovation, Solutions. And Management Joint Powers Agreement, and except as to actions that must be approved by the [insert name of governing body], [insert name of person[s] or position[s]] is hereby appointed to act in all matters relating to the member and PRISM.

**PASSED AND ADOPTED** by the [insert name of governing body] this \_\_\_\_\_ day of \_\_\_\_\_, [insert year] by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

[INSERT TITLE OF HIGHEST POSITION]

Date

ATTEST:

# March 26, 2021

#### Agenda Item 5.B.

## **LIABILITY PROGRAM**

#### SUBJECT: Actuarial Update for the General Liability Program

#### **BACKGROUND AND HISTORY:**

The preliminary actuarial report provides the funding information for the 2021/22 year. The actuary was able to compile the report using December 31, 2020, loss run and estimated payroll data.

## **General Liability Program:**

Below is our current program structure.



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

<u>Liability</u>	Discount				
<u>Program</u>	<b>Factor</b>	]	Expected	 60%	 70%
2021/2022	2.0%	\$	6,046,000	\$ 6,203,000	\$ 7,092,000
2020/2021	2.0%		6,214,000	 6,377,000	 7,289,000
Change		\$	(168,000)	\$ (174,000)	\$ (197,000)
% Change			-2.7%	-2.7%	-2.7%

## Agenda Item 5.B. Page 2

In the past year, PLAN JPA has funded slightly above 60% confidence level. The decrease (4.2%) in primary funding layer is due to favorable development of claims in past year. In addition, estimated payroll decreased by .09% from the prior year due to the change in payroll reporting method. The 2021/22 estimated payroll is based upon the actual payroll collected on a quarterly basis, annualized with a conservative 3% trend increase. In prior years, the estimated payroll was collected annually.

This report also includes changes to the contribution calculations method for the 2021/22 year. In previous years, the contributions from one year to next year were capped at 30%. For the 2021/22 year, the 30% cap to the contributions has been moved to ex-mod where the change of ex-mod is capped at 30% from year to year. This will be discussed later in the agenda.

## **<u>RECOMMENDATION</u>**:

None. Information only.

## **<u>REFERENCE MATERIALS ATTACHED</u>**:

• General Liability Actuarial Report



# Actuarial Review of the Self-Insured Liability Program

Forecast for Program Year 2021-22

Presented to **PLAN JPA** 

March 18, 2021 - DRAFT



Thursday, March 18, 2021

Mr. Jon Paulsen Pool Administrator Pooled Liability Assurance Network Joint Powers Authority 1750 Creekside Oaks Drive, Suite 200 Sacramento, CA 95833

Re: Actuarial Review of the Self-Insured Liability Program

Dear Mr. Paulsen:

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 2021-22 program year to be \$6,046,000 including allocated loss adjustment expenses (ALAE) and a discount for anticipated investment income (assuming a \$2.5 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 2021-22 claims translates to a rate of \$1.332 per \$100 payroll.

The following tables show our funding recommendations for PLAN for the 2020-21 fiscal year assuming \$2.5 million limit at 4.0%, 3.0% and 2.0% discount rate assumptions.

_	2.0%	3.0%	4.0%
Expected Loss and ALAE	\$6,466,000	\$6,466,000	\$6,466,000
Discounted Loss and ALAE	6,046,000	5,852,000	5,668,000
60% Confidence Level	6,203,000	6,004,000	5,815,000
70% Confidence Level	7,092,000	6,864,000	6,649,000
80% Confidence Level	8,270,000	8,005,000	7,754,000
90% Confidence Level	10,151,000	9,825,000	9,517,000

# Loss and ALAE Funding Guidelines

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.

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, MA Senior Actuarial Analyst, Bickmore Actuarial

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# I. BACKGROUND

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

<u>Loss Layer</u>	<u>Reinsurer</u>
\$2.5M - \$5M per occurrence	Evanston
\$5M - \$15M per occurrence	Insurance Company of the Sate of PA
\$15M - \$30M per occurrence	National Casualty Company

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.

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 project the Authority's ultimate loss cost for 2021-22 and provide funding guidelines to meet these future costs.

## **II. CONCLUSIONS AND RECOMMENDATIONS**

## A. COSTS OF 2021-22 CLAIMS

The following chart shows our funding recommendations for PLAN for the 2021-22 fiscal year assuming \$2.5 million limit at 4.0%, 3.0% and 2.0% discount rate assumptions.

_	2.0%	3.0%	4.0%
Expected Loss and ALAE	\$6,466,000	\$6,466,000	\$6,466,000
Discounted Loss and ALAE	6,046,000	5,852,000	5,668,000
60% Confidence Level	6,203,000	6,004,000	5,815,000
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80% Confidence Level	8,270,000	8,005,000	7,754,000
90% Confidence Level	10,151,000	9,825,000	9,517,000

## Loss and ALAE Funding Guidelines

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 Statements #10 and #30.

The PLAN has separated, to some extent, the funding goals for its self-insurance program from these accounting guidelines. GASB #10 and #30 do not address funding requirements. They do, however, allow a range of funded amounts to be recognized for accounting purposes, specifically GASB #10 and #30 allow recognition of a funding margin for unexpectedly adverse loss experience.

As you know, 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 maintaining program funding at the 80% confidence level, after recognition of investment income, with a recommended range of the 75% to 85% confidence levels. We tend to think of the 70% confidence level as marginally acceptable and of the 90% confidence level as conservative. We recommend the 75% to 85% confidence level range because the probabilities are reasonably high that resulting funding will be sufficient to meet claim liabilities, yet the required margins are not so large that they will cause most self-insured entities to experience undue financial hardship. In addition, within this range, anticipated investment income generally pretty much offsets the required margin, which means that it is also reasonable to think of the liabilities as being stated on an undiscounted basis.

We also strongly believe, however, that 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'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.

We provide the following allocation of deposit premiums, which include ultimate loss and ALAE assuming a \$2.5M retention per occurrence, claims administration, loss prevention, other administration and excess insurance costs from \$2.5M to \$30M per occurrence at the 60% confidence level on a discounted basis (2.0%). This is shown in further detail on Exhibit 1, page 2a.

	Loss	Excess	Admin	Total
Member	Funding	Insurance	Expenses	Deposit
American Canyon	\$71,791	\$171,310	\$55,946	\$299,047
Atherton	112,062	57,805	43,001	212,868
Benicia	324,704	223,418	94,981	643,102
Burlingame	174,483	247,614	116,822	538,918
Campbell	251,467	347,669	86,869	686,005
Colma	67,507	14,215	37,751	119,472
Cupertino	87,075	489,579	46,712	623,366
Dublin	132,100	527,587	44,211	703,898
East Palo Alto	142,464	253,171	71,340	466,976
Foster City	84,334	271,579	54,086	409,999
Half Moon Bay	51,874	102,201	30,201	184,276
Hillsborough	156,360	93,873	66,574	316,807
Los Altos Hills	95,943	69,167	43,154	208,264
Los Gatos	169,274	258,474	68,957	496,705
Millbrae	225,295	187,712	75,946	488,953
Milpitas	812,866	640,952	143,279	1,597,098
Morgan Hill	486,428	381,919	194,862	1,063,209
Newark	320,912	402,571	144,039	867,522
Pacifica	505,641	315,136	113,034	933,812
Portola Valley	24,422	37,876	23,870	86,169
Ross, Town of	30,318	20,965	25,943	77,226
San Bruno	572,230	373,698	131,522	1,077,450
San Carlos	403,871	247,836	187,227	838,933
Saratoga	188,527	255,112	49,976	493,614
South SF	528,610	558,064	139,950	1,226,623
Suisun City	99,694	239,400	43,660	382,755
Tiburon	45,130	78,433	32,325	155,888
Woodside	38,617	46,665	31,919	117,201
<b>-</b>	<b>\$0.004.000</b>	<b>\$0.044.000</b>	<b>*•</b> • • • • • • = =	
Iotal	\$6,204,000	\$6,914,000	\$2,198,15 <i>1</i>	\$15,316,157

As shown in the previous table, total PLAN contributions are \$15,316,157, 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 2021-22. The member's loss experience is factored into the allocation by using the experience modification factor developed in Exhibit 1, page 7. The experience modification factor calculation compares the prior five year's loss experience (2015-16 through 2019-20) 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 five-year 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 2021-22 are \$2,198,157. Total PLAN administrative expenses of \$2,198,157 are split into \$1,758,526 for general liability and \$439,631 for property coverages then again split into fixed and variable portions. Thirty-three 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 \$725,392 and 28 members for the 2021-22 fiscal year, this results in an initial charge of \$25,907 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 2015-16 through 2019-20. Liability and Property are treated separately for the allocation, then added into the premium in total.

The total expenses are then capped at each member's loss funding (excluding excess insurance). The amounts removed by capping expenses at loss funding is then allocated back to other members whose expenses were not capped. The allocation of expenses is shown on Exhibit 1, Pages 4, 5 and 6.

In order to prevent extreme year-to-year fluctuations in each member's deposit, there is a limit in the annual change in experience modification factor between the upcoming year and the current year. As directed by PLAN, the annual change in experience modification factor is limited to 30. The net impact of limiting the change in experience modification factor is spread back to all members so that total deposit collected for the 2021-22 after limiting will be equal to prior deposit.

# C. OTHER RESULTS

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



PLAN's loss rate per \$100 of payroll has varied significantly over the past ten years. The projected loss rate of 1.55 per \$100 of payroll for the 2020-21 year is based on this increasing trend.





□Loss Rate

The program's cost per claim averaged \$181,000 per claim prior to 2013-14. Since then the severity averaged \$432,000 in the latest seven years. The projected severity for the 2020-21 program year of \$443,000 is based on the long-term average. The claim severities in the following chart are limited to pool limits.



Indicated Severity Pool Layer (\$000)

■Claim Severity

PLAN's claims frequency per \$1 million of payroll averaged 0.04547 claims per \$1 million of payroll during the 2010-11 through 2015-16 years. However, the average frequency for since 2015-16 has been 0.031 claims per \$1 million of payroll. The projected frequency for the 2020-21 program year of 0.035 is based on this average.



Indicated Frequency Pool Layer

Claim Frequency

# D. COMPARISON WITH OUR PREVIOUS RESULTS

The prior report for PLAN was dated June 8, 2020. In the table below we display actual versus expected development of incurred losses and ALAE by accident year between the December 31, 2019 evaluation date of the prior report and the December 31, 2020 evaluation date of the current report.

## Actual Versus Expected Incurred Loss and ALAE Development Pool Layer

Accident Year	Expected Incurred Development	Actual Incurred Development	Actual Minus Expected
Prior	\$0	\$0	\$0
2000-01	0	0	0
2001-02	0	0	0
2002-03	0	0	0
2003-04	0	0	0
2004-05	0	0	0
2005-06	0	0	0
2006-07	2,000	(17,000)	(19,000)
2007-08	0	0	0
2008-09	0	0	0
2009-10	0	0	0
2010-11	0	0	0
2011-12	38,000	0	(38,000)
2012-13	36,000	1,339,000	1,303,000
2013-14	45,000	(88,000)	(133,000)
2014-15	123,000	1,000	(122,000)
2015-16	180,000	(1,000)	(181,000)
2016-17	613,000	983,000	370,000
2017-18	1,426,000	241,000	(1,185,000)
2018-19	2,419,000	563,000	(1,856,000)
2019-20	1,581,000	64,000	(1,517,000)
Total	\$6,463,000	\$3,085,000	(\$3,378,000)

As shown, actual 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 2019-20 would increase by \$6,463,000 between the two evaluation dates. However, actual development was approximately \$3,085,000; or about \$3,378,000 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, 2019 evaluation date of the prior report and the December 31, 2020 evaluation date of the current report.

Accident Year	Expected Paid Development	Actual Paid Development	Actual Minus Expected
Prior	\$1,000	\$0	(\$1,000)
2000-01	0	0	0
2001-02	0	0	0
2002-03	0	0	0
2003-04	0	0	0
2004-05	0	0	0
2005-06	0	0	0
2006-07	24,000	6,000	(18,000)
2007-08	0	0	0
2008-09	0	0	0
2009-10	0	0	0
2010-11	0	0	0
2011-12	70,000	14,000	(56,000)
2012-13	97,000	1,001,000	904,000
2013-14	120,000	26,000	(94,000)
2014-15	236,000	1,000	(235,000)
2015-16	408,000	275,000	(133,000)
2016-17	1,164,000	434,000	(730,000)
2017-18	1,468,000	420,000	(1,048,000)
2018-19	944,000	168,000	(776,000)
2019-20	305,000	0	(305,000)
Total	\$4,837,000	\$2,345,000	(\$2,492,000)

# Actual Versus Expected Paid Loss and ALAE Development Pool Layer

As shown, actual paid development was also less than anticipated since the prior report. Based on the assumptions from the prior report, it was expected that paid losses through accident year 2019-20 would increase by \$4,837,000 between the two evaluation dates. However, actual development was approximately \$2,345,000; or about \$2,429,000 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.

Accident Year	Prior Report	Current Report	Change
Prior	¢28 143 000	¢28 144 000	\$1,000
	φ20, 143,000	φ20, 144,000	φ1,000
2000-01	1,860,000	1,860,000	0
2001-02	4,627,000	4,627,000	0
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	1,681,000	1,662,000	(19,000)
2007-08	6,756,000	6,756,000	0
2008-09	3,473,000	3,473,000	0
2009-10	2,353,000	2,353,000	0
2010-11	2,077,000	2,077,000	0
2011-12	3,975,000	3,936,000	(39,000)
2012-13	2,547,000	3,883,000	1,336,000
2013-14	7,180,000	7,087,000	(93,000)
2014-15	5,895,000	5,760,000	(135,000)
2015-16	5,505,000	5,413,000	(92,000)
2016-17	7,390,000	7,698,000	308,000
2017-18	4,229,000	3,013,000	(1,216,000)
2018-19	5.724.000	4,147,000	(1.577.000)
2019-20	7.637.000	5.859.000	(1.778.000)
	.,,	0,000,000	(.,,,,
Total	\$119,068,000	\$115,764,000	(\$3,304,000)

# Change in Loss and ALAE Ultimate Losses Pool Layer

As shown, overall we have decreased our estimated ultimate losses by \$3,304,000 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.

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The following table displays a comparison of the PLAN JPA's proposed 2021-22 funding and actual 2020-21 funding by member.

	2020-21	2021-22		
	Actual	Proposed	Dollar	Percent
Member	Funding	Funding	Change	Change
American Canyon	\$261,606	\$299,047	\$37,441	14.3%
Atherton	187,549	212,868	25,319	13.5%
Benicia	703,026	643,102	(59,924)	-8.5%
Burlingame	495,513	538,918	43,405	8.8%
Campbell	581,736	686,005	104,269	17.9%
Colma	117,475	119,472	1,998	1.7%
Cupertino	506,138	623,366	117,229	23.2%
Dublin	506,013	703,898	197,885	39.1%
East Palo Alto	355,578	466,976	111,398	31.3%
Foster City	330,237	409,999	79,762	24.2%
Half Moon Bay	175,077	184,276	9,200	5.3%
Hillsborough	268,215	316,807	48,592	18.1%
Los Altos Hills	166,317	208,264	41,946	25.2%
Los Gatos	419,305	496,705	77,400	18.5%
Millbrae	350,013	488,953	138,940	39.7%
Milpitas	916,628	1,597,098	680,470	74.2%
Morgan Hill	820,410	1,063,209	242,799	29.6%
Newark	687,967	867,522	179,555	26.1%
Pacifica	818,312	933,812	115,499	14.1%
Portola Valley	82,993	86,169	3,176	3.8%
Ross, Town of	83,500	77,226	(6,274)	-7.5%
San Bruno	923,783	1,077,450	153,667	16.6%
San Carlos	805,018	838,933	33,915	4.2%
Saratoga	307,365	493,614	186,249	60.6%
South SF	1,387,096	1,226,623	(160,473)	-11.6%
Suisun City	278,494	382,755	104,260	37.4%
Tiburon	134,505	155,888	21,383	15.9%
Woodside	105,231	117,201	11,970	11.4%
Total	\$12,775,100	\$15.316.157	\$2.541.057	19.9%
	. , .,	,,	. ,- ,	

The following table displays PLAN JPA members' 2021-22 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.



# E. 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, 2020. This data appeared to be consistent with the data provided for prior reviews.

We were provided with actual fiscal year payrolls for the 2019-20 and the first 2 quarters of 2020-21 program years. The 2020-21 annualized payroll was based on the actual first 2 quarters payroll. The 2021-22 payroll assumes a 3% increase over 2020-21 annualized payroll.

Excess insurance premium is estimated to be \$6,914,000 for the \$2.5 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 will leave 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 self-insured 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 6.5% per year. We have assumed that the average claim size is stable and that the average number of claims per \$1 million increases at 6.5% 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.

# 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.)

#### Summary of 2021-22 Deposit by Retention Limit

		Total		
		Deposit		
		\$2.5 Million		
	2020-21	Retention		
	Premium	\$30 Million		Percent
Member	Deposit	Limit		Change
(A)	(B)	(C)		(D)
American Canyon	\$261,606	\$299,047	\$37,441	14.3%
Atherton	187,549	212,868	25,319	13.5%
Benicia	703,026	643,102	(59,924)	-8.5%
Burlingame	495,513	538,918	43,405	8.8%
Campbell	581,736	686,005	104,269	17.9%
Colma	117,475	119,472	1,998	1.7%
Cupertino	506,138	623,366	117,229	23.2%
Dublin	506,013	703,898	197,885	39.1%
East Palo Alto	355,578	466,976	111,398	31.3%
Foster City	330,237	409,999	79,762	24.2%
Half Moon Bay	175,077	184,276	9,200	5.3%
Hillsborough	268,215	316,807	48,592	18.1%
Los Altos Hills	166,317	208,264	41,946	25.2%
Los Gatos	419,305	496,705	77,400	18.5%
Millbrae	350,013	488,953	138,940	39.7%
Milpitas	916,628	1,597,098	680,470	74.2%
Morgan Hill	820,410	1,063,209	242,799	29.6%
Newark	687,967	867,522	179,555	26.1%
Pacifica	818,312	933,812	115,499	14.1%
Portola Valley	82,993	86,169	3,176	3.8%
Ross, Town of	83,500	77,226	(6,274)	-7.5%
San Bruno	923,783	1,077,450	153,667	16.6%
San Carlos	805,018	838,933	33,915	4.2%
Saratoga	307,365	493,614	186,249	60.6%
South SF	1,387,096	1,226,623	(160,473)	-11.6%
Suisun City	278,494	382,755	104,260	37.4%
Tiburon	134,505	155,888	21,383	15.9%
Woodside	105,231	117,201	11,970	11.4%
Total	\$12,775,100	\$15,316,157	\$2,541,057	19.9%

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

Split of 2021-22 Deposit Between Loss Funding and Administrative Expenses \$2.5M Retention / \$30M Limit

Member	Loss Funding	Excess Insurance	Admin Expenses	Total Deposit
(A)	(B)	(C)	(D)	(E)
American Canyon	\$71,791	\$171,310	\$55,946	\$299,047
Atherton	112,062	57,805	43,001	212,868
Benicia	324,704	223,418	94,981	643,102
Burlingame	174,483	247,614	116,822	538,918
Campbell	251,467	347,669	86,869	686,005
Colma	67,507	14,215	37,751	119,472
Cupertino	87,075	489,579	46,712	623,366
Dublin	132,100	527,587	44,211	703,898
East Palo Alto	142,464	253,171	71,340	466,976
Foster City	84,334	271,579	54,086	409,999
Half Moon Bay	51,874	102,201	30,201	184,276
Hillsborough	156,360	93,873	66,574	316,807
Los Altos Hills	95,943	69,167	43,154	208,264
Los Gatos	169,274	258,474	68,957	496,705
Millbrae	225,295	187,712	75,946	488,953
Milpitas	812,866	640,952	143,279	1,597,098
Morgan Hill	486,428	381,919	194,862	1,063,209
Newark	320,912	402,571	144,039	867,522
Pacifica	505,641	315,136	113,034	933,812
Portola Valley	24,422	37,876	23,870	86,169
Ross, Town of	30,318	20,965	25,943	77,226
San Bruno	572,230	373,698	131,522	1,077,450
San Carlos	403,871	247,836	187,227	838,933
Saratoga	188,527	255,112	49,976	493,614
South SF	528,610	558,064	139,950	1,226,623
Suisun City	99,694	239,400	43,660	382,755
Tiburon	45,130	78,433	32,325	155,888
Woodside	38,617	46,665	31,919	117,201
Total	\$6,204,000	\$6,914,000	\$2,198,157	\$15,316,157

(E) - (D) - (C) From Exhibit 1, Page 2b. Sum of (H) and (I) from Exhibit 1, Page 2b. From Exhibit 1, Page 2b.

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#### 2021-22 Deposit by Member \$2.5M Retention / \$30M Limit

			Adjusted			Balanced			
			Experience	2021-22	PLAN JPA	PLAN JPA		Adjusted	Indicated
		Deductible	Modification	Payroll	Loss Fund	Loss Fund	Excess	Admin.	Total
Member	Deductible	Factor	Factor	(00)	Contribution	Contribution	Insurance	Expenses	Deposit
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
American Canyon	25,000	1.312	60%	67,316	70,168	71,791	171,310	55,946	299,047
Atherton	25,000	1.312	128%	49,804	109,529	112,062	57,805	43,001	212,868
Benicia	25,000	1.312	82%	224,709	317,363	324,704	223,418	94,981	643,102
Burlingame	250,000	0.707	79%	232,966	170,538	174,483	247,614	116,822	538,918
Campbell	100,000	1.000	81%	232,008	245,782	251,467	347,669	86,869	686,005
Colma	50,000	1.178	75%	57,140	65,981	67,507	14,215	37,751	119,472
Cupertino	250,000	0.707	39%	237,806	85,106	87,075	489,579	46,712	623,366
Dublin	50,000	1.178	84%	99,634	129,114	132,100	527,587	44,211	703,898
East Palo Alto	100,000	1.000	117%	90,303	139,244	142,464	253,171	71,340	466,976
Foster City	100,000	1.000	32%	193,192	82,427	84,334	271,579	54,086	409,999
Half Moon Bay	50,000	1.178	77%	42,666	50,702	51,874	102,201	30,201	184,276
Hillsborough	50,000	1.178	89%	111,400	152,825	156,360	93,873	66,574	316,807
Los Altos Hills	25,000	1.312	170%	32,012	93,774	95,943	69,167	43,154	208,264
Los Gatos	50,000	1.178	48%	224,423	165,448	169,274	258,474	68,957	496,705
Millbrae	100,000	1.000	210%	79,687	220,202	225,295	187,712	75,946	488,953
Milpitas	100,000	1.000	93%	647,749	794,490	812,866	640,952	143,279	1,597,098
Morgan Hill	100,000	1.000	120%	301,383	475,431	486,428	381,919	194,862	1,063,209
Newark	100,000	1.000	105%	227,298	313,657	320,912	402,571	144,039	867,522
Pacifica	50,000	1.178	153%	208,841	494,210	505,641	315,136	113,034	933,812
Portola Valley	25,000	1.312	81%	17,157	23,870	24,422	37,876	23,870	86,169
Ross, Town of	25,000	1.312	70%	24,569	29,633	30,318	20,965	25,943	77,226
San Bruno	100,000	1.000	139%	307,142	559,294	572,230	373,698	131,522	1,077,450
San Carlos	100,000	1.000	368%	81,629	394,740	403,871	247,836	187,227	838,933
Saratoga	25,000	1.312	140%	76,348	184,265	188,527	255,112	49,976	493,614
South SF	100,000	1.000	74%	533,500	516,660	528,610	558,064	139,950	1,226,623
Suisun City	25,000	1.312	74%	76,746	97,440	99,694	239,400	43,660	382,755
Tiburon	50,000	1.178	73%	38,860	44,110	45,130	78,433	32,325	155,888
Woodside	25,000	1.312	99%	22,122	37,744	38,617	46,665	31,919	117,201
Total		1.041	97%	4,538,409	6,063,748	6,204,000	6,914,000	2,198,157	15,316,157

(B) Provided by PLAN

(C) From Exhibit 3, Page 2.

(D) From Exhibit 1, Page 6.

(E) From Exhibit 3, Page 1.

(F) { [\$6,204,000 / Total (E)] x [(C) / Weighted Average of (C)] x (D) x (E)}.

\$6,204,000 is the discounted expected loss & ALAE at 60% CL from Exhibit 2, Page 1a. (2.0% Discount Rate). (G) From Exhibit 1, page 3.

(H) [Total fixed expenses / Total number of members].

Total fixed expenses are equal to 33% of total expenses. Total expenses of \$2,198,157 projected by PLAN JPA. (I) (F) + (G) + (H)

2021-22 Allocation of Excess Insurance Premium by Member

			2021-22
		Percent	Excess
	2021-22	2021-22	Insurance
Member	Population	Population	\$2.5M XS \$27.5M
(A)	(B)	(C)	(D)
	00.007	0.400/	171.010
American Canyon	20,837	2.48%	171,310
Atherton	7,031	0.84%	57,805
Benicia Durlia a succ	27,175	3.23%	223,418
Burlingame	30,118	3.58%	247,614
Campbell	42,288	5.03%	347,669
Colma	1,729	0.21%	14,215
Cupertino	59,549	7.08%	489,579
Dublin	64,172	7.63%	527,587
East Palo Alto	30,794	3.66%	253,171
Foster City	33,033	3.93%	271,579
Half Moon Bay	12,431	1.48%	102,201
Hillsborough	11,418	1.36%	93,873
Los Altos Hills	8,413	1.00%	69,167
Los Gatos	31,439	3.74%	258,474
Millbrae	22,832	2.71%	187,712
Milpitas	77,961	9.27%	640,952
Morgan Hill	46,454	5.52%	381,919
Newark	48,966	5.82%	402,571
Pacifica	38,331	4.56%	315,136
Portola Valley	4,607	0.55%	37,876
Ross, Town of	2,550	0.30%	20,965
San Bruno	45,454	5.40%	373,698
San Carlos	30,145	3.58%	247,836
Saratoga	31,030	3.69%	255,112
South SF	67,879	8.07%	558,064
Suisun City	29,119	3.46%	239,400
Tiburon	9,540	1.13%	78,433
Woodside	5,676	0.67%	46,665
Total	840,971	100.0%	6,914,000

(B) Provided by PLAN JPA.
(C) (B) / Total (B)
(D) (C) X Total (D)
#### 2021-22 Allocation of Variable Administrative Expenses by Member Liability Claims

	Liability			Percent	Percent	
	Reported	Liability	Percent	Liability	Liability	Liability
	Counts > \$1	Paid Losses	Liability	Paid Losses	Variable	Variable
	2015-16	2015-16	Reported	2015-16	Administrative	Administrative
Member	2019-20	2019-20	Counts > \$1	2019-20	Expenses	Expenses
(A)	(B)	(C)	(D)	(E)	(G)	(H)
American Canyon	12	53,815	1.16%	0.28%	0.58%	6,775
Atherton	6	254,395	0.58%	1.34%	1.09%	12,833
Benicia	60	462,801	5.78%	2.45%	3.56%	41,918
Burlingame	74	1,393,585	7.13%	7.37%	7.29%	85,863
Campbell	52	522,682	5.01%	2.76%	3.51%	41,378
Colma	14	60,783	1.35%	0.32%	0.66%	7,821
Cupertino	33	113,041	3.18%	0.60%	1.46%	17,180
Dublin	24	110,808	2.31%	0.59%	1.16%	13,682
East Palo Alto	32	401,566	3.08%	2.12%	2.44%	28,781
Foster City	31	109,550	2.99%	0.58%	1.38%	16,278
Half Moon Bay	8	17,266	0.77%	0.09%	0.32%	3,744
Hillsborough	60	292,096	5.78%	1.54%	2.96%	34,830
Los Altos Hills	4	309,297	0.39%	1.64%	1.22%	14,356
Los Gatos	50	157,989	4.82%	0.84%	2.16%	25,478
Millbrae	30	889,957	2.89%	4.70%	4.10%	48,304
Milpitas	77	1,467,208	7.42%	7.76%	7.64%	90,055
Morgan Hill	65	3,179,204	6.26%	16.81%	13.29%	156,600
Newark	42	1,417,480	4.05%	7.49%	6.34%	74,748
Pacifica	39	1,196,609	3.76%	6.33%	5.47%	64,442
Portola Valley	1	2,027	0.10%	0.01%	0.04%	463
Ross, Town of	0	0	0.00%	0.00%	0.00%	0
San Bruno	97	1,407,063	9.34%	7.44%	8.07%	95,125
San Carlos	46	3,376,380	4.43%	17.85%	13.38%	157,599
Saratoga	20	339,622	1.93%	1.80%	1.84%	21,669
South SF	117	1,215,532	11.27%	6.43%	8.04%	94,739
Suisun City	29	57,407	2.79%	0.30%	1.13%	13,356
Tiburon	8	56,090	0.77%	0.30%	0.45%	5,356
Woodside	7	52,813	0.67%	0.28%	0.41%	4,841
Total	1,038	18,917,063	100.00%	100.00%	100.00%	1,178,212

Based on reported claims count > \$1 for 2015-16 2019-20 from Appendix E, Page 8. (B)

Based on paid losses limited to SIR for 2015-16 2019-20 from Appendix E, Page 6b.

(D) (D) (B) / Total (B)

(Ε)

(C) / Total (C) (D) x (1/3) + (E) x (2/3)(G)

(H) (G) x Total of (H)

Total variable liability expenses are equal to 53.6% of total expenses. Total expenses of \$2,198,157 projected by PLAN JPA.

#### 2021-22 Allocation of Variable Administrative Expenses by Member **Property Claims**

Member (A)	Property Reported Counts > \$1 2015-16 2019-20 (B)	Property Paid Losses 2015-16 2019-20 (C)	Percent Property Reported Counts > \$1 (D)	Percent Property Paid Losses 2015-16 2019-20 (E)	Percent Property Variable Administrative Expenses (G)	Property Variable Administrative Expenses (H)
American Canyon	10	351,654	5.18%	9.22%	7.87%	23,186
Atherton	6	22,317	3.11%	0.58%	1.43%	4,201
Benicia	13	396,563	6.74%	10.39%	9.17%	27,024
Burlingame	0	95,000	0.00%	2.49%	1.66%	4,889
Campbell	8	299,109	4.15%	7.84%	6.61%	19,464
Colma	6	17,841	3.11%	0.47%	1.35%	3,971
Cupertino	7	0	3.63%	0.00%	1.21%	3,561
Dublin	6	29,321	3.11%	0.77%	1.55%	4,561
East Palo Alto	16	163,466	8.29%	4.28%	5.62%	16,553
Foster City	6	170,474	3.11%	4.47%	4.02%	11,826
Half Moon Bay	1	0	0.52%	0.00%	0.17%	509
Hillsborough	9	22,667	4.66%	0.59%	1.95%	5,745
Los Altos Hills	4	15,467	2.07%	0.41%	0.96%	2,831
Los Gatos	15	191,285	7.77%	5.01%	5.93%	17,476
Millbrae	3	2,017	1.55%	0.05%	0.55%	1,630
Milpitas	21	319,327	10.88%	8.37%	9.21%	27,118
Morgan Hill	4	195,255	2.07%	5.12%	4.10%	12,084
Newark	4	799,511	2.07%	20.96%	14.66%	43,184
Pacifica	7	368,536	3.63%	9.66%	7.65%	22,529
Portola Valley	1	210	0.52%	0.01%	0.18%	520
Ross, Town of	0	0	0.00%	0.00%	0.00%	0
San Bruno	7	131,074	3.63%	3.44%	3.50%	10,307
San Carlos	6	7,951	3.11%	0.21%	1.18%	3,462
Saratoga	1	35,396	0.52%	0.93%	0.79%	2,331
South SF	24	134,062	12.44%	3.51%	6.49%	19,109
Suisun City	5	34,842	2.59%	0.91%	1.47%	4,337
Tiburon	2	0	1.04%	0.00%	0.35%	1,017
Woodside	1	12,000	0.52%	0.31%	0.38%	1,126
Total	193	3,815,345	100.00%	100.00%	100.00%	294,553

Based on reported claims count > \$1 for 2015-16 2019-20 from Appendix E, Page 8. (B)

Reported property claims for 2015-16 2019-20 included.

(C) Based on paid losses limited to SIR for 2015-16 2019-20 from Appendix E, Page 6b. Property paid losses limited to SIR for 2015-16 2019-20 from Append Property paid losses limited to SIR for 2015-16 2019-20 are included. (B) / Total (B) (C) / Total (C) (D) x (1/3) + (E) x (2/3)

(D)

(E)

(G)

(H)

(G) x Total of (H) Total variable liability expenses are equal to 13.4% of total expenses. Total expenses of \$2,198,157 projected by PLAN JPA.

#### Calculation of Experience Modification Factors by Member

	2015-16 2019-20 Limited	2015-16 2019-20	Percent	Descent	Indicated		2021-22 Indicated Experience	2020-21 Indicated Experience	+/- 30% Capped Experience	Change In Experience
Mombor	lincurreu	(00)	lincurreu	Percent	Differential	Cradibility	Factor	Factor	Factor	Footor
(A)	(B)	(00) (C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
American Canyon	53,818	352,016	0.4%	1.8%	0.210	50%	60%	60.1%	60.5%	0.6%
Atherton	281,293	228,452	2.0%	1.2%	1.691	40%	128%	128.3%	127.6%	-0.5%
Benicia	555,522	984,859	3.9%	5.0%	0.775	80%	82%	96.5%	82.0%	-15.0%
Burlingame	596,301	1,113,338	4.2%	5.7%	0.736	80%	79%	82.1%	78.8%	-4.0%
Campbell	631,695	1,143,943	4.4%	5.9%	0.758	80%	81%	79.4%	80.7%	1.6%
Colma	60,785	228,042	0.4%	1.2%	0.366	40%	75%	71.9%	74.6%	3.8%
Cupertino	168,679	999,263	1.2%	5.1%	0.232	80%	39%	49.1%	38.5%	-21.6%
Dublin	396,999	548,497	2.8%	2.8%	0.994	60%	100%	64.4%	83.8%	30.0%
East Palo Alto	517,891	423,116	3.6%	2.2%	1.681	60%	141%	90.3%	117.4%	30.0%
Foster City	119,528	1,051,481	0.8%	5.4%	0.156	80%	32%	29.5%	32.5%	10.0%
Half Moon Bay	53,412	174,480	0.4%	0.9%	0.420	40%	77%	97.1%	76.8%	-20.9%
Hillsborough	292,302	494,780	2.1%	2.5%	0.811	60%	89%	80.0%	88.7%	10.8%
Los Altos Hills	260,613	107,356	1.8%	0.5%	3.334	30%	170%	153.1%	170.0%	11.1%
Los Gatos	158,000	860,345	1.1%	4.4%	0.252	70%	48%	48.1%	47.7%	-1.0%
Millbrae	834,471	403,467	5.9%	2.1%	2.840	60%	210%	192.2%	210.4%	9.5%
Milpitas	1,469,894	2,178,419	10.3%	11.1%	0.927	90%	93%	93.4%	93.4%	0.0%
Morgan Hill	1,075,189	1,179,806	7.6%	6.0%	1.252	80%	120%	118.7%	120.1%	1.2%
Newark	688,594	881,682	4.8%	4.5%	1.073	70%	105%	117.2%	105.1%	-10.3%
Pacifica	1,085,209	848,362	7.6%	4.3%	1.757	70%	153%	151.7%	153.0%	0.8%
Portola Valley	2,027	74,224	0.0%	0.4%	0.037	20%	81%	80.8%	80.7%	-0.1%
Ross, Town of	0	107,118	0.0%	0.5%	0.000	30%	70%	70.1%	70.0%	-0.2%
San Bruno	1,562,118	1,446,309	11.0%	7.4%	1.483	80%	139%	120.4%	138.7%	15.2%
San Carlos	1,528,334	383,671	10.7%	2.0%	5.470	60%	368%	299.8%	368.2%	22.8%
Saratoga	389,075	326,752	2.7%	1.7%	1.635	50%	132%	200.1%	140.1%	-30.0%
South SF	1,226,986	2,379,098	8.6%	12.2%	0.708	90%	74%	104.3%	73.7%	-29.3%
Suisun City	105,809	306,691	0.7%	1.6%	0.474	50%	74%	64.4%	73.7%	14.5%
Tiburon	56,092	230,384	0.4%	1.2%	0.334	40%	73%	68.1%	73.4%	7.7%
Woodside	65,413	94,430	0.5%	0.5%	0.951	20%	99%	93.7%	99.0%	5.6%
Total	14,236,049	19,550,380	100.0%	100.0%	1.000	100%	98%		98%	

(B) Based on losses limited to \$250,000 for 2015-16 to 2019-20 from Exhibit 1, Page 7

(B) Based on losses limited to \$250,000 for 2015-16 to 2019-20 from Exhibit 1, Page 7
(C) Based on payroll for 2015-16 to 2019-20 from ,
(D) (B) / Total (B)
(E) (C) / Total (C)
(F) (D) / (E)
(G) [(C) / ((C) + 30,000,000)]. Limited to minimum of 10% and maximum of 90%, and rounded to the nearest 10%.
(H) ((F) x (G)) + (1.00 - (G))
(I) Prior X-Mod.
(I) Indicated x mod capped at ±/- 30%

(J) Indicated x-mod capped at +/- 30%.
 (K) (J) / (I) - 1

# Limited Incurred Losses

Member	2015-16	2016-17	2017-18	2018-19	2019-20
(A)	(B)	(C)	(D)	(E)	(F)
A	44 400	44 040	20 520	0	004
American Canyon	11,429	11,618	30,538	2	231
Atherton	250,000	25,708	857	2,494	2,234
Benicia	99,770	100,689	240,270	22,851	91,943
Burlingame	61,998	301,970	167,689	21,317	43,327
Campbell	272,237	138,659	104,039	11,551	105,209
Colma	6,406	1,498	42,689	5,416	4,776
Cupertino	33,055	6,142	12,631	92,333	24,518
Dublin	42,418	85,452	1,434	250,530	17,164
East Palo Alto	20,853	227,202	222,634	2,373	44,829
Foster City	10,814	29,686	21,810	26,791	30,427
Half Moon Bay	0	0	28,225	1,200	23,987
Hillsborough	44,208	144,307	15,748	53,737	34,301
Los Altos Hills	250,000	513	0	0	10,100
Los Gatos	65,612	32,021	46,037	5,875	8,455
Millbrae	282,265	411,143	101,026	17,641	22,397
Milpitas	369,897	541,041	313,944	152,103	92,909
Morgan Hill	323,817	383,126	300,304	57,166	10,775
Newark	273,506	265,762	63,884	58,362	27,081
Pacifica	368,907	342,112	81,679	288,577	3,934
Portola Valley	0	0	2,027	0	0
Ross, Town of	0	0	0	0	0
San Bruno	400,954	471,033	499,624	72,240	118,266
San Carlos	1,059,927	3,831	53,560	293,137	117,879
Saratoga	158,662	83,355	6,559	140,497	2
South SF	361,801	693,656	110,001	34,007	27,520
Suisun City	26,280	4,668	10,468	25,378	39,015
Tiburon	12	34,402	0	0	21.678
Woodside	764	43,184	8,000	2,100	11,365
Total	4,795,592	4,382,780	2,485,677	1,637,680	934,320

#### PLAN JPA Pool Layer

#### Funding Options for 2021-2022 Losses 2.0% Discount Rate

			\$2.5M Retention \$30M Limit	\$2M Retention \$30M Limit	\$1M Retention \$30M Limit	\$4M Retention \$30M Limit	\$5M Retention \$30M Limit
(A)	Payroll (\$00's)		4,538,409	4,538,409	4,538,409	4,538,409	4,538,409
(B)	Average SIR Discount factor:		104.1%	104.1%	104.1%	104.1%	104.1%
(C)	Base Loss Rate:		\$1.369	\$1.319	\$1.060	\$1.485	\$1.522
(D)	PLAN JPA Expected Losses:		\$6,466,000	\$6,229,000	\$5,008,000	\$7,014,000	\$7,192,000
(E)	Discount Factor for Future Funding: at 2% interest		93.5%	93.5%	93.5%	93.5%	93.5%
(F)	Estimated Cost of Excess Insurance		\$6,914,000	\$7,242,000	\$8,928,000	\$6,158,000	\$5,912,000
(G)	Estimated Administration Expenses		\$2,198,000	\$2,198,000	\$2,198,000	\$2,198,000	\$2,198,000
(H)	Discounted Losses w/ Excess Insurance		\$15,158,000	\$15,264,000	\$15,808,000	\$14,914,000	\$14,834,000
(I)	60% Confidence Margin 70% Confidence Margin 80% Confidence Margin 90% Confidence Margin	1.026 1.173 1.368 1.679	158,000 1,046,000 2,225,000 4,105,000	151,000 1,008,000 2,143,000 3,955,000	122,000 810,000 1,723,000 3,179,000	171,000 1,135,000 2,413,000 4,453,000	175,000 1,163,000 2,475,000 4,566,000
(J)	Funding at the 60% confidence Level: Funding at the 70% confidence Level: Funding at the 80% confidence Level: Funding at the 90% confidence Level:		15,316,000 16,204,000 17,383,000 19,263,000	15,415,000 16,272,000 17,407,000 19,219,000	15,930,000 16,618,000 17,531,000 18,987,000	15,085,000 16,049,000 17,327,000 19,367,000	15,009,000 15,997,000 17,309,000 19,400,000

(A) From Exhibit 3, Page 1.
(B) Based on Exhibit 3, Page 1.
(C) From Exhibit 2, Page 2.
(D) (A) x (B) x (C)
(E) Based on Reserve Appendix H, Page 1.
(F) Based on \$6,914,000 in Excess Insurance Premium for the \$2.5M to \$30M layer and ILF factors.
(C) Provided by ID (A) UPA

Provided by PLAN JPA.

(G)

(H) (D) x (E) + (F)
 (I) Based on Reserve Appendix I.
 (J) (H) + (I)

Exhibit 2 Page 1b

#### PLAN JPA Pool Layer

#### Funding Options for 2021-2022 Losses 4.0% Discount Rate

		\$2.5M Retention \$30M Limit
(A)	Payroll (\$00's)	4,538,409
(B)	Average SIR Discount factor:	104.1%
(C)	Base Loss Rate:	\$1.369
(D)	PLAN JPA Expected Losses:	\$6,466,000
(E)	Discount Factor for Future Funding: at 4.0% interest	87.7%
(F)	Estimated Cost of Excess Insurance	\$6,914,000
(G)	Estimated Administration Expenses	\$2,198,000
(H)	Discounted Losses w/ Excess Insurance	\$14,781,000
(I)	60% Confidence Margin 70% Confidence Margin 80% Confidence Margin 90% Confidence Margin	147,000 981,000 2,086,000 3,849,000
(J)	Funding at the 60% confidence Level: Funding at the 70% confidence Level: Funding at the 80% confidence Level: Funding at the 90% confidence Level:	14,928,000 15,762,000 16,867,000 18,630,000
(A) (B) (C) (D) (E) (F)	From Exhibit 3, Page 1. Based on Exhibit 3, Page 1. From Exhibit 2, Page 2. (A) x (B) x (C) Based on Reserve Appendix H, Page 1. Based on \$6,914,000 in Excess Insurance Premium for the \$2.5M to \$30M lay	ver and ILF factors.

(G) (D) x (E) + (F)
 (H) Based on Reserve Appendix I.
 (I) (H) + (I)

#### PLAN JPA Pool Layer

#### Selected 2021-2022 Base Loss Rate (\$100K - \$1M Layer)

	Current 2021-2022	Prior 2020-2021
Estimated based on \$1M Ultimate Less \$100K Ultimate	\$1.076	\$1.094
Estimated based on \$100K - \$1M Analysis:	1.061	1.092
Estimated based on \$100K Analysis & Size of Loss Factors:	1.037	1.063
Selected Base Loss Rate (\$100K - \$1M Layer):	1.060	1.090
Factor to \$1.0M Retention	1.000	1.000
Factor to \$2.0M Retention	1.244	1.234
Factor to \$2.5M Retention	1.291	1.279
Factor to \$3M Retention	1.362	1.346
Factor to \$3.5M Retention	1.378	1.374
Factor to \$4M Retention	1.401	1.417
Factor to \$5M Retention	1.436	1.471
Selected Base Loss Rate for \$1.0M Retention :	\$1.060	\$1.090
Selected Base Loss Rate for \$2.0M Retention :	\$1.319	1.345
Selected Base Loss Rate for \$2.5M Retention :	\$1.369	1.394
Selected Base Loss Rate for \$3M Retention :	1.444	1.467
Selected Base Loss Rate for \$3.5M Retention :	1.460	1.498
Selected Base Loss Rate for \$4M Retention :	1.485	1.544
Selected Base Loss Rate for \$5M Retention :	1.522	1.603
	Estimated based on \$1M Ultimate Less \$100K Ultimate Estimated based on \$100K - \$1M Analysis: Estimated based on \$100K Analysis & Size of Loss Factors: Selected Base Loss Rate (\$100K - \$1M Layer): Factor to \$1.0M Retention Factor to \$2.0M Retention Factor to \$2.0M Retention Factor to \$3.0M Retention Factor to \$3.0M Retention Factor to \$3.0M Retention Factor to \$5M Retention Factor to \$5M Retention Selected Base Loss Rate for \$1.0M Retention : Selected Base Loss Rate for \$2.0M Retention : Selected Base Loss Rate for \$2.0M Retention : Selected Base Loss Rate for \$3.0M Retention :	Current 2021-2022Estimated based on \$1M Ultimate Less \$100K Ultimate\$1.076Estimated based on \$100K - \$1M Analysis:1.061Estimated based on \$100K Analysis & Size of Loss Factors:1.037Selected Base Loss Rate (\$100K - \$1M Layer):1.060Factor to \$1.0M Retention1.000Factor to \$2.0M Retention1.244Factor to \$2.0M Retention1.362Factor to \$3.5M Retention1.362Factor to \$3.5M Retention1.378Factor to \$3.5M Retention1.436Selected Base Loss Rate for \$1.0M Retention :\$1.060Selected Base Loss Rate for \$1.0M Retention :\$1.369Selected Base Loss Rate for \$3.5M Retention :\$1.369Selected Base Loss Rate for \$3.5M Retention :\$1.369Selected Base Loss Rate for \$3.5M Retention :\$1.444Selected Base Loss Rate for \$3.5M Retention :\$1.460Selected Base Loss Rate for \$3.5M Retention :\$1.460Selected Base Loss Rate for \$3.5M Retention :\$1.485Selected Base Loss Rate for \$3.5M Retention :\$1.485Se

(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) (D) x (E).

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Exhibit 3 Page 1

Page 1		1999-00	20,203	31,332	121,142	166,244	118,458	19,577	90,186	33,806	0	147,566	29,072	70,429	10,538	104,685	91,266	333,863	82,561	157,671	115,121	5,704	12,988	146,259	79,997	26,608	288,547	40,541	18,474	9,230	2,372,070
		2000-01	21,177	27,166	132,610	196,241	127,519	23,094	84,590	40,855	39,095	157,391	33,432	80,727	11,175	116,501	99,094	325,352	100,320	172,712	126,509	6,168	12,980	169,400	94,196	29,873	312,618	44,248	20,601	10,453	2,616,098
		2001-02	23,329	33,897	146,929	220,967	139,549	24,965	94,215	48,120	45,549	173,648	39,430	83,585	13,461	132,046	112,895	356,493	113,909	186,663	138,719	6,493	12,583	190,694	105,272	35,396	340,070	48,106	23,603	11,813	2,902,402
		2002-03	28,801	41,691	157,824	233,156	152,214	26,388	109,351	56,225	55,609	187,072	43,240	81,224	14,819	142,289	111,464	421,607	114,774	212,080	144,805	7,211	12,401	201,479	109,999	39,416	356,737	50,101	26,514	14,220	3,152,712 2
		2003-04	34,774	42,884	167,020	232,967	159,710	30,491	112,134	63,867	76,978	188,490	43,371	85,419	14,484	143,117	97,572	438,501	124,354	242,485	148,004	7,847	14,306	204,509	111,538	39,497	369,514	50,443	27,861	15,442	3,287,579 3
		2004-05	41,573	45,090	175,342	233,938	159,918	33,602	115,054	69,383	95,210	188,439	46,703	96,662	14,424	144,536	99,998	441,923	137,728	246,589	152,041	7,986	15,697	203,992	110,517	38,859	379,065	51,221	28,096	15,104	3,388,690
		2005-06	48,886	46,438	184,705	238,630	158,774	37,186	115,840	73,392	102,956	191,224	53,434	109,435	15,289	148,037	97,221	436,269	149,919	241,409	159,638	7,988	17,180	207,920	115,540	41,102	359,738	50,974	28,668	16,325	3,454,117 3
		2006-07	54,210	46,296	201,112	247,716	162,148	42,586	121,432	77,164	104,816	196,666	57,960	115,084	16,038	150,600	89,438	432,705	172,093	251,735	171,322	8,755	18,825	206,998	116,107	45,739	382,327	57,315	34,001	18,128	3,599,315 3
		2007-08	58,502	47,137	216,379	260,414	170,485	42,816	128,347	80,975	109,199	207,814	58,398	124,871	16,045	157,508	92,645	444,093	190,530	256,035	176,774	9,972	21,107	202,857	112,842	49,948	434,203	59,200	49,096	24,922	,803,114 3
		2008-09	63,432	52,195	223,492	263,140	175,659	42,433	135,281	83,003	124,046	215,710	51,556	133,081	17,168	165,399	94,247	448,889	204,796	249,935	179,461	10,897	24,902	220,779	116,056	53,711	449,625	68,617	51,385	26,909	,945,802 3
	iber	2009-10	63,972	51,401	196,769	249,446	179,036	40,374	140,147	80,426	105,571	235,278	43,416	132,040	18,952	155,119	94,145	441,054	200,536	217,351	175,749	11,504	24,782	233,714	121,766	62,759	429,352	65,158	49,134	23,465	,842,416 3
AN JPA	yroll By Merr	2010-11	56,022	46,631	181,176	221,933	165,855	41,755	140,719	71,288	108,799	190,344	34,148	127,494	18,579	152,679	94,594	366,038	167,044	129,813	189,639	11,826	25,270	230,925	82,213	53,060	423,010	67,250	48,589	23,855	,470,548 3
PL	Historical Pa	2011-12	53,981	37,816	169,886	251,946	170,613	43,667	140,904	88,098	98,602	178,272	15,028	115,334	18,321	157,468	95,043	344,491	165,875	136,196	171,323	11,564	25,237	230,690	76,684	53,195	422,835	65,699	43,134	22,232	3,404,136 3
		2012-13	56,164	35,545	168,198	240,622	178,455	40,444	147,032	93,350	95,641	196,247	14,571	119,416	19,300	155,665	99,021	344,491	167,140	134,370	165,008	10,454	15,066	236,970	92,753	54,527	424,625	57,679	43,606	19,508	3,425,867
		2013-14	59,261	34,937	160,195	256,080	182,514	41,650	151,388	100,057	96,658	163,877	18,640	118,411	17,747	153,503	102,998	304,432	183,195	144,580	164,300	11,785	13,324	242,461	64,984	56,508	428,430	54,988	43,809	18,193	3,388,905
		2014-15	62,832	39,550	166,828	231,821	198,257	39,640	161,102	100,467	82,128	194,081	16,067	109,606	17,831	152,590	106,975	325,730	202,443	146,941	165,816	13,103	17,852	253,278	68,533	57,618	444,008	53,967	44,036	19,657	3,492,755
		2015-16	64,947	42,209	171,965	239,528	214,910	43,825	173,727	104,238	80,372	203,308	20,366	119,338	18,097	156,997	88,757	358,546	239,627	150,011	169,885	12,050	18,705	269,032	72,414	61,993	419,145	56,250	46,506	18,549	635,298
	poi	2016-17	69,561	43,565	173,152	196,142	218,751	49,000	195,868	111,558	81,591	218,156	26,228	92,561	19,350	161,384	69,085	386,120	251,938	163,274	185,399	14,568	20,655	285,710	71,929	63,691	453,825	55,650	46,297	18,785	,743,794 3,
	perience Per	2017-18	73,529	45,445	214,306	228,060	230,493	46,101	210,701	116,137	87,357	223,148	34,571	89,471	20,445	167,907	80,496	404,164	203,387	174,918	154,080	15,236	22,304	286,052	79,879	65,333	553,323	58,784	48,512	18,618	,952,755 3
	X-MOD Ex	2018-19	71,511	48,829	221,248	235,223	241,923	44,629	189,121	119,343	94,759	212,436	44,685	89,412	23,483	182,860	86,469	454,598	209,940	182,282	165,295	16,001	22,187	299,858	77,008	68,692	481,778	64,867	49,094	18,030	015,558 3
		2019-20	72,469	48,404	204,187	214,385	237,866	44,486	229,846	97,221	79,037	194,433	48,631	103,996	25,982	191,197	78,661	574,991	274,915	211,197	173,704	16,370	23,267	305,656	82,441	67,044	471,026	71,140	39,976	20,448	202,976 4,
		2020-21	65,356	48,354	218,164	226,181	225,251	55,476	230,879	96,733	87,673	187,565	41,423	108,155	31,080	217,886	77,366	628,882	292,604	220,677	202,758	16,657	23,854	298,196	79,252	74,124	517,961	74,510	37,728	21,478	406,222 4,
		2021-22	67,316	49,804	224,709	232,966	232,008	57,140	237,806	99,634	90,303	193,192	42,666	111,400	32,012	224,423	79,687	647,749	301,383	227,298	208,841	17,157	24,569	307,142	81,629	76,348	533,500	76,746	38,860	22,122	538,409 4,
		Member	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 4,

80

Exhibit 3 Page 2

# PLAN JPA

### Member Deductibles

Member	2021-22	2020-21
American Canvon	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

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

Accident Year	Ultimate Limited Losses (A)	Trend Factor (B)	Trended Limited Losses (C)	Trended Payroll (\$00) (D)	Trended Limited Loss Rate (E)
1999-2000	943,000	2.281	2,150,983	3,982,706	0.540
2000-2001	1,719,728	2.193	3,771,364	4,152,938	0.908
2001-2002	2,949,541	2.108	6,217,632	4,504,470	1.380
2002-2003	4,237,463	2.028	8,593,575	4,915,078	1.748
2003-2004	2,205,881	1.949	4,299,262	5,000,408	0.860
2004-2005	1,424,731	1.875	2,671,371	5,028,816	0.531
2005-2006	2,684,321	1.803	4,839,831	5,001,561	0.968
2006-2007	1,419,184	1.733	2,459,446	5,085,832	0.484
2007-2008	2,651,368	1.667	4,419,830	5,244,494	0.843
2008-2009	2,653,385	1.603	4,253,376	5,307,104	0.801
2009-2010	1,335,978	1.541	2,058,742	5,041,250	0.408
2010-2011	1,557,549	1.482	2,308,288	4,442,301	0.520
2011-2012	3,521,000	1.425	5,017,425	4,251,766	1.180
2012-2013	3,613,000	1.370	4,949,810	4,176,132	1.185
2013-2014	2,172,000	1.317	2,860,524	4,029,408	0.710
2014-2015	4,012,000	1.267	5,083,204	4,051,596	1.255
2015-2016	3,499,000	1.218	4,261,782	4,115,157	1.036
2016-2017	5,764,000	1.171	6,749,644	4,133,149	1.633
2017-2018	2,110,000	1.125	2,373,750	4,257,117	0.558
2018-2019	2,575,000	1.082	2,786,150	4,220,351	0.660
2019-2020	3,459,000	1.040	3,597,360	4,308,050	0.835
Totals	\$56,507,129		\$85,723,349	95,249,684	\$0.900
14/15-18/19	17,960,000		21,254,530	20,777,370	1.023
15/16-19/20	17,407,000		19,768,686	21,033,824	0.940
			(F) Selecte	d Limited Rate:	\$1.020
				Prior:	\$1.050
Program Year:		2020-2021	2021-2022		
(G) Factor to S	IR:	1.000	1.000		
(H) Trend Fact	or:	1.000	1.040		
(I) Program Ra	te:	\$1.020	\$1.061		
(J) Trended Pa	yroll (\$00):	4,406,222	4,538,409		
(K) Projected F	Program Losses:	4,494,000	4,815,000		
(L) Projected L	JLAE:	0	0		
(M) Projected I	loss and ULAE:	\$4,494,000	\$4,815,000		

Notes appear on the next page.

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

#### Notes:

- (A) From \$100K to \$1M Rate Analysis Not Included, Page 2, Column (F). For purposes of projecting future losses, losses are capped at \$100,000 per occurrence.
- (B) From \$100K to \$1M Rate Analysis Appendix E, Page 1, Column (B).
- (C) (A) x (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) (F) x (G) x (H).
- (J) From \$100K to \$1M Rate Analysis Appendix I, Column (C).
- (K) (I) x (J).
- (L) Based on an estimated claim closing pattern and the Authority'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.

#### Reported Loss Development

	Limited	Reported		Program	Reported	
	Reported	Loss	Ultimate	Reported	Loss	Ultimate
Accident	Losses as	Development	Limited	Losses	Development	Program
Year	of 12/31/20	Factor	Losses	of 12/31/20	Factor	Losses
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1999-2000	\$942,240	1.000	\$942,240	\$942,240	1.000	\$942,240
2000-2001	1,719,728	1.000	1,719,728	1,719,728	1.000	1,719,728
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	2,651,368	1.001	2,654,019	2,651,368	1.001	2,654,019
2008-2009	2,653,385	1.003	2,661,345	2,653,385	1.003	2,661,345
2009-2010	1,335,978	1.006	1,343,994	1,335,978	1.006	1,343,994
2010-2011	1,557,549	1.010	1,573,124	1,557,549	1.010	1,573,124
2011-2012	3,468,509	1.015	3,520,537	3,468,509	1.015	3,520,537
2012-2013	3,524,416	1.025	3,612,526	3,524,416	1.025	3,612,526
2013-2014	2,088,304	1.040	2,171,836	2,088,304	1.040	2,171,836
2014-2015	3,799,380	1.056	4,012,145	3,799,380	1.056	4,012,145
2015-2016	3,254,877	1.075	3,498,993	3,254,877	1.075	3,498,993
2016-2017	5,196,650	1.132	5,763,808	5,196,650	1.132	5,763,808
2017-2018	818,662	1.320	1,080,634	818,662	1.320	1,080,634
2018-2019	391,223	1.761	688,944	391,223	1.761	688,944
2019-2020	0	4.095	0	0	4.095	0
Totals	\$48,323,390		\$50,164,994	\$48,323,390		\$50,164,994

#### 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) x (F).

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

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

# DRAFT

Selected

Cumulated

5.500

22.523

2.325

4.095

1.334

1.761

1.166

1.320

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

		Limited Loss	ses 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
1999-2000					1,658,625	1,823,243	1,823,243	1,823,243	1,823,243	1,823,243	1,823,243
2000-2001				898,513	1,005,578	1,060,578	1,023,612	1,023,612	964,842	964,842	1,825,620
2001-2002			965,485	958,981	953,812	1,008,532	1,579,410	1,581,139	1,581,139	2,382,404	2,382,404
2002-2003		365,699	1,446,885	1,633,894	2,059,086	2,967,377	2,941,383	2,955,718	2,956,981	2,951,981	3,039,481
2003-2004	365,543	1,476,042	3,953,355	3,589,550	4,887,581	4,262,606	4,441,309	4,901,984	4,966,984	5,011,984	3,560,542
2004-2005		66,478	363,636	398,884	890,862	986,705	3,560,692	3,460,542	3,560,542	2,866,202	2,866,155
2005-2006		586,598	1,140,449	1,700,075	1,700,074	2,861,424	2,893,524	2,858,702	3,795,674	3,789,394	3,789,394
2006-2007	25,000	331,278	1,741,278	2,362,206	3,669,875	3,689,497	3,765,682	3,394,986	3,394,936	3,394,936	3,394,936
2007-2008	200,000	292,450	332,811	3,039,627	3,179,650	3,297,534	4,358,070	4,259,056	4,259,284	4,259,284	4,259,284
2008-2009	100,000	633,000	3,743,710	4,332,780	4,420,360	3,430,417	3,345,621	3,347,708	3,346,029	3,347,708	3,336,906
2009-2010		2,839,064	3,484,984	3,288,639	3,131,959	3,127,921	3,127,921	3,127,921	3,127,921	3,127,921	3,127,921
2010-2011	763,697	3,371,740	3,848,137	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	510,509	2,770,955	3,631,019	3,415,805	3,302,356	3,237,194	3,127,725	3,127,725	3,127,725	3,127,725	
2012-2013	602,255	4,254,395	3,881,185	3,547,144	3,502,651	3,489,052	3,450,659	3,459,906	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			
2014-2015	325,035	2,666,242	3,946,907	3,795,367	3,350,810	3,291,420	3,281,784				
2015-2016	371,511	2,328,347	4,341,861	3,149,726	3,155,562	3,143,331					
2016-2017	290,633	3,737,779	2,754,128	2,812,484	2,851,248						
2017-2018	199,803	1,368,867	1,871,566	1,908,433							
2018-2019	65,888	691,395	1,755,631								
2019-2020	184,043	934,320									
2020-2021	23,204,597										
		Reported Lo	ss Developn	nent 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
1999-2000					1.099	1.000	1.000	1.000	1.000	1.000	1.376
2000-2001				1.119	1.055	0.965	1.000	0.943	1.000	1.892	1.000

1999-2000					1.099	1.000	1.000	1.000	1.000	1.000	1.376
2000-2001				1.119	1.055	0.965	1.000	0.943	1.000	1.892	1.000
2001-2002			0.993	0.995	1.057	1.566	1.001	1.000	1.507	1.000	1.000
2002-2003		3.956	1.129	1.260	1.441	0.991	1.005	1.000	0.998	1.030	1.638
2003-2004	4.038	2.678	0.908	1.362	0.872	1.042	1.104	1.013	1.009	0.710	1.000
2004-2005		5.470	1.097	2.233	1.108	3.609	0.972	1.029	0.805	1.000	1.001
2005-2006		1.944	1.491	1.000	1.683	1.011	0.988	1.328	0.998	1.000	1.000
2006-2007	13.251	5.256	1.357	1.554	1.005	1.021	0.902	1.000	1.000	1.000	1.000
2007-2008	1.462	1.138	9.133	1.046	1.037	1.322	0.977	1.000	1.000	1.000	0.977
2008-2009	6.330	5.914	1.157	1.020	0.776	0.975	1.001	0.999	1.001	0.997	1.003
2009-2010		1.228	0.944	0.952	0.999	1.000	1.000	1.000	1.000	1.000	1.000
2010-2011	4.415	1.141	0.689	0.951	0.975	0.981	1.000	0.995	1.000	1.000	
2011-2012	5.428	1.310	0.941	0.967	0.980	0.966	1.000	1.000	1.000		
2012-2013	7.064	0.912	0.914	0.987	0.996	0.989	1.003	1.029			
2013-2014	2.671	1.197	0.977	1.015	0.951	1.000	1.000				
2014-2015	8.203	1.480	0.962	0.883	0.982	0.997					
2015-2016	6.267	1.865	0.725	1.002	0.996						
2016-2017	12.861	0.737	1.021	1.014							
2017-2018	6.851	1.367	1.020								
2018-2019	10.493	2.539									
2019-2020	5.077										
	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								
Average	6.744	2.361	1.498	1.139	1.060	1.215	0.997	1.024	1.024	1.052	1.090
Dollar-Weighted											
Averages											
3-yr	6.659	1.101	0.878	0.959	0.978	0.995	1.001	1.010	1.000	0.999	0.992
4-yr	9.093	1.320	0.903	0.971	0.983	0.987	1.001	1.007	1.000	0.999	0.994
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	1.313	1.169	1.067	1.023	1.021	1.015	1.010	1.005	1.004

1.004

1.010

1.010

1.025

1.005

1.015

1.053

1.132

1.018

1.075

1.016

1.056

1.015

1.040

# DRAFT

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

Accident Year 1999-2000 2000-2001 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	Limited Loss 138 Months 2,509,278 1,825,620 2,382,504 4,977,421 3,560,542 2,867,654 3,789,394 3,394,936 4,159,284 3,347,708 3,127,921	ses Reported 150 Months 2,515,050 1,825,620 3,027,919 4,977,421 3,560,542 2,867,654 3,788,958 3,400,836 4,259,284 3,347,708	Las of: 162 Months 2,510,722 2,482,404 3,012,173 4,977,421 3,560,542 2,867,654 3,788,958 3,400,836 4,259,284	174 Months 1,825,620 2,482,404 3,012,173 4,977,421 3,560,542 2,867,654 3,788,958 3,425,837	186 Months 1,825,620 2,485,232 3,012,173 4,977,421 3,560,542 2,867,654 3,788,958	198 Months 1,826,007 2,482,404 3,012,173 4,977,421 3,560,542 2,867,654	210 Months 1,825,620 2,485,232 3,012,173 4,977,421 3,560,542	222 Months 1,826,007 2,485,232 3,012,173 4,977,421	234 Months 1,826,007 2,485,232 3,012,173	246 Months 1,826,007 2,485,232	258 Months 1,833,872
2018-2019 2019-2020 2020-2021											
1999-2000 2000-2001 2001-2002 2002-2003 2003-2004 2004-2005 2005-2006 2006-2007 2007-2008 2009-2010 2010-2011 2011-2012 2012-2013 2013-2014 2014-2015 2015-2016 2016-2017 2017-2018 2018-2019 2019-2020	Reported Lo 138-150 Months 1.002 1.000 1.271 1.000 1.000 1.000 1.002 1.024 1.000	<u>ss Developn</u> 150-162 Months 0.998 1.360 0.995 1.000 1.000 1.000 1.000 1.000	nent Factors 162-174 Months 0.727 1.000 1.000 1.000 1.000 1.000 1.000	174-186 Months 1.000 1.001 1.000 1.000 1.000 1.000	186-198 Months 1.000 0.999 1.000 1.000 1.000	198-210 Months 1.000 1.001 1.000 1.000	210-222 Months 1.000 1.000 1.000	222-234 Months 1.000 1.000	234-246 Months 1.000 1.000	246-258 Months 1.004	258-Ult. Months
Average Dollar-Weighted	138-150 Months 1.030	150-162 Months 1.039	162-174 Months 0.967	174-186 Months 1.000	186-198 Months 1.000	198-210 Months 1.000	210-222 Months 1.000	222-234 Months 1.000	234-246 Months 1.000	246-258 Months 1.004	258-Ult. Months
Averages 3-yr 4-yr Comparative	1.010 1.007	1.000 1.000	1.002 1.002	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000	4 000	1.000	4 000
raciors Prior	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Selected	1.003	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulated	1.006	1.003	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

#### Paid Loss Development

	Limited			Program		
	Paid	Paid Loss	Ultimate	Paid	Paid Loss	Ultimate
Accident	Losses as	Development	Limited	Losses	Development	Program
Year	of 12/31/20	Factor	Losses	of 12/31/20	Factor	Losses
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1999-2000	\$941,458	1.000	\$941,458	\$941,458	1.000	\$941,458
2000-2001	1,719,728	1.000	1,719,728	1,719,728	1.000	1,719,728
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	1.001	2,654,020	2,651,369	1.001	2,654,020
2008-2009	2,653,385	1.003	2,661,345	2,653,385	1.003	2,661,345
2009-2010	1,335,978	1.006	1,343,994	1,335,978	1.006	1,343,994
2010-2011	1,557,549	1.010	1,573,124	1,557,549	1.010	1,573,124
2011-2012	3,402,261	1.015	3,453,295	3,402,261	1.015	3,453,295
2012-2013	3,088,789	1.025	3,166,009	3,088,789	1.025	3,166,009
2013-2014	2,088,304	1.051	2,194,808	2,088,304	1.051	2,194,808
2014-2015	3,799,381	1.104	4,194,517	3,799,381	1.104	4,194,517
2015-2016	2,787,512	1.236	3,445,365	2,787,512	1.236	3,445,365
2016-2017	3,400,847	1.415	4,438,699	3,400,847	1.415	4,438,699
2017-2018	681,757	1.981	1,350,561	681,757	1.981	1,350,561
2018-2019	73,233	4.994	365,726	73,233	4.994	365,726
2019-2020	0	22.473	0	0	22.473	0
Totals	\$45,102,672		\$48,423,770	\$45,102,672		\$48,423,770

#### 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) x (F).

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

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

# DRAFT

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

		Limited Loss	ses Paid as c	<u>of:</u>							
Accident	6 Monthe	18 Monthe	30 Months	42 Months	54 Monthe	66 Monthe	78 Monthe	90 Monthe	102 Months	114 Months	126 Months
1000-2000	WOTUIS	WORLIS	WOITINS	WOTUIS	WORUS	2 012 360	2 251 313	2 251 313	2 251 313	2 251 313	2 006 852
2000-2001					1 000 106	2,012,309	1 823 244	1 823 244	1 823 244	1 823 244	1 823 244
2000-2001				880 149	1,000,100	1 023 612	1 023 612	1 023 612	964 842	964 842	2 382 404
2007-2002			873 114	953 412	953 532	953 532	1 579 410	1 581 139	1 581 139	2 939 481	2,002,404
2003-2004		309 735	1 022 186	1 490 294	1 947 824	2 029 466	2 041 384	2 943 619	4 893 323	4 930 307	3 560 542
2004-2005	75 543	903 527	2 226 102	3 446 317	3 946 802	3 910 106	4 427 910	3 460 542	3 560 542	2 866 154	2 866 154
2005-2006	10,010	15 692	363 636	379 734	682 512	766 935	2 853 463	2 858 654	3 780 292	3 789 394	3 789 394
2006-2007		6,598	310,953	1.675.075	1.675.075	3.654.071	3.764.224	3.394.936	3.394.936	3.394.936	3.394.936
2007-2008		208.642	211.412	862.224	3.103.547	3.253.555	4.228.474	4.256.077	4.259.284	4.259.284	4.259.284
2008-2009	6,182	15,240	69,317	3,650,448	4,101,554	3,338,980	3,345,621	3,347,708	3,346,029	3,347,708	3,336,906
2009-2010	,	54,284	2,186,680	2,792,089	2,998,274	3,072,132	3,115,424	3,127,921	3,127,921	3,127,921	3,127,921
2010-2011		1,046,459	2,274,617	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	106,645	872,432	2,112,380	2,750,332	3,122,242	3,118,744	3,127,725	3,127,725	3,127,725	3,127,725	
2012-2013	114,916	934,308	2,290,004	3,124,392	3,371,990	3,450,380	3,450,659	3,459,906	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			
2014-2015	91,368	1,387,749	2,717,926	3,379,346	3,268,352	3,281,784	3,281,784				
2015-2016	98,110	679,755	1,938,077	2,795,127	2,999,838	3,135,716					
2016-2017	30,679	920,995	1,975,490	2,421,836	2,773,661						
2017-2018	31,268	758,485	1,188,193	1,713,864							
2018-2019	16,322	417,918	940,933								
2019-2020	65,521	413,661									
2020-2021	54,421										
	0.40	Paid Loss D	evelopment	Factors:	54.00	00 70	70.00	00 400	100 111	111 100	400 400
	6-18	18-30	30-42	42-54	54-66	66-78	78-90	90-102	102-114	114-126	126-138
1000 0000	Months	wonths	Months	Months	Months	Months	Months	Months	Months	Months	Months
1999-2000					1 075	1.119	1.000	1.000	1.000	0.931	1.000
2000-2001				1 1 2 7	1.275	1.430	1.000	1.000	1.000	1.000	1.001
2001-2002			1 002	1.137	1.023	1.000	1.000	0.943	1.000	2.409	1.000
2002-2003		2 200	1.092	1.000	1.000	1.000	1.001	1.000	1.009	0.722	1.000
2003-2004	11 060	2.300	1.430	1.307	0.001	1.000	0.792	1.002	0.905	1 000	1.000
2004-2005	11.900	2.404	1.040	1.143	1 1 2 4	2 721	1 002	1.029	1 002	1.000	1.001
2005-2000		47 128	5 387	1.797	2 181	1 030	0.002	1.022	1.002	1.000	1.000
2000-2007		1 013	4 078	3 500	1 048	1 300	1 007	1.000	1.000	1.000	0.977
2008-2009	2 465	4 548	52 663	1 124	0.814	1 002	1 001	0.999	1 001	0.997	1 003
2009-2010	2.400	40 282	1 277	1.074	1 025	1 014	1 004	1 000	1 000	1 000	1.000
2010-2011		2 174	1 006	1 014	1 033	1 000	1 000	1 000	1 000	1 000	1.000
2011-2012	8,181	2.421	1.302	1.135	0.999	1.003	1.000	1.000	1.000		
2012-2013	8.130	2.451	1.364	1.079	1.023	1.000	1.003	1.029			
2013-2014	6.808	2.005	1.301	1.146	0.957	1.000	1.000				
2014-2015	15.189	1.959	1.243	0.967	1.004	1.000					
2015-2016	6.928	2.851	1.442	1.073	1.045						
2016-2017	30.020	2.145	1.226	1.145							
2017-2018	24.258	1.567	1.442								
2018-2019	25.605	2.251									
2019-2020	6.313										
	6-18	18-20	30-42	42-51	54-66	66-78	78-00	90-102	102-114	11/-126	126-139
	U-10 Months	Monthe	Months	42-04 Monthe	J4-00 Monthe	Monthe	Vonthe	JU-102 Monthe	Monthe	Months	Months
	12 260		1 020	1 206	1 000	1 276	1 010	1 070	1 050		1 059
	15.200	0.000	4.930	1.290	1.099	1.270	1.010	1.070	1.052	1.093	1.000
3-vr	14 052	1 057	1 350	1 052	1 004	1 000	1 001	1 011	1 000	0 000	0 000
4-vr	17 463	2 176	1.318	1.032	1 004	1 001	1 001	1 008	1 000	0.000	0.002
Comparative	17.403	2.170	1.010	1.072	1.003	1.001	1.001	1.000	1.000	0.000	0.004
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	2.489	1.400	1,145	1,120	1,050	1.025	1.010	1.005	1.004
	0.100										
Selected	9.100	4.500	2.521	1.400	1.145	1.120	1.050	1.025	1.010	1.005	1.004
Cumulated	204 504	22 473	1 991	1 981	1 4 1 5	1 236	1 104	1 051	1 025	1 015	1 010
Jumalatou	207.004	22.413	7.004	1.301	1.413	1.200	1.104	1.001	1.023	1.015	1.010

# DRAFT

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

	Limited Loss	ses Paid as o	of:								
Accident Year 1999-2000 2000-2001 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 2013-2014 2014-2015 2015-2016 2016-2017 2017-2018 2018-2019 2019-2020 2020-2021	138 Months 2,096,852 1,825,620 2,382,404 4,977,421 3,560,542 2,867,654 3,789,394 3,394,936 4,159,284 3,347,708 3,127,921	150 Months 2,510,050 1,825,620 3,000,611 4,977,421 3,560,542 2,867,654 3,788,958 3,400,836 4,259,284 3,347,708	162 Months 2,510,722 2,482,404 3,012,173 4,977,421 3,560,542 2,867,654 3,788,958 3,400,836 4,259,284	174 Months 1,825,620 2,482,404 3,012,173 4,977,421 3,560,542 2,867,654 3,788,958 3,403,249	186 Months 1,825,620 2,485,232 3,012,173 4,977,421 3,560,542 2,867,654 3,788,958	198 Months 1,826,007 2,482,404 3,012,173 4,977,421 3,560,542 2,867,654	210 Months 1,825,620 2,485,232 3,012,173 4,977,421 3,560,542	222 Months 1,826,007 2,485,232 3,012,173 4,977,421	234 Months 1,826,007 2,485,232 3,012,173	246 Months 1,826,007 2,485,232	258 Months 1,833,832
1999-2000 2000-2001 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	Paid Loss D 138-150 Months 1.197 1.000 1.259 1.000 1.000 1.000 1.000 1.002 1.024 1.000	evelopment 150-162 Months 1.000 1.360 1.004 1.000 1.000 1.000 1.000 1.000 1.000	Factors: 162-174 Months 0.727 1.000 1.000 1.000 1.000 1.000 1.001	174-186 Months 1.000 1.000 1.000 1.000 1.000	186-198 Months 1.000 0.999 1.000 1.000 1.000	198-210 Months 1.000 1.000 1.000 1.000	210-222 Months 1.000 1.000 1.000	222-234 Months 1.000 1.000	234-246 Months 1.000 1.000	246-258 Months 1.004	258-Ult. Months
Average Dollar-Weighted	138-150 Months 1.048	150-162 Months 1.040	162-174 Months 0.966	174-186 Months 1.000	186-198 Months 1.000	198-210 Months 1.000	210-222 Months 1.000	222-234 Months 1.000	234-246 Months 1.000	246-258 Months 1.004	258-Ult. Months
Averages 3-yr 4-yr	1.010 1.007	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			
Comparative Factors Prior	1.006 1.003	1.004 1.002	1.004 1.001	1.002 1.000	1.002 1.000	1.001 1.000	1.001 1.000	1.001 1.000	1.001 1.000	1.001 1.000	1.000 1.000
Selected	1.003	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulated	1.006	1.003	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

#### Exposure and Development Method Based on Reported Losses

				Percentage		Incurred	
	Trended	Reported	Loss	of Losses		but not	Ultimate
Accident	Payroll	Losses as	Development	Yet to Be	Program	Reported	Program
Year	(\$00)	of 12/31/20	Factor	Reported	Rate	(IBNR)	Losses
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
1999-2000	3,982,706	942,240	1.000	0.000	0.237	0	942,240
2000-2001	4,152,938	1,719,728	1.000	0.000	0.414	0	1,719,728
2001-2002	4,504,470	2,949,541	1.000	0.000	0.655	0	2,949,541
2002-2003	4,915,078	4,237,463	1.000	0.000	0.862	0	4,237,463
2003-2004	5,000,408	2,205,881	1.000	0.000	0.441	0	2,205,881
2004-2005	5,028,816	1,424,731	1.000	0.000	0.283	0	1,424,731
2005-2006	5,001,561	2,684,321	1.000	0.000	0.537	0	2,684,321
2006-2007	5,085,832	1,419,184	1.000	0.000	0.279	0	1,419,184
2007-2008	5,244,494	2,651,368	1.001	0.001	0.506	2,654	2,654,022
2008-2009	5,307,104	2,653,385	1.003	0.003	0.500	7,961	2,661,346
2009-2010	5,041,250	1,335,978	1.006	0.006	0.265	8,016	1,343,994
2010-2011	4,442,301	1,557,549	1.010	0.010	0.351	15,592	1,573,141
2011-2012	4,251,766	3,468,509	1.015	0.015	0.828	52,807	3,521,316
2012-2013	4,176,132	3,524,416	1.025	0.024	0.865	86,697	3,611,113
2013-2014	4,029,408	2,088,304	1.040	0.038	0.539	82,530	2,170,834
2014-2015	4,051,596	3,799,380	1.056	0.053	0.990	212,587	4,011,967
2015-2016	4,115,157	3,254,877	1.075	0.070	0.800	230,449	3,485,326
2016-2017	4,133,149	5,196,650	1.132	0.117	0.833	402,821	5,599,471
2017-2018	4,257,117	818,662	1.320	0.242	0.867	893,203	1,711,865
2018-2019	4,220,351	391,223	1.761	0.432	0.901	1,642,696	2,033,919
2019-2020	4,308,050		4.095	0.756	0.938	3,054,959	3,054,959
Totals	95,249,684	\$48,323,390				\$6,692,972	\$55,016,362

#### Notes:

- (A) From \$100K to \$1M 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 \$100K to \$1M Rate Analysis Appendix A, Page 1, Column (F).
- (D) 1 1/(C).
- (E) From \$100K to \$1M Rate Analysis Appendix C, Page 3, Column (H).
- (F) (A) x (D) x (E).
- (G) (B) + (F).

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

#### Exposure and Development Method Based on Paid Losses

				Percentage			
	Trended	Paid	Loss	of Losses		Incurred	Ultimate
Accident	Payroll	Losses as	Development	Yet to Be	Program	but not	Program
Year	(\$00)	of 12/31/20	Factor	Paid	Rate	Paid	Losses
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
1999-2000	3,982,706	941,458	1.000	0.000	0.237	0	941,458
2000-2001	4,152,938	1,719,728	1.000	0.000	0.414	0	1,719,728
2001-2002	4,504,470	2,949,541	1.000	0.000	0.655	0	2,949,541
2002-2003	4,915,078	4,237,463	1.000	0.000	0.862	0	4,237,463
2003-2004	5,000,408	2,205,881	1.000	0.000	0.441	0	2,205,881
2004-2005	5,028,816	1,424,731	1.000	0.000	0.283	0	1,424,731
2005-2006	5,001,561	2,684,321	1.000	0.000	0.537	0	2,684,321
2006-2007	5,085,832	1,419,184	1.000	0.000	0.279	0	1,419,184
2007-2008	5,244,494	2,651,369	1.001	0.001	0.506	2,654	2,654,023
2008-2009	5,307,104	2,653,385	1.003	0.003	0.500	7,961	2,661,346
2009-2010	5,041,250	1,335,978	1.006	0.006	0.265	8,016	1,343,994
2010-2011	4,442,301	1,557,549	1.010	0.010	0.351	15,592	1,573,141
2011-2012	4,251,766	3,402,261	1.015	0.015	0.828	52,807	3,455,068
2012-2013	4,176,132	3,088,789	1.025	0.024	0.865	86,697	3,175,486
2013-2014	4,029,408	2,088,304	1.051	0.049	0.539	106,421	2,194,725
2014-2015	4,051,596	3,799,381	1.104	0.094	0.990	377,042	4,176,423
2015-2016	4,115,157	2,787,512	1.236	0.191	0.800	628,796	3,416,308
2016-2017	4,133,149	3,400,847	1.415	0.293	0.833	1,008,774	4,409,621
2017-2018	4,257,117	681,757	1.981	0.495	0.867	1,827,006	2,508,763
2018-2019	4,220,351	73,233	4.994	0.800	0.901	3,042,029	3,115,262
2019-2020	4,308,050		22.473	0.956	0.938	3,863,149	3,863,149
Totals	95,249,684	\$45,102,672				\$11,026,944	\$56,129,616

#### Notes:

- (A) From \$100K to \$1M 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 \$100K to \$1M Rate Analysis Appendix B, Page 1, Column (F).
- (D) 1 1/(C).
- (E) From \$100K to \$1M Rate Analysis Appendix C, Page 3, Column (H).
- (F) (A) x (D) x (E).
- (G) (B) + (F).

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

#### Exposure and Development Method

	Trended	Ultimate		Trended	Trended			
Accident	Payroll	Limited	Trend	Limited	Limited	Limited	Factor to	Program
Year	(\$00)	Losses	Factor	Losses	Loss Rate	Loss Rate	SIR	Loss Rate
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
1999-2000	3,982,706	943,000	2.281	2,150,983	0.540	0.237	1.000	0.237
2000-2001	4,152,938	1,719,728	2.193	3,771,364	0.908	0.414	1.000	0.414
2001-2002	4,504,470	2,949,541	2.108	6,217,632	1.380	0.655	1.000	0.655
2002-2003	4,915,078	4,237,463	2.028	8,593,575	1.748	0.862	1.000	0.862
2003-2004	5,000,408	2,205,881	1.949	4,299,262	0.860	0.441	1.000	0.441
2004-2005	5,028,816	1,424,731	1.875	2,671,371	0.531	0.283	1.000	0.283
2005-2006	5,001,561	2,684,321	1.803	4,839,831	0.968	0.537	1.000	0.537
2006-2007	5,085,832	1,419,184	1.733	2,459,446	0.484	0.279	1.000	0.279
2007-2008	5,244,494	2,651,368	1.667	4,419,830	0.843	0.506	1.000	0.506
2008-2009	5,307,104	2,653,385	1.603	4,253,376	0.801	0.500	1.000	0.500
2009-2010	5,041,250	1,335,978	1.541	2,058,742	0.408	0.265	1.000	0.265
2010-2011	4,442,301	1,557,549	1.482	2,308,288	0.520	0.351	1.000	0.351
2011-2012	4,251,766	3,521,000	1.425	5,017,425	1.180	0.828	1.000	0.828
2012-2013	4,176,132	3,613,000	1.370	4,949,810	1.185	0.865	1.000	0.865
2013-2014	4,029,408	2,172,000	1.317	2,860,524	0.710	0.539	1.000	0.539
2014-2015	4,051,596	4,012,000	1.267	5,083,204	1.255	0.990	1.000	0.990
2015-2016	4,115,157	3,499,000	1.218	4,261,782	1.036	0.800	1.000	0.800
2016-2017	4,133,149	5,764,000	1.171	6,749,644	1.633	0.833	1.000	0.833
2017-2018	4,257,117	1,216,000	1.125	1,368,000	0.321	0.867	1.000	0.867
2018-2019	4,220,351	2,641,000	1.082	2,857,562	0.677	0.901	1.000	0.901
2019-2020	4,308,050	3,111,000	1.040	3,235,440	0.751	0.938	1.000	0.938
Total/Avg	95,249,684	\$55,331,129		\$84,427,091	\$0.886			
14/15-18/19	20,777,370	17,132,000		20,320,192	0.978			
15/16-19/20	21,033,824	16,231,000		18,472,428	0.878			
			Selecte	ed Limited Rate:	\$0.975			
				Prior:	\$1.060			

#### Notes:

- (A) From \$100K to \$1M Rate Analysis Appendix I, Column (C).
- (B) Selected average of results from Appendices \$ and \$.
- (C) From \$100K to \$1M Rate Analysis Appendix E, Page 1, Column (B).
- (D) (B) x (C).
- (E) (D) / (A).
- (F) Selected Limited Rate / (C). For 2014-2015 and prior (B) / (A).
- (G) Based on a Burr distribution, a mathematical model of claim sizes.
- (H) (F) x (G).

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

# Frequency and Severity Method

Accident Year	Ultimate Program Severity (A)	Adjusted Ultimate Claims (B)	Ultimate Program Losses (C)
1999-2000	\$134,714	7	\$942,998
2000-2001	245,675	7	1,719,725
2001-2002	294,954	20	2,949,540
2002-2003	211,873		4,237,460
2003-2004	183,823	12	2,205,876
2004-2005	356 183	4	1 424 732
2005-2006	223,693	12	2,684,316
2006-2007 2007-2008	220,947	13	1,419,184 2,651,364
2008-2009	241,217	11	2,653,387
2009-2010	95.427	14	1,335,978
2010-2011	173,061	9	1,557,549
2011-2012 2012-2013	240,867	14	3,521,000 3,613,005
2013-2014	241,333	9	2,171,997
2014-2015	445.778	9	4.012.002
2015-2016	375,000	16	6,000,000
2016-2017	386,323	7	5,408,522
2017-2018	397,987		2,785,909
2018-2019	409,991	4	1,639,964
2019-2020	422,330	10	4,223,300
Total		229	\$59,157,808

#### 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) (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.

#### Frequency and Severity Method

	Ultimate	Adjusted	Ultimate		Trended			
Accident	Limited	Ultimate	Limited	Trend	Limited	Limited	Factor to	Program
Year	Losses	Claims	Severity	Factor	Severity	Severity	SIR	Severity
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
1999-2000	\$943,000	7	\$134,714	1.862	\$250,837	\$134,714	1.000	\$134,714
2000-2001	1,719,728	7	245,675	1.808	444,180	245,675	1.000	245,675
2001-2002	2,949,541	10	294,954	1.755	517,644	294,954	1.000	294,954
2002-2003	4,237,463	20	211,873	1.704	361,032	211,873	1.000	211,873
2003-2004	2,205,881	12	183,823	1.654	304,043	183,823	1.000	183,823
2004-2005	1,424,731	4	356,183	1.606	572,030	356,183	1.000	356,183
2005-2006	2,684,321	12	223,693	1.559	348,737	223,693	1.000	223,693
2006-2007	1,419,184	13	109,168	1.513	165,171	109,168	1.000	109,168
2007-2008	2,651,368	12	220,947	1.469	324,571	220,947	1.000	220,947
2008-2009	2,653,385	11	241,217	1.426	343,975	241,217	1.000	241,217
2009-2010	1,335,978	14	95,427	1.385	132,166	95,427	1.000	95,427
2010-2011	1,557,549	9	173,061	1.345	232,767	173,061	1.000	173,061
2011-2012	3,521,000	14	251,500	1.306	328,459	251,500	1.000	251,500
2012-2013	3,613,000	15	240,867	1.267	305,178	240,867	1.000	240,867
2013-2014	2,172,000	9	241,333	1.231	297,081	241,333	1.000	241,333
2014-2015	4,012,000	9	445,778	1.195	532,705	445,778	1.000	445,778
2015-2016	3,499,000	16	218,688	1.160	253,678	375,000	1.000	375,000
2016-2017	5,764,000	14	411,714	1.126	463,590	386,323	1.000	386,323
2017-2018	2,110,000	7	301,429	1.093	329,462	397,987	1.000	397,987
2018-2019	2,575,000	4	643,750	1.061	683,019	409,991	1.000	409,991
2019-2020	3,459,000	10	345,900	1.030	356,277	422,330	1.000	422,330

Average	Limited	Severity:	\$359,362
14/15-18/19	Limited	Severity:	452,491
15/16-19/20	Limited	Severity:	417,205
	Average 14/15-18/19 15/16-19/20	Average Limited 14/15-18/19 Limited 15/16-19/20 Limited	Average Limited Severity: 14/15-18/19 Limited Severity: 15/16-19/20 Limited Severity:

Selected Limited Se	verity:	\$435,000
	Prior:	\$379,000

Notes:

- (A) Selected average of results from Appendices ,, and .
- (B) \$100K to \$1M Rate Analysis Appendix D, Page 3, Column (C).

(C) (A) / (B).(D) From \$100K to \$1M Rate Analysis Appendix E, Page 1, Column (J).

(E) (C) x (D).

- (F) Selected Limited Severity / (D).
- (G) Based on a Burr distribution, a mathematical model of claim sizes.

(H) (F) x (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.

#### 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) (D)	Claim Frequency (E)	Trend Factor (F)	Trended Claim Frequency (G)
1999-2000	7	6	7	398.3	0.018	1.232	0.022
2000-2001	7	7	7	415.3	0.017	1.219	0.021
2001-2002	10	10	10	450.4	0.022	1.208	0.027
2002-2003	20	20	20	491.5	0.041	1.196	0.049
2003-2004	12	12	12	500.0	0.024	1.184	0.028
2004-2005	4	4	4	502.9	0.008	1.173	0.009
2005-2006	12	12	12	500.2	0.024	1.161	0.028
2006-2007	13	13	13	508.6	0.026	1.150	0.030
2007-2008	12	12	12	524.4	0.023	1.138	0.026
2008-2009	11	11	11	530.7	0.021	1.126	0.024
2009-2010	14	14	14	504.1	0.028	1.116	0.031
2010-2011	9	9	9	444.2	0.020	1.105	0.022
2011-2012	14	13	14	425.2	0.033	1.094	0.036
2012-2013	15	14	15	417.6	0.036	1.083	0.039
2013-2014	9	9	9	402.9	0.022	1.073	0.024
2014-2015	9	9	9	405.2	0.022	1.062	0.023
2015-2016	16	13	16	411.5	0.039	1.051	0.041
2016-2017	14	6	14	413.3	0.034	1.041	0.035
2017-2018	7	2	7	425.7	0.016	1.030	0.016
2018-2019	4	0	4	422.0	0.009	1.019	0.009
2019-2020	0	0	10	430.8	0.024	1.010	0.024
Total	219	196	229	9,525.0			0.027
14/15-18/19	50	30	50	2,077.7			0.025
					(H) Select	ed Frequency:	0.028
					× /	Prior:	0.030
	Program Year:			2020-2021	2021-2022		
(I)	Trend Factor:			1.000	1.010		
(J)	Selected Frequence	;y:		0.028	0.028		

#### Notes:

(A) From \$100K to \$1M Rate Analysis Appendix D, Page 4, (C).

(K) Est. Payroll (\$000,000):

(B) From \$100K to \$1M Rate Analysis Appendix D, Page 5, (C).

(L) Ultimate Claims:

- (C) Selected from (A) and (B).
- (D) From \$100K to \$1M Rate Analysis Appendix I, Column (C) / 10,000.
- (E) (C) / (D).
- (F) From \$100K to \$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) (E) x (F).

440.6

12

(H) The selected frequency of 0.028 is based on (G).

453.8

13

- (I) From \$100K to \$1M Rate Analysis Appendix E, Page
- (J) (H) x (I).
- (K) From \$100K to \$1M Rate Analysis Appendix I, Colur
- (L) (J) x (K).

#### Frequency and Severity Method Reported Claim Count Development

Accident Year	Claims Reported as of 12/31/2020 (A)	Reported Claim Development Factor (B)	Ultimate Claims (C)	Trended Claim Frequency (D)
1999-2000	7	1.000	7	0.022
2000-2001	7	1.000	7	0.021
2001-2002	10	1.000	10	0.027
2002-2003	20	1.000	20	0.049
2003-2004	12	1.000	12	0.028
2004-2005	4	1.000	4	0.009
2005-2006	12	1.000	12	0.028
2006-2007	13	1.000	13	0.029
2007-2008	12	1.000	12	0.026
2008-2009	11	1.001	11	0.023
2009-2010	14	1.001	14	0.031
2010-2011	9	1.001	9	0.022
2011-2012	14	1.002	14	0.036
2012-2013	15	1.003	15	0.039
2013-2014	9	1.004	9	0.024
2014-2015	9	1.005	9	0.024
2015-2016	16	1.015	16	0.041
2016-2017	13	1.040	14	0.035
2017-2018	6	1.196	7	0.017
2018-2019	3	1.435	4	0.010
2019-2020	0	3.229	0	
Total	216		219	0.026

#### Notes:

(A) Provided by the Authority.

(B) From \$100K to \$1M Rate Analysis Appendix D, Page 6.

(C) (A) x (B).

(D) (C) / [\$100K to \$1M Rate Analysis Appendix D, Page 3, (D)] x [\$100K to \$1M Rate Analysis

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

#### Frequency and Severity Method Closed Claim Count Development

Accident Year	Claims Closed as of 12/31/2020 (A)	Closed Claim Development Factor (B)	Ultimate Claims (C)	Trended Claim Frequency (D)
1999-2000	6	1.000	6	0.019
2000-2001	7	1.000	7	0.021
2001-2002	10	1.000	10	0.027
2002-2003	20	1.000	20	0.049
2003-2004	12	1.000	12	0.028
2004-2005	4	1.000	4	0.009
2005-2006	12	1.000	12	0.028
2006-2007	13	1.000	13	0.029
2007-2008	12	1.001	12	0.026
2008-2009	11	1.002	11	0.023
2009-2010	14	1.003	14	0.031
2010-2011	9	1.004	9	0.022
2011-2012	13	1.005	13	0.033
2012-2013	14	1.006	14	0.036
2013-2014	9	1.007	9	0.024
2014-2015	9	1.008	9	0.024
2015-2016	13	1.009	13	0.033
2016-2017	6	1.010	6	0.015
2017-2018	2	1.061	2	0.005
2018-2019	0	3.183	0	
2019-2020	0	11.141	0	
Total	196		196	0.023

### Notes:

(A) Provided by the Authority.

(B) From \$100K to \$1M Rate Analysis Appendix D, Page 7.

(C) (A) x (B).

(D) (C) / [\$100K to \$1M Rate Analysis Appendix D, Page 3, (D)] x [\$100K to \$1M Rate Analysis

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

# DRAFT

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

		<u>Claims R</u>	eported as	s 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
1999-2000									10	10	9	9	9	3
2000-2001								3	3	3	3	3	8	8
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	13
2008-2009	2	6	8	8	19	14	13	13	13	13	13	13	18	
2009-2010	3	5	14	14	16	16	16	16	16	16	16	13		
2010-2011		6	21	14	13	12	11	11	11	11	16			
2011-2012	3	11	19	17	17	16	16	16	16	11				
2012-2013	3	22	22	15	15	16	15	15	16					
2013-2014	3	4	8	10	11	11	11	15						
2014-2015	3	8	15	12	12	12	11							
2015-2016		4	10	15	16	12								
2016-2017		4	11	12	16									
2017-2018		2	4	12										
2018-2019			4											
2019-2020														

2019-2020 2020-2021

		Reported	Claim Co	unt Develo	opment Fa	actors:								
	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
1999-2000									1.000	0.900	1.000	1.000	0.333	2.667
2000-2001								1.000	1.000	1.000	1.000	2.667	1.000	1.000
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	1.154
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	0.722	
2008-2009	3.000	1.333	1.000	2.375	0.737	0.929	1.000	1.000	1.000	1.000	1.000	1.385		
2009-2010	1.667	2.800	1.000	1.143	1.000	1.000	1.000	1.000	1.000	1.000	0.813			
2010-2011		3.500	0.667	0.929	0.923	0.917	1.000	1.000	1.000	1.455				
2011-2012	3.667	1.727	0.895	1.000	0.941	1.000	1.000	1.000	0.688					
2012-2013	7.333	1.000	0.682	1.000	1.067	0.938	1.000	1.067						
2013-2014	1.333	2.000	1.250	1.100	1.000	1.000	1.364							
2014-2015	2.667	1.875	0.800	1.000	1.000	0.917								
2015-2016		2.500	1.500	1.067	0.750									
2016-2017		2.750	1.091	1.333										
2017-2018		2.000	3.000											
2018-2019														
2019-2020														
	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	3.524	2.163	1.201	1.206	0.943	1.210	0.968	1.128	1.023	1.039	1.049	1.254	0.895	1.228
Claim-Weighted														
Averages			. =											
3-yr			1.560	1.128	0.897	0.949	1.095	1.024	0.884	1.125	0.915	1.140	0.891	1.061
4-yr			1.275	1.122	0.944	0.964	1.075	1.017	0.911	1.086	0.933	1.103	0.902	1.044
Comparative	0 000	4 400	4.040	4 005	4 005	4 00 4	4 00 4	4 000	4 000	4 004	4 000	4 000	4 000	4 0 0 0
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	3.700	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
Cumulated	11.947	3.229	1.435	1.196	1.040	1.015	1.005	1.004	1.003	1.002	1.001	1.001	1.001	1.000

# DRAFT

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

		Claims C	losed as o	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
1999-2000									10	10	9	9	9	3
2000-2001								2	2	3	3	3	8	8
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	12
2008-2009		1	2	6	12	10	12	13	13	13	13	13	18	
2009-2010			1	6	13	14	15	15	16	16	16	13		
2010-2011		1	4	7	10	11	11	11	11	11	16			
2011-2012			2	8	10	14	16	15	15	11				
2012-2013		1	5	10	11	15	14	14	15					
2013-2014			3	5	10	9	10	14						
2014-2015		2	5	9	8	12	10							
2015-2016			2	6	10	12								
2016-2017			1	5	10									
2017-2018			1	5										
2018-2019			1											
2019-2020														

2019-2020

		Closed C	laim Coun	t Develop	ment Fact	ors:								
	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
1999-2000									1.000	0.900	1.000	1.000	0.333	2.667
2000-2001								1.000	1.500	1.000	1.000	2.667	1.000	1.000
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	1.250
2007-2008			6.000	1.333	1.000	2.250	1.000	1.000	1.000	1.000	0.944	1.059	0.667	
2008-2009		2.000	3.000	2.000	0.833	1.200	1.083	1.000	1.000	1.000	1.000	1.385		
2009-2010			6.000	2.167	1.077	1.071	1.000	1.067	1.000	1.000	0.813			
2010-2011		4.000	1.750	1.429	1.100	1.000	1.000	1.000	1.000	1.455				
2011-2012			4.000	1.250	1.400	1.143	0.938	1.000	0.733					
2012-2013		5.000	2.000	1.100	1.364	0.933	1.000	1.071						
2013-2014			1.667	2.000	0.900	1.111	1.400							
2014-2015		2.500	1.800	0.889	1.500	0.833								
2015-2016			3.000	1.667	1.200									
2016-2017			5.000	2.000										
2017-2018			5.000											
2018-2019														
2019-2020														
	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	3.478	1.500	1.123	1.285	1.043	1.095	1.062	1.038	1.057	1.254	0.880	1.240
Claim-Weighted														
Averages														
3-yr			4.000	1.400	1.179	0.944	1.075	1.025	0.905	1.125	0.915	1.140	0.848	1.094
4-yr			2.778	1.520	1.231	1.000	1.059	1.036	0.927	1.086	0.933	1.103	0.863	1.068
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
O dia ata d	4 000	0.500	0.000	4 050	4 004	4 004	4 00 4	4 00 1	4 00 1	4.004	4 00 1	4.004	4 00 1	1 001
Selected	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
Cumulated	44.564	11.141	3.183	1.061	1.010	1.009	1.008	1.007	1.006	1.005	1.004	1.003	1.002	1.001

#### Loss Trend Factors

		Factor to								
	Benefit	2020-2021	2021-2022	2022-2023	2023-2024	2020-2021	2021-2022	2022-2023	2023-2024	2020-2021
Accident	Level	Loss Rate	Loss Rate	Loss Rate	Loss Rate	Frequency	Frequency	Frequency	Frequency	Severity
Year	Factor	Level								
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
1999-2000	1.000	2.281	2.372	2.467	2.566	1.232	1.244	1.256	1.269	1.862
2000-2001	1.000	2.193	2.280	2.372	2.467	1.219	1.231	1.244	1.256	1.808
2001-2002	1.000	2.108	2.192	2.281	2.372	1.208	1.220	1.232	1.244	1.755
2002-2003	1.000	2.028	2.108	2.193	2.281	1.196	1.208	1.220	1.232	1.704
2003-2004	1.000	1.949	2.027	2.109	2.193	1.184	1.196	1.208	1.220	1.654
2004-2005	1.000	1.875	1.949	2.028	2.109	1.173	1.184	1.196	1.208	1.606
2005-2006	1.000	1.803	1.874	1.950	2.028	1.161	1.173	1.184	1.196	1.559
2006-2007	1.000	1.733	1.802	1.875	1.950	1.150	1.161	1.172	1.184	1.513
2007-2008	1.000	1.667	1.733	1.803	1.875	1.138	1.149	1.160	1.172	1.469
2008-2009	1.000	1.603	1.666	1.734	1.803	1.126	1.137	1.149	1.160	1.426
2009-2010	1.000	1.541	1.603	1.667	1.734	1.116	1.126	1.138	1.149	1.385
2010-2011	1.000	1.482	1.541	1.603	1.667	1.105	1.116	1.127	1.138	1.345
2011-2012	1.000	1.425	1.482	1.541	1.603	1.094	1.105	1.116	1.127	1.306
2012-2013	1.000	1.370	1.424	1.482	1.541	1.083	1.094	1.105	1.116	1.267
2013-2014	1.000	1.317	1.370	1.425	1.482	1.073	1.083	1.094	1.105	1.231
2014-2015	1.000	1.267	1.317	1.370	1.425	1.062	1.073	1.083	1.094	1.195
2015-2016	1.000	1.218	1.266	1.317	1.370	1.051	1.062	1.072	1.083	1.160
2016-2017	1.000	1.171	1.217	1.266	1.317	1.041	1.051	1.061	1.072	1.126
2017-2018	1.000	1.125	1.170	1.217	1.266	1.030	1.040	1.050	1.061	1.093
2018-2019	1.000	1.082	1.125	1.170	1.217	1.019	1.029	1.040	1.050	1.061
2019-2020	1.000	1.040	1.081	1.125	1.170	1.010	1.020	1.030	1.040	1.030
2020-2021	1.000	1.000	1.040	1.082	1.125	1.000	1.010	1.020	1.030	1.000
2021-2022	1.000		1.000	1.040	1.082		1.000	1.010	1.020	
2022-2023	1.000			1.000	1.040			1.000	1.010	
2023-2024	1.000				1.000				1.000	

Notes:

(A) No benefit level adjustment applied.

(B) - (E) (A) adjusted for a 4.0% annual loss rate trend.

(F) - (I) (A) adjusted for a 1.0% 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.

#### **Residual Trend Factors**

	Initial					
	Estimate of					
	Ultimate	Ultimate		Adjusted	Trended	
Accident	Limited	Reported		Limited	Payroll	Ultimate
Year	Losses	Claims	BLF	Severity	(\$00)	Frequency
	(A)	(B)	(C)	(D)	(E)	(F)
1999-2000	\$943,000	7	1.000	134,714	3,982,706	0.018
2000-2001	1,719,728	7	1.000	245,675	4,152,938	0.017
2001-2002	2,949,541	10	1.000	294,954	4,504,470	0.022
2002-2003	4,237,463	20	1.000	211,873	4,915,078	0.041
2003-2004	2,205,881	12	1.000	183,823	5,000,408	0.024
2004-2005	1,424,731	4	1.000	356,183	5,028,816	0.008
2005-2006	2,684,321	12	1.000	223,693	5,001,561	0.024
2006-2007	1,419,184	13	1.000	109,168	5,085,832	0.026
2007-2008	2,651,368	12	1.000	220,947	5,244,494	0.023
2008-2009	2,653,385	11	1.000	241,217	5,307,104	0.021
2009-2010	1,335,978	14	1.000	95,427	5,041,250	0.028
2010-2011	1,557,549	9	1.000	173,061	4,442,301	0.020
2011-2012	3,521,000	14	1.000	251,500	4,251,766	0.033
2012-2013	3,613,000	15	1.000	240,867	4,176,132	0.036
2013-2014	2,172,000	9	1.000	241,333	4,029,408	0.022
2014-2015	4,012,000	9	1.000	445,778	4,051,596	0.022
2015-2016	3,499,000	16	1.000	218,688	4,115,157	0.039
2016-2017	5,764,000	14	1.000	411,714	4,133,149	0.034
2017-2018	1,216,000	7	1.000	173,714	4,257,117	0.016
2018-2019	2,641,000	4	1.000	660,250	4,220,351	0.009
2019-2020	3,111,000	10	1.000	311,100	4,308,050	0.023

<u>Severity Tr</u>	end Factors	Frequency Trend Factors
2006-2007 through 2015-2016	1.091	1.032
2007-2008 through 2016-2017	1.086	1.045
2008-2009 through 2017-2018	1.064	1.006
Prior	1.030	1.010
Default	1.030	0.975
Selected Residual Trend	1.030	1.010

Notes:

(A) Selected average of results from \$100K to \$1M Rate Analysis Appendix A and \$100K to

(B) \$100K to \$1M Rate Analysis Appendix D, Page 3, Column (C).

(C) \$100K to \$1M Rate Analysis Appendix E, Page 1, (A).

(D) (A) x (C) / (B).

(E) From \$100K to \$1M Rate Analysis Appendix I, Column (C).

(F) (B) / (E) x 10,000.

#### Calculation of Discount Factors

Payment	Payment	Return on	Discounted	Undiscounted	Discount
Year	Pattern	Investment	Reserves	Reserves	Factor
(A)	(B)	(C)	(D)	(E)	(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	0.2%	2.0%	0.002	0.002	0.990
13	0.2%	2.0%	0.004	0.004	0.980
12	0.4%	2.0%	0.008	0.008	0.976
11	0.4%	2.0%	0.011	0.012	0.968
10	0.8%	2.0%	0.019	0.020	0.965
9	1.7%	2.0%	0.035	0.037	0.967
8	3.5%	2.0%	0.069	0.071	0.968
7	7.1%	2.0%	0.138	0.142	0.970
6	9.9%	2.0%	0.234	0.242	0.967
5	15.2%	2.0%	0.380	0.394	0.964
4	25.3%	2.0%	0.623	0.648	0.963
3	23.0%	2.0%	0.839	0.878	0.956
2	9.8%	2.0%	0.919	0.975	0.943
1	2.5%	2.0%	0.926	1.000	0.926
		(G) Discount Factor	for Future Funding:	2020-2021	0.935

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.

2021-2022

0.935

- (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% = [83.9% / 1.020] + [9.8% / (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.

# Confidence Level Table

Probability	Projected Losses	Outstanding Losses
95%	1.977	1.528
90%	1.679	1.372
85%	1.501	1.280
80%	1.368	1.211
75%	1.263	1.156
70%	1.173	1.109
65%	1.095	1.067
60%	1.026	1.029
55%	0.961	0.994
50%	0.901	0.961
45%	0.844	0.930
40%	0.789	0.899
35%	0.736	0.868
30%	0.682	0.837
25%	0.628	0.804

To road table:	For the above retention, there is a 00% above
TO TEAU LADIE.	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.

#### Incurred Losses as of 12/31/20

										Incurred
		Additions	Subtractions			Incurred	Incurred	Incurred	Incurred	Capped at
Accident	Unlimited	to	from	Adjusted	Incurred	Over	Capped at	\$100,000	Capped at	SIR &
Year	Incurred	Losses	Losses	Incurred	Over SIR	\$100,000	to SIR Layer	to SIR Layer	SIR	Aggregate
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
1999-2000	\$2,664,310	\$0	\$0	\$2,664,310	\$0	\$942,240	\$1,722,070	\$942,240	\$2,664,310	\$2,664,310
2000-2001	3,911,857	0	0	3,911,857	0	1,719,728	2,192,130	1,719,728	3,911,857	3,911,857
2001-2002	7,249,504	0	0	7,249,504	1,452,906	4,402,447	2,847,057	2,949,541	5,796,598	5,796,598
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	4,565,092	0	0	4,565,092	0	1,419,184	3,145,908	1,419,184	4,565,092	4,565,092
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	6,833,017	0	0	6,833,017	0	3,524,416	3,308,601	3,524,416	6,833,017	6,833,017
2013-2014	8,318,084	0	0	8,318,084	4,000,000	6,088,304	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	11,138,782	0	0	11,138,782	4,740,574	7,995,451	3,143,331	3,254,877	6,398,209	6,398,209
2016-2017	37,395,009	0	0	37,395,009	29,347,111	34,543,761	2,851,248	5,196,650	8,047,897	8,047,897
2017-2018	2,727,095	0	0	2,727,095	0	818,662	1,908,433	818,662	2,727,095	2,727,095
2018-2019	1,755,631	0	0	1,755,631	0	391,223	1,364,408	391,223	1,755,631	1,755,631
2019-2020	934,320	0	0	934,320	0	0	934,320	0	934,320	934,320
2020-2021	23,204,597	0	0	23,204,597	22,000,004	22,905,004	299,593	905,000	1,204,593	1,204,593
Total	\$172,572,801	\$0	\$0	\$172,572,801	\$67,675,014	\$116,903,406	\$55,669,395	\$49,228,392	\$104,897,787	\$104,897,787

#### 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.

#### Paid Losses as of 12/31/20

										Paid
		Additions	Subtractions			Paid	Paid	Paid	Paid	Capped at
Accident	Unlimited	to	from	Adjusted	Paid	Over	Capped at	\$100,000	Capped at	SIR &
Year	Paid	Losses	Losses	Paid	Over SIR	\$100,000	\$100,000	to SIR Layer	SIR	Aggregate
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
1999-2000	\$2,663,487	\$0	\$0	\$2,663,487	\$0	\$941,458	\$1,722,030	\$941,458	\$2,663,487	\$2,663,487
2000-2001	3,911,857	0	0	3,911,857	0	1,719,728	2,192,130	1,719,728	3,911,857	3,911,857
2001-2002	7,249,504	0	0	7,249,504	1,452,906	4,402,447	2,847,057	2,949,541	5,796,598	5,796,598
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	4,542,503	0	0	4,542,503	0	1,419,184	3,123,319	1,419,184	4,542,503	4,542,503
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	6,249,132	0	0	6,249,132	22,224	3,424,485	2,824,647	3,402,261	6,226,908	6,226,908
2012-2013	6,397,391	0	0	6,397,391	0	3,088,789	3,308,601	3,088,789	6,397,391	6,397,391
2013-2014	8,318,084	0	0	8,318,084	4,000,000	6,088,304	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	10,663,802	0	0	10,663,802	4,740,574	7,528,086	3,135,716	2,787,512	5,923,229	5,923,229
2016-2017	10,243,619	0	0	10,243,619	4,069,111	7,469,959	2,773,661	3,400,847	6,174,508	6,174,508
2017-2018	2,395,621	0	0	2,395,621	0	681,757	1,713,864	681,757	2,395,621	2,395,621
2018-2019	940,933	0	0	940,933	0	73,233	867,701	73,233	940,933	940,933
2019-2020	413,661	0	0	413,661	0	0	413,661	0	413,661	413,661
2020-2021	54,421	0	0	54,421	0	0	54,421	0	54,421	54,421
Total	\$119,604,139	\$0	\$0	\$119,604,139	\$20,397,010	\$65,499,683	\$54,104,456	\$45,102,673	\$99,207,129	\$99,207,129

#### 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.

(G) Sum of p. (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.

#### Case Reserves as of 12/31/20

Accident Year	Unlimited Reserves	Additions to Losses	Subtractions from Losses	Adjusted Reserves	Reserves Over SIR	Reserves Over \$100,000	Reserves Capped at to SIR Layer	Reserves \$100,000 to SIR Layer	Reserves Capped at SIR	Reserves Capped at SIR & Aggregate
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(1)	(J)	(K)
1999-2000	\$823	\$0	\$0	\$823	\$0	\$783	\$40	\$783	\$823	\$823
2000-2001	0	0	0	0	0	0	0	0	0	0
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	22,589	0	0	22,589	0	0	22,589	0	22,589	22,589
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	66,247	0	0	66,247	0	66,247	0	66,247	66,247	66,247
2012-2013	435,626	0	0	435,626	0	435,626	0	435,626	435,626	435,626
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	474,980	0	0	474,980	0	467,365	7,615	467,365	474,980	474,980
2016-2017	27,151,389	0	0	27,151,389	25,278,000	27,073,802	77,587	1,795,802	1,873,389	1,873,389
2017-2018	331,474	0	0	331,474	0	136,905	194,569	136,905	331,474	331,474
2018-2019	814,698	0	0	814,698	0	317,990	496,708	317,990	814,698	814,698
2019-2020	520,659	0	0	520,659	0	0	520,659	0	520,659	520,659
2020-2021	23,150,176	0	0	23,150,176	22,000,004	22,905,004	245,172	905,000	1,150,172	1,150,172
Total	\$52,968,662	\$0	\$0	\$52,968,662	\$47,278,004	\$51,403,723	\$1,564,939	\$4,125,719	\$5,690,658	\$5,690,658

#### Notes:

(A) Years are 7/1 to 6/30.

(B) \$100K to \$1M Rate Analysis Appendix H, Page 1, Column (B) - \$100K to \$1M Rate Analysis Appendix H, Page 2, Column (B).

(C) \$100K to \$1M Rate Analysis Appendix H, Page 1, Column (C) - \$100K to \$1M Rate Analysis Appendix H, Page 2, Column (C).

(D) \$100K to \$1M Rate Analysis Appendix H, Page 1, Column (D) - \$100K to \$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 (J) and the aggregate stop loss. See \$100K to \$1M Rate Analysis Not Included.

#### Claim Counts as of 12/31/20 in Excess of \$100K

		Additions to	Subtractions from	Adiusted		Additions to	Subtractions from	Adiusted		Adiusted
Accident	Reported	Reported	Reported	Reported	Closed	Closed	Closed	Closed	Open	Ópen
Year	Claims	Claims	Claims	Claims	Claims	Claims	Claims	Claims	Claims	Claims
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
1999-2000	7	0	0	7	6	0	0	6	1	1
2000-2001	7	0	0	7	7	0	0	7	0	0
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	13	0	0	13	3	3
2016-2017	13	0	0	13	6	0	0	6	7	7
2017-2018	6	0	0	6	2	0	0	2	4	4
2018-2019	3	0	0	3	0	0	0	0	3	3
2019-2020	0	0	0	0	0	0	0	0	0	0
2020-2021	2	0	0	2	0	0	0	0	2	2
Total	218	0	0	218	196	0	0	196	22	22

#### Notes:

(A) Years are 7/1 to 6/30.(B) Provided by the Authority.

(D) (D)

(E) (B) + (C) - (D).
(F) Provided by the Authority.

(G)

(H)

(I) (F) + (G) - (H).(J) (B) - (F).(K) (E) - (I).

# Exposure Measures

Accident Year	Total Payroll (\$00) (A)	Inflation Trend Factor (B)	Trended Payroll (\$00) (C)
1999-2000	2,372,070	1.679	3,982,706
2000-2001	2,535,371	1.638	4,152,938
2001-2002	2,818,817	1.598	4,504,470
2002-2003	3,152,712	1.559	4,915,078
2003-2004	3,287,579	1.521	5,000,408
2004-2005	3,388,690	1.484	5,028,816
2005-2006	3,454,117	1.448	5,001,561
2006-2007	3,599,315	1.413	5,085,832
2007-2008	3,803,114	1.379	5,244,494
2008-2009	3,945,802	1.345	5,307,104
2009-2010	3,842,416	1.312	5,041,250
2010-2011	3,470,548	1.280	4,442,301
2011-2012	3,404,136	1.249	4,251,766
2012-2013	3,425,867	1.219	4,176,132
2013-2014	3,388,905	1.189	4,029,408
2014-2015	3,492,755	1.160	4,051,596
2015-2016	3,635,298	1.132	4,115,157
2016-2017	3,743,794	1.104	4,133,149
2017-2018	3,952,755	1.077	4,257,117
2018-2019	4,015,558	1.051	4,220,351
2019-2020	4,202,976	1.025	4,308,050
2020-2021	4,406,222	1.000	4,406,222
2021-2022	4,538,409	1.000	4,538,409

- Notes:
- (A)
- Provided by the Authority. Based on industry factors.
- (B) (C) (A) x (B).
# Selection of Projected Limited Loss Rate and Projection of Program Losses and ULAE

Accident Year	Ultimate Limited Losses (A)	Trend Factor (B)	Trended Limited Losses (C)	Trended Payroll (\$00) (D)	Trended Limited Loss Rate (E)
1999-2000	0	2.062	0	0	0.000
2000-2001	2,192,130	1.993	4,368,915	4,152,938	1.052
2001-2002	2,847,057	1.925	5,480,585	4,504,470	1.217
2002-2003	4,646,965	1.860	8,643,355	4,915,078	1.759
2003-2004	3,509,537	1.797	6,306,638	5,000,408	1.261
2004-2005	2,444,607	1.736	4,243,838	5,028,816	0.844
2005-2006	2,947,359	1.678	4,945,668	5,001,561	0.989
2006-2007	3,146,000	1.621	5,099,666	5,085,832	1.003
2007-2008	3,147,259	1.566	4,928,608	5,244,494	0.940
2008-2009	2,711,703	1.513	4,102,807	5,307,104	0.773
2009-2010	2,538,522	1.461	3,708,781	5,041,250	0.736
2010-2011	2,013,526	1.412	2,843,099	4,442,301	0.640
2011-2012	2,825,000	1.364	3,853,300	4,251,766	0.906
2012-2013	3,309,000	1.318	4,361,262	4,176,132	1.044
2013-2014	2,229,780	1.273	2,838,510	4,029,408	0.704
2014-2015	2,938,392	1.230	3,614,222	4,051,596	0.892
2015-2016	3,156,000	1.189	3,752,484	4,115,157	0.912
2016-2017	2,871,000	1.148	3,295,908	4,133,149	0.797
2017-2018	1,951,000	1.109	2,163,659	4,257,117	0.508
2018-2019	1,726,000	1.071	1,848,546	4,220,351	0.438
2019-2020	2,321,000	1.035	2,402,235	4,308,050	0.558
Totals	\$55,471,837		\$82,802,086	91,266,978	\$0.907
12/13-17/18	16,455,172		20,026,045	24,762,559	0.809
13/14-18/19	14,872,172		17,513,329	24,806,778	0.706
			(F) Selected	d Limited Rate:	\$0.825
				Prior \$100K:	\$0.860
			Prior	\$100K to \$1M:	\$1.063
			\$100,000	\$1,000,000	\$100K - \$1M
Program Year:			2021-2022	2021-2022	2021-2022
(G) Factor to S	IR:		1.000	2.214	
(H) Trend Fact	or:		1.035	1.035	
(I) Program Ra	te:		\$0.854	\$1.891	\$1.037
(J) Trended Pay	yroll (\$00):		4,406,222	4,538,409	4,538,409
(K) Projected F	Program Losses:		3,763,000	8,582,000	4,706,000
(L) Projected U	JLAE:		0	0	0
(M) Projected L	loss and ULAE:		\$3,763,000	\$8,582,000	\$4,706,000

Notes appear on the next page.

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

#### Notes:

- (A) From \$100K and \$1M Rate Analysis Not Included, Page 2, Column (F). For purposes of projecting future losses, losses are capped at \$100,000 per occurrence.
- (B) From \$100K and \$1M Rate Analysis Appendix E, Page 1, Column (B).
- (C) (A) x (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) (F) x (G) x (H).
- (J) From \$100K and \$1M Rate Analysis Appendix I, Column (C).
- (K) (I) x (J).
- (L) Based on an estimated claim closing pattern and the Authority'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.

#### Reported Loss Development

	Limited	Reported		Program	Reported	
	Reported	Loss	Ultimate	Reported	Loss	Ultimate
Accident	Losses as	Development	Limited	Losses	Development	Program
Year	of 12/31/20	Factor	Losses	of 12/31/20	Factor	Losses
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1999-2000	\$1,722,070	1.000	\$1,722,070	\$2,664,310	1.000	\$2,664,310
2000-2001	2,192,130	1.000	2,192,130	3,911,857	1.000	3,911,857
2001-2002	2,847,057	1.000	2,847,057	5,796,598	1.000	5,796,598
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	3,145,908	1.000	3,145,908	4,565,092	1.000	4,565,092
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	1.001	5,370,453
2009-2010	2,538,522	1.000	2,538,522	3,874,500	1.003	3,886,124
2010-2011	2,013,526	1.000	2,013,526	3,571,075	1.004	3,585,359
2011-2012	2,824,647	1.000	2,824,647	6,293,156	1.007	6,337,208
2012-2013	3,308,601	1.000	3,308,601	6,833,017	1.011	6,908,180
2013-2014	2,229,780	1.001	2,232,010	4,318,084	1.019	4,400,128
2014-2015	2,938,392	1.002	2,944,269	6,737,773	1.027	6,919,693
2015-2016	3,143,331	1.004	3,155,904	6,398,209	1.038	6,641,341
2016-2017	2,851,248	1.007	2,871,207	8,047,897	1.066	8,579,058
2017-2018	1,908,433	1.017	1,940,876	2,727,095	1.152	3,141,613
2018-2019	1,364,408	1.037	1,414,891	1,755,631	1.320	2,317,433
2019-2020	934,320	1.447	1,351,961	934,320	2.201	2,056,438
Totals	\$55,369,803		\$55,911,009	\$103,693,194		\$106,980,377

#### Notes:

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

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

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

# DRAFT

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

		Limited Loss	ses 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
1999-2000				1,887,472	1,844,959	1,844,459	1,838,459	1,825,620	1,825,620	1,825,620	1,825,620
2000-2001			2,502,195	2,256,049	2,413,689	2,435,656	2,425,865	2,387,404	2,387,404	2,382,404	2,382,404
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	
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		
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			
2014-2015	325.035	2.666.242	3.946.907	3.795.367	3.350.810	3.291.420	3.281.784	, ,			
2015-2016	371 511	2 328 347	3 291 200	3 149 726	3 155 562	3 143 331	-, -, -				
2016-2017	290.633	1.930.274	2.754.128	2.812.484	2.851.248	-,,					
2017-2018	199 803	1 368 867	1 871 566	1 908 433	2,00.,2.0						
2018-2019	65 888	691 395	1 364 408	1,000,100							
2019-2020	184 043	934 320	.,,								
2020-2021	299 593	001,020									
2020 2021	200,000										
		Reported Lo	ss Developn	nent Factors	:						
	6-18	18-30	30-42	42-54	<u>.</u> 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
1999-2000				0.977	1 000	0.997	0.993	1 000	1 000	1 000	1 000
2000-2001			0 902	1 070	1 009	0.996	0.984	1 000	0.998	1 000	1 000
2001-2002		1 028	1 154	1 020	1 031	1 016	0.984	1 006	0.998	1 030	0.987
2002-2003	2 855	1 121	1 073	1 029	1 017	0.998	1 019	1 013	1 009	0.993	1 000
2003-2004	3 200	1 274	1 128	1 042	1 048	1 009	0.972	1 029	1 000	1 000	1 000
2004-2005	2 390	1 429	0.906	1.077	0.946	1.000	0.072	1 003	1 000	1.000	1 001
2005-2006	4 307	1 295	1 059	1.077	1 005	1.011	1 001	1.003	0.000	1.000	1.001
2006-2007	3 097	1 200	1.000	1.041	1.000	1.021	1.001	1.007	1 000	1.000	1.000
2000-2007	2 771	1 281	1 157	1.040	0.991	0.995	0.977	1.000	1.000	1.000	0.977
2008-2009	5 225	1 228	0 944	1.020	1 010	0.000	1 001	0 999	1.000	0.997	1 003
2000-2000	4 4 1 5	1 141	0.810	1.000	0 999	1 000	1.001	1 000	1.001	1 000	1.000
2000-2010	5 4 2 8	0 990	0.010	0.951	0.000	0.981	1.000	0.995	1.000	1.000	1.000
2010-2011	5 8/2	1 032	0.007	0.001	0.070	0.066	1.000	1 000	1.000	1.000	
2017-2012	9 147	0.912	0.041	0.007	0.000	0.000	1.000	1.000	1.000		
2012-2013	2 671	1 107	0.014	1 015	0.000	1 000	1.000	1.025			
2010-2014	8 203	1.107	0.062	0.883	0.001	0.007	1.000				
2014-2015	6 267	1 / 1 /	0.902	1 002	0.902	0.337					
2015-2010	6.642	1.414	1 021	1.002	0.330						
2010-2017	6 851	1.427	1.021	1.014							
2018-2010	10 / 03	1 073	1.020								
2010-2019	5 077	1.575									
2019-2020	5.077										
	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
Average	5 276	1 267	0 007	1 010	0 008	0 000	0 005	1 006	1 000	1 002	0 007
Dollar-Weighted	5.210	1.207	0.001	1.010	0.000	0.000	0.000	1.000	1.000	1.002	0.331
3-vr	6 650	1 501	0 001	0 050	0 072	0 005	1 001	1 010	1 000	0 000	0 000
A_vr	6 652	1 /60	0.004	0.009	0.010	0.000	1 001	1 007	1 000	0.000	0.004
yi Comparativo	0.002	1.409	0.903	0.371	0.903	0.907	1.001	1.007	1.000	0.999	0.994
Factors	2 000	1 200	1 016	0 070	0 007	0 000	1 000	1 001	1 000	1 000	1 000
Prior	2.999 6.270	1 2/2	1.010	1 010	1 002	1 000	1 000	1 001	1.000	1.000	1.000
	0.219	1.040	1.020	1.010	1.003	1.002	1.001	1.001	1.000	1.000	1.000
Selected	6.216	1.395	1.020	1.010	1.003	1.002	1.001	1.001	1.000	1.000	1.000
Cumulated	8.995	1.447	1.037	1.017	1.007	1.004	1.002	1.001	1.000	1.000	1.000

# DRAFT

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

Accident	Limited Loss 138	ses Reported 150	<u>l as of:</u> 162	174	186	198	210	222	234	246	258
Year 1999-2000 2000-2001 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	Months 1,825,620 2,382,504 3,000,035 4,977,421 3,560,542 2,867,654 3,789,394 3,394,936 4,159,284 3,347,708 3,127,921	Months 1,825,620 2,482,404 3,027,919 4,977,421 3,560,542 2,867,654 3,788,958 3,400,836 4,259,284 3,347,708	Months 1,825,620 2,482,404 3,012,173 4,977,421 3,560,542 2,867,654 3,788,958 3,400,836 4,259,284	Months 1,825,620 2,482,404 3,012,173 4,977,421 3,560,542 2,867,654 3,788,958 3,425,837	Months 1,825,620 2,485,232 3,012,173 4,977,421 3,560,542 2,867,654 3,788,958	Months 1,826,007 2,482,404 3,012,173 4,977,421 3,560,542 2,867,654	Months 1,825,620 2,485,232 3,012,173 4,977,421 3,560,542	Months 1,826,007 2,485,232 3,012,173 4,977,421	Months 1,826,007 2,485,232 3,012,173	Months 1,826,007 2,485,232	Months 1,833,872
1999-2000 2000-2001 2002-2003 2003-2004 2004-2005 2005-2006 2006-2007 2007-2008 2009-2010 2010-2011 2011-2012 2012-2013 2013-2014 2014-2015 2015-2016 2016-2017 2017-2018 2018-2019 2019-2020	Reported Lo 138-150 Months 1.000 1.042 1.009 1.000 1.000 1.000 1.000 1.002 1.024 1.024	<u>150-162</u> Months 1.000 1.000 0.995 1.000 1.000 1.000 1.000 1.000	nent Factors 162-174 Months 1.000 1.000 1.000 1.000 1.000 1.000 1.007	174-186 Months 1.000 1.001 1.000 1.000 1.000 1.000	186-198 Months 1.000 0.999 1.000 1.000 1.000	198-210 Months 1.000 1.000 1.000 1.000	210-222 Months 1.000 1.000 1.000	222-234 Months 1.000 1.000	234-246 Months 1.000 1.000	246-258 Months 1.004	258-Ult. Months
Average Dollar-Weighted	138-150 Months 1.008	150-162 Months 0.999	162-174 Months 1.001	174-186 Months 1.000	186-198 Months 1.000	198-210 Months 1.000	210-222 Months 1.000	222-234 Months 1.000	234-246 Months 1.000	246-258 Months 1.004	258-Ult. Months
Averages 3-yr 4-yr Comparative	1.010 1.007	1.000 1.000	1.002 1.002	1.000 1.000	1.000 1.000	1.000 1.000	1.000 1.000	1.000			
Factors Prior	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
Selected	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulated	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

#### Paid Loss Development

	Limited			Program		
	Paid	Paid Loss	Ultimate	Paid	Paid Loss	Ultimate
Accident	Losses as	Development	Limited	Losses	Development	Program
Year	of 12/31/20	Factor	Losses	of 12/31/20	Factor	Losses
(A)	(B)	(C)	(D)	(E)	(F)	(G)
1999-2000	\$1,722,030	1.000	\$1,722,030	\$2,663,487	1.000	\$2,663,487
2000-2001	2,192,130	1.000	2,192,130	3,911,857	1.000	3,911,857
2001-2002	2,847,057	1.000	2,847,057	5,796,598	1.000	5,796,598
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	3,123,319	1.000	3,123,319	4,542,503	1.000	4,542,503
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	1.001	5,370,453
2009-2010	2,538,522	1.001	2,541,061	3,874,500	1.003	3,886,124
2010-2011	2,013,526	1.002	2,017,553	3,571,075	1.005	3,588,930
2011-2012	2,824,647	1.004	2,835,946	6,226,908	1.009	6,282,950
2012-2013	3,308,601	1.007	3,331,761	6,397,391	1.015	6,493,352
2013-2014	2,229,780	1.011	2,254,308	4,318,084	1.029	4,443,308
2014-2015	2,938,392	1.019	2,994,221	6,737,773	1.058	7,128,564
2015-2016	3,135,716	1.031	3,232,923	5,923,229	1.122	6,645,863
2016-2017	2,773,661	1.057	2,931,760	6,174,508	1.210	7,471,155
2017-2018	1,713,864	1.137	1,948,663	2,395,621	1.453	3,480,837
2018-2019	867,701	1.542	1,337,995	940,933	2.409	2,266,708
2019-2020	413,661	3.121	1,291,036	413,661	5.741	2,374,828
Totals	\$54,050,037		\$56,009,193	\$99,152,708		\$106,247,009

#### 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 \$100K and \$1M Rate Analysis Appendix B, Page 4.
- (G) (E) x (F).

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

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

# DRAFT

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

		Limited Loss	es Paid as d	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
1999-2000				1,731,851	1,768,612	1,824,459	1,824,459	1,825,620	1,825,620	1,825,620	1,825,620
2000-2001			1,691,549	2,066,275	2,230,962	2,324,934	2,376,109	2,382,404	2,382,404	2,382,404	2,382,404
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	2,035,407	3,050,448	4,101,554	4,208,833	4,228,474	4,250,077	4,259,284	4,259,284	4,209,284
2000-2009	201 727	1,020,079	2,100,000	2,792,009	3,110,459	3,330,900	3,343,021	3,347,700	3,340,029	3,347,700	3,330,900
2009-2010	106 645	872 432	2,274,017	2,017,091	2,990,274	2 305 1/3	2 306 051	2 306 051	2 306 051	2 306 051	2 306 051
2010-2011	114 016	832 713	2 112 380	2,207,300	2,313,013	2,333,143	3 127 725	2,390,001	2,390,001	3 127 725	2,000,001
2011-2012	98 607	934 308	2,112,500	3 124 392	3 371 000	3 450 380	3 450 659	3 4 5 9 9 0 6	3 559 906	5,127,725	
2012-2013	130 461	888 140	2,290,004	2 316 155	2 654 568	2 539 618	2 539 618	2 539 618	5,555,500		
2014-2015	91 368	1 387 749	2 717 926	3 379 346	3 268 352	3 281 784	3 281 784	2,000,010			
2015-2016	98 110	679 755	1 782 598	2 795 127	2 999 838	3 135 716	0,201,101				
2016-2017	30 679	920 995	1 975 490	2 421 836	2 773 661	0,100,110					
2017-2018	31.268	758,485	1,188,193	1.713.864	_,,						
2018-2019	16.322	417.918	867.701	.,,							
2019-2020	65,521	413,661	,-								
2020-2021	54,421	- ,									
	,										
		Paid Loss D	evelopment	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
1999-2000				1.021	1.032	1.000	1.001	1.000	1.000	1.000	1.000
2000-2001			1.222	1.080	1.042	1.022	1.003	1.000	1.000	1.000	1.000
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	0.315	2.144	1.277	1.114	1.073	1.002	1.001	0.999	1.001	0.997	1.003
2009-2010	3.408 0.101	2.174	1.238	1.064	1.025	1.014	1.004	1.000	1.000	1.000	1.000
2010-2011	0.101	1.940	1.302	1.014	1.033	1.000	1.000	1.000	1.000	1.000	
2011-2012	0.475	2.557	1.302	1.133	1 023	1.003	1.000	1.000	1.000		
2012-2013	6 808	2.401	1 304	1 146	0.957	1.000	1.000	1.025			
2013-2014	15 189	1 959	1 243	0.967	1 004	1.000	1.000				
2015-2016	6 928	2 622	1.568	1 073	1 045	1.000					
2016-2017	30 020	2 145	1 226	1 145	1.010						
2017-2018	24.258	1.567	1.442								
2018-2019	25.605	2.076									
2019-2020	6.313										
	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
Average	11.094	2.015	1.345	1.088	1.024	1.010	1.004	1.006	1.001	1.002	0.999
Dollar-Weighted											
Averages											
3-yr	14.058	1.922	1.401	1.052	1.004	1.000	1.001	1.011	1.000	0.999	0.992
4-yr	17.463	2.094	1.345	1.072	1.009	1.001	1.001	1.008	1.000	0.999	0.994
Comparative		- ·									
⊢actors	4.341	2.135	1.445	1.148	1.053	1.029	1.016	1.010	1.009	1.007	1.007
Prior	16.544	2.065	1.333	1.076	1.025	1.012	1.008	1.004	1.003	1.002	1.001
Selected	16.544	2.024	1.356	1.076	1.025	1.012	1.008	1.004	1.003	1.002	1.001
Cumulated	51.633	3.121	1.542	1.137	1.057	1.031	1.019	1.011	1.007	1.004	1.002

# DRAFT

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

	Limited Loss	ses Paid as o	of:								
Accident Year 1999-2000 2000-2001 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 2013-2014 2014-2015 2015-2016 2016-2017 2017-2018 2018-2019 2019-2020 2020-2021	138 Months 1,825,620 2,382,404 3,000,035 4,977,421 3,560,542 2,867,654 3,789,394 3,394,936 4,159,284 3,347,708 3,127,921	150 Months 1,825,620 2,482,404 3,000,611 4,977,421 3,560,542 2,867,654 3,788,958 3,400,836 4,259,284 3,347,708	162 Months 1,825,620 2,482,404 3,012,173 4,977,421 3,560,542 2,867,654 3,788,958 3,400,836 4,259,284	174 Months 1,825,620 2,482,404 3,012,173 4,977,421 3,560,542 2,867,654 3,788,958 3,403,249	186 Months 1,825,620 2,485,232 3,012,173 4,977,421 3,560,542 2,867,654 3,788,958	198 Months 1,826,007 2,482,404 3,012,173 4,977,421 3,560,542 2,867,654	210 Months 1,825,620 2,485,232 3,012,173 4,977,421 3,560,542	222 Months 1,826,007 2,485,232 3,012,173 4,977,421	234 Months 1,826,007 2,485,232 3,012,173	246 Months 1,826,007 2,485,232	258 Months 1,833,832
1999-2000 2000-2001 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	Paid Loss D 138-150 Months 1.000 1.042 1.000 1.000 1.000 1.000 1.000 1.002 1.024 1.024	evelopment 150-162 Months 1.000 1.000 1.000 1.000 1.000 1.000 1.000 1.000	<u>Factors:</u> 162-174 Months 1.000 1.000 1.000 1.000 1.000 1.001	174-186 Months 1.000 1.000 1.000 1.000 1.000	186-198 Months 1.000 0.999 1.000 1.000 1.000	198-210 Months 1.000 1.000 1.000 1.000	210-222 Months 1.000 1.000 1.000	222-234 Months 1.000 1.000	234-246 Months 1.000 1.000	246-258 Months 1.004	258-Ult. Months
Average Dollar-Weighted	138-150 Months 1.007	150-162 Months 1.000	162-174 Months 1.000	174-186 Months 1.000	186-198 Months 1.000	198-210 Months 1.000	210-222 Months 1.000	222-234 Months 1.000	234-246 Months 1.000	246-258 Months 1.004	258-Ult. Months
Averages 3-yr 4-yr	1.010 1.007	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			
Factors Prior	1.006 1.001	1.005 1.000	1.004 1.000	1.003 1.000	1.001 1.000	1.002 1.000	1.001 1.000	1.001 1.000	1.001 1.000	1.000 1.000	1.001 1.000
Selected	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulated	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

#### Exposure and Development Method Based on Reported Losses

				Percentage		Incurred	
	Trended	Reported	Loss	of Losses		but not	Ultimate
Accident	Payroll	Losses as	Development	Yet to Be	Program	Reported	Program
Year	(\$00)	of 12/31/20	Factor	Reported	Rate	(IBNR)	Losses
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
1999-2000	0		1.000	0.000	0.567	0	
2000-2001	4,152,938	3,911,857	1.000	0.000	0.783	0	3,911,857
2001-2002	4,504,470	5,796,598	1.000	0.000	0.953	0	5,796,598
2002-2003	4,915,078	8,884,428	1.000	0.000	1.448	0	8,884,428
2003-2004	5,000,408	5,715,419	1.000	0.000	1.095	0	5,715,419
2004-2005	5,028,816	3,869,337	1.000	0.000	0.772	0	3,869,337
2005-2006	5,001,561	5,631,680	1.000	0.000	0.953	0	5,631,680
2006-2007	5,085,832	4,565,092	1.000	0.000	1.020	0	4,565,092
2007-2008	5,244,494	5,798,628	1.000	0.000	1.007	0	5,798,628
2008-2009	5,307,104	5,365,088	1.001	0.001	0.875	4,644	5,369,732
2009-2010	5,041,250	3,874,500	1.003	0.003	0.879	13,294	3,887,794
2010-2011	4,442,301	3,571,075	1.004	0.004	0.806	14,322	3,585,397
2011-2012	4,251,766	6,293,156	1.007	0.007	1.205	35,864	6,329,020
2012-2013	4,176,132	6,833,017	1.011	0.011	1.465	67,298	6,900,315
2013-2014	4,029,408	4,318,084	1.019	0.019	1.043	79,851	4,397,935
2014-2015	4,051,596	6,737,773	1.027	0.026	1.396	147,057	6,884,830
2015-2016	4,115,157	6,398,209	1.038	0.037	1.322	201,289	6,599,498
2016-2017	4,133,149	8,047,897	1.066	0.062	1.397	357,989	8,405,886
2017-2018	4,257,117	2,727,095	1.152	0.132	1.474	828,299	3,555,394
2018-2019	4,220,351	1,755,631	1.320	0.242	1.559	1,592,246	3,347,877
2019-2020	4,308,050	934,320	2.201	0.546	1.645	3,869,361	4,803,681
Totals	91,266,978	\$101,028,884				\$7,211,514	\$108,240,398

#### Notes:

- (A) From \$100K and \$1M 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 \$100K and \$1M Rate Analysis Appendix A, Page 1, Column (F).

(D) 1 - 1/(C).

(E) From \$100K and \$1M Rate Analysis Appendix C, Page 3, Column (H).

(F) (A) x (D) x (E).

(G) (B) + (F).

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

#### Exposure and Development Method Based on Paid Losses

Accident Year	Trended Payroll (\$00)	Paid Losses as of 12/31/20	Loss Development Factor	Percentage of Losses Yet to Be Paid	Program Rate	Incurred but not Paid	Ultimate Program Losses
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
1999-2000	0		1.000	0.000	0.567	0	
2000-2001	4,152,938	3,911,857	1.000	0.000	0.783	0	3,911,857
2001-2002	4,504,470	5,796,598	1.000	0.000	0.953	0	5,796,598
2002-2003	4,915,078	8,884,428	1.000	0.000	1.448	0	8,884,428
2003-2004	5,000,408	5,715,419	1.000	0.000	1.095	0	5,715,419
2004-2005	5,028,816	3,869,337	1.000	0.000	0.772	0	3,869,337
2005-2006	5,001,561	5,631,680	1.000	0.000	0.953	0	5,631,680
2006-2007	5,085,832	4,542,503	1.000	0.000	1.020	0	4,542,503
2007-2008	5,244,494	5,798,628	1.000	0.000	1.007	0	5,798,628
2008-2009	5,307,104	5,365,088	1.001	0.001	0.875	4,644	5,369,732
2009-2010	5,041,250	3,874,500	1.003	0.003	0.879	13,294	3,887,794
2010-2011	4,442,301	3,571,075	1.005	0.005	0.806	17,902	3,588,977
2011-2012	4,251,766	6,226,908	1.009	0.009	1.205	46,110	6,273,018
2012-2013	4,176,132	6,397,391	1.015	0.015	1.465	91,771	6,489,162
2013-2014	4,029,408	4,318,084	1.029	0.028	1.043	117,675	4,435,759
2014-2015	4,051,596	6,737,773	1.058	0.055	1.396	311,082	7,048,855
2015-2016	4,115,157	5,923,229	1.122	0.109	1.322	592,986	6,516,215
2016-2017	4,133,149	6,174,508	1.210	0.174	1.397	1,004,678	7,179,186
2017-2018	4,257,117	2,395,621	1.453	0.312	1.474	1,957,797	4,353,418
2018-2019	4,220,351	940,933	2.409	0.585	1.559	3,849,023	4,789,956
2019-2020	4,308,050	413,661	5.741	0.826	1.645	5,853,649	6,267,310
Totals	91,266,978	\$96,489,221				\$13,860,611	\$110,349,832

#### Notes:

- (A) From \$100K and \$1M 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 \$100K and \$1M Rate Analysis Appendix B, Page 1, Column (F).
- (D) 1 1/(C).
- (E) From \$100K and \$1M Rate Analysis Appendix C, Page 3, Column (H).
- (F) (A) x (D) x (E).
- (G) (B) + (F).

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

#### Exposure and Development Method

	Trended	Ultimate		Trended	Trended			
Accident	Payroll	Limited	Trend	Limited	Limited	Limited	Factor to	Program
Year	(\$00)	Losses	Factor	Losses	Loss Rate	Loss Rate	SIR	Loss Rate
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
1999-2000	0		2.062			0.388	1.460	0.567
2000-2001	4,152,938	2,192,130	1.993	4,368,915	1.052	0.528	1.483	0.783
2001-2002	4,504,470	2,847,057	1.925	5,480,585	1.217	0.632	1.508	0.953
2002-2003	4,915,078	4,646,965	1.860	8,643,355	1.759	0.945	1.533	1.448
2003-2004	5,000,408	3,509,537	1.797	6,306,638	1.261	0.702	1.559	1.095
2004-2005	5,028,816	2,444,607	1.736	4,243,838	0.844	0.486	1.588	0.772
2005-2006	5,001,561	2,947,359	1.678	4,945,668	0.989	0.589	1.618	0.953
2006-2007	5,085,832	3,146,000	1.621	5,099,666	1.003	0.619	1.648	1.020
2007-2008	5,244,494	3,147,259	1.566	4,928,608	0.940	0.600	1.678	1.007
2008-2009	5,307,104	2,711,703	1.513	4,102,807	0.773	0.511	1.712	0.875
2009-2010	5,041,250	2,538,522	1.461	3,708,781	0.736	0.504	1.743	0.879
2010-2011	4,442,301	2,013,526	1.412	2,843,099	0.640	0.453	1.779	0.806
2011-2012	4,251,766	2,825,000	1.364	3,853,300	0.906	0.664	1.814	1.205
2012-2013	4,176,132	3,309,000	1.318	4,361,262	1.044	0.792	1.850	1.465
2013-2014	4,029,408	2,229,780	1.273	2,838,510	0.704	0.553	1.887	1.043
2014-2015	4,051,596	2,938,392	1.230	3,614,222	0.892	0.725	1.926	1.396
2015-2016	4,115,157	3,156,000	1.189	3,752,484	0.912	0.673	1.965	1.322
2016-2017	4,133,149	2,871,000	1.148	3,295,908	0.797	0.697	2.004	1.397
2017-2018	4,257,117	1,941,000	1.109	2,152,569	0.506	0.721	2.044	1.474
2018-2019	4,220,351	1,415,000	1.071	1,515,465	0.359	0.747	2.087	1.559
2019-2020	4,308,050	1,321,000	1.035	1,367,235	0.317	0.773	2.127	1.645
Total/Avg	91,266,978	\$54,150,837		\$81,422,915	\$0.892			
14/15-17/18	16,557,019	10,906,392		12,815,183	0.774			
15/16-18/19	16,725,774	9,383,000		10,716,426	0.641			
			Selecte	d Limited Rate:	\$0.800			
				Prior:	\$0.860			

#### Notes:

- (A) From \$100K and \$1M Rate Analysis Appendix I, Column (C).
- (B) Selected average of results from Appendices and .
- (C) From \$100K and \$1M Rate Analysis Appendix E, Page 1, Column (B).
- (D) (B) x (C).
- (E) (D) / (A).
- (F) Selected Limited Rate / (C). For 2014-2015 and prior (B) / (A).
- (G) Based on a Burr distribution, a mathematical model of claim sizes.
- (H) (F) x (G).

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

#### Frequency and Severity Method

Assidant	Ultimate	Adjusted	Ultimate
Accident	Program	Olumate	Program
rear	Severity	Claims	Losses
	(A)	(B)	(C)
1999-2000	\$4,214	597	\$2,515,758
2000-2001	5,744	566	3,251,104
2001-2002	6,332	678	4,293,096
2002-2003	9,434	755	7,122,670
2003-2004	8,728	627	5,472,456
2004-2005	6,857	566	3,881,062
2005-2006	8,483	562	4,767,446
2006-2007	9,000	576	5,184,000
2007-2008	7,977	662	5,280,774
2008-2009	7,866	590	4,640,940
2009-2010	8,544	518	4,425,792
2010-2011	8,590	417	3,582,030
2011-2012	11,836	433	5,124,988
2012-2013	12,339	496	6,120,144
2013-2014	9,475	444	4,206,900
2014-2015	11,862	477	5,658,174
2015-2016	10,501	493	5,176,993
2016-2017	11,032	515	5,681,480
2017-2018	11,595	488	5,658,360
2018-2019	12,195	428	5,219,460
2019-2020	12,805	397	5,083,585
Total		11,285	\$102,347,212

#### 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) 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.

#### Frequency and Severity Method

	Ultimate	Adjusted	Ultimate		Trended			
Accident	Limited	Ultimate	Limited	Trend	Limited	Limited	Factor to	Program
Year	Losses	Claims	Severity	Factor	Severity	Severity	SIR	Severity
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
1999-2000	\$1,723,000	597	\$2,886	1.862	\$5,374	\$2,886	1.460	\$4,214
2000-2001	2,192,130	566	3,873	1.808	7,002	3,873	1.483	5,744
2001-2002	2,847,057	678	4,199	1.755	7,369	4,199	1.508	6,332
2002-2003	4,646,965	755	6,155	1.704	10,488	6,155	1.533	9,434
2003-2004	3,509,537	627	5,597	1.654	9,257	5,597	1.559	8,728
2004-2005	2,444,607	566	4,319	1.606	6,936	4,319	1.588	6,857
2005-2006	2,947,359	562	5,244	1.559	8,175	5,244	1.618	8,483
2006-2007	3,146,000	576	5,462	1.513	8,264	5,462	1.648	9,000
2007-2008	3,147,259	662	4,754	1.469	6,984	4,754	1.678	7,977
2008-2009	2,711,703	590	4,596	1.426	6,554	4,596	1.712	7,866
2009-2010	2,538,522	518	4,901	1.385	6,788	4,901	1.743	8,544
2010-2011	2,013,526	417	4,829	1.345	6,495	4,829	1.779	8,590
2011-2012	2,825,000	433	6,524	1.306	8,520	6,524	1.814	11,836
2012-2013	3,309,000	496	6,671	1.267	8,452	6,671	1.850	12,339
2013-2014	2,229,780	444	5,022	1.231	6,182	5,022	1.887	9,475
2014-2015	2,938,392	477	6,160	1.195	7,361	6,160	1.926	11,862
2015-2016	3,156,000	493	6,402	1.160	7,426	5,345	1.965	10,501
2016-2017	2,871,000	515	5,575	1.126	6,277	5,506	2.004	11,032
2017-2018	1,951,000	488	3,998	1.093	4,370	5,672	2.044	11,595
2018-2019	1,726,000	428	4,033	1.061	4,279	5,844	2.087	12,195
2019-2020	2,321,000	397	5,846	1.030	6,021	6,019	2.127	12,805

	Average Limited Severity:	\$7,075
Average	14/15-17/18 Limited Severity:	6,359
Average	15/16-18/19 Limited Severity:	5,588

Selected Limited Severity:	\$6,200
Prior:	\$6,600

Notes:

- (A) Selected average of results from Appendices , , and .
- (B) \$100K and \$1M Rate Analysis Appendix D, Page 3, Column (C).

(C) (A) / (B).
(D) From \$100K and \$1M Rate Analysis Appendix E, Page 1, Column (J).

(E) (C) x (D).

- (F) Selected Limited Severity / (D).
- (G) Based on a Burr distribution, a mathematical model of claim sizes.

(H) (F) x (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.

#### 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) (D)	Claim Frequency (E)	Trend Factor (F)	Trended Claim Frequency (G)
1999-2000	597	595	597	0.0		1.107	
2000-2001	566	566	566	415.3	1.363	1.101	1.501
2001-2002	678	678	678	450.4	1.505	1.096	1.649
2002-2003	755	755	755	491.5	1.536	1.090	1.674
2003-2004	627	627	627	500.0	1.254	1.084	1.359
2004-2005	566	566	566	502.9	1.126	1.079	1.215
2005-2006	562	562	562	500.2	1.124	1.074	1.207
2006-2007	576	575	576	508.6	1.133	1.069	1.211
2007-2008	662	663	662	524.4	1.262	1.064	1.343
2008-2009	590	591	590	530.7	1.112	1.059	1.178
2009-2010	518	520	518	504.1	1.028	1.054	1.084
2010-2011	417	419	417	444.2	0.939	1.049	0.985
2011-2012	433	434	433	425.2	1.018	1.044	1.063
2012-2013	496	498	496	417.6	1.188	1.039	1.234
2013-2014	444	448	444	402.9	1.102	1.034	1.139
2014-2015	477	484	477	405.2	1.177	1.030	1.212
2015-2016	493	497	493	411.5	1.198	1.025	1.228
2016-2017	515	512	515	413.3	1.246	1.020	1.271
2017-2018	488	493	488	425.7	1.146	1.015	1.163
2018-2019	428	404	428	422.0	1.014	1.010	1.024
2019-2020	435	358	397	430.8	0.920	1.005	0.925
Total	11,323	11,245	11,285	9,126.7			1.237
14/15-18/19	2,401	2,390	2,401	2,077.7			1.179
					(H) Seleo	cted Frequency:	1.200
						Prior:	1.225
	Program Year:			2020-2021	2021-2022		
(1)	Trend Factor:			1.000	1.005		

(I)	Trend Factor:	
(J)	Selected Frequency:	
$(\mathbf{k})$	Ect. Dovroll (\$000.000).	

(K) Est. Payroll (\$000,000):(L) Ultimate Claims:

#### Notes:

(A) From \$100K and \$1M Rate Analysis Appendix D, Page 4, (C).

(B) From \$100K and \$1M Rate Analysis Appendix D, Page 5, (C).

- (C) Selected from (A) and (B).
- (D) From \$100K and \$1M 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) (E) x (F).

1.200

440.6

529

(H) The selected frequency of 1.200 is based on (G).

1.206

453.8

547

- (I) From \$100K and \$1M Rate Analysis Appendix E, Page 1
- (J) (H) x (I).
- (K) From \$100K and \$1M Rate Analysis Appendix I, Column
- (L) (J) x (K).

#### Frequency and Severity Method Reported Claim Count Development

	Claims	Reported		
	Reported	Claim		Irended
Accident	as of	Development	Ultimate	Claim
Year	12/31/2020	Factor	Claims	Frequency
	(A)	(B)	(C)	(D)
1999-2000	597	1.000	597	
2000-2001	566	1.000	566	1.501
2001-2002	678	1.000	678	1.650
2002-2003	755	1.000	755	1.674
2003-2004	627	1.000	627	1.359
2004-2005	566	1.000	566	1.214
2005-2006	562	1.000	562	1.207
2006-2007	576	1.000	576	1.211
2007-2008	662	1.000	662	1.343
2008-2009	590	1.000	590	1.177
2009-2010	518	1.000	518	1.083
2010-2011	417	1.000	417	0.985
2011-2012	433	1.000	433	1.063
2012-2013	496	1.000	496	1.234
2013-2014	444	1.000	444	1.139
2014-2015	477	1.001	477	1.213
2015-2016	492	1.003	493	1.228
2016-2017	512	1.006	515	1.271
2017-2018	483	1.010	488	1.164
2018-2019	421	1.017	428	1.024
2019-2020	413	1.053	435	1.015
Total	11,285		11,323	1.241

#### Notes:

(A) Provided by the Authority.

(B) From \$100K and \$1M Rate Analysis Appendix D, Page 6.

(C) (A) x (B).

(D) (C) / [\$100K and \$1M Rate Analysis Appendix D, Page 3, (D)] x [\$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.

#### Frequency and Severity Method Closed Claim Count Development

Accident Year	Claims Closed as of 12/31/2020 (A)	Closed Claim Development Factor (B)	Ultimate Claims (C)	Trended Claim Frequency (D)
1999-2000	595	1.000	595	
2000-2001	566	1.000	566	1.501
2001-2002	678	1.000	678	1.650
2002-2003	755	1.000	755	1.674
2003-2004	627	1.000	627	1.359
2004-2005	566	1.000	566	1.214
2005-2006	562	1.000	562	1.207
2006-2007	575	1.000	575	1.209
2007-2008	662	1.001	663	1.345
2008-2009	590	1.002	591	1.179
2009-2010	518	1.003	520	1.087
2010-2011	417	1.004	419	0.989
2011-2012	432	1.005	434	1.066
2012-2013	495	1.007	498	1.239
2013-2014	444	1.010	448	1.150
2014-2015	477	1.014	484	1.230
2015-2016	488	1.019	497	1.238
2016-2017	499	1.026	512	1.264
2017-2018	473	1.042	493	1.175
2018-2019	366	1.104	404	0.967
2019-2020	227	1.577	358	0.835
Total	11,012		11,245	1.233

Notes:

(A) Provided by the Authority.

(B) From \$100K and \$1M Rate Analysis Appendix D, Page 7.

(C) (A) x (B).

(D) (C) / [\$100K and \$1M Rate Analysis Appendix D, Page 3, (D)] x [\$100K and \$1M Rate Ar

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

## DRAFT

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

		Claims R	eported as	s 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
1999-2000				639	641	640	564	567	567	566	640	640	640	640
2000-2001			594	597	605	589	589	590	590	607	607	608	608	608
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	
2009-2010	238	632	647	646	646	646	646	646	647	647	647	647		
2010-2011	168	494	505	506	508	509	510	510	510	510	513			
2011-2012	129	452	465	467	470	471	471	470	470	470				
2012-2013	169	499	520	523	523	524	525	527	528					
2013-2014	144	455	467	471	473	466	466	466						
2014-2015	161	489	510	514	502	503	504							
2015-2016	170	487	502	490	492	492								
2016-2017	108	501	508	511	512									
2017-2018	152	473	481	483										
2018-2019	123	394	421											
2019-2020	144	413												
2020-2021	124													
		Reported	Claim Co	unt Devel	opment Fa	actors:								
	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
1999-2000				1.003	0.998	0.881	1.005	1.000	0.998	1.131	1.000	1.000	1.000	1.000
2000-2001			1.005	1.013	0.974	1.000	1.002	1.000	1.029	1.000	1.002	1.000	1.000	1.000
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	
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		
2009-2010	2.655	1.024	0.998	1.000	1.000	1.000	1.000	1.002	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				
2011-2012	3.504	1.029	1.004	1.006	1.002	1.000	0.998	1.000	1.000					
2012-2013	2.953	1.042	1.000	1.000	1.002	1.002	1.004	1.002						
2013-2014	3.160	1.020	1.009	1.004	0.985	1.000	1.000							
2014-2015	3.037	1.043	0.076	1.004	1.002	1.002								
2015-2016	2.805	1.031	0.976	1.004	1.000									
2010-2017	4.039	1.014	1.000	1.002										
2017-2010	2 202	1.017	1.004											
2010-2019	2.203	1.009												
2019-2020	2.000													
	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
	Monthe	Months	Months	Monthe	Monthe	Months	Monthe	Monthe	Monthe	Months	Monthe	Monthe	Monthe	Monthe
Avorago	3 09/	1 0/10	1 005	1 002	0 000	0.004	1 002	1 002	1 002	1 010	1 002	1 001	1 000	1 000
Claim_Weighted	5.004	1.040	1.005	1.002	0.333	0.334	1.002	1.002	1.002	1.010	1.002	1.001	1.000	1.000
Averanes														
3-vr	3 055	1 031	0 005	0 004	0 006	1 001	1 001	1 001	1 000	0 001	1 005	1 002	1 000	1 000
4-vr	3 380	1 031	0.000	0.004	0.000	1 001	1 001	1 001	1 000	0.004	1 004	1 002	1 000	1 000
Comparative	0.000	1.001	0.000	0.000	0.001	1.001	1.001	1.001	1.000	0.000	1.004	1.002	1.000	1.000
Factors	2 644	1 140	1 018	1 007	1 006	1 004	1 004	1 003	1 002	1 001	1 000	1 001	1 000	1 000
Prior	3 311	1.032	1 007	1 004	1,003	1.002	1,001	1 000	1 000	1,000	1 000	1 000	1,000	1 000
	0.011	1.502	1.007	1.50-4	1.000	1.002	1.001	1.000	1.000	1.000	1.000		1.000	1.000
Selected	3.207	1.035	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	3.377	1.053	1.017	1.010	1.006	1.003	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000

17.002

1.577

1.104 1.042

1.026

Cumulated

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

		Claims Cl	losed as c	<u>of:</u>			•							
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
1999-2000				628	636	636	563	567	567	566	640	640	640	640
2000-2001			544	583	593	582	587	589	589	607	607	607	607	608
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	• • •
2009-2010	45	464	599	631	643	644	645	645	647	647	647	647		
2010-2011	46	331	470	497	503	507	509	509	510	510	513	• • •		
2011-2012	27	285	421	451	459	467	470	469	469	469	0.0			
2011-2012	36	200	471	506	515	518	524	526	527	+00				
2012-2010	28	304	/30	456	467	464	465	466	521					
2013-2014	20	354	450	400	407	501	40J	400						
2014-2015	12	226	450	431	492	100	504							
2010-2010	40	216	400	470	401	400								
2010-2017	19	210	400	491	499									
2017-2010	10	310	440	473										
2010-2019	19	204	300											
2019-2020	30	221												
2020-2021	18													
		Closed C	laim Caun	+ Dovelon	mant Fast									
	0.40		aim Coun			<u>ors:</u>	70.00	00 400	100 111	111 100	400 400	400 450	450 400	100 174
	0-18 Maratha	18-30	30-42	42-54	04-00	00-78	78-90	90-102	102-114 Mantha	114-120	120-138	138-150	150-162	102-174
4000 0000	wonths	wonths	wonths	Months	Months	Nonths	Nonins	wonths	Months	Months	Months	Months	wonths	wonths
1999-2000			4 0 7 0	1.013	1.000	0.885	1.007	1.000	0.998	1.131	1.000	1.000	1.000	1.000
2000-2001			1.072	1.017	0.981	1.009	1.003	1.000	1.031	1.000	1.000	1.000	1.002	1.000
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	
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		
2009-2010	10.311	1.291	1.053	1.019	1.002	1.002	1.000	1.003	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				
2011-2012	10.556	1.477	1.071	1.018	1.017	1.006	0.998	1.000	1.000					
2012-2013	9.222	1.419	1.074	1.018	1.006	1.012	1.004	1.002						
2013-2014	10.857	1.414	1.060	1.024	0.994	1.002	1.002							
2014-2015	15.391	1.291	1.074	1.002	1.018	1.006								
2015-2016	7.814	1.339	1.044	1.023	1.015									
2016-2017	16.632	1.472	1.056	1.016										
2017-2018	14.091	1.435	1.063											
2018-2019	12.316	1.564												
2019-2020	6.306													
	6-18	18-30	30-42	42-54	54-66	66-78	78-90	90-102	102-114	114-126	126-138	138-150	150-162	162-174
	Months	Months	Months	Months	Months	Months	Months	Months	Months	Months	Months	Months	Months	Months
Average	10.015	1.397	1.062	1.015	1.007	0.999	1.003	1.002	1.003	1.010	1.002	1.001	1.000	1.000
Claim-Weighted														
Averages														
3-yr	10.013	1.484	1.054	1.014	1.009	1.007	1.001	1.001	1.000	0.994	1.005	1.002	1.000	1.000
4-yr	11.323	1.443	1.059	1.016	1.008	1.007	1.001	1.002	1.000	0.996	1.004	1.002	1.000	1.000
Comparative														
Factors	3.502	1.514	1.119	1.051	1.032	1.022	1.017	1.014	1.012	1.009	1.009	1.006	1.005	1.003
Prior	11.773	1.389	1.060	1.016	1.007	1.005	1.004	1.003	1.002	1.001	1.001	1.001	1.001	1.001
Selected	10.781	1.428	1.059	1.015	1.007	1.005	1.004	1.003	1.002	1.001	1.001	1.001	1.001	1.001

1.001

1.014

1.019

1.010

1.007

1.005

1.004

1.003

1.002

#### Loss Trend Factors

		Factor to								
	Benefit	2020-2021	2021-2022	2022-2023	2023-2024	2020-2021	2021-2022	2022-2023	2023-2024	2020-2021
Accident	Level	Loss Rate	Loss Rate	Loss Rate	Loss Rate	Frequency	Frequency	Frequency	Frequency	Severity
Year	Factor	Level								
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
1999-2000	1.000	2.062	2.134	2.208	2.285	1.107	1.113	1.118	1.124	1.862
2000-2001	1.000	1.993	2.062	2.133	2.208	1.101	1.107	1.112	1.118	1.808
2001-2002	1.000	1.925	1.992	2.061	2.133	1.096	1.101	1.106	1.112	1.755
2002-2003	1.000	1.860	1.924	1.991	2.061	1.090	1.095	1.100	1.106	1.704
2003-2004	1.000	1.797	1.859	1.924	1.991	1.084	1.089	1.095	1.100	1.654
2004-2005	1.000	1.736	1.796	1.859	1.924	1.079	1.084	1.090	1.095	1.606
2005-2006	1.000	1.678	1.736	1.796	1.859	1.074	1.079	1.085	1.090	1.559
2006-2007	1.000	1.621	1.677	1.735	1.796	1.069	1.074	1.080	1.085	1.513
2007-2008	1.000	1.566	1.620	1.676	1.735	1.064	1.069	1.075	1.080	1.469
2008-2009	1.000	1.513	1.565	1.619	1.676	1.059	1.064	1.070	1.075	1.426
2009-2010	1.000	1.461	1.512	1.564	1.619	1.054	1.059	1.065	1.070	1.385
2010-2011	1.000	1.412	1.460	1.511	1.564	1.049	1.054	1.060	1.065	1.345
2011-2012	1.000	1.364	1.411	1.460	1.511	1.044	1.050	1.055	1.060	1.306
2012-2013	1.000	1.318	1.363	1.411	1.460	1.039	1.045	1.050	1.055	1.267
2013-2014	1.000	1.273	1.317	1.363	1.411	1.034	1.040	1.045	1.050	1.231
2014-2015	1.000	1.230	1.273	1.317	1.363	1.030	1.035	1.040	1.045	1.195
2015-2016	1.000	1.189	1.230	1.272	1.317	1.025	1.030	1.035	1.040	1.160
2016-2017	1.000	1.148	1.188	1.229	1.272	1.020	1.025	1.030	1.035	1.126
2017-2018	1.000	1.109	1.148	1.187	1.229	1.015	1.020	1.025	1.030	1.093
2018-2019	1.000	1.071	1.108	1.147	1.187	1.010	1.015	1.020	1.025	1.061
2019-2020	1.000	1.035	1.071	1.108	1.147	1.005	1.010	1.015	1.020	1.030
2020-2021	1.000	1.000	1.035	1.071	1.108	1.000	1.005	1.010	1.015	1.000
2021-2022	1.000		1.000	1.035	1.071		1.000	1.005	1.010	
2022-2023	1.000			1.000	1.035			1.000	1.005	
2023-2024	1.000				1.000				1.000	

Notes:

No benefit level adjustment applied. (A)

(A) adjusted for a 3.5% annual loss rate trend.(A) adjusted for a 0.5% annual frequency trend. (B) - (E)

(F) - (I)

(A) adjusted for a 3.0% annual severity trend. (J)

> 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.

#### **Residual Trend Factors**

	Initial					
	Estimate of					
	Ultimate	Ultimate		Adjusted	Trended	
Accident	Limited	Reported		Limited	Payroll	Ultimate
Year	Losses	Claims	BLF	Severity	(\$00)	Frequency
	(A)	(B)	(C)	(D)	(E)	(F)
1999-2000	\$1,722,000	597	1.000	2,884		
2000-2001	2,192,130	566	1.000	3,873	4,152,938	1.363
2001-2002	2,847,057	678	1.000	4,199	4,504,470	1.505
2002-2003	4,646,965	755	1.000	6,155	4,915,078	1.536
2003-2004	3,509,537	627	1.000	5,597	5,000,408	1.254
2004-2005	2,444,607	566	1.000	4,319	5,028,816	1.126
2005-2006	2,947,359	562	1.000	5,244	5,001,561	1.124
2006-2007	3,146,000	576	1.000	5,462	5,085,832	1.133
2007-2008	3,147,259	662	1.000	4,754	5,244,494	1.262
2008-2009	2,711,703	590	1.000	4,596	5,307,104	1.112
2009-2010	2,538,522	518	1.000	4,901	5,041,250	1.028
2010-2011	2,013,526	417	1.000	4,829	4,442,301	0.939
2011-2012	2,825,000	433	1.000	6,524	4,251,766	1.018
2012-2013	3,309,000	496	1.000	6,671	4,176,132	1.188
2013-2014	2,229,780	444	1.000	5,022	4,029,408	1.102
2014-2015	2,938,392	477	1.000	6,160	4,051,596	1.177
2015-2016	3,156,000	493	1.000	6,402	4,115,157	1.198
2016-2017	2,871,000	515	1.000	5,575	4,133,149	1.246
2017-2018	1,941,000	488	1.000	3,977	4,257,117	1.146
2018-2019	1,415,000	428	1.000	3,306	4,220,351	1.014
2019-2020	1,321,000	397	1.000	3,327	4,308,050	0.922

Severity Tre	end Factors	Frequency Trend Factors
2008-2009 through 2017-2018	1.003	1.020
2009-2010 through 2018-2019	0.967	1.015
2014-2015 through 2018-2019	0.842	0.966
Prior	1.030	1.005
Default	1.030	0.975
Selected Residual Trend	1.030	1.005

Notes:

(A) Selected average of results from \$100K and \$1M Rate Analysis Appendix A and \$100K

(B) \$100K and \$1M Rate Analysis Appendix D, Page 3, Column (C).

(C) \$100K and \$1M Rate Analysis Appendix E, Page 1, (A).

(D) (A) x (C) / (B).

(E) From \$100K and \$1M Rate Analysis Appendix I, Column (C).

(F) (B) / (E) x 10,000.

#### Calculation of Discount Factors

Payment	Payment	Return on	Discounted	Undiscounted	Discount
Year	Pattern	Investment	Reserves	Reserves	Factor
(A)	(B)	(C)	(D)	(E)	(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	1.2%	2.0%	0.024	0.024	0.967
8	2.1%	2.0%	0.044	0.046	0.968
7	4.3%	2.0%	0.086	0.089	0.969
6	6.3%	2.0%	0.147	0.152	0.966
5	10.4%	2.0%	0.246	0.255	0.965
4	20.6%	2.0%	0.446	0.462	0.966
3	25.2%	2.0%	0.687	0.714	0.962
2	19.6%	2.0%	0.867	0.910	0.953
1	9.0%	2.0%	0.940	1.000	0.940
		(G) Discount Factor	for Future Funding:	2020-2021	0.949
			-	2021-2022	0.949

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 and \$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, 86.7% = [68.7% / 1.020] + [19.6% / (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 0.95, 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
05%	1 83/	1 550
90%	1.634	1.330
90 % 85%	1 4 2 6	1.307
00%	1.450	1.291
80%	1.325	1.219
75%	1.235	1.162
70%	1.160	1.113
65%	1.094	1.070
60%	1.034	1.030
55%	0.979	0.994
50%	0.927	0.960
45%	0.877	0.927
40%	0.829	0.895
35%	0.781	0.863
30%	0.733	0.831
25%	0.683	0.797

To read table:	For the above retention, there is a 90% chance
	that final loss settlements will be less than
	1.585 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.

#### Incurred Losses as of 12/31/20

										Incurred
		Additions	Subtractions			Incurred	Incurred	Incurred	Incurred	Capped at
Accident	Unlimited	to	from	Adjusted	Incurred	Over	Capped at	\$100,000	Capped at	SIR &
Year	Incurred	Losses	Losses	Incurred	Over SIR	\$100,000	\$100,000	to SIR Layer	SIR	Aggregate
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
1999-2000	\$2,664,310	\$0	\$0	\$2,664,310	\$0	\$942,240	\$1,722,070	\$942,240	\$2,664,310	\$2,664,310
2000-2001	3,911,857	0	0	3,911,857	0	1,719,728	2,192,130	1,719,728	3,911,857	3,911,857
2001-2002	7,249,504	0	0	7,249,504	1,452,906	4,402,447	2,847,057	2,949,541	5,796,598	5,796,598
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	4,565,092	0	0	4,565,092	0	1,419,184	3,145,908	1,419,184	4,565,092	4,565,092
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	6,833,017	0	0	6,833,017	0	3,524,416	3,308,601	3,524,416	6,833,017	6,833,017
2013-2014	8,318,084	0	0	8,318,084	4,000,000	6,088,304	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	11,138,782	0	0	11,138,782	4,740,574	7,995,451	3,143,331	3,254,877	6,398,209	6,398,209
2016-2017	37,395,009	0	0	37,395,009	29,347,111	34,543,761	2,851,248	5,196,650	8,047,897	8,047,897
2017-2018	2,727,095	0	0	2,727,095	0	818,662	1,908,433	818,662	2,727,095	2,727,095
2018-2019	1,755,631	0	0	1,755,631	0	391,223	1,364,408	391,223	1,755,631	1,755,631
2019-2020	934,320	0	0	934,320	0	0	934,320	0	934,320	934,320
2020-2021	23,204,597	0	0	23,204,597	22,000,004	22,905,004	299,593	905,000	1,204,593	1,204,593
Total	\$172,572,801	\$0	\$0	\$172,572,801	\$67,675,014	\$116,903,406	\$55,669,395	\$49,228,392	\$104,897,787	\$104,897,787

#### Notes:

(A) Years are 7/1 to 6/30.

(B) Provided by the Authority.

(C)

(D)
(E) (B) + (C) - (D).
(F) Sum of incurred losses in excess of SIR.

(G) Sum of incurred losses in excess of \$100,000.

(H) (E) - (G). (I) (G) - (F).

(J) (E) - (F).

(K) Minimum of (J) and the aggregate stop loss. See \$100K and \$1M Rate Analysis Not Included.

#### Paid Losses as of 12/31/20

										Paid
		Additions	Subtractions			Paid	Paid	Paid	Paid	Capped at
Accident	Unlimited	to	from	Adjusted	Paid	Over	Capped at	\$100,000	Capped at	SIR &
Year	Paid	Losses	Losses	Paid	Over SIR	\$100,000	\$100,000	to SIR Layer	SIR	Aggregate
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
1999-2000	\$2,663,487	\$0	\$0	\$2,663,487	\$0	\$941,458	\$1,722,030	\$941,458	\$2,663,487	\$2,663,487
2000-2001	3,911,857	0	0	3,911,857	0	1,719,728	2,192,130	1,719,728	3,911,857	3,911,857
2001-2002	7,249,504	0	0	7,249,504	1,452,906	4,402,447	2,847,057	2,949,541	5,796,598	5,796,598
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	4,542,503	0	0	4,542,503	0	1,419,184	3,123,319	1,419,184	4,542,503	4,542,503
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	6,249,132	0	0	6,249,132	22,224	3,424,485	2,824,647	3,402,261	6,226,908	6,226,908
2012-2013	6,397,391	0	0	6,397,391	0	3,088,789	3,308,601	3,088,789	6,397,391	6,397,391
2013-2014	8,318,084	0	0	8,318,084	4,000,000	6,088,304	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	10,663,802	0	0	10,663,802	4,740,574	7,528,086	3,135,716	2,787,512	5,923,229	5,923,229
2016-2017	10,243,619	0	0	10,243,619	4,069,111	7,469,959	2,773,661	3,400,847	6,174,508	6,174,508
2017-2018	2,395,621	0	0	2,395,621	0	681,757	1,713,864	681,757	2,395,621	2,395,621
2018-2019	940,933	0	0	940,933	0	73,233	867,701	73,233	940,933	940,933
2019-2020	413,661	0	0	413,661	0	0	413,661	0	413,661	413,661
2020-2021	54,421	0	0	54,421	0	0	54,421	0	54,421	54,421
Total	\$119,604,139	\$0	\$0	\$119,604,139	\$20,397,010	\$65,499,683	\$54,104,456	\$45,102,673	\$99,207,129	\$99,207,129

#### 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.

- (G) Sum of p. (H) (E) (G). (I) (G) (F). (J) (E) (F).

(K) Minimum of (J) and the aggregate stop loss. See \$100K and \$1M Rate Analysis Not Included.

#### Case Reserves as of 12/31/20

		Additions	Subtractions			Reserves	Reserves	Reserves	Reserves	Reserves Capped at
Accident	Unlimited	to	from	Adjusted	Reserves	Over	Capped at	\$100,000	Capped at	SIR &
Year	Reserves	Losses	Losses	Reserves	Over SIR	\$100,000	\$100,000	to SIR Layer	SIR	Aggregate
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
1999-2000	\$823	\$0	\$0	\$823	\$0	\$783	\$40	\$783	\$823	\$823
2000-2001	0	0	0	0	0	0	0	0	0	0
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	22,589	0	0	22,589	0	0	22,589	0	22,589	22,589
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	66,247	0	0	66,247	0	66,247	0	66,247	66,247	66,247
2012-2013	435,626	0	0	435,626	0	435,626	0	435,626	435,626	435,626
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	474,980	0	0	474,980	0	467,365	7,615	467,365	474,980	474,980
2016-2017	27,151,389	0	0	27,151,389	25,278,000	27,073,802	77,587	1,795,802	1,873,389	1,873,389
2017-2018	331,474	0	0	331,474	0	136,905	194,569	136,905	331,474	331,474
2018-2019	814,698	0	0	814,698	0	317,990	496,708	317,990	814,698	814,698
2019-2020	520,659	0	0	520,659	0	0	520,659	0	520,659	520,659
2020-2021	23,150,176	0	0	23,150,176	22,000,004	22,905,004	245,172	905,000	1,150,172	1,150,172
Total	\$52,968,662	\$0	\$0	\$52,968,662	\$47,278,004	\$51,403,723	\$1,564,939	\$4,125,719	\$5,690,658	\$5,690,658

#### 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 (J) and the aggregate stop loss. See \$100K and \$1M Rate Analysis Not Included.

#### Claim Counts as of 12/31/20

		Additions to	Subtractions from	Adjusted		Additions to	Subtractions from	Adjusted		Adjusted
Accident	Reported	Reported	Reported	Reported	Closed	Closed	Closed	Closed	Open	Open
Year	Claims	Claims	Claims	Claims	Claims	Claims	Claims	Claims	Claims	Claims
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
1999-2000	597	0	0	597	595	0	0	595	2	2
2000-2001	566	0	0	566	566	0	0	566	0	0
2001-2002	678	0	0	678	678	0	0	678	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	576	0	0	576	575	0	0	575	1	1
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	417	0	0	417	417	0	0	417	0	0
2011-2012	433	0	0	433	432	0	0	432	1	1
2012-2013	496	0	0	496	495	0	0	495	1	1
2013-2014	444	0	0	444	444	0	0	444	0	0
2014-2015	477	0	0	477	477	0	0	477	0	0
2015-2016	492	0	0	492	488	0	0	488	4	4
2016-2017	512	0	0	512	499	0	0	499	13	13
2017-2018	483	0	0	483	473	0	0	473	10	10
2018-2019	421	0	0	421	366	0	0	366	55	55
2019-2020	413	0	0	413	227	0	0	227	186	186
2020-2021	124	0	0	124	18	0	0	18	106	106
Total	11,409	0	0	11,409	11,030	0	0	11,030	379	379

#### Notes:

- (A) Years are 7/1 to 6/30.(B) Provided by the Authority.

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   (C)
   (D)
   (E) (B) + (C) (D).
   (F) Provided by the Authority.
- (G)
- (H)
- (I) (F) + (G) (H).(J) (B) (F).(K) (E) (I).

#### Exposure Measures

Accident Year	Total Payroll (\$00) (A)	Inflation Trend Factor (B)	Trended Payroll (\$00) (C)
1999-2000			
2000-2001	2,535,371	1.638	4,152,938
2001-2002	2,818,817	1.598	4,504,470
2002-2003	3,152,712	1.559	4,915,078
2003-2004	3,287,579	1.521	5,000,408
2004-2005	3,388,690	1.484	5,028,816
2005-2006	3,454,117	1.448	5,001,561
2006-2007	3,599,315	1.413	5,085,832
2007-2008	3,803,114	1.379	5,244,494
2008-2009	3,945,802	1.345	5,307,104
2009-2010	3,842,416	1.312	5,041,250
2010-2011	3,470,548	1.280	4,442,301
2011-2012	3,404,136	1.249	4,251,766
2012-2013	3,425,867	1.219	4,176,132
2013-2014	3,388,905	1.189	4,029,408
2014-2015	3,492,755	1.160	4,051,596
2015-2016	3,635,298	1.132	4,115,157
2016-2017	3,743,794	1.104	4,133,149
2017-2018	3,952,755	1.077	4,257,117
2018-2019	4,015,558	1.051	4,220,351
2019-2020	4,202,976	1.025	4,308,050
2020-2021	4,406,222	1.000	4,406,222
2021-2022	4,538,409	1.000	4,538,409

- Notes:
- (A)
- Provided by the Authority. Based on industry factors.
- (B) (C) (A) x (B).

#### PLAN JPA SPECIAL BOARD OF DIRECTORS MEETING March 26, 2021

# March 26, 2021

## Agenda Item 5.C.

# LIABILITY PROGRAM

## **SUBJECT:** State of the Market - Liability

## **BACKGROUND AND HISTORY:**

Seth Cole, Alliant Insurance Services Inc., will provide the Board of Directors with an update on the state of the insurance market as regards to liability.

### **<u>RECOMMENDATION:</u>**

None. Information only.

## **<u>REFERENCE MATERIALS ATTACHED</u>**:

• State of the Insurance Market

# ► Allíant

# State of the Public Entity Insurance Market & Emerging Risks

January 2021 <u>Presented by:</u> Alliant Insurance Services

(THIS INFORMATION HAS BEEN CONSOLIDATED FROM VARIOUS INDUSTRY SOURCES)

# Presentation Overview

# Highlights

Property/Casualty Industry Performance

**The New Reality – Evolving Risks** 

**Toward the Future** 

# Highlights

Swiss Re Institute estimates USD 83 billion global insured catastrophe losses in 2020, the fifth-costliest on record. The insurance industry covered 45% of global economic losses in 2020, above the ten-year-average of 37%.

U.S. Wildfires, Storms, Civil Disorders and 'Social Inflation' have created intense pressure on insurers in North America, causing insured losses in the billions, and while COVID -19 has of course added new types of losses to the mix, more so, it has created additional uncertainty which is adding to an already difficult insurance marketplace.

Social inflation, years of high losses, aggressive litigation trends, and adverse results are driving the higher prices and tighter capacity in the excess casualty insurance space.

Source: A.M. Best, ISO, Verisk, Property Casualty Insurers Association of America (PCI)

# **Key Industry Metrics**



- Insurers' **combined ratio** deteriorated to 100.2% for 2nd Qtr 2020 from 98.9% a year earlier.
- **Policyholder surplus** declined \$22.1 billion in the first half 2020 from an all time high of \$847.8 billion at year end 2019.
- Net income after taxes fell to \$24.3 billion in first-half 2020 from \$32.8 billion in first-half 2019.
- <u>Signs point to a healthy, yet unsettled, insurance</u> <u>market</u>, due to the unknowns of **COVID-19, weather extremes**, sea level rise, **wildfires**, catastrophic losses, **social inflation** and **investment earnings**. All remain areas of **concern for insurers**.





# Property/Casualty Industry Performance



# U.S. commercial insurance prices again grew significantly in the third quarter of 2020

Prices for nearly all lines were consistent with the **increases** from the prior quarter survey. **Excess/umbrella liability** and directors and officers liability reported the largest price increases; commercial auto showed increases near or above double digits for the 12<sup>th</sup> consecutive quarter.

The outlier continues to be workers compensation, which indicated modest price reductions, though they have tempered for the last seven quarters. Price changes differed by account sizes with small accounts more muted, mid-market accounts **near double digits** and large accounts **well into double digits**.







<sup>1</sup>Return on avg. surplus. Excludes Mortgage & Financial Guaranty insurers for years (2009-2014). Sources: A.M. Best, ISO.



# Policyholder Surplus (Capacity), 2006:Q4–2020:H1

The P/C insurance industry entered the COVID-19 pandemic from a position strength and was able to withstand the 9.0% surplus decline in Q1 2020

(\$ Billions)



2010:Q1 data includes \$22.5B of paid-in capital from a holding company parent for one insurer's investment in a non-insurance business.

Sources: ISO, A.M .Best; Risk and Uncertainty Management Center, University of South Carolina.

Policyholder Surplus is the industry's financial cushion against large insured events, periods of economic stress and financial market volatility. It is also a source of capital to underwrite new risks.


### Net Premium Growth (All P/C Lines): Annual Change, 1971—2020: H1



\*Pre-COVID-19 forecast from A.M. Best Review & Preview (Feb. 2020). NOTE: Shaded areas denote "hard market" periods Sources: A.M. Best (1971-2013, 2020F), ISO (2014-19); Risk & Uncertainty Management Center, Univ. of South Carolina.

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2020F: 3.8%\*

# The Economy Drives P/C Insurance Industry Premiums: 2006:Q1–2020:Q2\*



Direct written premiums track nominal GDP fairly tightly over time, suggesting the P/C insurance industry's growth prospects inextricably linked to economic performance.

Sources: SNL Financial; U.S. Commerce Dept., Bureau of Economic Analysis; ISO; I.I.I.; Risk and Uncertainty Management Center, University of South Carolina.

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### CIAB: Average Commercial Rate Change, All Lines, 2011:Q1–2020:Q2\*



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\*Latest available.

Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially. Source: Council of Insurance Agents & Brokers; Center for Risk and Uncertainty Management, Univ. of South Carolina.



# P/C Insurance Industry Combined Ratio, 2001–2020:H1\*



\*Excludes Mortgage & Financial Guaranty insurers 2008--2014.

\*First Half 2020.

Sources: A.M. Best, ISO (2014-2019).

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# Viral Outbreaks Are Not An Insurable Risk

### **Economic Losses from Pandemics**



\*Sources: APCIA using published reports, including IMF, World Bank, Learnbonds.com; APCIA adjustment to 2020 USD

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# Take Aways

- Policyholder surplus deteriorated, but remains strong. Q2 shows the financial rebound in the investment markets, and does not reflect wildfire/hurricane season (Q3/Q4).
- COVID-19 impacts are not fully developed, but clearly adversely impact society, financial institutions and insurance markets.
- Due to market pressures and underwriting concerns, pricing continues to increase in most areas.
- California has unique challenges, underwriting scrutiny due to continued loss development.



# Impact of Natural Catastrophes



### World Natural Catastrophes, 2020 1st Half



© Munich Re NatCatSERVICE





### Hurricanes

Potential threats from hurricanes include powerful winds, heavy rainfall, storm surges, coastal and inland flooding, rip currents, tornadoes, and landslides.



Hurricane Laura affecting Gulf Coast August 2020



Hurricane Dorian affecting Bahamas & Eastern Seaboard September 2019



### 2020 Hurricane Season

Record-breaking Atlantic hurricane season draws to an end

The extremely active 2020 Atlantic hurricane season closed with a **recordbreaking 30 named storms** and 12 landfalling storms in the continental United States.





### Hurricanes







### 17 of the 20 Most Expensive Insurance Events in US History Have Occurred Since 2004

\*Estimated.

Sources: PCS, RMS, Karen Clark & Co; USC Center for Risk and Uncertainty Management adjustments to 2017 dollars using the CPI.



## **Convective Storms**



Commonly known as *thunderstorms*, intense heating causes a parcel of moist air to rise from the earth's surface into upper levels of the atmosphere, causing weather hazards such as **lightning**, **heavy rain**, **hail**, **flash flooding and tornadoes**.

This past August, lightning strikes (12,000) from storms like these sparked hundreds of wildfires in California.

The same month a *derecho* hit Iowa and four other states, causing \$7.5B+ in damage, *most costly thunderstorm in U.S. History*.

### Wildfires



The 2020 season was a record-setting one for the state of California and the United States as a whole. NIFC reported that as of Nov. 27 there were 52,113 wildfires that had burned 8,889,297 acres in 2020. This is approximately 2.3 million more acres burned than the 10-year average and almost double the acreage burned in the 2019 season.





Record-breaking wildfires are occurring more often. Eight of the 10 largest fires in California history have burned in the past decade. On Sept. 9, the massive August Complex became the largest fire in the state's history.

Taken together, they dwarf the 10 biggest fires from the decade before.

Source: Los Angeles Times



### Worst air quality on record for US West Coast

### Wildfires





Moderate 51-100

Unhealthy for sensitive groups 101-150

Unhealthy 151 - 200

Very unhealthy 201-300

Hazardous 300 -500

Source: AirNow

BBC



### **Earthquakes**

Not to be overlooked, Earthquakes are inevitable and can happen at any time.

Economic impacts of an earthquake can be devastating on first party property, and expected business revenues.

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## How Parametric Products Benefit Catastrophe-Driven Risk Transfer

### PARAMETRIC INSURANCE



3rd party verifies intensity

Payment issued in as little as 30 days



### INDEMNITY-BASED INSURANCE



Courtesy of the Alternative Risk group at AmWINS.







## Take Aways

- Are your emergency response plans in place for wildfire, earthquake and flooding?
- Does your entity have the financial means to rebuild?
- COVID-19 continues to impact all sectors, and economic impacts will continue to build.
- California's exposure to large property losses from wildfire has upended the property market. Fires continue to increase in size and frequency.





# The New Normal



## We are in unprecedented times.....

- We are in the midst of a pandemic that turned our lives upside down;
- Public trust has eroded;
- Community trust in Law Enforcement at historic lows;
- Social Injustice has caused much angst among citizens and brought about protests pitting groups against each other;



**The New Normal Risk** Matrix featuring 9 ways **businesses** could change as a result of COVID-19

LOW FREQUENCY

9



SUPPLY CHAIN CHANGES •

#### THIRD-PARTY LIABILITY ISSUES •

Businesses may see pandemicrelated general liability claims as customers return. While theories of causation and juries' views on these types of cases are unclear, social inflation will likely still impact settlements and verdicts.

VIRTUAL BUSINESS MODELS • As companies

conduct more business online. they should revisit technology, vendor contracts, employee training, and other controls to mitigate cyber and other potential risks.

#### HIGH IMPACT

the continued

and engage

employees.

Shaping a

need to motivate

#### WORKERS' COMP CONSIDERATIONS . As companies ramp up operations,

they could see more injuries and workers' compensation claims from new hires, reintroduced employees with shifting roles, and employees who believe they have been exposed to the virus at work.



#### **ON-SITE SAFETY** 5 INVESTMENTS •

Businesses are investing in personal protective equipment, sanitizing stations, updated workspace layouts, and more, but these additional costs should not limit resources needed in other areas essential to workplace

FREQUENCY and operational safety.

CUSTOMER **DELIVERIES** •

As stores and restaurants re-open, some customers may still rely on delivery. Businesses should review fleet safety program practices with drivers, including those using personal vehicles to mitigate the risk of accidents.

> WORK-FROM-HOME CHALLENGES • Many businesses are still allowing employees to work from home. Providing them with guidance on proper ergonomics and cyber security is important to mitigate related exposures.

> > 167

LOW IMPACT

**10** Critical **Risks** Shaping The Liability Landscape Today



Workers in the public sector face unique risks. According to the National Safety Council, violence is the second



leading cause of death among government workers.



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CYBER ATTACKS • Ransomware attacks against public systems are becoming popular amongst hackers and can shutter municipal courts and leave residents unable to access public services. Additionally, many hackers demand ransom to release encrypted systems.

COVID-19 RECOVERY • Public entities should proactively plan for how to adapt to the new



"normal" so they can support their communities and also comply with guidelines or executive orders set at the local, state, and federal levels.

10 HEALTH RISKS • Particularly now, as the ramifications of COVID-19 are being

felt, public entities must manage potential health risks to their employees.



**PRIVACY PROTECTION** 9 **LEGISLATION** • Privacy protection legislation, like GDPR, may result in public entities facing potential violations that

could reach into the millions of dollars.

SEXUAL MISCONDUCT • An estimated 10% of K-12 students will experience sexual misconduct by a school employee by the time they graduate from high school. To help prevent these incidents, schools must comply with Title IX, which outlines guidelines for prevention efforts and response.

**INCREASED LITIGATION** • An increase in lawsuits stemming from employment-related charges and "reviver" statutes, which allow legal claims of sexual abuse that formerly expired to proceed, could put public entities at risk for more claims, which may result in large verdicts or settlements.

#### FLEET MANAGEMENT 6 **Distracted driving**,

impaired driving and a critical shortage of driving labor are all factors that make fleet risk management in the public sector critical.

**BULLYING** • According to a recent report, during the 2016-17 school year, 20 percent of students reported being bullied, with 15 percent of those students being bullied via web/text. Bullying can lead to decreased academic achievement as well as depression, anxiety, and suicide.

FREQUENCY



5

8 **TRAUMATIC BRAIN INJURIES •** An estimated 283,000 children seek care in U.S. emergency departments each year for a sports- or recreation-related traumatic brain injury. Activities with the highest number of SRR-TBI visits included: football, bicycling, basketball, playground activities and soccer.

LOW IMPACT

### **Hyper-Social Inflation**

"Social Inflation is a uniquely American phenomenon because the United States is the only country in the world that routinely uses jury trials for civil cases. Jurors have unconscious biases derived from the culmination of their life experiences."



Texas - \$80M – Trucking accident injuring one person.

Washington - \$123M – Duck Boat accident killing and injuring many.

Georgia - \$280M – Trucking accident killing five people

Alabama - \$152M – Auto accident injuring one person

California - \$2B – Pesticide product allegedly harmed two people

New York - \$56M – Medical accident during surgery injuring one person

Maryland - \$230M – Medical accident during a delivery injuring one person

Pennsylvania - \$8M – Pharmaceutical product led to unwanted side effects in many persons

Georgia - \$125M Living conditions in an apartment building complex resulted in one death

New York - \$110M – Construction accident killing one person.

Source: Markel Insurance



### Large Public Entity Verdicts/Settlements

Loss Year	Description	Total Paid
2018	Sexual Abuse (Class Action)	\$500,000,000
2017	Sexual Abuse (Class Action)	\$215,000,000
2015	Methane Gas Leak	\$120,000,000
2015	Bus Shelter Collapse (Single Plaintiff)	\$115,000,000
2014	Child Abuse/Foster Care	\$113,400,000
2011	Police Shooting/Wrongful Death	\$97,000,000
2014	Dangerous Condition/Landslide	\$71,500,000
2016	Vehicle Accident/Fire Ambulance	\$65,750,000
2016	Wrongful Death	\$60,000,000
2015	Strip Search (Class Action)	\$53,000,000
2012	Dangerous Condition/Bridge Fire	\$50,000,000
2017	Vehicle Accident/Motorcycle vs Auto	\$46,000,000
2015	Vehicle Accident/Sherriff Vehicle	\$42,000,000
2011	Wrongful Conviction	\$40,000,000
2014	Dangerous Condition/Vehicle Accident	\$32,500,000
2015	Sexual Abuse	\$31,000,000
2016	Dangerous Condition/Vehicle Accident	\$30,000,000

### The Ransomware Epidemic

Ransomware surged in recent years, and there is no foreseeable slowdown. All industry segments were impacted. Manufacturing and professional services were particularly hard hit, followed closely by healthcare, education, and **government entities**.



\*Estimated global damage from ransomware.

## **Cyber Attacks on Municipalities**



### ▶ **Alliant** 172

# **Evolving: e-Crime – Fraudulent Instruction**



Crime coverage can be extended to cover <u>Wire Transfer Fraud</u>, which is:

• A fraudulent transfer, not authorized by the entity

### However, Fraudulent Instruction is different, it is:

- Your employee, in good faith, accidently authorized a transfer as a result of fraudulent instruction
- This coverage carries a higher retention (\$25k min) and lower limit (\$250,000 typically)
- There is a substantial additional premium to add this coverage, with a supplemental application *Fraudulent Instruction, to the insurance industry, is an "Internal Controls" issue, and applications will focus on safety checks, confirmations, authority levels, etc.*
- Cyber policies also cover Impersonation Fraud



# **Evolving: Officer Involved Shootings 2020**



There are 290 shootings with unverified locations that are not shown on the map.

The Washington Post is tracking this national figure best, with 999 in 2019, and 976 in 2020.

### Social Unrest – Critical Focus on Law Enforcement



# Aging Infrastructure



### Homelessness





### **Take Aways**

• Challenges and uncertainties resulting from the ongoing COVID-19 pandemic response.

• Is your entity prepared for further financial insecurity?

• Cyber Security: "Not if, but When" your entity will suffer a data breach. Are you prepared?

• Are law enforcement tactics evolving to meet this moment?





# Toward the Future



# Looking Ahead – The Market

### Liability Market:

- Increasing reserves for Law Enforcement Liability claims.
- SAM claims continue to come forward, high values and potential coverage issues (occurrences, date of loss, coverage exclusions/caps) insureds' Policies and Procedures increasing focus of underwriting.
- Continued market hardening expected.

### **Workers Compensation Market:**

- Treatment of COVID-19 claims could still impact market significantly.
- Unlike other core coverage lines, WC remains relatively stable.

### **Property Market:**

- Increased scrutiny of client data (SOV, loss runs, COPE, etc.).
- Increased retentions and caps on certain types of exposure (wildfire/SRCC).
- Decreased limits provided by single carriers.
- Premium increases expected.
# **Parting Thoughts**

# 2020 is behind us... what's next?

- Expect upward pressure on Liability & Property rates.
- Public agencies with a history of or exposure to large verdicts and liability settlements will continue to see increases and the marketplace for coverage will continue to retract.
- Dramatic price increases and reductions in coverage can be expected for Sexual Abuse and Molestation.
- Social Unrest focused on Public Entity infrastructure (City Hall, Police Station, etc.) could dramatically change market if several large urban losses are recorded.

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# Thank you!

Please contact us if you would like a copy of this presentation.

January 2021

# March 26, 2021

#### Agenda Item 5.D.

#### LIABILITY PROGRAM

#### SUBJECT: PLAN JPA 2021/22 Projections - Liability

#### **BACKGROUND AND HISTORY:**

The primary pool layer funding has a slight decrease, while the reinsurance & excess layer is projected to increase. Staff has taken a conservative approach in estimating costs for the 2021/22 year. Broken down as follows:

<u>Liability</u>	<u>Layers</u>	<u>20-21</u>	<u>Carrier</u>	<u>21-22</u>	<u>Variance</u>
PLAN - 60% CL	\$2.5M	\$6,375 <i>,</i> 952		\$6,204,000	-3%
Reinsurance	\$2.5M	1,412,000	Old Republic	2,118,000	50%
Excess	\$5M	1,132,297	Peleus	1,698,446	50%
Excess	\$5M	941,397	QBE	1,412,096	50%
Excess	\$5M	654,605	Gemini	981,908	50%
Excess	\$5M	236,959	Hallmark	355,439	50%
Excess	\$5M	231,750	Arch	347,625	50%
	\$30 M	\$10,984,960	-	\$13,117,512	19%

Overall, staff estimates a 19% increase for PLAN's pooled layer, reinsurance, and excess coverage. The administration cost is not included for this discussion.

#### **<u>RECOMMENDATION</u>**:

None. Information only.

#### **<u>REFERENCE MATERIALS ATTACHED</u>**:

None

# March 26, 2021

#### Agenda Item 5.E.

#### LIABILITY PROGRAM

#### SUBJECT: Presentation of CARMA Excess Coverage

#### **BACKGROUND AND HISTORY:**

Rob Kramer, California Affiliated Risk Management Authorities (CARMA), will provide the Board of Directors with a presentation on CARMA excess coverage.

#### **<u>RECOMMENDATION:</u>**

None. Information only.

#### **<u>REFERENCE MATERIALS ATTACHED</u>**:

None

## March 26, 2021

#### Agenda Item 5.F.

#### LIABILITY PROGRAM

#### **SUBJECT:** Consideration of Member Allocations

#### **BACKGROUND AND HISTORY:**

At the December 9, 2020, Strategic Planning Session, staff discussed Experience Modification (Ex-Mod) and premium calculation including:

The current ex-mod methodology (which has been in place at least since 2002/03) is:

- Loss experience and payroll from 5 years: for example, when calculating contributions for 2018/19 year, losses and payroll from 2012/13 through 2016/17 were used in the calculation.
- Losses are limited to \$250,000 per occurrence.
- Creditability is given to payroll, limited to a minimum of 20% and maximum of 90%.

The current method also caps any members total annual contribution at +/- 30% change.

At the December 10, 2020, Board Meeting, staff recommended the following changes to the contribution calculation:

- Capping change of ex-mod at 30% from year to year.
- Removing the 30% cap from member contributions.

The Board directed staff to implement the changes and bring forward the preliminary numbers for the 2021/22 budget.

Becky Richard, Bickmore Actuarial, and Ritesh Sharma, Finance Manager, will be present to discuss the member allocations.

#### **<u>RECOMMENDATION</u>**:

None. Information only.

#### **<u>REFERENCE MATERIALS ATTACHED</u>**:

None

## March 26, 2021

Agenda Item 6.A.

#### **PROPERTY PROGRAM**

#### SUBJECT: Actuarial Update for the Property Program

#### **BACKGROUND AND HISTORY:**

The preliminary actuarial report provides the funding information for the 2021/22 year. The actuary was able to compile the report using December 31, 2020, loss run and estimated insured property values.

#### **Property Program**

PLAN JPA's current Property program structure is:



In the past year, the property program has been funded at the 70% confidence level. The preliminary actuarial report provides funding analysis for the 2021/22 year.

<u>Property</u>	<u>Discount</u>						
<u>Program</u>	<b>Factor</b>	Expected		 70%		75%	
2021/2022	2.0%	\$	900,000	\$ 1,070,000	\$	1,152,000	
2020/2021	2.0%		758,000	 911,000		988,000	
Change		\$	142,000	\$ 159,000	\$	164,000	
% Change			18.7%	 17.5%		16.6%	

#### Agenda Item 6.A. Page 2

The increase in funding from the past year is related to proposed changes to the coverage with APIP: the \$225K per occurrence is changing to \$500K per occurrence, and the pool aggregate deductible of \$1M is being changed to <u>zero</u> aggregate deductible. Additionally, there is an increase (9%) of insured values; however, the insured value information is still being collected by Alliant.

Becky Richard, Bickmore Actuarial, and Ritesh Sharma, Finance Manager, will be present to discuss the funding report.

#### **<u>RECOMMENDATION</u>**:

None. Information only.

#### **<u>REFERENCE MATERIALS ATTACHED</u>**:

• Actuarial Review of the Self-Insured Property Program for 2021-22



# Actuarial Review of the Self-Insured Property Program

Forecast for Program Year 2021-22

Presented to **PLAN JPA** 

February 26, 2021



Friday, February 26, 2021

Mr. Jon Paulsen Pool Administrator Pooled Liability Assurance Network Joint Powers Authority 1750 Creekside Oaks Drive, Suite 200 Sacramento, CA 95833

Re: Actuarial Review of the Self-Insured Property Program

Dear Mr. Paulsen:

As you requested, we have completed our review of the Authority's self-insured property program (the PLAN JPA). Assuming a pool deductible of \$500,000 and a member deductible of \$5,000, we estimate the ultimate cost of claims and expenses for claims incurred during the 2021-22 program year to be \$900,000 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 2021-22 claims translates to a rate of \$0.030 per \$100 TIV.

The table below shows our funding recommendations for PLAN JPA for the 2021-22 fiscal year.

## PLAN JPA Self-Insured Property Program Loss and ALAE Funding Guidelines for 2021-22 PLAN JPA Deductible of \$500,000, Member Deductible of \$5,000

		Marginally	Recommended Range				
	Expected	Acceptable 70% CL	Low 75% CL	Target 80% CL	High 85% CL	Conservative 90% CL	
Loss and ALAE	\$910,000						
Investment Income Offset	(10,000)						
Discounted Loss and ALAE	\$900,000	\$1,070,000	\$1,152,000	\$1,250,000	\$1,372,000	\$1,535,000	
Excess Insurance	3,337,000	3,337,000	3,337,000	3,337,000	3,337,000	3,337,000	
Total Funding	\$4,237,000	\$4,407,000	\$4,489,000	\$4,587,000	\$4,709,000	\$4,872,000	
Rate per \$100 of 2021-22 TIV	\$0.143	\$0.148	\$0.151	\$0.154	\$0.158	\$0.164	

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 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, MA Senior Actuarial Analyst, Bickmore Actuarial

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### I. BACKGROUND

Effective July 1, 2017, PLAN JPA property deductible was \$225K per occurrence, subject to a \$1M annual aggregate. Once the annual aggregate was met, the PLAN JPA deductible decreased to a \$10K maintenance deductible per occurrence.

Effective July 1, 2021, PLAN JPA property deductible will increase to \$500K per occurrence, with no annual aggregate.

PLAN JPA purchases excess insurance up to \$1 billion 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 2021-22 and provide funding guidelines to meet these future costs.

#### **II. CONCLUSIONS AND RECOMMENDATIONS**

#### A. COSTS OF 2021-22 CLAIMS

The following chart shows our funding recommendations for the PLAN JPA property program for the 2021-22 fiscal year assuming a \$500K PLAN JPA deductible and member deductibles of \$5,000.

#### PLAN JPA Self-Insured Property Program Loss and ALAE Funding Guidelines for 2021-22 PLAN JPA Deductible of \$500,000, Member Deductible of \$5,000

		Marginally		Recommended Range		
	Expected	Acceptable 70% CL	Low 75% CL	Target 80% CL	High 85% CL	Conservative 90% CL
Loss and ALAE	\$910,000					
Investment Income Offset	(10,000)					
Discounted Loss and ALAE	\$900,000	\$1,070,000	\$1,152,000	\$1,250,000	\$1,372,000	\$1,535,000
Excess Insurance	3,337,000	3,337,000	3,337,000	3,337,000	3,337,000	3,337,000
Total Funding	\$4,237,000	\$4,407,000	\$4,489,000	\$4,587,000	\$4,709,000	\$4,872,000
Rate per \$100 of 2021-22 TIV	\$0.143	\$0.148	\$0.151	\$0.154	\$0.158	\$0.164

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 selfinsurance 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 Statements #10 and #30.

GASB #10 and #30 do not address funding requirements. They do, however, allow a range of funded amounts to be recognized for accounting purposes, specifically GASB #10 and #30 allow recognition of a funding margin for unexpectedly adverse loss experience.

As you know, 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 maintaining program funding at the 80% confidence level, after recognition of investment income, with a recommended range of the 75% to 85% confidence levels. We tend to think of the 70% confidence level as marginally acceptable and of the 90% confidence level as conservative. We recommend the 75% to 85% confidence level range because the probabilities are reasonably high that resulting funding will be sufficient to meet claim liabilities, yet the required margins are not so large that they will cause most self-insured entities to experience undue financial hardship. In addition, within this range, anticipated investment income generally pretty much offsets the required margin, which means that it is also reasonable to think of the liabilities as being stated on an undiscounted basis.

We also strongly believe, however, that 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.

In general, we recommend that you fund each year's claims costs in that year. When surpluses or deficiencies have developed and funding adjustments are necessary, they should be clearly identified as such so that the habit of funding each year's claims costs that year is maintained. We also recommend that you reduce surplus funding more slowly than you would accumulate funding to make up a deficiency.

#### C. HISTORICAL TRENDS

PLAN JPA's loss rate (dollars of loss per \$100 of TIV) has remained relativity stable over the past eight years, with the exception of 2018-19. The projected 2020-21 loss rate of \$0.031 is based on the most recent four years.

PLAN JPA Dollars of Loss per \$100 of TIV



Loss Rate

The program's cost per claim has generally increased since 2013-14. The projected 2020-21 severity of \$7,000 is based on this increasing trend.



**PLAN JPA** Dollars of Loss per Claim

Severity

PLAN JPA's claims frequency per \$1 million of TIV has generally decreased over the past eight years. The projected 2020-21 frequency of 0.044 is based on the decreasing trend.



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

Frequency

### D. COMPARISON WITH OUR PREVIOUS RESULTS

The prior report for PLAN was dated April 10, 2020. In the table below we display actual versus expected development of incurred losses and ALAE by accident year between the December 31, 2019 evaluation date of the prior report and the December 31, 2020 evaluation date of the current report.

Accident Year	Expected Incurred Development	Actual Incurred Development	Actual Minus Expected
Prior	\$0	\$0	\$0
2013-14	0	(2,000)	(2,000)
2014-15	0	0	0
2015-16	270,000	2,000	(268,000)
2016-17	0	(1,000)	(1,000)
2017-18	7,000	(42,000)	(49,000)
2018-19	38,000	176,000	138,000
2019-20	162,000	432,000	270,000
Total	\$477,000	\$565,000	\$88,000

#### Actual Versus Expected Incurred Loss and ALAE Development

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 2019-20 would increase by \$477,000 between the two evaluation dates. However, actual development was approximately \$565,000; or about \$88,000 more than expected based on the more than expected losses in the most recent two years.

In the table below we display actual versus expected development of paid losses and ALAE by accident year between the December 31, 2019 evaluation date of the prior report and the December 31, 2020 evaluation date of the current report.

Accident Year	Expected Paid Development	Actual Paid Development	Actual Minus Expected
Prior	\$0	\$0	\$0
2013-14	0	(2,000)	(2,000)
2014-15	0	0	0
2015-16	270,000	(58,000)	(328,000)
2016-17	0	(1,000)	(1,000)
2017-18	5,000	(62,000)	(67,000)
2018-19	40,000	113,000	73,000
2019-20	114,000	262,000	148,000
Total	\$429,000	\$252,000	(\$177,000)

#### Actual Versus Expected Paid Loss and ALAE Development

As shown, actual incurred 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 2019-20 would increase by \$429,000 between the two evaluation dates. However, actual development was approximately \$252,000; or about \$177,000 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.

Accident Year	Prior Report	Current Report	Change
2011-12	\$878,000	\$878,000	0
2012-13	1,212,000	1,212,000	0
2013-14	771,000	769,000	(2,000)
2014-15	768,000	768,000	0
2015-16	962,000	695,000	(267,000)
2016-17	591,000	591,000	0
2017-18	654,000	606,000	(48,000)
2018-19	879,000	1,020,000	141,000
2019-20	560,000	846,000	286,000
Total	\$7,275,000	\$7,385,000	\$110,000

### Change in Loss and ALAE Ultimate Losses

As shown, overall we have increased our estimated ultimate losses by \$110,000 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 prior report for the Authority was dated April 10, 2019. At the time of the prior report, our funding estimate for the 2020-21 year was \$758,000 at the discounted, expected level. That amount included allocated loss adjustment expenses (ALAE), and a discount for anticipated investment income, but <u>excluded</u> unallocated loss adjustment expenses (ULAE). Our current estimate for the 2021-22 year is \$900,000 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 Report 2020-21 Deductible = \$225,000	Current Report 2021-22 Deductible = \$500,000	Change
(A) Ultimate Loss and ALAE:	\$767,000	\$910,000	\$143,000
(B) Offset for Investment Income:	(9,000)	(10,000)	(1,000)
(C) Total Recommended Funding:	\$758,000	\$900,000	\$142,000
(D) Funding per \$100 of TIV:	\$0.028	\$0.030	\$0.002

As you can see, our funding recommendations at the discounted, expected level have increased between 2020-21 and 2021-22, as shown in our prior and current reports respectively.

Our estimates of ultimate loss and ALAE have increased by \$143,000 primarily due to the increase in the SIR from \$225,000 to \$500,000 effective July 1, 2021. Investment income is expected to be higher. The net change due to the above factors is an overall increase of \$142,000 in our annual funding estimate for loss and ALAE.

# 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, 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 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 0.5% per year. We have assumed that the average claim size increases at 2.5% per year and that the average number of claims per \$1 million decreases at 2.0% per year.
- We have assumed that TIV increase 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.)

#### Funding Options for Program Year 2021-2022 (Pool Layer: \$5,000 - \$500,000) One-Year Funding Plan

				Dollar Amount	TIV Rate	
(A)	Estimated Ultimate Losses Incurred in Accident Year 2021-2022: (From Not Included)			\$910,000	\$0.031	
(B)	Estimated Claims Administration Fees Incurred in Accident Year 2021-2022: (From Exhibit 3, Page 1, item (L))			0	0.000	
(C)	Total Claims Costs Incurred in Accident Year 2021-2022: ((A) + (B))	\$910,000	\$0.031			
(D)	<ul> <li>Loss Discount Factor (Based on a Discount Rate of 2.0%.):</li> <li>(Appendix F, , (G))</li> </ul>			0.989		
(E)	Discounted Total Claims Costs Incurred in Accident Year 2021-2022: ((C) x (D))			\$900,000	\$0.030	
		Marginally Acceptable		Recommended		Conservative
		70%	75%	80%	85%	90%
(⊢)	(From Appendix G)	1.189	1.280	1.389	1.524	1.705
(G)	Margin for Adverse Experience: ((E) x [(F) - 1])	170,000	252,000	350,000	472,000	635,000
(H)	Recommended Funding in 2021-2022 for Claims Costs: ((E) + (G))	\$1,070,000	\$1,152,000	\$1,250,000	\$1,372,000	\$1,535,000
(I)	Budgeted Excess Costs: (Provided by the Pool)	3,337,000	3,337,000	3,337,000	3,337,000	3,337,000
(J)	Recommended Funding in 2021-2022 for Claims Costs, Other Expenses,					
	and Non Claims Related Expenses: ((H) + (I))	\$4,407,000	\$4,489,000	\$4,587,000	\$4,709,000	\$4,872,000
(I)	Rate per \$100 of TIV: ((H) / \$29,726,876)	\$0.148	\$0.151	\$0.154	\$0.158	\$0.164

TIV rates are per hundred dollars of 2021-2022 TIV of \$2,972,687,600.

#### Estimated Ultimate Program Losses

Accident Year	Reported Loss Development Method (A)	Paid Loss Development Method (B)	Exposure Method Based on Reported Losses (C)	Exposure Method Based on Paid Losses (D)	Frequency- Severity Method (E)	Selected Estimate of Ultimate Losses (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	768,075	768,041
2015-2016	694,404	633,804	694,404	633,804	834,840	695,000
2016-2017	590,383	592,151	590,383	592,618	767,261	591,000
2017-2018	605,084	591,515	605,084	593,646	702,000	606,000
2018-2019	1,020,016	979,837	1,017,596	973,400	792,540	1,020,000
2019-2020	867,568	887,520	864,053	868,522	826,309	846,000
Totals						\$7,384,339
		Proiected Losses fo	or the Year 2020-20	)21 (G)		\$849.000

Projected Losses for the Year 2020-2021	(G)
Projected Losses for the Year 2021-2022	(H)

\$849,000 \$922,000

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.

#### Estimated Ultimate Limited Losses Capped at \$225,000 per Claim

Accident Year	Reported Loss Development Method (A)	Paid Loss Development Method (B)	Exposure Method Based on Reported Losses (C)	Exposure Method Based on Paid Losses (D)	Frequency- Severity Method (E)	Selected Ultimate Limited Losses (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	768,075	768,041
2015-2016	694,404	633,804	694,404	633,804	834,840	695,000
2016-2017	590,383	592,151	590,383	592,618	767,261	591,000
2017-2018	605,084	591,515	605,084	593,646	702,000	606,000
2018-2019	1,020,016	979,837	1,017,596	973,400	792,540	1,020,000
2019-2020	867,568	887,520	864,053	868,522	826,309	846,000
Totals						\$7,384,339

Projected Losses for the Year 2020-2021	(G)	\$849,000
Projected Losses for the Year 2021-2022	(H)	\$922,000

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 Year	Ultimate Limited Losses (A)	Trend Factor (B)	Trended Limited Losses (C)	Trended TIV (\$00) (D)	Trended Limited Loss Rate (E)
2011-2012	877,854	1.044	916,480	25,421,955	0.036
2012-2013	1,211,570	1.039	1,258,821	26,548,133	0.047
2013-2014	768,874	1.034	795,016	28,899,039	0.028
2014-2015	768,041	1.030	791,082	28,990,551	0.027
2015-2016	695,000	1.025	712,375	25,842,951	0.028
2016-2017	591,000	1.020	602,820	25,723,522	0.023
2017-2018	606,000	1.015	615,090	25,961,432	0.024
2018-2019	1,020,000	1.010	1,030,200	26,295,739	0.039
2019-2020	846,000	1.005	850,230	27,303,697	0.031
Totals	\$7,384,339		\$7,572,114	240,987,019	\$0.031
17/18-19/20	2,472,000		2,495,520	79,560,868	0.031

		(F) Selected Limited Rate:			\$0.031 \$0.028
			\$225 000	\$500,000	\$0.0 <u>2</u> 0
Program Year:		2020-2021	2021-2022	2021-2022	
(G) Factor to SIR:		1.000	1.000	1.169	
(H) Trend Factor:		1.000	1.005	1.005	
(I) Program Rate:		\$0.031	\$0.031	\$0.036	
(J) Trended TIV (\$0	0):	27,395,469	29,726,876	29,726,876	
(K) Projected Progr	am Losses:	849,000	922,000	1,070,000	
(L) Projected ULAE:		0	0	0	
(M) Projected Loss and ULAE:		\$849,000	\$922,000	\$1,070,000	
			\$225.000	\$500.000	
		2020-2021	2021-2022	2021-2022	
Member Ded	Ded Fact	Funding	Funding	Funding	
0	1.00	849,000	922,000	1,070,000	
5,000 0.85		722,000	784,000	910,000	
10,000	0.75	640,000	695,000	806,000	
15,000	0.68	579,000	629,000	730,000	
25,000	0.58	494,000	536,000	622,000	

# 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) x (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) x (G) x (H).
- (J) From Appendix I, Column (C).
- (K) (I) x (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.

#### Reported Loss Development

Accident Year (A)	Limited Reported Losses as of 12/31/20 (B)	Reported Loss Development Factor (C)	Ultimate Limited Losses (D)	Program Reported Losses of 12/31/20 (E)	Reported Loss Development Factor (F)	Ultimate Program Losses (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	694,404	1.000	694,404	694,404	1.000	694,404
2016-2017	590,383	1.000	590,383	590,383	1.000	590,383
2017-2018	605,084	1.000	605,084	605,084	1.000	605,084
2018-2019	1,008,918	1.011	1,020,016	1,008,918	1.011	1,020,016
2019-2020	810,811	1.070	867,568	810,811	1.070	867,568
Totals	\$7,335,939		\$7,403,794	\$7,335,939		\$7,403,794

#### 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 12/31/20.
- (D) (B) x (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 12/31/20.
- (G) (E) x (F).

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

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

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#### Paid Loss Development

	Limited			Program		
	Paid	Paid Loss	Ultimate	Paid	Paid Loss	Ultimate
Accident	Losses as	Development	Limited	Losses	Development	Program
Year	of 12/31/20	Factor	Losses	of 12/31/20	Factor	Losses
(A)	(B)	(C)	(D)	(E)	(F)	(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	633,804	1.000	633,804	633,804	1.000	633,804
2016-2017	590,380	1.003	592,151	590,380	1.003	592,151
2017-2018	585,079	1.011	591,515	585,079	1.011	591,515
2018-2019	945,789	1.036	979,837	945,789	1.036	979,837
2019-2020	640,809	1.385	887,520	640,809	1.385	887,520
Totals	\$7,022,200		\$7,311,166	\$7,022,200		\$7,311,166

#### 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 12/31/20.
- (D) (B) x (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 12/31/20.
- (G) (E) x (F).

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

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

#### Exposure and Development Method Based on Reported Losses

				Percentage		Incurred	
	Trended	Reported	Loss	of Losses		but not	Ultimate
Accident	TIV	Losses as	Development	Yet to Be	Program	Reported	Program
Year	(\$00)	of 12/31/20	Factor	Reported	Rate	(IBNR)	Losses
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
2011-2012	25,421,955	877,854	1.000	0.000	0.035	0	877,854
2012-2013	26,548,133	1,211,570	1.000	0.000	0.046	0	1,211,570
2013-2014	28,899,039	768,874	1.000	0.000	0.027	0	768,874
2014-2015	28,990,551	768,041	1.000	0.000	0.026	0	768,041
2015-2016	25,842,951	694,404	1.000	0.000	0.029	0	694,404
2016-2017	25,723,522	590,383	1.000	0.000	0.029	0	590,383
2017-2018	25,961,432	605,084	1.000	0.000	0.030	0	605,084
2018-2019	26,295,739	1,008,918	1.011	0.011	0.030	8,678	1,017,596
2019-2020	27,303,697	810,811	1.070	0.065	0.030	53,242	864,053
Totals	240,987,019	\$7,335,939				\$61,920	\$7,397,859

#### 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) x (D) x (E).

(G) (B) + (F).

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

				Percentage			
	Trended	Paid	Loss	of Losses		Incurred	Ultimate
Accident	TIV	Losses as	Development	Yet to Be	Program	but not	Program
Year	(\$00)	of 12/31/20	Factor	Paid	Rate	Paid	Losses
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
2011-2012	25,421,955	877,854	1.000	0.000	0.035	0	877,854
2012-2013	26,548,133	1,211,570	1.000	0.000	0.046	0	1,211,570
2013-2014	28,899,039	768,874	1.000	0.000	0.027	0	768,874
2014-2015	28,990,551	768,041	1.000	0.000	0.026	0	768,041
2015-2016	25,842,951	633,804	1.000	0.000	0.029	0	633,804
2016-2017	25,723,522	590,380	1.003	0.003	0.029	2,238	592,618
2017-2018	25,961,432	585,079	1.011	0.011	0.030	8,567	593,646
2018-2019	26,295,739	945,789	1.036	0.035	0.030	27,611	973,400
2019-2020	27,303,697	640,809	1.385	0.278	0.030	227,713	868,522
Totals	240,987,019	\$7,022,200				\$266,129	\$7,288,329

### Notes:

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

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

Exposure and Development Method

	Trended	Ultimate		Trended	Trended			
Accident	TIV	Limited	Trend	Limited	Limited	Limited	Factor to	Program
Year	(\$00)	Losses	Factor	Losses	Loss Rate	Loss Rate	SIR	Loss Rate
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
2011-2012	25,421,955	877,854	1.044	916,480	0.036	0.035	1.000	0.035
2012-2013	26,548,133	1,211,570	1.039	1,258,821	0.047	0.046	1.000	0.046
2013-2014	28,899,039	768,874	1.034	795,016	0.028	0.027	1.000	0.027
2014-2015	28,990,551	768,041	1.030	791,082	0.027	0.026	1.000	0.026
2015-2016	25,842,951	695,000	1.025	712,375	0.028	0.029	1.000	0.029
2016-2017	25,723,522	591,000	1.020	602,820	0.023	0.029	1.000	0.029
2017-2018	25,961,432	606,000	1.015	615,090	0.024	0.030	1.000	0.030
2018-2019	26,295,739	1,020,000	1.010	1,030,200	0.039	0.030	1.000	0.030
2019-2020	27,303,697	878,000	1.005	882,390	0.032	0.030	1.000	0.030
Total/Avg	240,987,019	\$7,416,339		\$7,604,274	\$0.032			
15/16-19/20	131,127,341	3,790,000		3,842,875	0.029			
17/18-19/20	79,560,868	2,504,000		2,527,680	0.032			
			Selecte	d Limited Rate:	\$0.030			
				Prior:	\$0.028			

Notes:

- (A) From Appendix I, Column (C).
- (B) Selected average of results from Appendices A and B.
- (C) From Appendix E, Column (B).
- (D) (B) x (C).
- (E) (D) / (A).
- (F) Selected Limited Rate / (C). For 2014-2015 and prior (B) / (A).
- (G) Based on a Burr distribution, a mathematical model
- of claim sizes.
- (H) (F) x (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.

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### Frequency and Severity Method

Accident	Ultimate Program	Adjusted Ultimate	Ultimate Program
Year	Severity	Claims	Losses
	(A)	(B)	(C)
2011-2012	5,320	165	877,800
2012-2013	7,717	157	1,211,569
2013-2014	4,272	180	768,960
2014-2015	4,655	165	768,075
2015-2016	6,184	135	834,840
2016-2017	6,341	121	767,261
2017-2018	6,500	108	702,000
2018-2019	6,660	119	792,540
2019-2020	6,829	121	826,309
Total		1,271	\$7,549,354

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.

### Frequency and Severity Method

Accident YearLimited LossesUltimate ClaimsLimited SeverityTrend FactorLimited SeverityLimited SeverityFactor to Severity(A)(B)(C)(D)(E)(F)(G)2011-2012877,8541655,3201.2496,6455,3201.000	
Year         Losses         Claims         Severity         Factor         Severity         Severity         SIR           (A)         (B)         (C)         (D)         (E)         (F)         (G)           2011-2012         877,854         165         5,320         1.249         6,645         5,320         1.000	Program
(A) (B) (C) (D) (E) (F) (G) 2011-2012 877.854 165 5.320 1.249 6.645 5.320 1.000	Severity
2011-2012 877,854 165 5,320 1.249 6,645 5,320 1.000	(H)
	5,320
2012-2013 1,211,570 157 7,717 1.218 9,399 7,717 1.000	7,717
2013-2014 768,874 180 4,272 1.188 5,075 4,272 1.000	4,272
2014-2015 768,041 165 4,655 1.160 5,400 4,655 1.000	4,655
2015-2016 695,000 135 5,148 1.132 5,828 6,184 1.000	6,184
2016-2017 591,000 121 4,884 1.104 5,392 6,341 1.000	6,341
2017-2018 606,000 108 5,611 1.077 6,043 6,500 1.000	6,500
2018-2019 1,020,000 119 8,571 1.051 9,008 6,660 1.000	6,660
2019-2020 872,000 121 7,207 1.025 7,387 6,829 1.000	6,829
Average Limited Severity: \$6,686	
Average 15/16-19/20 Limited Severity: 6,732	
Average 17/18-19/20 Limited Severity: 7,479	

Selected Limited Severity:	\$7,000
Prior:	\$6,100

Notes:

- (A) Selected average of results from Appendices A, B, and C.
- (B) Appendix D, Page 3, Column (C).
- (C) (A) / (B).
- (D) From Appendix E, Column (J).
- (E) (C) x (D).
- (F) Selected Limited Severity / (D).
- (G) Based on a Burr distribution, a mathematical model of claim sizes.
- (H) (F) x (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.

Frequency and Severity Method Projection of Ultimate Claims

Accident Year	Reported Claim Development (A)	Closed Claim Development (B)	Selected Ultimate Claims (C)	Trended TIV (\$000,000) (D)	Claim Frequency (E)	Trend Factor (F)	Trended Claim Frequency (G)
2011-2012	165	167	165	2,542.2	0.065	0.834	0.054
2012-2013	157	159	157	2,654.8	0.059	0.851	0.050
2013-2014	180	183	180	2,889.9	0.062	0.868	0.054
2014-2015	165	167	165	2,899.1	0.057	0.886	0.051
2015-2016	135	136	135	2,584.3	0.052	0.904	0.047
2016-2017	121	122	121	2,572.4	0.047	0.922	0.043
2017-2018	108	106	108	2,596.1	0.042	0.942	0.040
2018-2019	119	103	119	2,629.6	0.045	0.961	0.043
2019-2020	121	75	121	2,730.4	0.044	0.980	0.043
Total	1,271	1,218	1,271	24,098.7			0.047
14/15-18/19	648	634	648	13,281.4			0.045
					(H) Selec	ted Frequency:	0.044
					( )	Prior:	0.045
	Program Year:			2020-2021	2021-2022		
(1)	Trend Factor:			1.000	0.980		
(J)	Selected Frequ	Jency:		0.044	0.043		
(K)	Est. TIV (\$000	,000):		2,739.5	2,972.7		
(L)	Ultimate Claim	IS:		121	128		

Notes:
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(A)	From Appendix D, Page 4, (C)	1.
(D)	Ensure Annuanding D. Danie E. (C)	

(B) From Appendix D, Page 5, (C).

(C) Selected from (A) and (B).

(D) From Appendix I, Column (C) / 10,000.

(E) (C) / (D).

(F) From Appendix E, Column (H).

(G) (E) x (F).

(H) The selected frequency of .044 is based on (G).

(I) From Appendix E, Column (H).

(J) (H) x (I).

(K) From Appendix I, Column (C) / 10,000.

(L) (J) x (K).

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

### Frequency and Severity Method Reported Claim Count Development

Accident Year	Claims Reported as of 12/31/2020 (A)	Reported Claim Development Factor (B)	Ultimate Claims (C)	Trended Claim Frequency (D)
2011-2012	165	1.000	165	0.054
2012-2013	157	1.000	157	0.050
2013-2014	180	1.000	180	0.054
2014-2015	165	1.000	165	0.050
2015-2016	135	1.000	135	0.047
2016-2017	121	1.000	121	0.043
2017-2018	108	1.000	108	0.039
2018-2019	117	1.017	119	0.043
2019-2020	106	1.145	121	0.043
Total	1,254		1,271	0.047

Notes:

- (A) Provided by the Pool.
- (B) From Appendix D, Page 6.
- (C) (A) x (B).
- (D) (C) / [Appendix D, Page 3, (D)] x [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.

### Frequency and Severity Method Closed Claim Count Development

Accident Year	Claims Closed as of 12/31/2020 (A)	Closed Claim Development Factor (B)	Ultimate Claims (C)	Trended Claim Frequency (D)
2011-2012	165	1.012	167	0.055
2012-2013	157	1.013	159	0.051
2013-2014	180	1.014	183	0.055
2014-2015	165	1.015	167	0.051
2015-2016	133	1.021	136	0.048
2016-2017	118	1.033	122	0.044
2017-2018	101	1.054	106	0.038
2018-2019	92	1.118	103	0.038
2019-2020	50	1.509	75	0.027
Total	1,161		1,218	0.045

Notes:

- (A) Provided by the Pool.
- (B) From Appendix D, Page 7.
- (C) (A) x (B).
- (D) (C) / [Appendix D, Page 3, (D)] x [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.

### Loss Trend Factors

		Factor to								
	Benefit	2020-2021	2021-2022	2022-2023	2023-2024	2020-2021	2021-2022	2022-2023	2023-2024	2020-2021
Accident	Level	Loss Rate	Loss Rate	Loss Rate	Loss Rate	Frequency	Frequency	Frequency	Frequency	Severity
Year	Factor	Level								
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
1999-2000	1.000	1.107	1.113	1.118	1.124	0.655	0.642	0.629	0.616	1.679
2000-2001	1.000	1.101	1.107	1.112	1.118	0.668	0.655	0.642	0.629	1.638
2001-2002	1.000	1.096	1.101	1.106	1.112	0.682	0.669	0.655	0.642	1.598
2002-2003	1.000	1.090	1.095	1.100	1.106	0.696	0.682	0.668	0.655	1.559
2003-2004	1.000	1.084	1.089	1.095	1.100	0.710	0.696	0.682	0.668	1.521
2004-2005	1.000	1.079	1.084	1.090	1.095	0.725	0.710	0.696	0.682	1.484
2005-2006	1.000	1.074	1.079	1.085	1.090	0.740	0.725	0.710	0.696	1.448
2006-2007	1.000	1.069	1.074	1.080	1.085	0.755	0.740	0.724	0.710	1.412
2007-2008	1.000	1.064	1.069	1.075	1.080	0.769	0.754	0.739	0.724	1.378
2008-2009	1.000	1.059	1.064	1.070	1.075	0.785	0.770	0.754	0.739	1.344
2009-2010	1.000	1.054	1.059	1.065	1.070	0.801	0.785	0.769	0.754	1.312
2010-2011	1.000	1.049	1.054	1.060	1.065	0.817	0.801	0.785	0.769	1.280
2011-2012	1.000	1.044	1.050	1.055	1.060	0.834	0.818	0.801	0.785	1.249
2012-2013	1.000	1.039	1.045	1.050	1.055	0.851	0.834	0.817	0.801	1.218
2013-2014	1.000	1.034	1.040	1.045	1.050	0.868	0.851	0.834	0.817	1.188
2014-2015	1.000	1.030	1.035	1.040	1.045	0.886	0.869	0.851	0.834	1.160
2015-2016	1.000	1.025	1.030	1.035	1.040	0.904	0.886	0.868	0.851	1.132
2016-2017	1.000	1.020	1.025	1.030	1.035	0.922	0.904	0.886	0.868	1.104
2017-2018	1.000	1.015	1.020	1.025	1.030	0.942	0.923	0.904	0.886	1.077
2018-2019	1.000	1.010	1.015	1.020	1.025	0.961	0.942	0.922	0.904	1.051
2019-2020	1.000	1.005	1.010	1.015	1.020	0.980	0.960	0.941	0.922	1.025
2020-2021	1.000	1.000	1.005	1.010	1.015	1.000	0.980	0.960	0.941	1.000
2021-2022	1.000		1.000	1.005	1.010		1.000	0.980	0.960	
2022-2023	1.000			1.000	1.005			1.000	0.980	
2023-2024	1.000				1.000				1.000	

Notes:

(A)

No benefit level adjustment applied. (A) adjusted for a 0.5% annual loss rate trend. (A) adjusted for a -2.0% annual frequency trend. (B) - (E)

(F) - (I)

(A) adjusted for a 2.5% annual severity trend. (J)

> 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.

Calculation of Discount Factors

Payment	Payment	Return on	Discounted	Undiscounted	Discount
Year	Pattern	Investment	Reserves	Reserves	Factor
(A)	(B)	(C)	(D)	(E)	(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	0.0%	2.0%	0.000	0.000	1.000
13	0.0%	2.0%	0.000	0.000	1.000
12	0.0%	2.0%	0.000	0.000	1.000
11	0.0%	2.0%	0.000	0.000	1.000
10	0.0%	2.0%	0.000	0.000	1.000
9	0.0%	2.0%	0.000	0.000	1.000
8	0.0%	2.0%	0.000	0.000	1.000
7	0.0%	2.0%	0.000	0.000	1.000
6	0.1%	2.0%	0.001	0.001	0.990
5	0.5%	2.0%	0.006	0.006	0.987
4	1.0%	2.0%	0.015	0.016	0.982
3	3.8%	2.0%	0.053	0.054	0.982
2	44.8%	2.0%	0.496	0.502	0.987
1	49.8%	2.0%	0.979	1.000	0.979
		(G) Discount Factor	for Future Funding:	2020-2021	0.989
			-	2021-2022	0.989

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, 49.6% = [5.3% / 1.020] + [44.8% / (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 0.99, on a discounted basis, 0.99 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%	2.008	1.886
90%	1.705	1.625
85%	1.524	1.467
80%	1.389	1.349
75%	1.280	1.254
70%	1.189	1.173
65%	1.108	1.102
60%	1.035	1.037
55%	0.969	0.978
50%	0.906	0.922
45%	0.846	0.868
40%	0.788	0.816
35%	0.731	0.764
30%	0.674	0.712
25%	0.615	0.659

To read table:	For the above retention, there is a 90% chance
	that final loss settlements will be less than
	1.705 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.

#### Incurred Losses as of 12/31/20

Accident Year (A)	Unlimited Incurred (B)	Additions to Losses (C)	Subtractions from Losses (D)	Adjusted Incurred (E)	Incurred Over SIR (F)	Incurred Over \$225,000 (G)	Incurred Capped at \$225,000 (H)	Incurred \$225,000 to SIR Layer (I)	Incurred Capped at SIR (J)	Incurred 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	729,740	0	0	729,740	35,337	35,337	694,404	0	694,404	694,404
2016-2017	590,383	0	0	590,383	0	0	590,383	0	590,383	590,383
2017-2018	605,084	0	0	605,084	0	0	605,084	0	605,084	605,084
2018-2019	1,008,918	0	0	1,008,918	0	0	1,008,918	0	1,008,918	1,008,918
2019-2020	810,811	0	0	810,811	0	0	810,811	0	810,811	810,811
2020-2021	327,677	0	0	327,677	0	0	327,677	0	327,677	327,677
Total	\$7,698,951	\$0	\$0	\$7,698,951	\$35,337	\$35,337	\$7,663,615	\$0	\$7,663,615	\$7,663,615

#### Notes:

- (A) Years are 7/1 to 6/30.(B) Provided by the Pool.

(C)

- (D)
- (E) (B) + (C) (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.

#### Paid Losses as of 12/31/20

										Paid
		Additions	Subtractions			Paid	Paid	Paid	Paid	Capped at
Accident	Unlimited	to	from	Adjusted	Paid	Over	Capped at	\$225,000	Capped at	SIR &
Year	Paid	Losses	Losses	Paid	Over SIR	\$225,000	\$225,000	to SIR Layer	SIR	Aggregate
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
2011-2012	877,854	C	0 0	877,854	0	0	877,854	0	877,854	877,854
2012-2013	1,211,570	C	) 0	1,211,570	0	0	1,211,570	0	1,211,570	1,211,570
2013-2014	768,874	C	) 0	768,874	0	0	768,874	0	768,874	768,874
2014-2015	768,041	C	0 0	768,041	0	0	768,041	0	768,041	768,041
2015-2016	669,140	C	0 0	669,140	35,337	35,337	633,804	0	633,804	633,804
2016-2017	590,380	C	0 0	590,380	0	0	590,380	0	590,380	590,380
2017-2018	585,079	C	0 0	585,079	0	0	585,079	0	585,079	585,079
2018-2019	945,789	C	0 0	945,789	0	0	945,789	0	945,789	945,789
2019-2020	640,809	C	0 0	640,809	0	0	640,809	0	640,809	640,809
2020-2021	37,659	C	) 0	37,659	0	0	37,659	0	37,659	37,659
Total	\$7,095,194	\$C	) \$0	\$7,095,194	\$35,337	\$35,337	\$7,059,858	\$0	\$7,059,858	\$7,059,858

#### Notes:

- (A) Years are 7/1 to 6/30.(B) Provided by the Pool.

(C)

- (D)
- (E) (B) + (C) (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.

#### Case Reserves as of 12/31/20

Accident Year (A)	Unlimited Reserves (B)	Additions to Losses (C)	Subtractions from Losses (D)	Adjusted Reserves (E)	Reserves Over SIR (F)	Reserves Over \$225,000 (G)	Reserves Capped at \$225,000 (H)	Reserves \$225,000 to SIR Layer (I)	Reserves Capped at SIR (J)	Reserves Capped at SIR & Aggregate (K)
2011-2012	0	C	0 0	0	0	0	0	0	0	0
2012-2013	0	C	0	0	0	0	0	0	0	0
2013-2014	0	C	0	0	0	0	0	0	0	0
2014-2015	0	C	0	0	0	0	0	0	0	0
2015-2016	60,600	C	0	60,600	0	0	60,600	0	60,600	60,600
2016-2017	3	C	0	3	0	0	3	0	3	3
2017-2018	20,005	C	0 0	20,005	0	0	20,005	0	20,005	20,005
2018-2019	63,129	C	0	63,129	0	0	63,129	0	63,129	63,129
2019-2020	170,002	C	0	170,002	0	0	170,002	0	170,002	170,002
2020-2021	290,018	C	0 0	290,018	0	0	290,018	0	290,018	290,018
Total	\$603,757	\$C	\$0	\$603,757	\$0	\$0	\$603,757	\$0	\$603,757	\$603,757

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) (B) + (C) (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.

#### Claim Counts as of 12/31/20

Accident Year (A)	Reported Claims (B)	Additions to Reported Claims (C)	Subtractions from Reported Claims (D)	Adjusted Reported Claims (E)	Closed Claims (F)	Additions to Closed Claims (G)	Subtractions from Closed Claims (H)	Adjusted Closed Claims (I)	Open 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	165	0	0	165	165	0	0	165	0	0
2015-2016	135	0	0	135	133	0	0	133	2	2
2016-2017	121	0	0	121	118	0	0	118	3	3
2017-2018	108	0	0	108	101	0	0	101	7	7
2018-2019	117	0	0	117	92	0	0	92	25	25
2019-2020	106	0	0	106	50	0	0	50	56	56
2020-2021	25	0	0	25	4	0	0	4	21	21
Total	1,279	0	0	1,279	1,165	0	0	1,165	114	114

Notes:

- (A) Years are 7/1 to 6/30.(B) Provided by the Pool.

(C) (D)

- (E) (B) + (C) (D).
  (F) Provided by the Pool.
  (G)
- (H)
- (I) (I) (F) + (G) (H). (J) (B) (F). (K) (E) (I).

### Exposure Measures

Accident Year	Total TIV (\$00) (A)	Inflation Trend Factor (B)	Trended TIV (\$00) (C)
2013-2014	24,305,331	1.189	28,899,039
2014-2015	24,991,854	1.160	28,990,551
2015-2016	22,829,462	1.132	25,842,951
2016-2017	23,300,292	1.104	25,723,522
2017-2018	24,105,322	1.077	25,961,432
2018-2019	25,019,733	1.051	26,295,739
2019-2020	26,637,753	1.025	27,303,697
2020-2021	27,395,469	1.000	27,395,469
2021-2022	29,726,876	1.000	29,726,876

Notes:

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

### PLAN JPA SPECIAL BOARD OF DIRECTORS MEETING March 26, 2021

# March 26, 2021

# Agenda Item 6.B.

# PROPERTY PROGRAM

# **SUBJECT:** State of the Market - Property

# **BACKGROUND AND HISTORY:**

Seth Cole, Alliant Insurance Services Inc., will provide the Board of Directors with an update on the state of the insurance market as regards to property.

### **RECOMMENDATION:**

None. Information only.

# **<u>REFERENCE MATERIALS ATTACHED</u>**:

• State of the Insurance Market (Please See Attachment to Agenda Item 5.C.)

# PLAN JPA SPECIAL BOARD OF DIRECTORS MEETING

# March 26, 2021

Agenda Item 6.C.

# PROPERTY PROGRAM

### SUBJECT: PLAN JPA 2021/22 Projections - Property

# **BACKGROUND AND HISTORY:**

The primary pool layer SIR for the property program is projected to increase from \$225K per occurrence to \$500K per occurrence. Additionally, the excess coverage cost is expected to increase as well. Staff has taken a conservative approach in estimating cost for the 2021/22 year. Below is a breakdown:

Property Program	Layers	<u>20-21</u>	<u>21-22</u>	
PLAN - 70% CL	\$225K	\$911,000	\$1,070,000	17%
Excess Property & Flood	Above \$225K	2,258,365	3,161,709	40%
Excess Cyber Coverage		116,560	174,841	50%
		\$3,285,925	\$4,406,550	34%

Staff will also discuss alternative options for the Property program.

# **<u>RECOMMENDATION</u>**:

None. Information only.

# **<u>REFERENCE MATERIALS ATTACHED</u>**:

None

# PLAN JPA SPECIAL BOARD OF DIRECTORS MEETING

# March 26, 2021

Agenda Item 7.A.

# FINANCIAL MATTERS

# SUBJECT: PLAN JPA 2021/22 Draft Operating Budget

### **BACKGROUND AND HISTORY:**

Enclosed is the Preliminary Operating Budget (Budget) for PLAN JPA for the 2021/22 fiscal year. While the funding model is similar to what PLAN has approved in the past, employment liability coverage has been added for those members who joined Employment Risk Management Authority (ERMA). Funding rates were compiled by PLAN's actuary. Pages two and three detail the Budget program as follows:

- For the Liability program, member contributions are presented at the 60% confidence level (CL) with a 2% discount factor. PLAN's self-insured retention (SIR) is up to \$2.5 million above each individual member's SIR. Reinsurance of \$2.5 million is purchased above the pool's SIR and excess coverage is purchased from \$5 million to \$30 million. These coverage layers are same as the prior year.
- For the Property program, member contributions are presented at the 70% CL with a 2% discount factor. The proposed coverage is losses pooled from members SIR up to \$500K (prior year SIR was \$225K) per occurrence with zero aggregate deductible and excess coverage purchased to \$1 Billion.

The major components of the Budget are outlined below:

# 1. <u>Overall Rates for Coverage</u>

The budgeted contributions are projected to increase from \$16.2 million to \$19.8 million; an increase of 23% over the prior year. Decreases in estimated payroll of .09% and the primary funding layer (3%) for the Liability Program were offset by significant increases in reinsurance and excess premiums for both Liability and Property Programs. Below is a summary by program.

# Liability Program (Page 2)

The Liability program is projecting a 20% increase in contributions over the 2020/21 Approved Budget. The underlying assumptions used in compiling the preliminary budget include:

- 1) *Payroll* estimated to decrease by .09% from the prior year due to the change in payroll reporting method. The 2021/22 estimated payroll is based upon the actual payroll collected on a quarterly basis, annualized with a conservative 3% trend increase. In prior years, the estimated payroll was collected annually.
- 2) Primary Funding Layer decreased 3% from prior year due to favorable claims development.

# Agenda Item 7.A. Page 2

- 3) Insurance cost The insurance cost is projected to increase by 50% over the prior year.
  - a. *Reinsurance* is projected to increase by 50%.
  - b. *Excess* is projected to increase by 50%.
- 4) *Administrative Expenses* Budgeted to increase of 3% 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 data from 2015/16 through 2019/20. The losses were limited to \$250,000 per occurrence. Creditability was given to payroll, limited to a minimum of 10% and maximum of 90%. A change has been made in current year to cap the change of ex-mod at 30% from year to year.

### Allocation of Administrative Cost:

Administrative costs are split between fixed and variable costs. 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) two-thirds of the costs are allocated based upon paid losses in the period of 2015/16 to 2019/20. The allocation of administrative costs is same as it has been in the past years.

# **Property Program (Page 3)**

The Property program is projected to increase 34% over the 2020/21 Approved Budget. The proposed budget includes:

- 1. Funding the 2020/21 program year at the **70% CL**, similar to prior year;
- 2. Increasing the Total Insured Value (TIV) by 9%; these are preliminary numbers as Alliant is still gathering the data;
- 3. Excess premium includes a 40% rate increase. The proposed rate increase includes increasing SIR to \$500K per occurrence, with no aggregate deductible. The prior year coverage included SIR at \$225K occurrence with \$1M aggregate deductible;
- 4. Excess Cyber Liability is projected to increase 50%; and
- 5. Actuarial Report, dated on February 26, 2021, was used to compile the proposed contributions for 2021/22.

# 2. <u>Claims Expense</u>

The overall claims expenses for program year 2021/20 is budgeted at the expected CL and expected to decrease by .04%. While the Liability Program is projected to decrease 2.7% due to favorable claims development, the Property Program is projected to increase 18.7% due to proposed SIR increase to \$500K with no aggregate deductible.

# Agenda Item 7.A. Page 3

# 3. <u>Insurance Expense</u>

Total insurance expense is projected to increase by 56.2% over the prior year budget. The Liability Program is projected to increase 62% as the insurance market has hardened, while the Property Program is projected to increase 41% over the prior year due to utilization of the excess layer. Excess Cyber Coverage is projected to increase 50% while Employment Liability is estimated to increase 20% from the prior year. These are conservative estimates and will be revised once staff obtains more information from Alliant.

# 4. <u>Risk Management Grants</u>

Risk Management Grants, which are being funded out of equity, is budgeted at \$500,000, similar to prior year budget.

# 5. <u>Administration Expenses</u>

Administrative expenses are projected to increase by 3%, over the prior year. The 2021/22 proposed budget includes the following line item variances from the prior year:

- Program Administration: contractual 3% increase from prior year and additional \$75K for litigation management;
- Financial Audit: contractual 4.8% increase from the prior year;
- Actuarial Studies: \$5K increase for additional studies;
- Claims Admin & Audit: contractual increase for claims administration and no claims audit cost budgeted for in 2021/22;
- Legal Counsel: proposing a 11% decrease from prior year budget;
- Risk Console Info System: this contract was phased out;
- Insurance: projected 5% increase for Deadly Weapon Response, E&O and Crime Coverage;
- Bank/Investment Fee: 83.3% decrease over prior budget due to reallocation of investment fees to offset investment income; and
- Allowance for Contingencies: this expenditure is for unexpected PLAN JPA cost not budgeted.

# **<u>RECOMMENDATION</u>**:

None. Information Only.

# **<u>REFERENCE MATERIALS ATTACHED</u>**:

• Preliminary Operating Budget for 2021/2022

# PLAN JPA Preliminary Operating Budget for 2021/2022 Summary of Contributions by Program

									Prior \	<i>lear</i>	Compari	son		Payroll	omparison	Ex-n	nod Compa	rison		
							2021/22	2	2020/21					Estimated Estimated						
		Liability	Property	Em	ployment	1	Total		Total	In	crease/	Percent		Payroll		Payroll	%			
Member		Program	Program	L	Liability	Сс	ontributions	Con	tributions	(De	ecrease)	Change		2021/22		2020/21	Change	2021/22	2020/21	Change
		Page 2	Page 3																	
A	•	000 005	<b></b>	•	F7 F70		470.050	•	101 150	•	75 700	100/	•	0 704 000	•	7 000 500	11.00/	000/	000/	0.00/
American Canyon	\$	299,035	\$ 120,247	\$	57,576	\$	476,858	\$	401,150	\$	75,708	19%	\$	6,731,600	\$	7,896,528	-14.8%	60%	60%	0.0%
Atherton		212,864	24,643		44,476		281,983		241,277		40,706	17%		4,980,400		5,703,129	-12.7%	128%	128%	0.0%
Benicia		643,087	365,237		-		1,008,324		980,121		28,203	3%		22,470,900		23,555,000	-4.6%	82%	96%	-14.6%
Burlingame		538,902	301,037		-		839,939		724,995		114,944	16%		23,296,600		25,898,071	-10.0%	/9%	82%	-3.7%
Campbell		685,980	150,752		-		836,732		695,409		141,323	20%		23,200,800		25,400,000	-8.7%	81%	79%	2.5%
Colma		119,472	42,692		-		162,164		150,325		11,839	8%		5,714,000		5,866,006	-2.6%	75%	72%	4.2%
Cupertino		623,331	1/4,695		-		798,026		639,636		158,391	25%		23,780,600		26,023,447	-8.6%	39%	49%	-20.4%
Dublin		703,860	367,216		-		1,071,076		/85,019		286,058	36%		9,963,400		13,229,029	-24.7%	84%	64%	30.0%
East Palo Alto		466,957	43,249		-		510,206		386,865		123,341	32%		9,030,300		11,775,000	-23.3%	117%	90%	30.0%
Foster City		409,980	207,501		-		617,481		489,508		127,973	26%		19,319,200		20,783,000	-7.0%	32%	30%	6.7%
Half Moon Bay		184,269	47,065		-		231,334		211,682		19,652	9%		4,266,600		4,274,400	-0.2%	77%	97%	-20.6%
Hillsborough		316,801	126,606		-		443,407		361,461		81,946	23%		11,140,000		10,601,185	5.1%	89%	80%	11.3%
Los Altos Hills		208,259	27,127		-		235,386		186,939		48,447	26%		3,201,200		2,673,040	19.8%	170%	153%	11.1%
Los Gatos		496,687	99,255		-		595,942		492,623		103,318	21%		22,442,300		20,271,929	10.7%	48%	48%	0.0%
Millbrae		488,940	171,925		-		660,865		479,959		180,905	38%		7,968,700		9,676,706	-17.7%	210%	192%	9.4%
Milpitas		1,597,052	370,173		-		1,967,226	1	,161,755		805,471	69%		64,774,900		49,905,258	29.8%	93%	93%	0.0%
Morgan Hill		1,063,182	242,943		-		1,306,125		999,226		306,899	31%		30,138,300		26,206,349	15.0%	120%	119%	0.8%
Newark		867,494	205,529		-		1,073,023		834,245		238,779	29%		22,729,800		18,956,497	19.9%	105%	117%	-10.3%
Pacifica		933,789	358,543		-		1,292,332	1	,095,379		196,953	18%		20,884,100		21,209,531	-1.5%	153%	152%	0.7%
Portola Valley		86,166	22,352		-		108,518		100,649		7,869	8%		1,715,700		1,861,818	-7.8%	81%	81%	0.0%
Ross		77,224	11,431		-		88,655		92,328		(3,673)	-4%		2,456,900		2,585,000	-5.0%	70%	70%	0.0%
San Bruno		1,077,424	165,920		-		1,243,344	1	,045,101		198,243	19%		30,714,200		32,017,130	-4.1%	139%	120%	15.8%
San Carlos		838,917	98,119		-		937,036		874,579		62,457	7%		8,162,900		9,165,405	-10.9%	368%	300%	22.7%
Saratoga		493,597	69,543		-		563,140		360,859		202,281	56%		7,634,800		7,700,000	-0.8%	140%	200%	-30.0%
South San Francisco		1,226,584	481,724		-		1,708,308	1	,752,289		(43,981)	-3%		53,350,000		60,226,756	-11.4%	74%	104%	-28.8%
Suisun City		382,737	70,087		-		452,824		330,384		122,440	37%		7,674,600		7,584,819	1.2%	74%	64%	15.6%
Tiburon		155,883	24,435		-		180,318		152,919		27,399	18%		3,886,000		4,557,033	-14.7%	73%	68%	7.4%
Woodside		117,198	16,502		17,634		151,334		132,672		18,662	14%		2,212,200		2,317,470	-4.5%	99%	94%	5.3%
Total	\$	15,315,672	\$ 4,406,550	\$	119,686	\$	19,841,907	\$16	6,159,356	\$3	,682,551	23%	\$	453,841,000	\$	457,919,536	-0.9%			
P/Y Actual		13,118,305	3,284,518		\$99,738		16,502,561													
Incr./(Decr.)	\$	2,197,367	\$ 1,122,032	\$	19,948	\$	3,339,346													

#### Note:

% Change

Payroll comparison was obtained from the actuarial study. The payroll numbers are estimates that were used at the time of funding.

20%

20%

The ex-mod comparisons were obtained from actuarial reports.

17%

Employment Liability coverage is through ERMA (Employment Risk Management Authority).

34%

# **PLAN JPA**

# Preliminary Operating Budget for 2021/2022 Liability Program Contribution Schedule

Pool Funding @ 60% Confidence Level, 2.0% Discount Factor

Invariance rescales numance         2021/22         2021/22         2021/22         2021/2         2021/2         2021/2         2021/2         2021/2         2021/2         2021/2         2021/2         2021/2         2021/2         2021/2         2021/2         2021/2         2021/2         2021/2         60% CL         Liability Budget         (Jacobi Kall           Members         Sift         Note 3         Note 3         Note 4         Note 4         Note 5         Liability Budget         Liability Budget <thliability budget<="" th="">         Liability Budget<th colspan="5"></th><th></th><th></th><th></th><th></th><th></th><th></th><th>Budget Com</th><th>parison</th></thliability>												Budget Com	parison				
Member         Losses         Reinsurance         Excess         Total         Administration         60% CL         B0% CL         B0% CL         Inclasse/           Note 1         Note 2         X25M X \$25M         \$25M X \$5M         Insurance         Note 4         Note 5         Note 6         Note 5         Note 6         Note 5         Note 5 <th></th> <th></th> <th>F</th> <th>unding for</th> <th></th> <th>Reinsu</th> <th>ıran</th> <th>ce/Excess Ins</th> <th>ura</th> <th>nce</th> <th></th> <th></th> <th></th> <th>2021/22</th> <th></th> <th>2020/21</th> <th>Percent</th>			F	unding for		Reinsu	ıran	ce/Excess Ins	ura	nce				2021/22		2020/21	Percent
Members         SIR         SIR         S2.5 M x S2.5 M         S25M x S5M         Insurance         Expense         Liability Budget           Note 1         Note 2         Note 3         Note 4         Note 4         Note 5         Note 4         Note 5         Note 4         Note 4         Note 5         Note 4         Note 4         Note 5         Note 4         Note 4         Note 4         Note 4         Note 5         102,000         221,040         \$ 25,000         \$ 21,040         \$ 50,000         112,062         \$ 17,708         \$ 40,033         57,801         43,001         \$ 212,864         107,754         113,002         7 37,549         137,549         118,020         \$ 21,865         \$ 29,003         \$ 50,000         643,077         \$ 43,855         \$ 339,869         142,14         37,751         113,472         117,475         28%         \$ 50,000         162,464         \$ 77,555         \$ 175,598         125,574         144,671         103,860         506,012         39%         \$ 303,202         24%         177,775         119,472         117,475         28%         \$ 57,783         316,800         506,012         39%         \$ 506,012         39%         \$ 506,012         39%         \$ 506,012         39%         \$ 506,012         39%		Member		Losses	Re	einsurance		Excess		Total	Adı	ministration		60% CL		60% CL	Increase /
Note 1         Note 2         Note 3         Note 4         Note 5           American Canyon         \$25,000         \$         71,791         \$         52,478         \$         171,298         \$         55,946         \$         229,000         112,062         \$17,708         \$         171,298         \$         55,946         \$         261,607         14%           Benicia         \$22,000         124,704         \$68,441         \$154,961         223,402         94,981         643,067         703,027         -9%           Benicia         \$220,000         124,704         \$58,459         \$147,744         247,597         116,822         \$38,900         455,13         9%           Colma         \$500,000         87,075         \$149,975         \$39,859         498,544         467,12         263,301         506,138         233,53           Dubin         \$500,000         87,075         \$149,975         \$39,595         44,214         37,756         356,578         31%           Bencicia         \$100,000         84,334         \$83,194         \$188,266         271,550         54,086         409,960         330,227         264,814           Dubin         \$500,000         156,560         \$22,757 <th>Members</th> <th>SIR</th> <th>ę</th> <th>SIR-\$2.5 M</th> <th>\$2.</th> <th>.5M x \$2.5M</th> <th></th> <th>\$25M x \$5M</th> <th></th> <th>Insurance</th> <th></th> <th>Expense</th> <th>Lia</th> <th>bility Budget</th> <th>Li</th> <th>ability Budget</th> <th>(Decrease)</th>	Members	SIR	ę	SIR-\$2.5 M	\$2.	.5M x \$2.5M		\$25M x \$5M		Insurance		Expense	Lia	bility Budget	Li	ability Budget	(Decrease)
American Canyon         \$\$2,000         \$\$         71,791         \$\$         52,478         \$\$         55,946         \$29,005         \$29,007         \$\$         20,007         147,549         137,509         43,001         43,001         137,549         \$\$         299,005         \$\$         20,007         147,549         137,549         137,549         43,001         203,002         435,513         9%           Burlingame         \$250,000         174,483         \$75,853         \$171,744         247,557         116,822         538,969         643,007         703,027         -9%           Cumptein         \$250,000         67,077         \$43,355         \$39,859         142,14         37,751         119,472         663,730         551,733         9%           Cupertino         \$250,000         67,075         \$149,975         \$339,569         253,153         77,340         466,957         335,578         37,578		Note 1		Note 2						Note 3		Note 4		Note 5		Note 6	
Atherion       \$25,000       112,082       \$17,708       \$40,093       \$7,801       44,001       212,864       187,549       137,939         Burlingame       \$250,000       124,483       \$75,853       \$117,744       223,402       94,981       663,900       703,027       -9%         Burlingame       \$250,000       174,483       \$75,853       \$111,744       224,7597       116,822       538,902       49,513       9%         Colma       \$50,000       251,467       \$108,907       \$4,335       \$98,954       44,211       637,860       566,12       39%         Cupertino       \$250,000       87,075       \$119,4975       \$175,598       253,153       571,340       466,957         Cast Rot Mills       \$250,000       112,210       \$16,818       \$383,194       \$188,366       271,550       54,086       409,900       330,237       24%         Haif Moon Bay       \$50,000       158,74       \$31,308       \$70,866       102,194       30,201       104,229       175,076       256,578       330,237       24%         Haif Moon Bay       \$50,000       158,74       \$31,308       \$71,874       69,162       441,302       104       32,259       166,318       22%	American Canyon	\$25,000	\$	71,791	\$	52,478	\$	118,820	\$	171,298	\$	55,946	\$	299,035	\$	261,607	14%
Bencial         \$\$25,000         324,704         \$\$68,441         \$\$154,961         223,402         94,811         \$\$43,807         \$\$73,027         9%           Burlingame         \$\$25,000         174,483         \$\$75,853         \$\$171,41         347,644         86,869         665,980         \$\$49,573         116,822         \$\$33,802         \$\$49,575         \$\$33,956         \$\$49,575         \$\$149,975         \$\$33,956         \$\$49,575         \$\$33,956         \$\$49,575         \$\$149,975         \$\$33,956         \$\$49,575         \$\$149,975         \$\$33,956         \$\$44,211         \$\$75,850         \$\$44,211         \$\$70,860         \$\$70,76         \$\$33,27         \$\$26,758         \$\$175,576         \$\$71,756         \$\$71,756         \$\$71,756         \$\$71,856         \$\$71,756         \$\$71,866         \$\$26,757         \$\$33,966         \$\$27,549         \$\$44,211         \$\$70,867         \$\$33,680         \$\$36,578         \$\$31%         \$\$86,866         \$\$71,976         \$\$55,000         \$\$16,374         \$\$33,130         \$\$70,866         \$\$71,976         \$\$56,000         \$\$16,376         \$\$31%         \$\$26,377         \$\$65,110         \$\$30,827         \$\$244,18%         \$\$0,001         \$\$16,378         \$\$27,573         \$\$10,017         \$\$149,975         \$\$149,975         \$\$168,977         \$\$164,977	Atherton	\$25,000		112,062		\$17,708		\$40,093		57,801		43,001		212,864		187,549	13%
Burlingame         \$250,000         174,483         \$75,853         \$171,744         247,597         116,822         538,902         495,513         9%           Campbell         \$100,000         251,467         \$106,503         \$241,141         347,644         866,89         685,980         581,736         119,472         2%           Cupertino         \$250,000         87,075         \$143,975         \$333,569         442,14         37,751         119,472         623,331         506,138         23%           East Palo Alto         \$100,000         142,464         \$77,555         \$175,598         253,153         71,340         466,957         355,578         31%           Hail Moon Bay         \$50,000         158,74         \$31,308         \$70,886         102,194         30,201         144,269         177,076         5%           Los Altos Hills         \$25,000         158,374         \$31,308         \$70,865         100,219         33,277         486,456         66,957         416,801         268,214         18%         268,214         18%         268,214         18%         268,214         18%         268,214         18%         208,224         184,269         175,076         5%,416         208,224         143,305	Benicia	\$25,000		324,704		\$68,441		\$154,961		223,402		94,981		643,087		703,027	-9%
Campbell         \$100,000         251,467         \$106,503         \$241,141         347,644         66,869         665,960         581,736         119,472           Cupertino         \$50,000         67,507         \$4,355         \$9,895         142,214         37,751         119,472         177,475         2%           Cupertino         \$50,000         132,100         \$161,618         \$339,569         489,544         46,712         623,331         506,012         3%           Dublin         \$50,000         142,464         \$77,555         \$77,598         253,53         71,340         466,957         355,578         333,0237         2%           Half Moon Bay         \$50,000         158,374         \$31,308         \$70,886         102,194         30,201         184,269         175,076         5%           Los Atlos Hills         \$22,000         159,343         \$21,188         \$47,974         69,162         43,154         200,229         166,318         265,214         18%           Los Atlos Hills         \$22,000         169,274         \$79,180         \$172,727         255,465         68,957         419,305         18%         265,214         18%         206,229         166,318         206,212         166,318	Burlingame	\$250,000		174,483		\$75,853		\$171,744		247,597		116,822		538,902		495,513	9%
Colma         \$50,000         67,507         \$4,355         \$9,859         14,214         37,751         119,472         117,475         2%           Cupertino         \$250,000         87,075         \$149,975         \$339,569         489,544         46,712         623,331         506,138         23%           Dublin         \$50,000         142,464         \$77,555         \$175,598         255,153         71,340         466,557         355,78         31%           Foster City         \$100,000         84,334         \$83,1308         \$70,886         102,194         30,201         184,269         175,076         5%           Hillsborough         \$50,000         16,6360         \$28,757         \$66,110         33,867         66,574         316,801         268,214         18%           Los Altos Hills         \$20,000         162,340         \$21,188         \$47,974         69,162         43,154         208,259         166,370         226,274         18%           Milbrae         \$100,000         812,866         \$196,346         \$444,561         640,907         143,279         1,507,052         916,627         4488,940           Morgan Hill         \$100,000         812,866         \$196,357         \$2264,897	Campbell	\$100,000		251,467		\$106,503		\$241,141		347,644		86,869		685,980		581,736	18%
Cupertino         \$250,000         87,075         \$149,975         \$339,569         489,544         44,712         \$623,331         506,138         23%           Dublin         \$50,000         132,100         \$161,618         \$365,931         527,549         44,211         703,860         506,012         39%           East Palo Alto         \$100,000         843,34         \$83,194         \$183,366         271,560         54,066         409,980         330,237         24%           Half Moon Bay         \$50,000         518,74         \$31,308         \$70,886         201,114         30,201         184,269         175,076         5%           Los Altos Hills         \$250,000         156,360         \$28,777         \$66,110         93,867         66,574         316,801         268,214         18%           Los Gatos         \$50,000         199,274         \$79,160         \$179,276         258,456         68,957         446,8940         350,012         40%           Millbrae         \$100,000         822,826         \$130,196         187,699         73,841         933,789         861,66         829,409         300,012         40%           Newark         \$100,000         320,912         \$12,322         \$27,921	Colma	\$50,000		67,507		\$4,355		\$9,859		14,214		37,751		119,472		117,475	2%
Dublin         \$50,000         132,100         \$161,618         \$365,931         527,549         44,211         703,860         506,012         39%           East Palo Alto         \$100,000         142,464         \$77,555         \$175,598         253,153         71,340         466,957         335,578         31%           Foster City         \$100,000         84,334         \$83,194         \$188,366         271,560         54,066         409,980         330,237         24%           Haif Moon Bay         \$50,000         158,374         \$31,308         \$70,886         102,194         30,021         184,269         175,076         5%           Los Altos Hills         \$25,000         95,943         \$21,188         \$47,974         69,162         43,154         200,259         166,318         26%           Los Altos Hills         \$20,000         812,866         \$196,346         \$444,561         640,907         143,279         1,597,052         916,627         74%           Milpras         \$100,000         812,866         \$196,345         \$248,877         381,892         194,862         1,63,182         80,602         867,667         26%         26%         937,876         881,811         14%         933,789         818,311 </td <td>Cupertino</td> <td>\$250,000</td> <td></td> <td>87,075</td> <td></td> <td>\$149,975</td> <td></td> <td>\$339,569</td> <td></td> <td>489,544</td> <td></td> <td>46,712</td> <td></td> <td>623,331</td> <td></td> <td>506,138</td> <td>23%</td>	Cupertino	\$250,000		87,075		\$149,975		\$339,569		489,544		46,712		623,331		506,138	23%
East Palo Alto         \$100,000         142,464         \$77,555         \$175,898         253,153         71,340         466,957         355,578         31%           Foster City         \$100,000         84,334         \$83,194         \$188,366         271,560         54,086         409,980         330,237         24%           Haif Moon Bay         \$50,000         156,360         \$28,757         \$65,110         93,867         66,574         316,801         228,214         18%           Los Altos Hills         \$25,000         95,943         \$21,188         \$47,974         69,162         43,154         208,259         166,318         25%           Los Altos Hills         \$20,000         252,925         \$57,503         \$130,196         187,699         75,946         488,940         350,012         40%           Miliprae         \$100,000         812,866         \$196,346         \$444,561         640,907         143,279         1,597,052         916,627         74%           Morgan Hill         \$100,000         320,912         \$123,322         \$279,221         402,543         144,039         867,494         667,967         26%           Pacifica         \$50,000         505,641         \$96,537         \$213,577 <td< td=""><td>Dublin</td><td>\$50,000</td><td></td><td>132,100</td><td></td><td>\$161,618</td><td></td><td>\$365,931</td><td></td><td>527,549</td><td></td><td>44,211</td><td></td><td>703,860</td><td></td><td>506,012</td><td>39%</td></td<>	Dublin	\$50,000		132,100		\$161,618		\$365,931		527,549		44,211		703,860		506,012	39%
Foster City         \$100,000         84.334         \$83,194         \$188,366         271,560         54,086         409,980         330,237         24%           Haif Moon Bay         \$50,000         51,874         \$31,308         \$70,886         102,194         30,201         184,269         175,076         5%           Los Altos Hills         \$50,000         156,360         \$22,8757         \$65,110         93,867         66,574         4316,801         2268,214         18%           Los Altos Hills         \$25,000         95,943         \$21,188         \$47,974         69,162         43,154         208,259         166,318         25%           Los Gatos         \$50,000         225,295         \$57,503         \$130,196         187,699         75,846         488,940         350,012         40%           Milipitas         \$100,000         812,866         \$196,346         \$444,561         640,907         143,279         1,597,052         916,627         74%           Mewark         \$100,000         320,212         \$12,322         \$279,221         402,543         144,039         867,944         687,949         687,949         687,949         687,949         687,949         687,949         687,957         258,013         51	East Palo Alto	\$100,000		142,464		\$77,555		\$175,598		253,153		71,340		466,957		355,578	31%
Haff Moon Bay       \$50,000       51,874       \$31,308       \$70,886       102,194       30,201       1484,269       175,076       5%         Hillsborough       \$50,000       156,360       \$28,757       \$66,510       93,867       66,574       316,801       268,259       166,318       268,214       18%         Los Atos Hills       \$25,000       95,943       \$21,188       \$47,974       69,162       43,154       208,259       166,318       268,214       18%         Los Gatos       \$50,000       169,274       \$79,180       \$179,276       258,456       68,957       496,687       419,305       18%         Millphas       \$100,000       812,866       \$196,346       \$444,561       640,907       715,946       486,940       350,012       40%         Newark       \$100,000       320,912       \$123,322       \$279,221       402,543       144,130       867,494       867,494       867,494       867,494       868,101       849,403       30%       867,494       867,494       867,494       867,494       867,494       867,494       867,494       867,494       867,494       867,494       867,494       867,494       867,494       867,494       867,494       867,494       873,307	Foster City	\$100,000		84,334		\$83,194		\$188,366		271,560		54,086		409,980		330,237	24%
Hillsbrough       \$50,000       156,860       \$22,757       \$65,110       93,867       66,574       316,801       268,214       18%         Los Altos Hills       \$25,000       95,943       \$21,188       \$47,974       69,162       43,154       208,259       166,318       25%         Los Gatos       \$50,000       169,274       \$79,180       \$179,276       258,456       68,957       486,667       419,305       18%         Milpitas       \$100,000       225,295       \$57,503       \$130,196       187,699       75,946       488,940       350,012       40%         Milpitas       \$100,000       320,912       \$123,322       \$279,21       402,543       194,862       1,063,182       820,409       30%         Newark       \$100,000       320,912       \$123,322       \$279,21       402,543       144,039       867,494       687,967       26%         Pacifica       \$50,000       30,318       \$6,422       \$11,603       \$26,271       37,874       23,870       86,166       82,933       4%         San Bruno       \$100,000       572,230       \$114,477       \$259,195       373,672       131,522       1,077,424       923,784       17%         San Bruno <th>Half Moon Bay</th> <th>\$50,000</th> <th></th> <th>51,874</th> <th></th> <th>\$31,308</th> <th></th> <th>\$70,886</th> <th></th> <th>102,194</th> <th></th> <th>30,201</th> <th></th> <th>184,269</th> <th></th> <th>175,076</th> <th>5%</th>	Half Moon Bay	\$50,000		51,874		\$31,308		\$70,886		102,194		30,201		184,269		175,076	5%
Los Altos Hills         \$25,000         95,943         \$21,188         \$47,974         69,162         43,154         208,259         166,318         25%           Los Gatos         \$50,000         169,274         \$79,180         \$179,276         258,456         68,957         496,667         419,305         18%           Milipitas         \$100,000         225,295         \$57,503         \$130,196         187,699         75,946         448,940         350,012         40%           Morgan Hill         \$100,000         446,428         \$116,995         \$226,4897         381,892         194,662         1,063,182         820,409         30%           Newark         \$100,000         486,428         \$116,995         \$2279,221         402,543         144,039         867,494         687,967         26%           Pacifica         \$50,000         505,641         \$96,575         \$218,577         315,114         113,034         933,789         818,311         14%           Portola Valley         \$25,000         30,318         \$66,422         \$11,633         \$26,271         37,874         23,870         866,166         82,993         4%           San Bruno         \$100,000         572,230         \$114,477         \$259,193 <th>Hillsborough</th> <th>\$50,000</th> <th></th> <th>156,360</th> <th></th> <th>\$28,757</th> <th></th> <th>\$65,110</th> <th></th> <th>93,867</th> <th></th> <th>66,574</th> <th></th> <th>316,801</th> <th></th> <th>268,214</th> <th>18%</th>	Hillsborough	\$50,000		156,360		\$28,757		\$65,110		93,867		66,574		316,801		268,214	18%
Los Gatos         \$50,000         169,274         \$79,180         \$179,276         258,456         68,957         496,687         419,305         18%           Millbrae         \$100,000         225,295         \$57,503         \$130,196         187,699         75,946         488,940         350,012         40%           Milpitas         \$100,000         812,866         \$196,327         \$264,897         381,892         194,862         1,063,182         820,409         30%           Newark         \$100,000         320,912         \$123,322         \$279,221         402,543         144,039         867,494         687,967         26%           Pacifica         \$50,000         505,641         \$96,537         \$218,577         315,114         113,034         933,789         818,811         14%           Portola Valley         \$25,000         24,422         \$11,603         \$26,271         37,874         23,870         86,166         82,993         4%           San Carlos         \$100,000         572,230         \$114,477         \$259,195         373,672         131,522         1,007,424         923,784         17%           San Carlos         \$100,000         528,610         \$170,954         \$387,070         558,024	Los Altos Hills	\$25,000		95,943		\$21,188		\$47,974		69,162		43,154		208,259		166,318	25%
Millbrae       \$100,000       225,295       \$57,503       \$130,196       187,699       75,946       488,940       350,012       40%         Milpitas       \$100,000       812,866       \$196,346       \$444,561       640,907       143,279       1,597,052       916,627       74%         Morgan Hill       \$100,000       486,428       \$116,995       \$264,897       381,892       194,862       1,063,182       820,012       912,627       26%         Newark       \$100,000       320,912       \$123,322       \$279,221       402,543       144,039       867,494       687,967       26%         Pacifica       \$50,000       24,422       \$116,033       \$262,271       37,874       23,870       86,166       82,993       4%         Ross       \$25,000       24,422       \$114,033       \$268,572       373,672       213,522       1,077,424       83,011       14%         San Carlos       \$100,000       572,230       \$114,477       \$259,195       373,672       13,1522       1,077,424       923,784       1,787         San Carlos       \$100,000       528,610       \$170,954       \$373,670       558,024       139,950       1,037,363       61%       61%       637,363 <th< td=""><td>Los Gatos</td><td>\$50,000</td><td></td><td>169,274</td><td></td><td>\$79,180</td><td></td><td>\$179,276</td><td></td><td>258,456</td><td></td><td>68,957</td><td></td><td>496,687</td><td></td><td>419,305</td><td>18%</td></th<>	Los Gatos	\$50,000		169,274		\$79,180		\$179,276		258,456		68,957		496,687		419,305	18%
Milpitas       \$100,000       812,866       \$196,346       \$444,561       640,907       143,279       1,597,052       916,627       74%         Morgan Hill       \$100,000       486,428       \$116,995       \$264,897       381,892       194,862       1,063,182       820,409       30%         Newark       \$100,000       320,912       \$123,322       \$279,221       402,543       144,039       867,494       687,967       26%         Pacifica       \$50,000       505,641       \$96,657       \$218,577       315,114       113,034       933,789       881,811       14%         Portola Valley       \$25,000       24,422       \$11,603       \$26,271       37,874       23,870       86,166       82,993       4%         San Bruno       \$100,000       572,230       \$114,477       \$259,195       373,672       131,522       1,077,424       923,784       17%         San Carlos       \$100,000       528,610       \$170,954       \$387,070       558,024       439,950       1,226,584       307,363       61%         Suisun City       \$25,000       38,617       \$14,295       \$32,367       46,662       31,919       \$117,198       2,183,345       13,41505       1,387,097       12% </td <td>Millbrae</td> <td>\$100,000</td> <td></td> <td>225,295</td> <td></td> <td>\$57,503</td> <td></td> <td>\$130,196</td> <td></td> <td>187,699</td> <td></td> <td>75,946</td> <td></td> <td>488,940</td> <td></td> <td>350,012</td> <td>40%</td>	Millbrae	\$100,000		225,295		\$57,503		\$130,196		187,699		75,946		488,940		350,012	40%
Morgan Hill       \$100,000       486,428       \$116,995       \$264,897       381,892       194,862       1,063,182       820,409       30%         Newark       \$100,000       320,912       \$123,322       \$279,221       402,543       144,039       867,494       687,967       26%         Pacifica       \$50,000       505,641       \$96,537       \$218,577       315,114       113,034       933,789       818,811       14%         Portola Valley       \$25,000       24,422       \$111,603       \$26,271       37,874       23,870       86,166       82,993       4%         Ross       \$25,000       24,422       \$114,477       \$259,195       373,672       131,522       1,077,424       923,784       17%         San Bruno       \$100,000       572,230       \$114,477       \$259,195       373,672       131,522       1,077,424       923,784       17%         San Carlos       \$100,000       488,527       \$77,8150       \$176,944       255,094       49,976       493,597       307,362       1,387,097       -12%         Sauth City       \$25,000       \$99,694       \$73,337       \$166,046       239,383       43,660       382,737       278,494       37% <th< td=""><td>Milpitas</td><td>\$100,000</td><td></td><td>812,866</td><td></td><td>\$196,346</td><td></td><td>\$444,561</td><td></td><td>640,907</td><td></td><td>143,279</td><td></td><td>1,597,052</td><td></td><td>916,627</td><td>74%</td></th<>	Milpitas	\$100,000		812,866		\$196,346		\$444,561		640,907		143,279		1,597,052		916,627	74%
Newark         \$100,000         320,912         \$123,322         \$279,221         402,543         144,039         867,494         687,967         26%           Pacifica         \$50,000         505,641         \$96,537         \$218,577         315,114         113,034         9933,789         818,311         14%           Portola Valley         \$25,000         24,422         \$111,603         \$226,271         37,874         23,870         86,166         82,993         4%           Ross         \$25,000         30,318         \$6,422         \$114,477         \$259,195         373,672         131,522         1,077,424         923,784         17%           San Carlos         \$100,000         403,871         \$75,921         \$176,944         255,094         49,976         493,597         307,363         61%           Saratoga         \$25,000         98,694         \$773,337         \$166,046         239,383         43,660         382,737         278,494         37%           Suisun City         \$25,000         99,694         \$773,337         \$166,046         239,383         43,660         382,737         278,494         37%           Tiburon         \$50,000         45,130         \$24,027         \$32,367         46,	Morgan Hill	\$100,000		486,428		\$116,995		\$264,897		381,892		194,862		1,063,182		820,409	30%
Pacifica         \$50,000         505,641         \$96,537         \$218,577         315,114         113,034         933,789         818,311         14%           Portola Valley         \$25,000         24,422         \$11,003         \$26,271         37,874         23,870         86,166         82,993         4%           Ross         \$25,000         30,318         \$6,422         \$14,541         20,963         25,943         77,224         83,501         .8%           San Bruno         \$100,000         572,230         \$114,477         \$259,195         373,672         131,522         1,077,424         923,784         17%           San Carlos         \$100,000         403,871         \$75,921         \$176,944         255,094         49,976         493,597         307,363         61%           Saratoga         \$25,000         99,694         \$73,337         \$166,046         239,383         43,660         382,737         278,494         37%           Suisun City         \$25,000         99,694         \$73,337         \$166,046         239,383         43,660         382,737         278,494         37%           Tiburon         \$50,000         45,130         \$24,027         \$54,401         78,428         32,325	Newark	\$100,000		320,912		\$123,322		\$279,221		402,543		144,039		867,494		687,967	26%
Portola Valley       \$25,000       24,422       \$11,603       \$26,271       37,874       23,870       86,166       82,993       4%         Ross       \$25,000       30,318       \$6,422       \$14,541       20,963       25,943       77,224       83,501       -8%         San Bruno       \$100,000       572,230       \$114,477       \$259,195       373,672       131,522       1,077,424       923,784       17%         San Carlos       \$100,000       403,871       \$75,921       \$117,898       247,819       187,227       838,917       805,020       4%         Saratoga       \$25,000       188,527       \$78,150       \$176,944       255,094       49,976       493,597       307,363       61%         South San Francisco       \$100,000       528,610       \$170,954       \$387,070       558,024       139,950       1,226,584       1,387,097       -12%         Suisun City       \$25,000       99,694       \$73,337       \$166,046       239,383       43,660       382,737       278,494       37%         Woodside       \$25,000       38,617       \$14,295       \$32,367       46,662       31,919       117,198       105,230       11%         Prior Year Actual       <	Pacifica	\$50,000		505,641		\$96,537		\$218,577		315,114		113,034		933,789		818,311	14%
Ross       \$25,000       30,318       \$6,422       \$14,541       20,963       25,943       77,224       83,501       -8%         San Bruno       \$100,000       572,230       \$114,477       \$259,195       373,672       131,522       1,077,424       923,784       17%         San Carlos       \$100,000       403,871       \$75,921       \$171,898       247,819       187,227       838,917       805,020       4%         Saratoga       \$25,000       188,527       \$78,150       \$176,944       255,094       49,976       493,597       307,363       61%         South San Francisco       \$100,000       528,610       \$170,954       \$387,070       558,024       139,950       1,226,584       1,387,097       -12%         Suisun City       \$25,000       99,694       \$73,337       \$166,046       239,383       43,660       382,737       278,494       37%         Tiburon       \$50,000       45,130       \$24,027       \$54,401       78,428       32,325       15,583       134,505       16%         Woodside       \$25,000       38,617       \$14,295       \$32,367       46,662       31,919       117,198       \$105,230       11%       \$105,230       11%       \$105,230 </th <th>Portola Valley</th> <th>\$25,000</th> <th></th> <th>24,422</th> <th></th> <th>\$11,603</th> <th></th> <th>\$26,271</th> <th></th> <th>37,874</th> <th></th> <th>23,870</th> <th></th> <th>86,166</th> <th></th> <th>82,993</th> <th>4%</th>	Portola Valley	\$25,000		24,422		\$11,603		\$26,271		37,874		23,870		86,166		82,993	4%
San Bruno       \$100,000       572,230       \$114,477       \$259,195       373,672       131,522       1,077,424       923,784       17%         San Carlos       \$100,000       403,871       \$75,921       \$171,898       247,819       187,227       838,917       805,020       4%         Saratoga       \$25,000       188,527       \$78,150       \$176,944       255,094       499,976       493,597       307,363       61%         South San Francisco       \$100,000       528,610       \$170,954       \$387,070       558,024       139,950       1,226,584       1,387,097       -12%         Suisun City       \$25,000       99,694       \$73,337       \$166,046       239,383       43,660       382,737       278,494       37%         Tiburon       \$50,000       45,130       \$24,027       \$54,401       78,428       32,325       155,883       134,505       16%         Woodside       \$25,000       38,617       \$14,295       \$32,367       46,662       31,919       117,198       105,230       11%         Prior Year Actual       \$6,204,000       \$2,118,002       \$4,795,513       \$6,913,516       \$2,198,157       \$15,315,672       \$12,775,098       20%       \$20%	Ross	\$25,000		30,318		\$6,422		\$14,541		20,963		25,943		77,224		83,501	-8%
San Carlos       \$100,000       403,871       \$75,921       \$171,898       247,819       187,227       838,917       805,020       4%         Saratoga       \$25,000       188,527       \$78,150       \$176,944       255,094       499,976       493,597       307,363       61%         South San Francisco       \$100,000       528,610       \$170,954       \$387,070       558,024       139,950       1,226,584       1,387,097       -12%         Suisun City       \$25,000       99,694       \$73,337       \$166,046       239,383       43,660       382,737       278,494       37%         Tiburon       \$50,000       45,130       \$24,027       \$54,401       78,428       32,325       155,883       134,505       16%         Woodside       \$25,000       38,617       \$14,295       \$32,367       46,662       31,919       117,198       105,230       11%         Total       \$6,204,000       \$2,118,002       \$4,795,513       \$6,913,516       \$2,198,157       \$15,315,672       \$12,775,098       20%         Prior Year Actual       \$6,375,952       1,412,000       3,197,008       4,609,008       2,133,345       13,118,305       \$12,775,098       20%         More, (Decr.) <th< th=""><th>San Bruno</th><th>\$100,000</th><th></th><th>572,230</th><th></th><th>\$114,477</th><th></th><th>\$259,195</th><th></th><th>373,672</th><th></th><th>131,522</th><th></th><th>1,077,424</th><th></th><th>923,784</th><th>17%</th></th<>	San Bruno	\$100,000		572,230		\$114,477		\$259,195		373,672		131,522		1,077,424		923,784	17%
Saratoga       \$25,000       188,527       \$78,150       \$176,944       255,094       499,76       493,597       307,363       61%         South San Francisco       \$100,000       528,610       \$170,954       \$387,070       558,024       139,950       1,226,584       1,387,097       -12%         Suisun City       \$25,000       99,694       \$73,337       \$166,046       239,383       43,660       382,737       278,494       37%         Tiburon       \$50,000       45,130       \$24,027       \$54,401       78,428       32,325       155,883       134,505       16%         Woodside       \$25,000       38,617       \$14,295       \$32,367       46,662       31,919       117,198       105,230       11%         Total       \$6,204,000       \$2,118,002       4,795,513       6,913,516       \$2,198,157       \$15,315,672       \$12,775,098       20%         Prior Year Actual       6,375,952       1,412,000       3,197,008       4,609,008       2,133,345       13,118,305       \$12,775,098       20%         More // Decr.)       (171,952)       706,002       1,598,505       2,304,508       64,812       2,197,367         % Change       -3%       50%       50%       50% <th>San Carlos</th> <th>\$100,000</th> <th></th> <th>403,871</th> <th></th> <th>\$75,921</th> <th></th> <th>\$171,898</th> <th></th> <th>247,819</th> <th></th> <th>187,227</th> <th></th> <th>838,917</th> <th></th> <th>805,020</th> <th>4%</th>	San Carlos	\$100,000		403,871		\$75,921		\$171,898		247,819		187,227		838,917		805,020	4%
South San Francisco         \$100,000         528,610         \$170,954         \$387,070         558,024         139,950         1,226,584         1,387,097         -12%           Suisun City         \$25,000         99,694         \$73,337         \$166,046         239,383         43,660         382,737         278,494         37%           Tiburon         \$50,000         45,130         \$24,027         \$54,401         78,428         32,325         155,883         134,505         16%           Woodside         \$25,000         38,617         \$14,295         \$32,367         46,662         31,919         117,198         105,230         11%           Total         \$6,204,000         \$2,118,002         \$4,795,513         \$6,913,516         \$2,198,157         \$15,315,672         \$12,775,098         20%           Prior Year Actual Incr./(Decr.)         (171,952)         706,002         1,598,505         2,304,508         64,812         2,197,367           % Change         -3%         50%         50%         50%         3%         17%	Saratoga	\$25,000		188,527		\$78,150		\$176,944		255,094		49,976		493,597		307,363	61%
Suisun City       \$25,000       99,694       \$73,337       \$166,046       239,383       43,660       382,737       278,494       37%         Tiburon       \$50,000       45,130       \$24,027       \$54,401       78,428       32,325       155,883       134,505       16%         Woodside       \$25,000       38,617       \$14,295       \$32,367       46,662       31,919       117,198       105,230       11%         Total       \$6,204,000       \$2,118,002       \$4,795,513       \$6,913,516       \$2,198,157       \$15,315,672       \$12,775,098       20%         Prior Year Actual Incr./(Decr.)       6,375,952       1,412,000       3,197,008       4,609,008       2,133,345       13,118,305       \$12,775,098       20%         % Change	South San Francisco	\$100,000		528,610		\$170,954		\$387,070		558,024		139,950		1,226,584		1,387,097	-12%
Tiburon       \$50,000       45,130       \$24,027       \$54,401       78,428       32,325       155,883       134,505       16%         Woodside       \$25,000       38,617       \$14,295       \$32,367       46,662       31,919       117,198       105,230       11%         Total       \$6,204,000       \$2,118,002       4,795,513       \$6,913,516       \$2,198,157       \$15,315,672       \$12,775,098       20%         Prior Year Actual Incr./(Decr.)       6,375,952       1,412,000       3,197,008       4,609,008       2,133,345       13,118,305       \$12,775,098       20%         % Change	Suisun City	\$25,000		99,694		\$73,337		\$166,046		239,383		43,660		382,737		278,494	37%
Woodside         \$25,000         38,617         \$14,295         \$32,367         46,662         31,919         117,198         105,230         11%           Total         \$ 6,204,000         \$ 2,118,002         \$ 4,795,513         \$ 6,913,516         \$ 2,198,157         \$ 15,315,672         \$ 12,775,098         20%           Prior Year Actual Incr./(Decr.)         6,375,952         1,412,000         3,197,008         4,609,008         2,133,345         13,118,305         \$ 12,775,098         20%           % Change         -3%         50%         50%         50%         3%         17%	Tiburon	\$50,000		45,130		\$24,027		\$54,401		78,428		32,325		155,883		134,505	16%
Total       \$ 6,204,000       \$ 2,118,002       \$ 4,795,513       \$ 6,913,516       \$ 2,198,157       \$ 15,315,672       \$ 12,775,098       20%         Prior Year Actual Incr./(Decr.)       6,375,952       1,412,000       3,197,008       4,609,008       2,133,345       13,118,305         % Change       -3%       50%       50%       50%       3%       17%	Woodside	\$25,000		38,617		\$14,295		\$32,367		46,662		31,919		117,198		105,230	11%
Prior Year Actual         6,375,952         1,412,000         3,197,008         4,609,008         2,133,345         13,118,305           Incr./(Decr.)         (171,952)         706,002         1,598,505         2,304,508         64,812         2,197,367           % Change         -3%         50%         50%         50%         3%         17%	Total		\$	6,204,000	\$	2,118,002	\$	4,795,513	\$	6,913,516	\$	2,198,157	\$	15,315,672	\$	12,775,098	20%
Incr./(Decr.)         (171,952)         706,002         1,598,505         2,304,508         64,812         2,197,367           % Change         -3%         50%         50%         50%         3%         17%	Prior Year Actual			6,375,952		1,412,000		3,197,008		4,609,008		2,133,345		13,118,305			
% Change -3% 50% 50% 50% 3% 17%	Incr./(Decr.)			(171,952)		706,002		1,598,505		2,304,508		64,812		2,197,367	_		
	% Change			-3%		50%		50%		50%		3%		17%	_		

NOTES:	Funding for the Pool Laye	er @ 2.0%	
Note 1: Member Selected Self-Insured Retention		<u>20/21</u>	<u>21/22</u>
Note 2: Adjusted funding needed for SIR to \$2,500,000 at the 60% confidence level from draft Actuarial Study dated February 26, 2021	Expected Undisc.	6,646,000	6,466,000
Note 3: Insurance indications provided by the Alliant, broker; allocation based upon draft actuarial study dated February 26, 2021	Expected Disc.	6,214,000	6,046,000
Note 4: Administrative Expense allocation: 33% allocated to the member equally. Of the remaining 67%,	60% CL Disc.	6,377,000	6,204,000
one-third is allocated using reported claims and two-thirds using paid losses; these numbers were provided in the draft actuarial study.	70% CL Disc.	7,289,000	7,092,000
Note 5: Preliminary 2020/21 Liability Contributions (Note 2 + Note 3 + Note 4)	80% CL Disc.	8,488,000	8,270,000
Note 6: 2019/20 Contributions paid by members.	90% CL Disc.	10,402,000	10,151,000

# **PLAN JPA**

# Preliminary Operating Budget for 2021/2022

# Property Program Contributions Schedule Pool Funding @ 70% Confidence Level, 2.0% Discount Factor

		Insured Values										Budget Con	nparison	
		 2020/21		2021/22		Pool	Excess			I	Excess	2021/22	 2020/21	Percent
		Insured		Insured		Funding	Prop. Premium	Flo	ood Premium		Cyber	Program	Program	Increase /
Member	SIR	Values		Values	ę	SIR-\$500K	\$500k-\$1B			С	overage	Deposit	 Deposit	(Decrease)
		Note 1		Note 2		Note 3	Note 4		Note 5		Note 6	 Note 7	 Note 8	
American Canyon	\$5,000	\$ 76,461,244	\$	82,149,023	\$	29,569	\$ 85,978	\$	1,522	\$	3,178	\$ 120,247	\$ 91,563	31%
Atherton	5,000	12,703,288		15,663,934		5,638	16,394		-		2,611	24,643	16,665	48%
Benicia	5,000	233,853,947		251,082,721		90,376	262,785		3,806		8,270	365,237	277,094	32%
Burlingame	5,000	193,296,459		206,478,836		74,321	216,103		2,076		8,538	301,037	229,482	31%
Campbell	5,000	94,003,335		101,129,999		36,401	105,844		-		8,507	150,752	113,673	33%
Colma	5,000	25,586,868		27,244,429		9,806	28,514		1,522		2,849	42,692	32,850	30%
Cupertino	5,000	109,983,742		116,937,355		42,091	122,388		1,522		8,694	174,695	133,498	31%
Dublin	5,000	239,075,127		256,990,046		92,502	268,968		1,522		4,224	367,216	279,007	32%
East Palo Alto	5,000	24,433,650		27,960,190		10,064	29,263		-		3,922	43,249	31,287	38%
Foster City	5,000	134,558,649		142,369,738		51,245	149,005		-		7,251	207,501	159,271	30%
Half Moon Bay	5,000	30,338,468		31,769,695		11,435	33,250		-		2,380	47,065	36,606	29%
Hillsborough	5,000	78,681,559		86,738,677		31,221	90,781		-		4,604	126,606	93,247	36%
Los Altos Hills	5,000	16,665,477		17,839,021		6,421	18,670		-		2,036	27,127	20,621	32%
Los Gatos	5,000	59,664,940		64,692,851		23,286	67,708		-		8,261	99,255	73,318	35%
Millbrae	5,000	110,852,894		119,687,058		43,081	125,266		-		3,578	171,925	129,947	32%
Milpitas	5,000	201,221,439		244,547,986		88,023	255,946		4,246		21,958	370,173	245,128	51%
Morgan Hill	5,000	149,486,695		163,996,215		59,029	171,640		1,522		10,751	242,943	178,817	36%
Newark	5,000	123,531,988		140,183,523		50,458	146,717		-		8,354	205,529	146,278	41%
Pacifica	5,000	228,189,713		241,277,582		86,846	252,523		11,417		7,757	358,543	277,068	29%
Portola Valley	5,000	14,214,880		14,785,836		5,322	15,475		-		1,555	22,352	17,656	27%
Ross	5,000	5,184,769		5,768,356		2,076	6,037		1,522		1,795	11,431	8,827	29%
San Bruno	5,000	99,554,404		110,185,789		39,661	115,321		-		10,938	165,920	121,317	37%
San Carlos	5,000	57,052,279		66,087,793		23,788	69,168		1,522		3,641	98,119	69,559	41%
Saratoga	5,000	43,288,127		45,892,830		16,519	48,032		1,522		3,470	69,543	53,496	30%
South San Francisco	5,000	298,480,101		321,385,371		115,681	336,365		11,417		18,261	481,724	365,192	32%
Suisun City	5,000	40,095,173		44,646,720		16,070	46,728		3,806		3,483	70,087	51,890	35%
Tiburon	5,000	13,214,792		14,685,059		5,286	15,370		1,522		2,257	24,435	18,414	33%
Woodside	5,000	9,854,576		10,510,931		3,783	11,001		-		1,718	16,502	12,747	29%
Total		\$ 2,723,528,583	\$	2,972,687,564	\$	1,070,000	\$ 3,111,240	\$	50,469	\$	174,841	\$ 4,406,550	\$ 3,284,518	34%
P/Y Actual				2,723,528,583		911,000	 2,212,539		45,826		116,560	 3,285,925		
Incr./(Decr.)			\$	249,158,981	\$	159,000	\$ 898,701	\$	4,643	\$	58,281	\$ 1,120,625		
% Change				9%		17%	 41%	5	10%		50%	34%		

Funding for the Pooled Layer

#### Notes:

Note 1: 2020/21 Total Insured property values obtained from Alliant.

Note 2: 2021/22 Total Insured property values as submitted by members. Updated as of 01/26/21

Note 3: Rate for PLAN pool (from actuarial report dated February 26, 2021) allocated using Note 2.

Note 4: Estimated Premium by Alliant Property Insurance Program (APIP).

Note 5: Flood cost are based upon 2020/21 premiums with a 10% increase in premiums.

Note 6: Excess Cyber coverage: minimum \$1K per member and remaining allocated based upon payroll.

Note 7: Total 2021/22 Contributions by member (Total Notes 3 through 6).

Note 8: 2020/21 Contributions

		<u>20/21</u>	<u>21/22</u>		
Expected	Undiscounted	772,000	910,000		
Expected	Discounted	758,000	900,000		
70% confidence Level	Discounted	911,000	1,070,000	159,000	
75% confidence Level	Discounted	988,000	1,152,000	164,000	82,000
80% confidence Level	Discounted	1,078,000	1,250,000	172,000	98,000
85% confidence Level	Discounted	1,191,000	1,372,000	181,000	122,000

# PLAN JPA Preliminary Operating Budget for 2021/2022

			2021/22			
	2020/	21	Draft	Prior Year		
	Approved	Projected	Operating	Increase/	Percent	
_	Budget	Actuals	Budget	(Decrease)	Incr./(Decr.)	
Revenues:						
Contributions	\$16,059,618	\$16,159,356	\$ 19,841,907	3,782,289	23.6%	
Funding from Equity	500,000	500,000	500,000	-	0.0%	
Investment Income	-	640,000	530,000	530,000	0.0%	
Less: Investment Fees	-	-	(35,000)	(35,000)	0.0%	
Total Revenues	16,559,618	17,299,356	20,836,907	4,277,289	25.8%	
Expenses						
Claims Expense	6,972,000	6,972,000	6,946,000	(26,000)	-0.4%	а
Insurance Expense						
Insurance - Liability	4,265,804	4,609,008	6,913,516	2,647,712	62.1%	
Insurance - Property	2,211,134	2,212,540	3,111,240	900,106	40.7%	
Flood Insurance	45,826	45,826	50,469	4,643	10.1%	
Excess Cyber Coverage	116,560	116,560	174,841	58,281	50.0%	
Employment Liability Coverage	-	99,738	119,686	119,686	100.0%	
	6,639,324	7,083,672	10,369,751	3,730,427	56.2%	b
Risk Management Grants						
Risk Management Fund	500,000	500,000	500,000	-	0.0%	
Administration						
Program Administration	867,407	867,407	968,429	101,022	11.6%	
Financial Audit	20,800	20,800	21,800	1,000	4.8%	
Actuarial Studies	36,000	43,000	41,000	5,000	13.9%	
Claims Admin & Audit	721,725	687,178	726,897	5,172	0.7%	
Legal Counsel	44,971	35,000	40,000	(4,971)	-11.1%	
Risk Console Info System	20,000	20,000		(20,000)	-100.0%	
Risk Control Services	274,660	274,660	274,660	-	0.0%	
Sewer Summit	25,000	25,000	25,000	-	0.0%	
Insurance	51,782	51,782	54,371	2,589	5.0%	
CAJPA Accreditation	12,000	12,000	12,000	-	0.0%	
Bank Fees/Investment Fees	30,000	33,000	5,000	(25,000)	-83.3%	
Meetings & Conferences:						
Meetings	16,000	10,000	16,000	-	0.0%	
Training & Workshops	3,000	3,000	3,000	-	0.0%	
Allowance for Contingencies	10,000	10,000	10,000	-	0.0%	
-	2,133,345	2,092,827	2,198,157	64,812	3.0%	d
Total Expenses	16,244,669	16,648,499	20,013,908	3,769,239	23.2%	
Budgeted Net Income (Loss)	314,949	650,857	822,999	508,050	161.3%	

Notes:

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

	2020/21	2021/22	Difference	<u>% Difference</u>
Liability	\$6,214,000	\$6,046,000	(\$168,000)	-2.7%
Property	758,000	900,000	142,000	18.7%
Total	\$6,972,000	\$6,946,000	(\$26,000)	-0.4%

b Insurance expenses are budgeted to increase by 56.2%. Liability premiums are projected to increase 62% due to insurance market hardening. Property rates are projected to increase 40.7% due to utilization of the excess layer. Cyber excess coverage is projected to increase 50% & employment liability coverage is projected to increase 20% for those members who are participating with ERMA.

c Risk Management Grants are funded from the equity. Thus, a corresponding revenues has been recorded for budgeting

d Administration expenses are expected to increase by 3.0% in comparison to 20/21 budget. While majority of the expenses are related to contractual increase, program administration fee has an additional cost of \$75K for litigation management. The actuarial fee increase is due additional scope of work and investment income/bank fee decrease is due to reallocation of the investment fee as part of investment income.