



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

BOARD OF DIRECTORS MEETING AGENDA

**Wednesday, June 20, 2018
9:45 A.M**

**Hilton Garden Inn
San Francisco Airport North
670 Gateway Blvd
South San Francisco, CA 94080**

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

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

<u>Page</u>	1. CALL TO ORDER
	2. INTRODUCTIONS
	3. ELECTIONS
4	*A. Election of Committee Members for Program Year 2018/19 <i>Recommendation: The Executive Committee recommends the Board of Directors approve candidates to serve on PLAN JPA's Committees for Program Year 2018/19.</i>
	B. Election of Officers for Program Year 2018/19 <i>Recommendation: The Executive Committee recommends the Board of Directors elect members to fill the Officer positions of President, Vice-President, and Treasurer for PLAN JPA's Program Year 2018/19.</i>
	4. APPROVAL OF AGENDA AS POSTED (OR AMENDED)

* Reference materials enclosed with staff report.

Page

- 5. PUBLIC COMMENTS** - This time is reserved for members of the public to address the Committee relative to matters of the ABAG PLAN 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.

6. CONSENT CALENDAR

If a Committee member would like to discuss any item listed, it may be pulled from the Consent Calendar.

- 11** *A. Resolution No. 2018-01: Establishing the 2018/19 Calendar of Meetings
13 *B. Resolution No. 2018-02: Establishing a Records Retention Policy
18 *C. Resolution No. 2018-03: Establishing All Bank Accounts and Authorized Signatures
20 *D. Resolution No. 2018-04: Revising Authorized Signers for the Investment of Monies in the Local Agency Investment Fund (LAIF)
22 *E. Resolution No. 2018-05: Authorizing PLAN JPA to Join with Other Public Agencies as a Participant of the California Asset Management Trust (CAMP)
25 *F. PFM Asset Management Letter Agreement
28 *G. PLAN JPA Investment Policy
Recommendation: Staff recommends the Board of Directors approve the Consent Calendar.

7. ADMINISTRATIVE MATTERS

- 37** *A. Consideration of Bylaws for PLAN JPA
Recommendation: The Executive Committee recommends the Board of Directors approve the Bylaws for PLAN JPA.
53 *B. Consideration of Memorandum of Coverage for PLAN JPA
Recommendation: The Executive Committee recommends the Board of Directors consider and approve the Memorandum of Coverage for PLAN JPA.
81 *C. Consideration of Master Plan Document (MPD) for the Pooled Liability Program for PLAN JPA
Recommendation: The Executive Committee recommends the Board of Directors approve the Master Plan Document for PLAN JPA.
100 *D. Consideration of PLAN JPA Conflict of Interest Code
Recommendation: None.

8. RISK CONTROL MATTERS

- 108** *A. Update on PLAN JPA Risk Control Program for 2018/19
Recommendation: None.

Page

9. FINANCIAL MATTERS

- 116** *A. Review of the General Liability Actuarial Report
 Recommendation: None.
- 255** B. Update on Alliant Insurance Renewals
 Recommendation: None.
- 256** *C. Approval of the Draft Budget for 2018/19
 Recommendation: Staff, the Finance Committee, and the Executive Committee recommend the Board of Directors approve the 2018/19 Operating Budget.
- 263** *D. Presentation on Investment Manager Services
 Recommendation: None.

10. CLOSING COMMENTS

This time is reserved for comments by Board members and/or staff and to identify matters for future Board business.

- A. Board of Directors
- B. Staff

11. ADJOURNMENT

NOTICES:

- The next Executive Committee meeting will be held on October 24, 2018, at 10:00 a.m.
- The next Board of Directors meeting will be held on December 5, 2018, at 9:30 a.m at the Hilton Garden Inn San Francisco Airport North, 670 Gateway Blvd., South San Francisco, CA 94080.

* Reference materials enclosed with staff report.

June 20, 2018

Agenda Item 3.A.

ELECTIONS

SUBJECT: Election of Committee Members for Program Year 2018/19

BACKGROUND AND HISTORY:

In preparation for the annual elections to take place at the June 20, 2018, Board of Directors meeting, staff distributed a solicitation email seeking interest from the Board members and Alternate representatives to serve for the first time, or continue serving on a Committee.

As in previous years, the Executive Committee was tasked with developing a slate of candidates for the Board's consideration. The proposed slates are outlined below. Additional nominations or offers to serve can be taken from the floor at the Board meeting.

Executive Committee:

Heather McLaughlin, Benicia
Kathleen Kane, Burlingame
Jesse Takahashi, Campbell
Ann Ritzma, Foster City
Robert Schultz, Los Gatos
Marc Zafferano, San Bruno
Richard Lee, South San Francisco
Kevin Bryant, Woodside
Chair of Risk Management Committee

Claims Committee:

Kathleen Kane, Chair, Burlingame
Heather McLaughlin, Benicia
Jesse Takahashi, Campbell
Brenda Olwin, East Palo Alto*
John Mullins, Hillsborough
Robert Schultz, Los Gatos
Marc Zafferano, San Bruno
Scott Corey, Suisun City*

Risk Management Committee:

George Rodericks, Atherton
Julie Carter, Dublin
Yulia Carter, Half Moon Bay
David Benoun, Newark
Jeremy Dennis, Portola Valley

June 20, 2018

Agenda Item 3.A.
Page 2

Finance Committee:

Ann Ritzma, Chair, Foster City
Yulia Carter, Half Moon Bay
Will Fuentes, Milpitas
Rebecca Mendenhall, San Carlos
Richard Lee, South San Francisco
Mary Furey, Saratoga

Actuarial Committee:

Jesse Takahashi, Chair, Campbell
Pak Lin, Colma
Colleen Tribby, Dublin*
Edmund Suen, Foster City
Lorenzo Hines, Pacifica*
Cindy Safe, Woodside

(*indicates staff has not yet received a response from member regarding willingness to participate.)

RECOMMENDATION:

The Executive Committee recommends the Board of Directors approve candidates to serve on PLAN JPA's Committees for Program Year 2018/19.

REFERENCE MATERIALS ATTACHED:

- Committee Member Listing FY 2017/18
- Committee Roles and Responsibilities
- Committee Meeting Participation FY 2017/18 and FY 2016/17



Officer and Committee Member Listing – FY 2017/18

Chair: Marc Zafferano
Vice-Chair: Michael Taylor
Treasurer: Ann Ritzma
Secretary: Heather McLaughlin

Executive Committee

Marc Zafferano (Chair) – San Bruno
Michael Taylor (Vice-Chair) – Saratoga
Ann Ritzma (Finance Chair) – Foster City
Jesse Takahashi (Actuarial Chair) – Campbell
Brian Dossey (Risk Management Chair) – Colma
Kathleen Kane (Claims Chair) – Burlingame
Heather McLaughlin (At Large) – Benicia
Kevin Bryant (At Large) – Woodside
Richard Lee (At Large) – South San Francisco

Risk Management Committee

Brian Dossey (Chair) – Colma
Michael Taylor – Saratoga
Julie Carter – Dublin
Jenny Liu – San Carlos
Yulia Carter – Half Moon Bay
David Benoun – Newark
Laci Kolc – American Canyon

Actuarial Committee

Jesse Takahashi (Chair) – Campbell
Colleen Tribby – Dublin
Edmund Suen – Foster City
Cindy Sage – Woodside
Lorenzo Hines – Pacifica
Pak Lin – Los Altos Hills

Claims Committee

Kathleen Kane (Chair) – Burlingame
Marc Zafferano – San Bruno
Heather McLaughlin – Benicia
Kathy Leroux – Hillsborough
Scott Corey – Suisun City
Robert Schultz – Los Gatos
Randolph Hom – Cupertino
Brenda Olwin – East Palo Alto

Finance Committee

Ann Ritzma (Chair) – Foster City
Rebecca Mendenhall – San Carlos
Mary Furey – Saratoga
Yulia Carter – Half Moon Bay
Richard Lee – South San Francisco
Will Fuentes – Milpitas
John Mullins - Hillsborough



Committee Roles and Responsibilities

As a member governed organization, each of you play an important role in managing the affairs of the organization. The following is a brief description of each committee's role within the PLAN JPA. For more details, please refer to referenced ABAG PLAN Bylaws, specifically, Article VIII – Committees.

Executive Committee - A standing committee of nine members: the Chair and Vice-Chair of the Board, the Chair of each standing committee and three at large members. The Executive Committee may exercise all powers of the Board necessary to further the timely and orderly conduct of business subject to restrictions contained in the Bylaws.

Claim Committee - The Claim Committee is charged with the duty and responsibility of reviewing and authorizing all payment of Settlements which exceed a Member Entity's deductible and is above the authority level of the PLAN Risk Management Officer. The Claim Committee, upon request by PLAN JPA or a Member Entity, may hear and make recommendation(s) on the initial appeal on all staff determinations of coverage for, and settlement of, a third party claim against a Member. The Claim Committee may also establish a Defense Counsel list.

Actuary Committee - The Actuary Committee is charged with the duty and responsibility of conducting an annual review of PLAN Actuarial Report and all supplemental reports. The Committee provides recommendations to the Board with respect to Program Funding (Liability). The Committee evaluates excess insurance, reinsurance and other third party risk transfer mechanisms for compatibility with PLAN Program goals. The Committee recommends yearly Program Funding based on the Actuarial Report and PLAN Funding Policy.

Risk Management Committee - The Risk Management Committee is charged with the duty and responsibility of reviewing and making recommendations to the Board for risk management programs, including but not limited to, voluntary and mandatory program changes in Member activities, and restrictions on coverage. The Committee makes recommendations to the Board on applications for program admission, expulsion, withdrawal notices and proposals for cancellation, including but not limited to, the terms/conditions under which such admissions, withdrawals, expulsions and cancellations are implemented.

Finance Committee – The Finance Committee is charged with the duty and responsibility of reviewing and making recommendations to the Board on the results of PLAN's annual financial audit. This also includes reviewing and making recommendations to the Board regarding the PLAN's investments and Investment Policy. The Finance Committee also reviews the PLAN Annual Administrative Fund Budget and makes recommendations to the Board.

A Link to PLAN JPA's website is provided below, which contains the current Committee Meeting Schedule and the most recent Committee Meeting Agendas, Minutes, and Reports.

<https://www.planjpa.org/>

ABAG PLAN Committee Participation List

FY 2017/18		
Member Jurisdiction	Committee Participation	Non-Participation
American Canyon	Risk Management	Atherton
Benicia	Executive/Claims	Millbrae
Burlingame	Executive/Claims	Morgan Hill
Campbell	Executive/Actuarial	Portola Valley
Colma	Executive/Risk Management	Ross
Cupertino	Claims	Tiburon
Dublin	Risk Management/Actuarial	
East Palo Alto	Claims	
Foster City	Executive/Actuarial/Finance	
Half Moon Bay	Risk Management/Finance	
Hillsborough	Claims	
Los Altos Hills	Actuarial	
Los Gatos	Risk Management	
Milpitas	Finance	
Newark	Risk Management	
Pacifica	Actuarial	
San Bruno	Executive/Claims	
San Carlos	Risk Management/Finance	
Saratoga	Executive/Risk Management/Finance	
SSF	Executive/Finance	
Suisun City	Claims	
Woodside	Executive/Actuarial	

FY 2016/17		
Member Jurisdiction	Committee Participation	Non-Participation
American Canyon	Risk Management	Atherton
Benicia	Executive/Claims	Millbrae
Burlingame	Executive/Claims	Milpitas
Campbell	Executive/Actuarial	Morgan Hill
Colma	Executive/Risk Management	Portola Valley
Cupertino	Claims	Ross
Dublin	Risk Management/Actuarial	Tiburon
East Palo Alto	Claims/Actuarial	
Foster City	Executive/Finance	
Half Moon Bay	Risk Management/Finance	
Hillsborough	Claims	
Los Altos Hills	Actuarial	
Los Gatos	Risk Management	
Newark	Risk Management	
Pacifica	Actuarial	
San Bruno	Executive/Claims	
San Carlos	Risk Management/Finance	
Saratoga	Executive/Risk Management/Finance	
South San Francisco	Executive/Finance	
Suisun City	Claims	
Woodside	Executive/Actuarial	

June 20, 2018

Agenda Item 3.B.

ELECTIONS

SUBJECT: Election of Officers for Program Year 2018/19

BACKGROUND AND HISTORY:

In preparation for the annual elections to take place at the June 20, 2018, Board of Directors meeting, staff distributed a solicitation email seeking interest from the Board and Alternate representatives to serve for the first time, or continue serving, as an Officer of the PLAN Board. As in previous years, the Executive Committee was tasked with developing a slate of candidates for the Board's consideration. The following Officer positions are up for election:

- President
- Vice-President
- Treasurer

Currently, Mr. Marc Zafferano, Mr. Michael Taylor, and Ms. Ann Ritzma hold the Officer positions of President, Vice-President, and Treasurer. Mr. Taylor has noted that he does not wish to run for re-election due to his upcoming retirement next spring. At the June 6, 2018, Executive Committee meeting, the Committee nominated the following candidates to serve a two-year term commencing July 1, 2018:

- President: Marc Zafferano, San Bruno
- Vice President: Kathleen Kane, Burlingame
- Treasurer: Ann Ritzma, Foster City

Further nominations may be taken from the floor at the Board meeting.

RECOMMENDATION:

The Executive Committee recommends the Board of Directors elect members to fill the Officer positions of President, Vice-President, and Treasurer for PLAN JPA's Program Year 2018/19.

REFERENCE MATERIALS ATTACHED:

None

June 20, 2018

Agenda Item 6.A.-6.G

CONSENT CALENDAR

SUBJECT: Consent Calendar

BACKGROUND AND HISTORY:

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

RECOMMENDATION:

Staff recommends the Board of Directors approve the Consent Calendar.

REFERENCE MATERIALS ATTACHED:

- A) Resolution No. 2018-01: Establishing the 2018/19 Calendar of Meetings
- B) Resolution No. 2018-02: Establishing a Records Retention Policy
- C) Resolution No. 2018-03: Establishing All Bank Accounts and Authorized Signatures
- D) Resolution No. 2018-04: Revising Authorized Signers for the Investment of Monies in the Local Agency Investment Fund (LAIF)
- E) Resolution No. 2018-05: Authorizing PLAN JPA to Join with Other Public Agencies as a Participant of the California Asset Management Trust (CAMP)
- F) PFM Asset Management Letter Agreement
- G) PLAN JPA Investment Policy

POOLED LIABILITY ASSURANCE NETWORK JOINT POWERS AUTHORITY

Resolution No. 2018-01

ESTABLISHING THE BOARD OF DIRECTORS, EXECUTIVE COMMITTEE, RISK MANAGEMENT COMMITTEE, ACTUARY COMMITTEE, CLAIMS COMMITTEE, AND FINANCE COMMITTEE MEETING DATES FOR THE 2018/19 FISCAL YEAR

BE IT RESOLVED THAT:

The following Board of Directors, Executive Committee, Risk Management Committee, Actuarial Committee, Claims Committee, and Finance Committee meeting dates are hereby established for the 2018/19 fiscal year:

BOARD & COMMITTEE MEETING SCHEDULE Fiscal Year 2018/19

PLAN Board of Directors Meetings:

- December 5, 2018, 9:30 a.m. – Hilton Garden Inn San Francisco Airport North,
670 Gateway Blvd., South San Francisco, CA 94080
- June 12, 2019, 9:30 a.m. – location TBD

SHARP Board of Directors Meetings:

- December 5, 2018, 10:30 a.m. – Hilton Garden Inn San Francisco Airport North,
670 Gateway Blvd., South San Francisco, CA 94080
- June 12, 2019, 10:30 a.m. – location TBD

Executive Committee Meetings:

- October 24, 2018, 10:00 a.m. - location TBD
- April 18, 2019, 10:00 a.m. - location TBD
- June 5, 2019, 10:00 a.m. – location TBD

Risk Management Committee Meetings:

- October 10, 2018, 10:30 a.m. – location TBD
- April 3, 2019, 10:30 a.m. – location TBD

Actuarial Committee Meetings:

- April 17, 2019, 10:30 a.m. – location TBD

Claims Committee Meetings:

Standing schedule – 4th Thursday of each month as needed/required.

Finance Committee Meetings:

- May 22, 2019, 10:30 a.m. – location TBD

PASSED AND ADOPTED by the Board of Directors of the Pooled Liability Assurance Network Joint Powers Authority, County of Sacramento, State of California, on June 20, 2018, by the following vote:

AYES	_____
NOES	_____
ABSENT	_____
ABSTAIN	_____

APPROVED:

President

ATTEST:

Secretary

POOLED LIABILITY ASSURANCE NETWORK JOINT POWERS AUTHORITY

Resolution No. 2018-02

RESOLUTION OF THE BOARD OF DIRECTORS OF THE POOLED LIABILITY ASSURANCE NETWORK JOINT POWERS AUTHORITY ESTABLISHING THE JPA'S RECORDS RETENTION POLICY

WHEREAS, the Pooled Liability Assurance Network Joint Powers Authority ("Authority") has an obligation to create and maintain information in accordance with legal requirements and accepted records management practices and standards;

WHEREAS, the purpose of this resolution is to establish and implement a records management policy with a standard protocol and procedures for the retention, destruction and disposition of Agency records (as defined below);

WHEREAS, this policy is adopted pursuant to and is subject to Government Code sections 26201 to 26206.7.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Authority as follows:

1. General. This policy supersedes any prior records retention policy. For purposes of this policy, "record" means any "writing" as defined under the Public Records Act at Government Code section 6252(g) that is a "public record" as defined at section 6252(e).

2. Records Retention Schedule. The Board of Directors finds and determines that the retention of records beyond these retention periods is not necessary or required for Authority purposes. Except as otherwise provided by this policy and federal and state law, the Authority shall maintain records for at least the applicable retention period in accordance with the following Records Retention Schedule:

RECORDS RETENTION SCHEDULE

<u>Category</u>	<u>Retention Period</u>
ADMINISTRATION	
Accreditation Reports	Permanent
Correspondence	2 years
Joint Exercise of Powers Agreement and Amendments	Permanent
All Other Governing Documents	Permanent
Responses to Bids/Request for Proposals/ Request for Qualifications	5 years
Roster of Public Agency Filing	Permanent
Agreements and Contracts (Excluding Capital Improvements)	7 years after completion or termination

<u>Category</u>	<u>Retention Period</u>
Construction/Capital Improvements	Permanent
Record of real property title (e.g., deeds, easements, liens)	Permanent
BOARD OF DIRECTORS/COMMITTEES	
Agendas and Reports	Permanent
Meeting Notes	5 years
Minutes of Board Meetings	Permanent
Resolutions	Permanent
ELECTIONS/CONFLICT OF INTEREST	
Ballots	Permanent
Conflict of Interest Statements	7 years from filing
Conflict of Interest Code	Current + 7 years
Fair Political Practices Filings (Statement of Economic Interest, Elected Official)	Termination of office + 7 years
Fair Political Practices Filings (Statement of Economic Interest, Non Elected)	Termination of office + 5 years
FINANCIAL	
<u>Accounts Payable</u>	
A/P Distribution Journal	Current + 7 years
Cash Disbursements	Current + 7 years
Correspondence	Current + 7 years
Expense Reports	Current + 7 years
Invoices	Current + 7 years
<u>Accounts Receivable</u>	
A/R Register	Current + 7 years
Aged Trial Balance	Current + 7 years
Invoices	Current + 7 years
<u>Banking</u>	
Bank Reconciliations	Current + 7 years
Bank Statements	Current + 7 years
Checks	Current + 7 years
Deposit/Receipts	Current + 7 years
Signature Authorizations	Current + 7 years

Category**Retention Period****Revenue Bonds**

Account Statements
Administration
Bonds and Coupons

Closed + 10 years
Closed + 10 years
Closed + 2 years

Budget

Adopted
Proposed

Permanent
Current + 2 years

Financial Reporting

Actuarial Studies
Financial Audits
General Ledger
Interim Financial Statements
Investment Reports
State Controller Report
Treasurers Reports

Permanent
Permanent
Permanent
Audit + 7 Years
Audit + 7 Years
Permanent
Audit + Audit + 7 Years

INSURANCE/COVERAGE

Additional Covered Party Endorsements
Certificates of Coverage
Claims Audits
Coverage Opinions
Endorsements
Excess and Reinsurance Contracts
Insurance Bonds/Fidelity Bonds
Insurance Policies
Memoranda of Coverage
Underwriting Files

Permanent
Permanent
Permanent
Permanent
Permanent
Permanent
Permanent
Permanent
Permanent
Permanent

CLAIMS & LEGAL

Accident Reports
Activity Reports
Attorney Correspondence
Claim Files with TPA

Claims Involving Minors
General Correspondence
Incident Reports
Litigation Files
Loss Runs
Legal Opinions

Closed + 2 years unless litigated
Closed + 2 years
Permanent
Closed + 5 years unless return requested by member
3 years from age of 18 or 7 years – whichever is
longer from closure
3 years
Closed + 2 years unless litigated
7 years after litigation is concluded
Current year end report + 7 years
Permanent

Category**Retention Period**

Workers' Compensation Claim Files, Reports and Incident Reports	7 years from date of injury; or one year from date compensation was last provided; or when all compensation which may be due has been paid – whichever is latest.
Workers' Compensation Claim Logs	7 years from the end of the year covered
Claims Involving Medicare Set Asides	10 years from date of final resolution
Claims For Which Provisions for Future Medical Have Been Agreed Upon (Related to Medicare)	6 years from date of final resolution

MEMBERSHIP

Appointment Resolutions and Letters	Permanent
Membership Records	Permanent
Payroll/Volunteer Audit & Tax Forms	Permanent

MISCELLANEOUS

Permanent until Reclassified (If reclassified into another category, the time limits of that category will apply)

RISK MANAGEMENT & SAFETY

Risk Management Reports and Audits	Closed + 3 years
Training Records - Non-Safety	Current + 2 years
Training Records – Safety	Current + 5 years

OTHER

For records not listed above, the Authority shall follow the retention schedule in the *Local Government Records Retention Guidelines* (Feb. 2006) prepared by the City Clerks' Association of California and approved by the League of California Cities (available at <http://www.sos.ca.gov/archives/local-gov-program/pdf/records-management-8.pdf>)

3. Records Destruction Authorized. The Authority may destroy or dispose of any record after the expiration of the applicable retention period in the Records Retention Schedule. The Authority at any time may destroy or dispose of (a) any record that does not contain information relating to the conduct of the Authority's business or that otherwise is not a public record, and (b) any duplicate record if the original or a copy of the record is maintained on file. However, the Authority shall not destroy or dispose of any record that has not fulfilled the administrative, fiscal or legal purpose for which it was created or received.

4. Preservation in Electronic Format. The Authority, at any time, may destroy or dispose of any paper record that is not expressly required by law to be preserved in original paper format if the following conditions relating to electronic storage of records are complied with: (a) the record is photographed, microphotographed, reproduced by electronically recorded video images on magnetic surfaces, recorded in the electronic data processing system, recorded on optical disk, or reproduced on film or any other medium that is a trusted system and that does not permit

additions, deletions, or changes to the original document; (b) the device used to reproduce the record on film, optical disk, or any other medium is one that accurately reproduces the original record in all details and that does not permit additions, deletions, or changes to the original document images; and, (c) the photographs, microphotographs, or other reproductions on film, optical disk, or any other medium are placed in conveniently accessible files and provision is made for preserving, examining, and using the files.

5. Process of Destruction and Disposal. Records not containing information of a confidential or proprietary nature may be disposed of or destroyed by means of recycling, waste removal service, shredding or other reasonable method of disposal or destruction. Records containing confidential or proprietary information must be shredded or otherwise permanently destroyed. Records recorded on electronic or magnetic media may be erased and the media re-used or discarded. For records destroyed or disposed of pursuant to the Records Retention Schedule, the Authority will prepare or have prepared a certificate or log describing the date and records destroyed/disposed of.

6. Pending Public Records Act Request. For any record that is subject to destruction or disposal and is the subject of a pending request made pursuant to the Public Records Act, and whether or not the Authority maintains that the record is exempt from disclosure, the Authority shall not destroy or dispose of the record until the request has been granted or two years have elapsed since the Authority provided written notice to the requester that the request has been denied.

PASSED AND ADOPTED by the Board of Directors of the Pooled Liability Assurance Network Joint Powers Authority, County of Sacramento, State of California, on June 20, 2018, by the following vote:

AYES	_____
NOES	_____
ABSENT	_____
ABSTAIN	_____

APPROVED:

President

ATTEST:

Secretary

POOLED LIABILITY ASSURANCE NETWORK JOINT POWERS AUTHORITY

Resolution No. 2018-03

RESOLUTION OF THE BOARD OF DIRECTORS OF THE POOLED LIABILITY ASSURANCE NETWORK (PLAN JPA) ESTABLISHING ALL BANK ACCOUNTS AND AUTHORIZED SIGNATURES

WHEREAS, the PLAN JPA must maintain various Bank accounts in order to operate and manage the fiscal affairs of PLAN JPA;

WHEREAS, to protect and control the cash assets and fiscal integrity of the various Bank accounts, signatory authority should be specifically granted to particular officers;

WHEREAS, it is a good accounting practice to require two signatures for disbursements of PLAN JPA funds; and

WHEREAS, it is an inefficient process to issue checks of small amounts to pay bills occurring with some frequency;

NOW, THEREFORE, BE IT RESOLVED:

The Executive Committee of PLAN JPA has determined that it is in the best interests of PLAN JPA to establish bank accounts for the deposit and disbursement of funds and that all positions listed on this Resolution are authorized to enter into all agreements set forth with California Bank & Trust, or any other bank as authorized by the Board of Directors, to sign/pay checks, make withdrawals and originate wire transfers or ACH EFT transfers against each account listed below:

General Account (requires two signatures):

1. President of PLAN JPA
2. Vice President of PLAN JPA
3. Treasurer of PLAN JPA
4. Program Administrator of PLAN JPA
5. COO of Bickmore
6. Finance Director of Bickmore

The PLAN JPA Finance Manager acting alone is hereby authorized, in connection with wire transfers out of our accounts at California Bank & Trust (or other bank, as authorized by the Board of Directors), to designate persons who may request wire or ACH EFT transfers and to execute and deliver such agreements, documents and other instruments, and to perform such other acts, relating to wire or ACH EFT transfers as the Treasurer shall approve. However, the Treasurer can only designate individuals listed above.

PASSED AND ADOPTED by the Board of Directors of the Pooled Liability Assurance Network Joint Powers Authority, County of Sacramento, State of California, on June 20, 2018, by the following vote:

AYES	_____
NOES	_____
ABSENT	_____
ABSTAIN	_____

APPROVED:

President

ATTEST:

Secretary

POOLED LIABILITY ASSURANCE NETWORK JOINT POWERS AUTHORITY

Resolution No. 2018-04

RESOLUTION OF THE BOARD OF DIRECTORS OF THE POOLED LIABILITY ASSURANCE NETWORK JOINT POWERS AUTHORITY (PLAN JPA) REVISING AUTHORIZED SIGNERS FOR THE INVESTMENT OF MONIES IN THE LOCAL AGENCY INVESTMENT FUND

WHEREAS, Pursuant to Chapter 730 of the statutes of 1976 Section 16429.1 was added to the California Government Code to create a Local Agency Investment Fund in the State Treasury for the deposit of money of a local agency for purposes of investment by the State Treasurer; and

WHEREAS, the Board of Directors does hereby find that the deposit and withdrawal of money in the Local Agency Investment Fund in accordance with the provisions of Section 16429.1 of the Government Code for the purpose of investment as stated therein as in the best interests of the PLAN JPA.

NOW THEREFORE, BE IT RESOLVED, that the Board of Directors authorized the deposit and withdrawal of PLAN JPA's monies in the Local Agency Investment Fund in the State Treasury in accordance with the provisions of Section 16429.1 of the Government Code for the purpose of investment as stated therein, and verification by the State Treasurer's Office of all banking information provided in that regard.

BE IT FURTHER RESOLVED, that the following PLAN JPA officers or their successors in office shall be authorized to order the deposit or withdrawal of monies in the Local Agency Investment Fund:

1. President of PLAN JPA
2. Vice President of PLAN JPA
3. Treasurer of PLAN JPA
4. Finance Director of Bickmore
5. PLAN JPA Finance Manager

PASSED AND ADOPTED by the Board of Directors of the Pooled Liability Assurance Network Joint Powers Authority, County of Sacramento, State of California, on June 20, 2018, by the following vote:

AYES	_____
NOES	_____
ABSENT	_____
ABSTAIN	_____

APPROVED:

President

ATTEST:

Secretary

ATTACHMENT A

MODEL ORDINANCE/RESOLUTION

Model Ordinance/Resolution. Participation in the Trust requires the formal approval of the governing body of the Public Agency by ordinance or resolution as appropriate. Model ordinances/resolutions for Participants and Investors are shown below. Public Agencies should consult with their legal counsel regarding the required form of action (either ordinance or resolution) and the procedures for enactment or adoption. No representation is made as to the legal sufficiency of the model form for any given Public Agency.

[ORDINANCE/RESOLUTION] NO. 2018-05

[ORDINANCE/RESOLUTION] AUTHORIZING POOLED LIABILITY ASSURANCE
NETWORK (PLAN) (THE “PUBLIC AGENCY”)
TO JOIN WITH OTHER PUBLIC AGENCIES
AS A PARTICIPANT OF THE
CALIFORNIA ASSET MANAGEMENT TRUST
AND TO INVEST IN SHARES OF THE TRUST
AND IN INDIVIDUAL PORTFOLIOS

WHEREAS, Section 6509.7 of Title 1, Division 7, Chapter 5 of the Government Code of the State of California (the “Joint Exercise of Powers Act”) provides that, if authorized by their legislative or other governing bodies, two or more public agencies that have the authority to invest funds in their treasuries may, by agreement, jointly exercise that common power;

WHEREAS, under Sections 6500 and 6509.7(b) of the Joint Exercise of Powers Act, a “public agency” includes, but is not limited to, any California county, county board of education, county superintendent of schools, city, public corporation, public district, regional transportation commission, state department or agency, any joint powers authority formed pursuant to the Joint Exercise of Powers Act by public agencies or any nonprofit corporation whose membership is confined to public agencies or public officials;

WHEREAS, public agencies that constitute local agencies, as that term is defined in Sections 53600 of Title 5, Division 2, Part 1, Chapter 4, Article 2 of the Government Code of the State of California (the “California Government Code”), are authorized pursuant to Sections 53601(o), to invest all money belonging to, or in the custody of, a local agency not required for its immediate need in shares of beneficial interest issued by a joint powers authority organized pursuant to Section 6509.7 of the California Government Code that invests in the securities and obligations authorized in subdivisions (a) to (n), inclusive, of Government Code Section 53601;

WHEREAS, the California Asset Management Trust (the “Trust”) was established, pursuant to and in accordance with the Joint Exercise of Powers Act, by a Declaration of Trust, made as of December 15, 1989, as subsequently amended from time to time (the “Declaration of Trust”), as a vehicle for public agencies to jointly exercise their common power to invest the proceeds of debt issues and Public Agency surplus funds;

WHEREAS, pursuant to and in accordance with the Joint Exercise of Powers Act, the Public Agency desires to join the other public agencies which are or will be Participants of the Trust by adopting and executing the Declaration of Trust, a form which is on file in the office of the [Treasurer/Finance Director];

WHEREAS, the Public Agency is a “public agency” as that term is defined in Sections 6500 and 6509.7(b) of the Joint Exercise of Powers Act and a “local agency” as that term is defined in Section 53600 of the California Government Code;

WHEREAS, the Public Agency is otherwise permitted to be a Participant of the Trust and to invest funds in the Trust and in the individual portfolios to be managed by the Investment Adviser to the Trust (“Individual Portfolios”); and

WHEREAS, a program guide describing the Trust and the Individual Portfolios (the “Program Guide”) is on file in the office of the [Treasurer/Finance Director].

NOW, THEREFORE, BE IT [ORDAINED/RESOLVED] by the [Governing Body] of the Public Agency as follows:

Section 1. The Public Agency shall join with other public agencies pursuant to and in accordance with the Joint Exercise of Powers Act by executing the Declaration of Trust and thereby becoming a Participant in the Trust, which Declaration of Trust is hereby approved and adopted. A copy of the Declaration of Trust, which is available in the office of the [Treasurer/Finance Director] shall be filed with the minutes of the meeting at which this [Ordinance/Resolution] was [enacted/adopted]. The [Presiding Officer of Governing Body] is hereby authorized to execute, and the [Attesting Officer of Governing Body] is hereby authorized to attest and deliver, the Declaration of Trust.

Section 2. The Public Agency is hereby authorized to purchase shares in the Trust from time to time with available funds of the Public Agency, and to redeem some or all of those shares from time to time as such funds are needed.

Section 3. The Public Agency is hereby authorized to invest available funds of the Public Agency from time to time in one or more Individual Portfolios managed by the Investment Adviser to the Trust and described in the Program Guide.

Section 4. The appropriate officers, agents and employees of the Public Agency are hereby authorized and directed in the name and on behalf of the Public Agency to take all actions and to make and execute any and all certificates, requisitions, agreements, notices, consents, warrants and other documents, and any changes, amendments, modifications, or waivers thereto which they, or any of them, might deem necessary or appropriate in order to accomplish the purposes of this [Ordinance/Resolution].

Section 5. This [Ordinance/Resolution] shall take effect at the earliest date permitted by law.

By: _____
(Name)

(Title)

ATTEST:

By: _____
(Name)

(Title)

(Date)

Letter Agreement

This Letter Agreement, entered into as of **DATE** (the “Agreement”), sets forth our agreement for the investment of certain funds (the “Initial Funds”) by the **Pooled Liability Assurance Network (PLAN)** (the “Participant”) in Individual Portfolios (as the term is herein defined) of the California Asset Management Program (the “Program”).

The Program consists of the California Asset Management Trust (the “Trust”) designed to provide Participants with a convenient method of pooling operating funds and proceeds of bonds, notes, and certificates of participation for temporary investment pending their disbursement. The Program also offers Participants the option of establishing individual, professionally-managed investment accounts (“Individual Portfolios”) by separate agreement with the Trust’s Investment Adviser to meet specific investment objectives. Collectively the Trust and the Individual Portfolios are referred to as the Program. All securities in the Trust are held by the Program’s Custodian, U.S. Bank National Association, Minneapolis, Minnesota (the “Custodian”), in the name of the Trust, and all assets in each Individual Portfolio are held by the Custodian in the name of the appropriate Participant. Such custodial arrangements are subject to and governed by the terms and provisions of a Custody Agreement, dated as of January 10, 2013 (as the same may be amended from time to time, the “Custody Agreement”), which is incorporated herein by reference. A copy of the Custody Agreement is available at www.camponline.com. A complete description of the Program is provided in the Information Statement dated June 4, 2013, as amended from time to time, and the Declaration of Trust dated February 28, 2005, as amended from time to time, to which reference should be made for details.

Certain of the Initial Funds and such other funds as the Participant may from time to time assign to the Trust’s Investment Adviser, PFM Asset Management LLC (“PFMAM”) for management under this Agreement (collectively the “Managed Funds”) will be invested by PFMAM in one or more Individual Portfolios while other funds will be invested in the Trust. The Participant hereby engages PFMAM to serve as investment advisor to the Participant under the terms of this Agreement with respect to the Participant’s Managed Funds in its Individual Portfolios.

PFMAM will provide investment research and supervision and conduct a continuous program of investment, evaluation, and when appropriate, sale and reinvestment of the Participant’s funds invested in Individual Portfolios. PFMAM shall place all orders for the purchase, sale, loan, or exchange of portfolio securities for the Participant’s account with brokers or dealers, and to that end PFMAM is authorized as agent of the Participant to give instructions to the Custodian as to deliveries of securities and payments of cash for the account of the Participant. PFMAM shall ensure that orders are placed with reputable, qualified, and financially sound brokers/dealers. PFMAM shall, in a manner consistent with ensuring safety of principal, exercise due diligence in establishing and maintaining brokers/dealers qualifications and in conducting credit reviews and reviews on broker/dealer execution capabilities. In connection with the selection of such brokers and dealers and the placing of such orders, PFMAM is directed to seek for the Participant the most favorable execution and price, the determination of which may take into account, subject to any applicable laws, rules and regulations, whether statistical, research and other information or services have been or will be furnished to PFMAM by such brokers and dealers.

Compensation

For services provided by PFMAM for the management of funds in an Individual Portfolio, the Participant shall pay PFMAM an annual fee, in monthly installments, based on the average daily net assets of the funds in the Individual Portfolios, equal to 0.10% of the first \$25 million of such assets and 0.08% of amounts in excess of \$25 million. For purposes of calculating the fee payable to PFMAM, funds in all of the Participant’s Individual Portfolios shall be aggregated. The minimum annual fee is \$25,000. For custodial services provided by Custodian, the Participant shall pay the Custodian the applicable asset-based or transaction fees.

PFMAM shall prepare a bill for the investment management fee monthly and forward it and the monthly Custodian invoice to the Participant for approval. Unless instructed otherwise within 15 calendar days of the postmark on that invoice, PFMAM is herein authorized to charge the Participant's associated Trust account and instruct the Custodian to disburse funds from that account. If sufficient funds are not available, the Participant agrees to compensate PFMAM from other sources within 30 calendar days of the postmark date. If either PFMAM or the Custodian shall serve for less than the whole month, the compensation shall be pro-rated.

Although expenses associated with the management of an Individual Portfolio may be paid directly from the Participant's Trust account, where proceeds of tax-exempt debt are invested in an Individual Portfolio these expenses may not be deducted from investment income for purposes of calculating arbitrage rebate.

Other Expenses

Except as expressly provided otherwise herein or in the Declaration of Trust or Information Statement, the Participant shall pay all of its own expenses, if any, with regard to the investment of funds in an Individual Portfolio including, without limitation, taxes, commissions, brokerage and other expenses connected with the execution of portfolio security transactions, insurance premiums, and fees and expenses of the Custodian.

Registered Advisor; Duty of Care; Brochure and Brochure Supplement

PFMAM hereby represents it is a registered investment adviser under the Investment Advisers Act of 1940. PFMAM shall immediately notify the Participant if at any time during the term of the Agreement it is not so registered or if its registration is suspended. PFMAM agrees to perform its duties and responsibilities under the Agreement with reasonable care. The federal securities laws impose liabilities under certain circumstances on persons who act in good faith. Nothing herein shall in any way constitute a waiver or limitation of any rights which the Participant may have under any federal securities laws. The Participant hereby authorizes the Advisor to sign I.R.S. Form W-9 on behalf of the Participant and to deliver such form to broker-dealers or others from time to time as required in connection with securities transactions pursuant to this Agreement.

PFMAM warrants that it has delivered to the Participant PFMAM's current Securities and Exchange Commission Form ADV, Part 2A (brochure) and Part 2B (brochure supplement). The Participant acknowledges receipt of such brochure and brochure supplement prior to the execution of the letter agreement.

PFMAM's Other Clients

The Participant understands that PFMAM performs investment advisory services for various other clients which may include investment companies, commingled trust funds and/or individual portfolios. The Participant agrees that PFMAM, in the exercise of its professional judgment, may give advice or take action with respect to any of its other clients which may differ from advice given or the timing or nature of action taken with respect to the Managed Funds accounts, so long as it is the policy of PFMAM, to the extent practical, to allocate investment opportunities to this account over a period of time on a fair and equitable basis relative to other clients. PFMAM shall not have any obligation to purchase, sell or exchange any security for the Managed Funds solely by reason of the fact that PFMAM, its principals, affiliates, or employees may purchase, sell or exchange such security for the account of any other client or for itself or its own accounts.

Force Majeure

PFMAM shall have no liability for any losses arising out of the delays in performing or inability to perform the services which it renders under this Agreement which result from events beyond its control, including interruption of the business activities of PFMAM or other financial institutions due to acts of God, acts of governmental authority, acts of war, terrorism, civil insurrection, riots, labor difficulties, or any action or inaction of any carrier or utility, or mechanical or other malfunction.

Assignment

PFMAM's obligations and responsibilities as described in this Agreement are not assignable without the consent of the Participant.

Maintenance of Records

PFMAM shall provide the Participant with a monthly statement showing deposits, withdrawals, purchases and sales (or maturities) of investments, earnings received and the value of assets held on the last business day of the month for assets held in the Individual Portfolios. For proceeds of tax-exempt debt issues invested under this Agreement, PFMAM shall maintain appropriate records of all of its activities hereunder as may be required by the Internal Revenue Code of 1986, as amended, and related U.S. Treasury Regulations, and shall provide to the Program Rebate Calculation Agent all of those records of investment activity as may be necessary to prepare calculations of a Participant's rebate liability.

Term

This Agreement shall remain in effect so long as PFMAM is the Investment Advisor to the Trust, unless terminated by the Participant upon no less than thirty (30) days' prior written notice to PFMAM. This Agreement may be terminated by the Participant in the event of any material breach of its terms immediately upon notice by certified mail, return receipt requested.

Sincerely,

PFM ASSET MANAGEMENT LLC

By _____
Sarah Meacham
Managing Director

Accepted:

Association of Bay Area Governments PLAN

By _____
(Signature)

(Name)

(Title)

Pooled Liability Assurance Network JPA (PLAN)

Investment Policy

Adopted:	September, 1987
Revised:	May 6, 1997
Revised:	May 22, 2002
Revised:	May 25, 2005
Reaffirmed:	June 11, 2009
Revised:	January 24, 2017
Revised:	June 20, 2018

1.0 Policy

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

2.0 Scope

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

3.0 Prudence

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

4.0 Objectives

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

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

5.0 Delegation of Authority

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

The Treasurer may delegate investment decision making and execution authority to an investment advisor. The advisor shall follow the Investment Policy and such other written instructions as are provided.

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

6.0 Ethics and Conflicts of Interest

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

7.0 Internal Controls

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

8.0 Authorized Financial Dealers and Institutions

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

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

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

certificate of having read PLAN's Investment Policy.

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

9.0 Authorized and Suitable Investments

PLAN is governed by Government Code, Sections 53600 et seq. Within the investments permitted by the Government Code, PLAN seeks to further restrict eligible investment to the investments listed below. In the event an apparent discrepancy is found between this Policy and the Government Code, the more restrictive parameters will take precedence. The maturity and sector allocation limits are applied at the time of purchase.

Credit criteria listed in this section refers to the credit quality of the issuing organization at the time the security is purchased. In the event of a downgrade below the minimum credit rating requirements listed below, the Treasurer or the investment advisor, if so designated, must notify PLAN of such downgrade within 15 days of the downgrade and will use his/her best professional judgment to determine the appropriate course of action.

The portfolio shall be diversified by security type and institution to avoid incurring unreasonable and avoidable risks regarding specific security types or individual financial institutions.

1. United States Treasury Issues.** United States Treasury notes, bonds, bills, or certificates of indebtedness, or those for which the faith and credit of the United States are pledged for the payment of principal and interest. United States Treasury Issues cannot exceed a maturity of 5 years. There is no limitation as to the percentage of the portfolio that may be invested in this category.
2. Federal Agency Obligations.** Federal agency or United States government-sponsored enterprise obligations, participations, or other instruments, including those issued by or fully guaranteed as to principal and interest by federal agencies or United States government-sponsored enterprises. Federal Agency Obligations cannot exceed a maturity of 5 years. There is no limitation as to the percentage of the portfolio that may be invested in this category. In addition, purchases of Federal Agency mortgage-backed securities issued by or fully guaranteed as to principal and interest by government agencies are limited to a maximum of 20 percent of the portfolio.
3. Medium-term notes.** Medium-term notes are defined as all corporate and depository institution debt securities with a maximum remaining maturity of five years or less, issued by corporations organized and operating within the United States or by depository institutions licensed by the United States or any state and operating within the United States. Purchases are limited to securities rated in a rating category of "A" or its equivalent or better by a nationally recognized rating service (NRSRO). A maximum of 30 percent of the portfolio may be invested in this category. The amount invested in corporate notes of any one issuer in combination with any other securities from that issuer shall not exceed 5 percent of the portfolio.
4. Bankers' Acceptances. Bankers' acceptances, otherwise known as bills of exchange or time drafts that are drawn on and accepted by a commercial bank. Purchasers are limited to issuers whose short-term debt is rated A-1/P-1 or its equivalent or better by an NRSRO. Bankers' acceptances cannot exceed a maturity of 180 days. A maximum of 25 percent of the portfolio

may be invested in this category. The amount invested in bankers' acceptances with any one financial institution in combination with any other securities from that financial institution shall not exceed 5 percent of the portfolio.

5. Commercial Paper. Commercial paper of "prime" quality of the highest ranking or of the highest letter and number rating as provided for by a nationally recognized statistical-rating organization. The entity that issues the commercial paper shall meet all of the following conditions in either paragraph (A) or paragraph (B):
 - (A) The entity meets the following criteria: (i) Is organized and operating in the United States as a general corporation. (ii) Has total assets in excess of five hundred million dollars (\$500,000,000). (iii) Has debt other than commercial paper, if any, that is rated in a rating category of "A" or its equivalent or higher by a nationally recognized statistical-rating organization.
 - (B) The entity meets the following criteria: (i) Is organized within the United States as a special purpose corporation, trust, or limited liability company. (ii) Has program wide credit enhancements including, but not limited to, over collateralization, letters of credit, or surety bond. (iii) Has commercial paper that is rated "A-1" or higher, or the equivalent, by an NRSRO.

Eligible commercial paper shall have a maximum maturity of 270 days or less and not represent more than 10 percent of the outstanding paper of an issuing corporation. A maximum of 25 percent of the portfolio may be invested in this category. The amount invested in commercial paper of any one issuer in combination with any other securities from that issuer shall not exceed 5 percent of the portfolio.

6. Negotiable Certificates of Deposit.** Negotiable certificates of deposit (NCDs) issued by a nationally or state-chartered bank, a savings association or a federal association, a state or federal credit union, or by a state-licensed branch of a foreign bank. Purchases are limited to NCDs rated in a rating category of "A" or its equivalent or better for long-term obligations, and "A-1" or its equivalent or better for short-term obligations. NCDs may not exceed 5 years in maturity. A maximum of 30 percent of the portfolio may be invested in this category. The amount invested in NCDs with any one financial institution in combination with any other securities from that financial institution shall not exceed 5 percent of the portfolio.
7. Time Certificates of Deposit. Time Certificates of Deposit (TCDs) placed with commercial banks and savings and loans. The purchase of TCDs from out-of-state banks or savings and loans is prohibited. The amount on deposit shall not exceed the shareholder's equity in the financial institution. To be eligible for purchase, the financial institution must have received a minimum overall satisfactory rating for meeting the credit needs of California Communities in its most recent evaluation, as provided in Government Code Section 53635.2. TCDs are required to be collateralized as specified under Government Code Section 53630 et. seq. The Treasurer, at his discretion, may waive the collateralization requirements for any portion that is covered by federal insurance. PLAN shall have a signed agreement with the depository per Government Code Section 53649. TCDs may not exceed 5 year in maturity. A maximum of 10 percent of the portfolio may be invested in this category. The amount invested in TCDs with any one financial institution in combination with any other securities from that financial institution shall not exceed 10 percent of the portfolio.

8. Money Market Funds. Shares of beneficial interest issued by diversified management companies

that are money market funds registered with the Securities and Exchange Commission under the Investment Company Act of 1940 (15 U.S.C. Sec. 80a-1 and following). The company shall have met either of the following criteria: (A) Attained the highest ranking or the highest letter and numerical rating provided by not less than two NRSROs. (B) Retained an investment adviser registered or exempt from registration with the Securities and Exchange Commission with not less than five years of experience managing money market mutual funds with assets under management in excess of five hundred million dollars (\$500,000,000). A maximum of 10 percent of the portfolio may be invested in this category.

9. State of California Local Agency Investment Fund (LAIF). There is no limitation as to the percentage of the portfolio that may be invested in this category. However, the amount invested may not exceed the maximum allowed by LAIF. For due diligence, a copy of LAIF's current investment policy and its requirements for participation, including limitations on deposits or withdrawals shall be maintained on file.

Under the California Government Code, LAIF is allowed greater investment flexibility than PLAN is permitted. As such, LAIF's investment portfolio may contain investments not otherwise permitted under this policy. For funds invested with LAIF, LAIF's investment policy overrides PLAN's investment policy.

10. Municipal Obligations.** Municipal obligations shall be permissible as described in either paragraph (A), (B), or (C) below:

- (A) Registered state warrants or treasury notes or bonds of this state, including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by the state or by a department, board, agency, or authority of the state.
- (B) Registered treasury notes or bonds of any of the other 49 states in addition to California, including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by a state or by a department, board, agency, or authority of any of the other 49 states, in addition to California.
- (C) Bonds, notes, warrants, or other evidences of indebtedness of a local agency within this state, including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by the local agency, or by a department, board, agency, or authority of the local agency.

A maximum of 30 percent of the portfolio may be invested in any combination of the municipal obligations as described in paragraphs (A), (B), or (C) above. Purchases are limited to municipal obligations rated in a rating category of "A" or its equivalent or better. Further, the amount invested in any one municipal issuer may not exceed 5 percent of the portfolio.

11. Asset Backed Securities (ABS). A mortgage passthrough security, collateralized mortgage obligation, mortgage-backed or other pay-through bond, equipment lease-backed certificate, consumer receivable passthrough certificate, or consumer receivable-backed bond of a maximum of five years' maturity. Securities eligible for investment under this subdivision shall be issued by an issuer rated in a rating category of "A" or its equivalent or better for the issuer's debt as provided by an NRSRO and rated in a rating category of "AAA" or its equivalent or better by an NRSRO. Purchase of securities authorized by this subdivision shall not exceed 20 percent of the portfolio. Further, the amount invested in any one ABS issuer in combination with any other securities from that issuer shall not exceed 5 percent.

12. Local Government Investment Pools. Shares of beneficial interest issued by a joint powers authority organized pursuant to California Government Code Section 6509.7 that invests in the securities and obligations authorized in subdivisions (a) to (q), inclusive. Each share shall represent an equal proportional interest in the underlying pool of securities owned by the joint powers authority. To be eligible under this section, the joint powers authority issuing the shares shall have retained an investment adviser that meets all of the following criteria:

- (1) The adviser is registered or exempt from registration with the Securities and Exchange Commission.
- (2) The adviser has not less than five years of experience investing in the securities and obligations authorized in subdivisions (a) to (q), inclusive.
- (3) The adviser has assets under management in excess of five hundred million dollars (\$500,000,000).

Further, the shares of beneficial interest shall be rated in a rating category of AAA or its equivalent by an NRSRO.

13. Supranational Obligations.** United States dollar denominated senior unsecured unsubordinated obligations issued or unconditionally guaranteed by the International Bank for Reconstruction and Development, International Finance Corporation, or Inter-American Development Bank, with a maximum remaining maturity of five years or less, and eligible for purchase and sale within the United States. Investments under this subdivision shall be rated in a rating category of “AA” or its equivalent or better by an NRSRO and shall not exceed 30 percent of the portfolio.

** The aggregate total of investments in callable notes in is limited to 25.0% of the portfolio.

Please see Appendix A for a summary of authorized and suitable investments.

10.0 Prohibited Investment Practices and Instruments

Any investment in a security not specifically listed in Section 9.0 above, but otherwise permitted by the Government Code, is prohibited without the prior approval of the Board. Section 53601.6 of the Government Code specifically disallows investments in inverse floaters, range notes, or interest-only strips that are derived from a pool of mortgages. In addition to the limitations in Government Code Section 53601.6, this Policy further restricts investments as follows: (1) PLAN shall not engage in leveraged investing, such as in margin accounts or any form of borrowing for the purpose of investment, (2) PLAN shall not invest in securities with floating coupon interest rates, and (3) no investment will be made that has either (a) an embedded option or characteristic which could result in a loss of principal if the investment is held to maturity, or (b) an embedded option or characteristic which could seriously limit accrual rates or which could result in zero accrual periods.

11.0 Duration and Maximum Maturity

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

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

Assets in the Claims Liability Fund and the Long-Term Fund will be invested in an individual

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

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

12.0 Safekeeping and Custody

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

13.0 Performance Benchmark

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

14.0 Reporting

The Treasurer shall submit a quarterly investment report to the Finance Committee and the Board. The report shall include the following information for each individual investment: Description of investment instrument, issuer name, maturity date, credit rating, coupon rate, effective yield, purchase price, par value, book value, current market value and the source of the valuation. The quarterly report shall also state compliance of the portfolio to the statement of investment policy, or manner in which the portfolio is not in compliance, and include a statement denoting PLAN's ability to meet its expenditure requirements for the next six months, or provide an explanation as to why sufficient money may or may not be available. The report shall also include a list of monthly investment transactions. The quarterly report shall be submitted within 30 days following the end of the quarter covered by the report.

15.0 Policy Adoption

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

Appendix A
Summary of Authorized and Suitable Investments

This table is for general reference only. Please see the body of the Policy for a listing of all requirements.

Security Type**	Maturity Limits	Maximum Portfolio Percentage Holdings	Rating Requirements
United State Treasury Securities	5 years	100%	None
Federal Agency Obligations	5 years	100% 20% limit on mortgage-backed securities.	None
Medium-Term Corporate Notes	5 years	30% 5% limit per issuer (applies across security types)	A
Bankers' Acceptances	180 days	25% 5% limit per issuer (applies across security types)	Issuers with a short-term rating of A-1/P-1
Commercial Paper	270 days	25% 5% limit per issuer (applies across security types)	A-1/P-1/F-1
Negotiable Certificates of Deposit	5 years	30% 5% limit per issuer (applies across security types)	A / A-1
Time Certificates of Deposit	5 year	10% 10% limit per issuer (applies across security types)	Must have CRA rating "satisfactory"
Money Market Funds	N.A.	10%	AAA rated fund or manager with a minimum 5 years' experience and \$500 million under management
State of California Local Agency Investment Fund	N.A.	100% (may not exceed the maximum allowed by LAIF)	None (LAIF is unrated)
Municipal Obligations	5 years	30% 5% limit per issuer (applies across security types)	A / A-1
Asset-Backed Securities	5 years	20% 5% limit per issuer (applies across security types)	AAA
Local Government Investment Pools	N.A.	100%	AAA
Supranational Obligations	5 years	30%	AA

** The aggregate total of investments in callable notes is limited to 25.0% of the portfolio.

June 20, 2018

Agenda Item 7.A.

ADMINISTRATIVE MATTERS

SUBJECT: Consideration of Bylaws for PLAN JPA

BACKGROUND AND HISTORY:

The Executive Committee has reviewed on two separate occasions, drafts of the proposed PLAN JPA Bylaws at their April and June meetings. In preparing the enclosed, staff, Board Counsel and the Executive Committee tried not to make significant material changes to the current ABAG PLAN model. However, with the change from a non-profit public benefit corporation to a joint powers authority structure, there were various changes that needed to be made.

The most relevant changes include:

- Changing name from ABAG PLAN to PLAN JPA throughout the document;
- Defining the jurisdictional area of PLAN JPA;
- Removing references stating PLAN is a “corporation;”
- Outlining the requirements for membership in PLAN JPA;
- Updating the Officers section to comport with the new JPA structure;
- Changing language to state the General Manager shall serve as the Secretary; and
- Changing references of a “Chief Financial Officer” to “Treasurer.”

The document has also been reviewed by Board Counsel, Greg Rubens.

The PLAN JPA Bylaws will require a majority vote of the Board of Directors.

RECOMMENDATION:

The Executive Committee recommends the Board of Directors approve the Bylaws for PLAN JPA.

REFERENCE MATERIALS ATTACHED:

- PLAN JPA Bylaws

BYLAWS

OF THE

POOLED LIABILITY ASSURANCE NETWORK JOINT POWERS AUTHORITY
(PLAN JPA)

July 1, 2018

Table of Contents

ARTICLE I NAME	3
ARTICLE II OFFICES.....	3
ARTICLE III RECITALS AND OBJECTIVES	3
ARTICLE IV NONPARTISAN ACTIVITIES	4
ARTICLE V DEDICATION OF ASSETS	4
ARTICLE VI MEMBERSHIP	4
ARTICLE VII DIRECTORS.....	5
ARTICLE VIII COMMITTEES	8
ARTICLE IX OFFICERS	10
ARTICLE X PURCHASE OF INSURANCE.....	11
ARTICLE XI INDEMNIFICATION OF DIRECTORS, OFFICERS, EMPLOYEES, AND OTHER AGENTS	11
ARTICLE XII RECORDS AND REPORTS	13
ARTICLE XIII CONSTRUCTION AND DEFINITIONS	15
ARTICLE XIV AMENDMENTS	15

**BYLAWS OF POOLED LIABILITY ASSURANCE
NETWORK JOINT POWERS AUTHORITY
(PLAN JPA)**

**ARTICLE I
NAME**

The name of this group self-insurance program shall be Pooled Liability Assurance Network Joint Powers Authority (PLAN JPA).

**ARTICLE II
OFFICES**

1. Principal Office. The principal office for the management of the business of PLAN JPA ("principal executive office") is located at 1750 Creekside Oaks Drive, Sacramento, CA 95833. The Board of Directors may change the principal executive office from one location to another. Any change of this location shall be noted by the Secretary on these Bylaws, or this section may be amended to state the new location.
2. Other Offices. For purposes of PLAN JPA, the jurisdictional area of PLAN JPA is the territory of the member entities. The Board of Directors may at any time establish branch or subordinate offices at any place or places where PLAN JPA is qualified to conduct its activities.

**ARTICLE III
RECITALS AND OBJECTIVES**

1. The cities listed in Appendix I (each a "Member Entity" and collectively the "Member Entities") have entered into a Joint Powers Agreement (the "Agreement") effective as of July 1, 2018. Under the Agreement, PLAN JPA has agreed to provide liability and other lines of coverage, claims management, and risk management services to each Member Entity. In return, each Member Entity has agreed to make premium payments including Administrative and Program Premiums to PLAN JPA, and to cooperate with PLAN JPA in the claims management and risk management programs.
2. The purpose of the Agreement is to benefit the citizens of each Member Entity by establishing a stable, cost-effective self-insurance, risk sharing and risk management program (PLAN JPA) for each Member Entity.
3. The objectives of PLAN JPA shall be to benefit the citizens of each Member Entity in the area of risk management, including:
 - a. Establish overall policy in implementing the Agreement;
 - b. Receive and collect all of the Administrative Premium and Program Premiums and all other amounts required to be paid to PLAN JPA pursuant to the Agreement;
 - c. Exercise such rights and remedies conferred on PLAN JPA pursuant to the Agreement as may be necessary or convenient:
 - i. to enforce payment of the Administrative and Program Premiums and any other amounts

- required to be paid to PLAN JPA,
 - ii. otherwise to protect the interests of PLAN JPA in the event of a default by any Member Entity under the Agreement; and
 - d. The right to establish the policy for a mandatory claims management and risk management program.
4. PLAN JPA does not have employees. Directors, Alternate Directors, Officers, and Committee Members are employees of their respective Member Entities. Each Member Entity is therefore responsible for its own employment and post-employment obligations. PLAN JPA Members do not jointly or severally have employment liabilities as participants in PLAN JPA.
 5. All capitalized terms shall have the meaning given to them in the Agreement.

ARTICLE IV NONPARTISAN ACTIVITIES

PLAN JPA is formed under the California Government Code Sections 6500, et seq., for the public purposes described above, and it shall be nonprofit and nonpartisan. PLAN JPA shall not participate or intervene (including publishing or distributing statements) in any political campaign on behalf of any candidate for public office.

ARTICLE V DEDICATION OF ASSETS

The properties and assets of PLAN JPA are irrevocably dedicated to promoting the social welfare of the citizens of the Member Entities. No part of the net earnings, properties, or assets of PLAN JPA, on dissolution or otherwise, shall inure to the benefit of any private person or individual, or any Director of PLAN JPA. On liquidation or dissolution, all properties and assets and obligations shall be distributed and paid over to the Member Entities.

ARTICLE VI MEMBERSHIP

1. All Prior ABAG PLAN members that duly sign the appropriate resolution and Joint Powers Agreement are included as members of PLAN JPA at its formation.
2. As respects any potential future Member Entities (Members), any governmental agency which is authorized to participate in a joint powers agreement under the Government Code and is located within the State of California may become a Member of PLAN JPA by agreeing to be bound by the Governing Documents and by complying with all of the following requirements:
 - a. Submit a completed application for membership 90 days before the start of the program year. The application must be accompanied by the Board of Directors' approved fee, which shall be returned if membership is approved;
 - b. Submit a signed resolution acknowledging participation under the terms and conditions which then prevail;

- c. Execute the Agreement then in effect and agree to be bound by any subsequent amendments to the Agreement;
 - d. Agree to be a Member for at least three consecutive fiscal years after commencement of membership;
 - e. Be accepted for membership by a two-thirds vote of the Board of Directors;
 - f. Appoint, in writing, a Director and one Alternate Director to the Board; and
 - g. Ensure the Director and Alternate Director file with the Administrator the required Fair Political Practices Commission (FPPC) forms upon assuming office, annually, and upon termination of office.
3. The Administrator shall evaluate each applicant, including its most recent audited financial statement and associated management letters, and may schedule and coordinate a safety inspection of the facilities of the applicant. The Administrator shall report the results of the evaluation and inspections to the Executive Committee who shall provide a recommendation to the Board of Directors. A two-thirds vote of the Board of Directors is required to approve the application, based upon the Executive Committee's recommendation, the application, and any evaluations, inspections, reports, or other material pertinent to the decision.

ARTICLE VII DIRECTORS

1. Powers.
- a. General Powers. Subject to the provisions of the Government Code and any limitations in the Agreement, and these Bylaws, the business and affairs of PLAN JPA shall be managed, and all delegated powers shall be exercised, by or under the direction of the Board of Directors.
 - b. Specific powers. Without prejudice to these general powers, and subject to the same limitations, the Directors shall have the power to:
 - i. select and remove all Officers of PLAN JPA and legal counsel to PLAN JPA; prescribe any powers and duties for them that are consistent with law, the Joint Powers Agreement, and with these Bylaws; and fix their compensation, if any;
 - ii. change the principal executive office or the principal business office in the State of California from one location to another;
 - iii. borrow money and incur indebtedness on behalf of PLAN JPA, as authorized by the Joint Powers Agreement; annually set Administrative Premium, and Program Premiums within the standards and criteria set forth in the Bylaws;
 - iv. annually set an Administrative Premium allocation formula;
 - v. provide legal defense, claims management and risk management services for Member Entities; and
 - vi. collect Program Premiums and Administrative Premiums.
2. Numbers. The authorized number of Directors shall be equal to the number of Member Entities in PLAN JPA.

3. Appointment of Directors and Alternates.
 - a. The governing body of each Member Entity in PLAN JPA shall each appoint one (1) Director and one (1) voting Alternate Director (Alternate) to serve at the respective Member Entity's pleasure.
 - b. Each appointment shall set forth the Director's or Alternate Director's name and his/her position with the Member Entity.
4. Alternate Directors. Alternate Directors may attend any meeting of the Board of Directors but may vote only if the Director for whom the Alternate Director serves is absent. All provisions of these Bylaws relating to Directors shall also apply to Alternate Directors.
5. Vacancies.
 - a. Events Causing Vacancy. A vacancy or vacancies in the Board of Directors shall be deemed to exist on the occurrence of the following:
 - i. the death, resignation, or removal of any Director;
 - ii. the removal, dismissal or resignation of a Director from the position he/she held with the appointing Member Entity at the time of his/her appointment;
 - iii. the declaration by resolution of the Board of Directors of a vacancy of the office of a Director who has been declared of unsound mind by an order of court or convicted of a felony or has been found by final order or judgment of any court to have breached a duty under the Joint Powers Agreement or California Government Code Section 6500 et seq.; or
 - iv. the increase of the authorized number of Directors.
 - b. Resignations. Except as provided in this paragraph, any Director may resign, which resignation shall be effective on giving written notice to the President or the Secretary unless the notice specifies a later time for the resignation to become effective. No Director may resign when PLAN JPA would then be left without a duly elected Director or Alternate Director in charge of its affairs.
 - c. Vacancies. Pursuant to Section 3 of this Article, the Member Entity shall appoint a Director, or Alternate Director, at any time to fill any vacancy or vacancies.
 - d. Reduction or Increase in Number of Directors. The authorized number of Directors shall be reduced by one (1) for each Member Entity who has withdrawn, has been expelled from PLAN JPA or whose Coverage has been canceled. The authorized number of Directors shall be increased by one (1) for each addition or reinstatement of a Member Entity.
 - e. Interested Directors. The Directors shall be subject to the California Law pertaining to Local Agencies, including but not limited to Conflict of Interest Codes, the Fair Political Practices Act, the Ralph M. Brown Act ("Brown Act") and Government Code Section 1090.
6. Place of Meetings; Meetings by Telephone. Upon seventy-two (72) hours' notice, regular meetings of the Board of Directors may be held at any place permitted under the Brown Act. Special meetings of the Board shall be held at any place permitted by the Brown Act. Any meeting, regular or special, may be held by conference telephone or similar communication equipment, with notice as provided by the Brown Act and, so long as all Directors and members of the public participating in the meeting

can hear those remotely participating, and a majority of the quorum of the Directors are present in person at such meeting.

7. Regular Meetings. Regular meetings of the Board of Directors shall be held at such time as shall from time to time, and no less than one time per fiscal year, and be fixed by the Board of Directors.
8. Special Meetings.
 - a. Authority to call. Special meetings of the Board of Directors for any purpose may be called at any time by the President, Vice President, the Secretary, or any three (3) Directors.
9. Notice.
 - a. Manner of Giving -- Regular Meetings. Notice of the time and place of regular meetings shall be given by posting at the location of the meeting in compliance with the Brown Act and to each Director by one of the following methods:
 - i. by personal delivery of written notice;
 - ii. by first-class mail, postage paid;
 - iii. by facsimile; or
 - iv. by email.
 - b. Manner of Giving -- Special Meetings. Notice of the time and place of special meetings shall be in compliance with the Brown Act and given to each Director by any of the methods set forth in Subsection 9(a), or by telephone communication, either directly to the Director or to a person at the Director's office who would reasonably be expected to communicate such notice promptly to the Director.
 - c. Address. All such notices shall be given or sent to the Director's address or telephone number as shown on the records of PLAN JPA.
 - d. Notice Contents. The notice shall state the time and place for the meeting, and the purpose(s) of the meeting.
 - e. Ralph M. Brown Act. The noticing and conduct of all meetings shall comply with the Brown Act.
10. Quorum. A majority of the authorized number of Directors shall constitute a quorum for the transaction of business, except to adjourn as provided in Section 11 of this Article VII. Every act or decision done or made by a majority of the Directors present at a meeting duly held at which a quorum is present shall be regarded as the act of the Board of Directors
11. Adjournment. A majority of the Directors present, whether or not constituting a quorum, may adjourn any meeting to another time and place as provided in the Brown Act.
12. Reimbursement. Directors and members of committees may receive such reimbursement of expenses as may be determined by resolution of the Board of Directors to be just and reasonable.
13. Delegation of Powers. The Board of Directors may delegate any of its powers.

ARTICLE VIII COMMITTEES

1. Committees of Directors. In addition to the Claims Committee, Actuarial Committee, Risk Management Committee, and Finance Committee, the Board of Directors may, by resolution adopted by a majority of the Directors then in office, designate one (1) or more committees, each consisting of two (2) or more Directors, to serve at the pleasure of the Board. Any committee, to the extent provided in the resolution of the Board, shall have all the authority of the Board, except that no committee, regardless of Board resolution, may:
 - a. Take any final action on matters which, under the Law governing Joint Powers Authorities or California Law regarding Local Agencies, requires approval of a majority of all the Directors;
 - b. Approve reimbursements of the Directors for serving on the Board or on any committee;
 - c. Amend or repeal bylaws or adopt new bylaws;
 - d. Amend or repeal any resolution of the Board of Directors which by its express terms is not so amendable or repealable;
 - e. Appoint any other committees of the Board of Directors or the members of these committees; or
 - f. Approve any transaction (1) to which PLAN JPA is a party and one (1) or more Directors have a material financial interest; or (2) between PLAN JPA and one (1) or more of its Directors or between PLAN JPA or any person or entity in which one (1) or more of its Directors have a material financial interest.
2. Meetings and Action of Committees. Meetings and action of committees shall be governed by, and held and taken in accordance with, the provisions of Article VII of these Bylaws, concerning meetings of Directors, with such changes in the context of these Bylaws as are necessary to substitute the committee and its members for the Board of Directors and its members, except that the time for regular meetings of committees may be determined either by resolution of the Board of Directors or by resolution of the Executive Committee. Special meetings of committees may also be called by the President or committee chair. Notice of special meetings of committees shall also be given to any and all Alternate Directors, who shall have the right to attend all meetings of the committee. Minutes shall be kept of each meeting of any committee and shall be filed with the corporate records. The Board of Directors may adopt rules for the government of any committee not inconsistent with the provisions of these Bylaws.
3. Executive Committee. A standing committee consisting of nine members: the President and Vice President, the Chair of each standing committee, or if the chair of a standing committee is the President or Vice President of the Board, a representative of such standing committee appointed by the committee and three at-large members of the Board elected by the Board. The Executive Committee may exercise all powers of the Board necessary to further the timely and orderly conduct of business, except it may not:
 - a. Set premiums;
 - b. Select or remove Officers or legal counsel to PLAN JPA, except in cases of emergency or where the legal counsel is unavailable or unable to perform his or her duties until the next meeting of the

Board of Directors. Any selection of legal counsel shall be subject to ratification by the Board of Directors at its next meeting;

- c. Borrow money; or
 - d. Amend these Bylaws or the Joint Powers Agreement.
4. Claims Committee (Liability). A standing committee consisting of no less than three (3) Directors and any other person(s) appointed by the Board shall be charged with the duty and responsibility of:
 - a. Reviewing and authorizing all payment of settlements which exceed a Member Entity's deductible or upon request by PLAN JPA or Member Entity,
 - b. Establishing a defense counsel list, and hearing the initial appeal on all staff determinations of coverage for, and settlement of, a third party claim against a Member Entity.
 5. Actuarial Committee (Liability). A standing committee consisting of no less than three (3) Directors and any other person(s) appointed by the Board shall be charged with the duty and responsibility of:
 - a. Issuing a Request for Proposals for an actuarial consultant to annually set total Program Funding (Liability) and allocate total Program Funding (Liability) among the Member Entities (Actuarial Report). The committee may issue a separate Request for Proposals for, or in the same Request for Proposals require, an actuarial consultant to serve any other purpose required or as determined by the Board of Directors. The committee shall review all proposals submitted and select an actuarial consultant for the Board of Directors. The committee shall have oversight of the preparation of the annual Actuarial Report and shall be charged with the duty and responsibility of:
 - i. evaluating excess insurance, reinsurance, stop loss insurance and other third party risk transfer mechanisms for compatibility with PLAN JPA goals, cost effectiveness and security;
 - ii. recommending yearly Program Funding based on the Actuarial Report and the PLAN JPA Funding Policy; and
 - iii. recommending amendments to the Memorandum of Coverage based on legal or actuarial evidence of the soundness of such amendments.
 6. Risk Management Committee. A standing committee consisting of no less than three (3) Directors and any other person(s) appointed by the Board shall be charged with the duty and responsibility of:
 - a. Reviewing and making recommendations to the Board for risk management programs, including but not limited to, voluntary and mandatory program changes in Member Entity activities, and restrictions on coverage; and
 - b. Reviewing and making recommendations to the Board on applications for admissions, expulsion, withdrawal notices and proposals for cancellation, including but not limited to, the terms and conditions under which such admissions, withdrawals, expulsions and cancellations are implemented.
 7. Finance Committee. A standing committee consisting of no less than three Directors and any other person(s) appointed by the Board shall be charged with the duty and responsibility of reviewing and making recommendations to the Board on the results of PLAN JPA's annual financial audit, reviewing and making recommendations to the Board regarding PLAN JPA's investments and

Investment Policy.

ARTICLE IX OFFICERS

1. Officers. The officers of PLAN JPA shall be the President and Vice President, and a Treasurer. All officers shall be Directors.
2. Election of Officers. At the first meeting of the Board of Directors, and at each annual meeting thereafter, nominations for the officers shall be made and seconded by a Director. If more than two (2) names are received in nomination for any one office, balloting shall occur until a nominee receives a majority of the votes cast; provided that after the first ballot the nominee receiving the fewest votes shall be dropped from the balloting. Each officer shall serve a two (2) year term. Any officer except the President and Vice President may succeed himself/herself and may serve any number of consecutive or non-consecutive terms. The President and Vice President may succeed himself/herself only if his/her first term was filled as a result of a vacancy in the office.
3. Removal of Officers. An Officer may be removed, with or without cause, by a two-thirds (2/3) vote of the Board of Directors at a regular or special meeting.
4. Vacancies. Any vacancy in any office because of death, resignation, removal, disqualification, or any other cause shall be filled for the balance of the vacated term in the manner prescribed in these Bylaws for regular appointments to that office; provided, however, that such vacancies may be filled at any regular or special meeting of the Board of Directors.
5. Resignation of Officers. Any Officer may resign at any time by giving written notice to the President or Secretary. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice; and, unless otherwise specified in that notice, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of PLAN JPA under any contract to which the Officer is a party.
6. Responsibilities of Officers and Assigned Positions.
 - a. President of the Board. The President of the Board shall preside at meetings of the Board of Directors and exercise and perform such other powers and duties as may be from time to time assigned to him/her by the Board of Directors or prescribed by the Bylaws.
 - b. Vice President of the Board. The Vice President of the Board shall fulfill all the duties of the President in his/her absence.
 - c. Secretary. The General Manager for PLAN JPA shall serve as the Secretary and shall be appointed by the President. The Secretary may assign certain responsibilities to an Assistant Secretary of his/her choosing. The Secretary shall attend to the following:
 - i. Book of minutes. The Secretary shall keep or cause to be kept, at the principal executive office or such other place as the Board of Directors may direct, a book of minutes of all meetings and actions of Directors and committees of Directors, with the time and place of holding, whether regular or special, and, if special, how authorized, the notice given, the

- names of those present at such meetings and the proceedings of such meetings.
- ii. Notices, seal and other duties. The Secretary shall give, or cause to be given, notice of all meetings of the Board of Directors required by the Bylaws to be given. He or she shall keep the seal of PLAN JPA, if any, in safe custody. He or she shall have such other powers and perform such other duties as may be prescribed by the Board of Directors or the Bylaws.
 - d. Treasurer. The Treasurer may assign responsibilities to an Assistant Treasurer, who shall be the Finance Manager for PLAN JPA. Together, the Treasurer and Assistant Treasurer shall attend to the following:
 - i. Books of account. Keep and maintain, or cause to be kept and maintained, adequate and correct books and records of accounts of the properties and business transactions of the PLAN JPA, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital, retained earnings, and other matters customarily included in financial statements. The books of account shall be open to inspection by any Director at all reasonable times.
 - ii. Deposit and disbursement of money and valuables. Deposit all money and other valuables in the name and to the credit of PLAN JPA with such depositories as may be designated by the Board of Directors; shall disburse the funds of PLAN JPA as may be ordered by the Board of Directors; shall render to the President and Directors, whenever they request it, an account of all of his/her transactions as Treasurer and Assistant Treasurer and of the financial condition of PLAN JPA; and shall have other powers and perform such other duties as may be prescribed by the Board of Directors or the Bylaws.

ARTICLE X

PURCHASE OF INSURANCE

Purchase of Coverage. In conformance with the procedures and criteria set forth in Article III of these Bylaws, the Board of Directors may cause PLAN JPA to purchase commercial insurance or reinsurance or terminate commercial insurance or reinsurance upon a majority vote of the membership of the Board of Directors.

ARTICLE XI

INDEMNIFICATION OF DIRECTORS, OFFICERS, EMPLOYEES, AND OTHER AGENTS

1. Definitions. For the purpose of this Article, "agent" means any person who is or was a Director, Officer, employee, or other agent of PLAN JPA, or is or was serving at the request of PLAN JPA as a director, officer, employee, or agent of another foreign or domestic corporation, partnership, joint venture, trust, or other enterprise, or was a director, officer, employee, or agent of a foreign or domestic corporation that was a predecessor of this PLAN JPA or of another enterprise at the request of the predecessor ABAG PLAN; "proceeding" means any threatened, pending, or completed action or proceeding, whether civil, criminal, administrative, or investigative; and "expenses" includes,

without limitation, all attorneys' fees, costs, and any other expenses incurred in the defense of any claims or proceedings against an agent by reason of his position or relationship as agent and all attorneys' fees, costs, and other expenses incurred in establishing a right to indemnification under this Article.

2. Successful Defense by Agent. To the extent that an agent of PLAN JPA has been successful on the merits in the defense of any proceeding referred to in this Article, or in the defense of any claim, issue, or matter therein, the agent shall be indemnified against expenses actually and reasonably incurred by the agent in connection with the claim. If an agent either settles any such claim or sustains a judgment rendered against him or her, then the provisions of Sections 3 through 5 of this Article shall determine whether the agent is entitled to indemnification.
3. Actions Brought by Persons Other Than PLAN JPA. Subject to the required findings to be made pursuant to Section 5 of this Article, below, PLAN JPA shall indemnify any person who was or is a party, or is threatened to be made a party, to any proceeding other than an action brought by, or on behalf of, PLAN JPA or the Attorney General for any breach of duty relating to assets held by PLAN JPA, by reason of the fact that such person is or was an agent of PLAN JPA, for all expenses, judgments, fines, settlements, and other amounts actually and reasonably incurred in connection with the proceeding.
4. Action Brought by or On Behalf of PLAN JPA.
 - a. Claims settled out of court. If an agent settles or otherwise disposes of a threatened or pending action brought by or on behalf of PLAN JPA, with or without court approval, the agent shall receive no indemnification for either amounts paid pursuant to the terms of the settlement or other disposition or for any expenses incurred in defending against the proceeding, unless it is settled with the approval of the Attorney General.
 - b. Claims and suits awarded against agent. PLAN JPA shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending, or completed action brought by or on behalf of PLAN JPA by reason of the fact that the person is or was an agent of PLAN JPA, for all expenses actually and reasonably incurred in connection with the defense of that action, provided that both of the following are met:
 - i. the determination of good faith conduct required by Section 5, below, must be made in the manner provided for in that section; and
 - ii. upon application, the court in which the action was brought must determine that, in view of all the circumstances of the case, the agent should be entitled to indemnity for the expenses incurred. If the agent is found to be so entitled, the court shall determine the appropriate amount of expenses to be reimbursed.
5. Determination of Agent's Good Faith Conduct. The indemnification granted to an agent in Sections 3 and 4 of this Article above is conditioned on the following:
 - a. Required standard of conduct. The agent seeking reimbursement must be found, in the manner provided below, to have acted in good faith, in a manner he/she believed to be in the best interest of PLAN JPA, and with such care, including reasonable inquiry, as an ordinarily prudent person

- in a like position would use in similar circumstances. The termination of any proceeding by judgment, order, settlement, conviction, or on a plea of noel contendere or its equivalent shall not, of itself, create a presumption that the person did not act in good faith or in a manner which he/she reasonably believed to be in the best interest of PLAN JPA or that he/she had reasonable cause to believe that his/her conduct was unlawful. In the case of a criminal proceeding, the person must have had no reasonable cause to believe that his/her conduct was unlawful.
- b. Manner of determination of good faith conduct. The determination that the agent did act in a manner complying with Paragraph (a) above shall be made by:
 - i. the Board of Directors by a majority vote of a quorum consisting of Directors who are not parties to the proceeding; or
 - ii. the court in which the proceeding is or was pending. Such determination may be made on application brought by PLAN JPA or the agent or the attorney or other person rendering a defense to the agent, whether or not the application by the agent, attorney, or other person is opposed by PLAN JPA.
6. Limitations. No indemnification or advance shall be made under this Article, except as provided in Sections 2 or 5(b)(iii), above, in any circumstance when it appears:
 - a. That the indemnification or advance would be inconsistent with a provision of the Articles or an agreement in effect at the time of the accrual of the alleged cause of action asserted in the proceeding in which the expenses were incurred or other amounts were paid, which prohibits or otherwise limits indemnification; or
 - b. that the indemnification would be inconsistent with any condition expressly imposed by a court in approving a settlement.
 7. Advance of Expenses. Expenses incurred in defending any proceeding may be advanced by PLAN JPA before the final disposition of the proceeding on receipt of an undertaking by or on behalf of the agent to repay the amount of the advance unless it is determined ultimately that the agent is entitled to be indemnified as authorized in this Article.
 8. Contractual Rights of Non-directors and Non-officers. Nothing contained in this Article shall affect any right to indemnification to which persons other than Directors and Officers of PLAN JPA, or any subsidiary hereof, may be entitled by contract or otherwise.
 9. Insurance. The Board of Directors may adopt a resolution authorizing the purchase and maintenance of Director's and Officer's insurance, or any other insurance, on behalf of any agent of PLAN JPA against any liability deemed appropriate by the Board.

ARTICLE XII

RECORDS AND REPORTS

1. Maintenance of Corporate Records. PLAN JPA shall keep:
 - a. Adequate and correct books and records of account; and
 - b. Minutes in written form of the proceedings of its Board, and committees of the Board.
 All such records shall be kept at PLAN JPA's principal executive office, or if its principal executive

office is not in the State of California, at its principal business office in this state.

2. Inspection Rights.

- a. Any Member Entity may inspect the accounting books and records and minutes of the proceedings of the Board and committees of the Board, at any reasonable time, for a purpose reasonably related to such person's interest.
- b. Any inspection and copying under this section may be made in person or by an agent or attorney or the entity entitled thereto and the right of inspection includes the right to copy and make extracts.

3. Maintenance and Inspection of Articles and Bylaws. PLAN JPA shall keep at its principal executive office, or if its principal executive office is not in the State of California, at its principal business office located in this state, the original or copy of the Articles and Bylaws as amended to date, which shall be open to inspection by any Member Entity at all reasonable times during office hours. If the principal executive office of PLAN JPA is outside the State of California and PLAN JPA has no principal business office in this state, the Secretary shall, on the written request of any member of the governing body of a Member Entity furnish to that member a copy of the Articles and Bylaws as amended to date.

4. Inspection by Directors. Every Director shall have the absolute right at any reasonable time to inspect all books, records, and documents of every kind and the physical properties of PLAN JPA. This inspection by a Director may be made in person or by an agent or attorney, and the right of inspection includes the right to copy and make extracts of documents.

5. Annual Report.

- a. Not later than one hundred twenty (120) days after the close of PLAN JPA's fiscal year, the Board shall cause an annual report/financial audit prepared by a certified public accountant to be sent to the governing body of each Member Entity. Such report shall contain the following information in reasonable detail:
 - i. the assets and liabilities, including the trust funds, of the PLAN JPA as of the end of the fiscal year;
 - ii. the principal changes in assets and liabilities, including trust funds, during the fiscal year;
 - iii. the revenue or receipts of PLAN JPA, both unrestricted and restricted to particular purposes, for the fiscal year; and
 - iv. the expenses or disbursements of PLAN JPA, for both general and restricted purposes, during the fiscal year.
- b. The report required by this Section shall be accompanied by any report thereon of independent accountants, or, if there is no such report, by the certificate of an authorized Officer of PLAN JPA that such statements were prepared without audit from the books and records of PLAN JPA.

6. Fiscal Year. PLAN JPA's fiscal year shall be from July 1 to June 30.

ARTICLE XIII
CONSTRUCTION AND DEFINITIONS

Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the California Government Code Section 65000, et seq. and the California Government Code related to Local Agencies shall govern the construction of these Bylaws. Without limiting the generality of the above, the masculine gender includes the feminine and neuter, the singular number includes the plural, the plural number includes the singular, the term "person" includes both PLAN JPA and a natural person and any capitalized term not defined in these Bylaws shall have the meaning ascribed to them in the Agreement.

ARTICLE XIV
AMENDMENTS

1. Amendment by Directors. Subject to the limitations set forth below, the Board of Directors may adopt, amend or repeal Bylaws. Such power is subject to the following limitations:
 - a. The Board of Directors may not amend a bylaw provision fixing the authorized number of directors or the minimum and maximum number of directors.
 - b. If any provision of these Bylaws requires the vote of a larger proportion of the Directors than otherwise required by law, such provision may not be altered, amended or repealed except by vote of such larger number of Directors.
 - c. The Board of Directors may not delete or amend Bylaw provisions requiring compliance with the Agreement except as provided in the Agreement.

June 20, 2018

Agenda Item 7.B.

ADMINISTRATIVE MATTERS

SUBJECT: Consideration of Memorandum of Coverage for PLAN JPA

BACKGROUND AND HISTORY:

As with the Bylaws, the Executive Committee reviewed the first draft of the PLAN JPA Memorandum of Coverage (MOC) and approved of the changes recommended by staff, and directed staff to make other minor changes involving consistency throughout the document.

Some of the most relevant changes include:

- Changing the ABAG PLAN name to PLAN JPA throughout the document;
- Changing the issue/effective date to July 1, 2018;
- Filling in the fields of the Declarations page;
- Changing references of a “deductible” to “self-insured retention” throughout the document;
- Adding Endorsement No. 1 to list each member as a covered party under the MOC; and
- Adding Endorsement No. 2 to list each member’s Retained Limits.

The MOC can be approved by the PLAN JPA Executive Committee, once constituted. However, the new PLAN JPA Board of Directors will meet at this meeting prior to the formal constitution of the PLAN JPA Executive Committee; therefore, staff recommended the Executive Committee recommend the Board formally consider this document along with the Bylaws and Master Plan Document.

RECOMMENDATION:

The Executive Committee recommends the Board of Directors approve the Memorandum of Coverage for PLAN JPA.

REFERENCE MATERIALS ATTACHED:

- PLAN JPA Memorandum of Coverage



MEMORANDUM OF COVERAGE – LIABILITY

Issue Date: July 1, 2018

MEMORANDUM OF COVERAGE -- LIABILITY

DECLARATIONS

ENTITY COVERED: Pooled Liability Assurance Network Joint Powers Authority as
per Endorsement No. 1

MAILING ADDRESS: 1750 Creekside Oaks Drive, Suite 200
Sacramento, CA 95833

COVERAGE PERIOD: FROM: _____ 7/1/2018 12:01 A.M., Pacific Time
TO: _____ 7/1/2019 12:01 A.M., Pacific Time

LIMIT OF COVERAGE: \$5,000,000 per Occurrence less Covered Party's Retained Limit
Listed in Endorsement No. 2. With respect to Employee Benefit Plan Administration
Liability, the LIMIT OF COVERAGE is \$250,000 per Occurrence.

In consideration for the payment of the premium, **PLAN JPA** and the ENTITIES COVERED which are designated in ENDORSEMENT No 1 to this **Memorandum** agree as follows:

SECTION I - DEFINITIONS

Words and phrases in bold print within this **Memorandum** (including any and all endorsements hereto and forming a part hereof) have special meanings, as defined below:

- A. **PLAN JPA (“PLAN”)** means the Pooled Liability Assurance Network Joint Powers Authority.
- B. **Aircraft** means a vehicle designed for the transport of persons or property principally in the air.
- C. **Bodily Injury** means bodily injury, sickness or disease sustained by a person, including death resulting from any of these at any time.
- D. **Covered Party** means any person, entity, or other organization constituting a Covered Party under SECTION II - WHO IS A COVERED PARTY.
- E. **Coverage Period** means the COVERAGE PERIOD that is designated in the DECLARATIONS to this **Memorandum**.
- F. **Dam** means any artificial barrier, together with appurtenant works, which does or may impound or divert water, and which:
 - 1. Is twenty-five (25) feet or more in height from the natural bed of the stream or watercourse at the downstream toe of the barrier to the maximum possible water storage elevation;
 - 2. Is twenty-five (25) feet or more in height from the lowest elevation of the outside limit of the barrier, if it is not across a stream channel or watercourse, to the maximum possible water storage elevation; or
 - 3. Has an impounding capacity of fifty (50) acre-feet or more.

However, the following shall not be considered a **Dam**:

- 1. Any artificial barrier, together with appurtenant works, which does or may impound or divert water, but which is not in excess of six (6) feet in height, regardless of storage capacity;

2. Any artificial barrier, together with appurtenant works, which does or may impound or divert water, but which has a storage capacity not in excess of fifteen (15) acre-feet, regardless of height;
3. Any obstruction in a canal used to raise or lower water therein or divert water therefrom;
4. Any levee, including but not limited to a levee on the bed of a natural lake, the primary purpose of which levee is to control floodwaters;
5. Any railroad fill or structure;
6. Any tank constructed of steel or concrete or of a combination thereof;
7. Any tank elevated above the ground;
8. Any barrier which is not across a stream channel, watercourse or natural drainage area, and which has the principal purpose of impounding water for agricultural use; and
9. Any obstruction in the channel of a stream or watercourse which is fifteen (15) feet or less in height from the lowest elevation of the obstruction and which has the single purpose of spreading water within the bed of the stream or watercourse upstream from the construction for percolation underground.

Regardless of the language of the above definition, however, no structure specifically exempted from jurisdiction by the State of California Department of Water Resources, Division of Safety of Dams shall be considered a "Dam," unless such structure is under the jurisdiction of an agency of the federal government.

- G. **Damages** means monetary sums paid or awarded as compensation for **Bodily Injury, Property Damage, Personal Injury, Public Officials Errors and Omissions Injury, or Employee Benefit Plan Administration Liability** covered by this **Memorandum**.

Damages does not include:

1. Any monetary sum paid or awarded as or for restitution;
2. Any monetary sum paid or awarded as or for fees (except for plaintiff's attorneys fees), fines, sanctions, penalties, punitive damages or exemplary damages;
3. Any monetary sum paid or awarded as or for double, treble or any other mathematical multiplier of **Damages**;
4. Any costs of complying with equitable or other injunctive relief;
5. Any monetary sum paid or awarded as or for any loss, cost or expense arising out of any:
 - a. Request, demand or order that any **Covered Party** or others test for, monitor, clean up, remove, contain, treat, detoxify or neutralize, or in any way respond to or assess the effects of **Pollutants**; or
 - b. Claim or suit by or on behalf of a government authority because of testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing, or in any way responding to or assessing the effects of **Pollutants**;
6. Any monetary sum paid or awarded to satisfy any obligation of a **Covered Party** (or any insurance company as a **Covered Party's** insurer) under any workers' compensation, disability benefits or unemployment compensation law or any similar law.
7. Any premium, employer or employee contribution, fee, tax, assessment, or other amount, to enroll or maintain the enrollment of any employee in any **Employee Benefit Plan**

H. **Self Insured Retention** means the retention limits that are designated in ENDORSEMENT No 2 to this **Memorandum**.

I. **Defense Costs** means:

1. All fees (including attorney's fees), costs (including court costs), and expenses incurred in connection with the adjustment, investigation,

defense and appeal of a claim or suit to which this **Memorandum** applies; and

2. Interest on any judgment or portion thereof (accruing after entry of judgment) to which this **Memorandum** applies.

However, **Defense Costs** does not include any of the following:

1. Any office expenses of **PLAN** or a **Covered Party**;
2. Any salaries of employees of **PLAN** or a **Covered Party**;
3. Any salaries of or other monetary payments (including but not limited to per diems, honorariums or reimbursements) to elected or appointed officials of **PLAN** or a **Covered Party**;
4. Any fees or expenses of any claims administrator engaged by a **Covered Party**; or
5. Any fees or expenses incurred for services of any individual or entity (including any attorney, city attorney, city engineer, or city manager) unless such services are provided pursuant to the express written consent of **PLAN**.

J. **Employee Benefit Plan Administration Liability** means liability of a **Covered Party** arising from any act, error, or omission in **Employee Benefit Plan Administration**. For purposes of this definition:

1. **Employee Benefit Plan** means only the following employee benefit plans:
 1. Educational tuition reimbursement plans
 2. Group plans for life, health, dental, disability, automobile, homeowners, or legal expense insurance
 3. Pension plans
 4. Salary Reduction plans under Internal Revenue Code Section 457, including any amendments
 5. Pre-tax medical and dependent care savings plans

6. Social security system benefits
 7. Workers Compensation and unemployment insurance benefits
 8. California Public Employees Retirement System benefits
2. **Administration** means only the following administrative functions, with respect to an **Employee Benefit Plan**:
- a. Explaining or interpreting an **Employee Benefit Plan**
 - b. Calculating or communicating benefits and costs for an **Employee Benefit Plan**
 - c. Enrolling participants, or terminating participation, in an **Employee Benefit Plan**
 - d. Estimating or projecting future **Employee Benefit Plan** values
 - e. Handling or processing of **Employee Benefit Plan** records
3. **Employee Benefit Administration Liability** shall not include:
- a. any liability arising out of an insufficiency of funds to meet any obligation under any **Employee Benefit Plan**.
 - b. any liability arising out of act, error, or omission by any **Covered Party** to effect and maintain insurance or bonding for plan property or assets of any **Employee Benefit Plan**.
 - c. any liability arising out of any representations made at any time in relation to the price or value of any security, debt, bank deposit, or similar financial instrument or investment, including, but not limited to, advice given to any person to participate in any **Employee Benefit Plan**.
 - d. any liability for premiums, employer or employee contributions, fees, taxes, assessments, or other amounts, to enroll or maintain the enrollment of any employee(s) in any **Employee Benefit Plan**.

- K. **Entity** means:
1. The ENTITY COVERED which is designated in ENDORSEMENT No 1 to this **Memorandum**; and
 2. Any commission, agency, district, authority, board, or similar body, the governing board of which is exclusively comprised of elected or appointed officials, employees, or volunteers (whether or not compensated) of the ENTITY COVERED which is designated in ENDORSEMENT No 1 to this **Memorandum**
- L. **Insurance** means insurance or coverage other than the coverage afforded by this **Memorandum**, including but not limited to the following:
1. Valid and collectible insurance (whether stated to be primary, pro rata, contributory, excess, contingent, or otherwise);
 2. Any self-funding mechanism, including but not limited to a joint powers authority (whether stated to be primary, pro rata, contributory, excess, contingent, or otherwise); and
 3. Specific self-insurance (whether stated to be primary, pro rata, contributory, excess, contingent or otherwise).
- M. **Limit of Coverage** means the LIMIT OF COVERAGE that is designated in the DECLARATIONS to this **Memorandum**.
- N. **Memorandum** means this MEMORANDUM OF COVERAGE -- LIABILITY, including the DECLARATIONS and all endorsements hereto.
- O. **Nuclear Material** means source material, special nuclear material or byproduct material. "Source Material," "Special Nuclear Material" and "Byproduct Material" have the meanings given them in the Atomic Energy Act of 1954 or in any law amendatory thereof.
- P. **Occurrence** means:
1. With respect to **Bodily Injury**, an accident, including continuous or repeated exposure to substantially the same general harmful conditions, during the **Coverage Period**.

2. With respect to **Property Damage**, an accident, including continuous or repeated exposure to substantially the same general harmful conditions, during the **Coverage Period**.
3. With respect to **Personal Injury**, the commission of one of the offenses listed in the definition of **Personal Injury** during the **Coverage Period**. All such acts committed against any individual during the **Coverage Period** shall be deemed to be one **Occurrence**.
4. With respect to **Public Officials Errors and Omissions Injury**, the commission of one of the acts listed in the definition of **Public Officials Errors and Omissions Injury** during the **Coverage Period**. All such acts committed against any individual during the **Coverage Period** shall be deemed to be one **Occurrence**.
5. With respect to **Employee Benefit Plan Administration**, an act, error, or omission in the performance during the **Coverage Period** of any of the administrative functions listed in the definition of **Employee Benefit Plan Administration** with respect to an **Employee Benefit Plan**. All such acts, errors, or omissions during the **Coverage Period** with respect to any **Employee Benefit Plan** shall be deemed to be one **Occurrence**.

Q. **Personal Injury** means economic loss, emotional distress, and consequential **Bodily Injury**, arising out of the commission of one or more of the following offenses by a **Covered Party** in the discharge of duties for the **Entity**:

1. False arrest, detention or imprisonment;
2. Malicious prosecution;
3. Oral or written publication of material that slanders or libels a person or organization, including disparaging statements concerning the condition, value, quality or use of that person's or organization's real or personal property, but only where the first publication of such material occurs during the **Coverage Period**;
4. Oral or written publication of material that violates a person's right of privacy, but only where the first publication of such material occurs during the **Coverage Period**; or
5. Discrimination or violation of civil rights;

Personal Injury does not include written or oral publication of material by or

at the direction of any **Covered Party** with knowledge of its falsity.

R. **Pollutants** means without limitation any solid, liquid, gaseous or thermal irritant or contaminant, including but not limited to smoke, vapor, soot, fumes, acids, alkalis, chemicals and waste. Waste includes without limitation materials to be recycled, reconditioned or reclaimed. The term **Pollutants** does not include any of the following:

1. Potable water,
2. Agricultural water,
3. Water furnished to commercial users,
4. Water used for fire suppression,
5. Raw sewage,
6. Combined sewage,
7. Storm water run-off,
8. Partially treated sewage,
9. Fully treated sewage (as defined by the applicable NPDES permit), and
10. Residual streams of waste water treatment.

S. **Property Damage** means:

1. Physical injury to tangible property, including the loss of use of that property. All such loss of use shall be deemed to occur at the time of the physical injury that caused it; or
2. Loss of use of tangible property that is not physically injured. All such loss of use shall be deemed to occur at the time of the **Occurrence** that caused it.

Money, cash equivalents, checks, bonds, and all other financial instruments shall not be considered tangible property.

- T. **Public Officials Errors and Omissions Injury** means economic loss and emotional distress arising out of any act or omission, any misstatement or misleading statement, any neglect or breach of duty, or any misfeasance, malfeasance or nonfeasance, by a **Covered Party** in the discharge of duties for the **Entity**.

Public Officials Errors and Omissions Injury does not include **Bodily Injury, Property Damage, Personal Injury, or Employee Benefit Plan Administration Liability**.

- U. **Risk Coverage Agreement** means the revised Liability Risk Coverage Agreement dated as of July 1, 1992 among **ABAG**, the ENTITY COVERED which is designated in the DECLARATIONS, and all other participants in the **ABAG** Pooled Liability Assurance Network (PLAN) program.
- V. **Watercraft** means any form of vessel, including but not limited to barge, boat, ship, yacht, canoe, kayak, and jet ski or similar personal recreational watercraft, intended for use in or on water.

SECTION II - WHO IS A COVERED PARTY

- A. Subject to the terms of provision B. below, each of the following constitutes a **Covered Party** under this **Memorandum**:
1. The **Entity**,
 2. Any person who was or is now an elected or appointed official, employee or volunteer of the **Entity**, whether or not compensated, but only while acting for or on behalf of the **Entity** (including while acting on outside boards at the direction of the **Entity**), and
 3. Any person or organization to whom or to which the **Entity** is obligated by virtue of a written contract to provide coverage such as is afforded by this **Memorandum**, but only with respect to:
 - a. Operations performed by the **Entity**, or
 - b. Operations performed by such person or organization on behalf of the **Entity**, or

- c. Property (including vehicles and facilities) owned by the **Entity** and used by such person or organization, or
 - d. Property (including vehicles and facilities) owned by such person or organization and used by the **Entity**.
- B. None of the above shall constitute a **Covered Party** with respect to any claim or suit brought by or on behalf of any **Entity**.

SECTION III - COVERAGES

Subject to the terms and conditions of this **Memorandum**, **PLAN** agrees to pay on behalf of the **Covered Party**, and this **Memorandum** applies only to, **Damages** that the **Covered Party** becomes legally obligated to pay because of

- A. **Bodily Injury,**
- B. **Property Damage,**
- C. **Personal Injury,**
- D. **Public Officials Errors and Omissions Injury, or**
- E. **Employee Benefit Plan Administration Liability**

caused by an **Occurrence**, and which are not excluded.

If the **Covered Party** has **Insurance** which affords coverage for any **Bodily Injury, Property Damage, Personal Injury, Public Officials Errors and Omissions Injury** or **Employee Benefit Plan Administration Liability** covered by this **Memorandum**, this **Memorandum** shall only apply in excess of any amounts payable under such **Insurance**.

The amount that **PLAN** will pay is limited as described under SECTION V - LIMIT OF COVERAGE.

SECTION IV - EXCLUSIONS

This **Memorandum** does not apply to **Damages**:

- A. For **Bodily Injury, Property Damage, Personal Injury, Public Officials Errors and Omissions Injury, or Employee Benefit Plan Administration Liability** which is either expected or intended from the standpoint of a **Covered Party**; but this exclusion does not apply to **Bodily Injury** resulting from assault and battery committed by, at the direction of, or with the consent of the Entity, for the purpose of protecting persons or property from injury or death.
- B. Arising out of the actual, alleged, or threatened, exposure to, or discharge, dispersal, seepage, migration, release or escape of, **Pollutants**:
1. At or from any premises, site, or location which is or was at any time owned or occupied by, or loaned, rented, or leased to, any **Covered Party**;
 2. At or from any premises, site, or location which is or was at any time used for the handling, storage, disposal, processing, or treatment of waste;
 3. Which are or were at any time transported, handled, stored, treated, disposed of, or processed as waste by or for any **Covered Party** or any person or organization for whom a **Covered Party** may be legally responsible; or
 4. At or from any premises, site, or location on which any **Covered Party** or any contractor or subcontractor working directly or indirectly on any **Covered Party's** behalf is performing operations.
- C. Arising out of the ownership, management, governance, use, or operation of any hospital or airport.
- D. Arising out of medical professional services performed by or on behalf of a **Covered Party**; but this exclusion does not apply to such services performed by emergency medical technicians, paramedics and other similar classes of personnel.
- E. Arising out of any partial or complete structural failure of any **Dam**.
- F. Arising out of any hazardous properties of **Nuclear Material**.

G. For **Property Damage Injury, Personal Injury or Public Officials Errors and Omissions Injury** arising out of:

1. the existence, anticipated exercise or actual exercise of the powers of eminent domain (by whatever name called), or
2. any condemnation proceedings, or
3. any circumstances that give rise to (or could give rise to) or result in (or could result in) an inverse condemnation claim, such circumstances shall include but are not limited to:
 - a. Any action or inaction affecting the use of, or rights or entitlements in, any real property or improvements to real property;
 - b. Any action or inaction on any data collecting, analysis, study, finding, policy, ordinance, statute, code, law, regulation or program that directly or indirectly affects the use of, or rights or entitlements in, any real property or improvements to real property; and
 - c. Any announcement or publication concerning the circumstances described in subparts a and b.

provided that such circumstances shall not include:

- i. Any circumstances that directly or indirectly cause physical injury to tangible property; or
- ii. the reverse flow of sewage, water and/or other contents through a sanitary sewer system and out of an inlet of such a system; or
- iii. the circumstances described under section IV.I.

H. For **Personal Injury or Public Officials Errors and Omissions Injury** arising out of any one of, or any combination of, the following:

1. Adverse possession, or
2. Nuisance, or
3. Trespass, or
4. Violation of a right of substantive or procedural due process, or

5. Violation of a right of equal protection; or
6. Violation of a civil right, or
7. Unlawful discrimination, or
8. Negligence.

This exclusion applies only where the claim or suit seeks Damages arising out of one or more of the matters excluded in Exclusion G above.

- I. For an inverse condemnation claim arising solely out of the non-negligent operation of any public improvement, however acquired; provided, that such circumstances shall not include the reverse flow of sewage, water and/or other contents through a sanitary sewer system and out of an inlet of such a system.
- J. For any one of, or any combination of, the following:
 1. Adverse possession, or
 2. Nuisance, or
 3. Trespass, or
 4. Violation of a right of substantive or procedural due process, or
 5. Violation of a right of equal protection; or
 6. Violation of a civil right, or
 7. Unlawful discrimination, or
 8. Dangerous condition of public property.

This exclusion applies only where the claim or suit seeks Damages arising out of one or more of the matters excluded in Exclusion I above.

- K. For **Public Officials Errors and Omissions Injury** arising out of noncompliance with, or violation of, any statute, regulation, rule, Executive Order, circular, audit or recordkeeping standard, permit, license, administrative ruling, or the like. This exclusion applies regardless of the

means taken ,or available, to compel compliance and also applies regardless of the means taken, or available to, enforce a remedy for the noncompliance or violation.

- L. Arising out of a **Covered Party's** ownership, operation, use, maintenance, or entrustment to others of any **Aircraft** or **Watercraft**
 - M. Arising out of any transit authority, transit system or public transportation system owned or operated by a **Covered Party**; but this exclusion does not apply to any transit system operating over non-fixed routes, including dial-a-ride, senior citizen transportation or handicapped transportation.
 - N. Arising out of the failure to supply or provide an adequate supply of gas, water or electricity.
 - O. Arising out of any obligation to pay compensation or benefits (or other monetary sums) under workers' compensation, disability benefits or unemployment compensation law or any similar law.
 - P. For **Bodily Injury, Property Damage, Personal Injury, or Public Officials Errors and Omissions Injury** to:
 - 1. An employee, volunteer, elected or appointed official of a **Covered Party** arising out of and in the course of:
 - a. Employment by a **Covered Party**; or
 - b. Performing duties related to the conduct of a **Covered Party's** activities;
 - or
 - 2. The spouse or partner, child, parent, brother, sister or other relative of that employee, volunteer, elected or appointed official, as a consequence of paragraph (1) above.
- This exclusion applies:
- a. Whether the **Covered Party** may be liable as an employer or in any other capacity; and

- b. To any obligation to share payment with, or repay someone else who must pay, any amount because of the injury.

Q. Arising out of any:

- 1. Refusal to employ, elect, or appoint any person, or to allow any person to participate as a volunteer
- 2. Termination of any person's employment or volunteer participation, or termination of any person's position as an elected or appointed official
- 3. Practice, policy, act or omission which is in any way related (whether logically or causally) to employment, to serving as an elected or appointed official, or to serving as a volunteer, all including but not limited to any of the following: coercion, demotion, promotion, evaluation, reassignment, discipline, defamation, violation of civil rights, harassment, humiliation or discrimination.

This exclusion applies:

- a. Whether the **Covered Party** may be liable as an employer or in any other capacity; and
- b. To any obligation to share payment with, or repay someone else who must pay, any amount because of the injury.

R. For claims by any **Covered Party**. This exclusion shall not apply to claims for **Employee Benefits Administration Liability**.

S. For **Property Damage** to:

- 1. Property owned by the **Entity**;
- 2. Property rented to or leased to the **Entity**; or
- 3. **Aircraft** or **Watercraft** in a **Covered Party's** care, custody or control.

T. Arising out of the willful violation of a penal statute or penal ordinance:

- 1. Committed by a **Covered Party**; or

2. Committed with the knowledge or consent of a **Covered Party**.
- U. **Public Officials Errors and Omissions Injury** arising out of the imposition, collection, refund, or refusal to refund, of taxes, fees or assessments.
- V. **Public Officials Errors and Omissions Injury** arising out of:
1. Any **Covered Party** obtaining remuneration or financial gain to which the **Covered Party** was not legally entitled, or
 2. Any **Covered Party's** liability for any other **Covered Party** obtaining remuneration or financial gain to which such **Covered Party** was not legally entitled.
- W. **Public Officials Errors and Omissions Injury** arising out of any bidding or contracting process if such **Public Officials Errors and Omissions Injury** is due to:
1. Estimates of probable costs or cost estimates being exceeded,
 2. Preparation of bid specifications or plans, including architectural plans, or
 3. Failure to award any contract in accordance with any statute or ordinance.
- X. **Public Officials Errors and Omissions Injury** arising out of any failure to perform or breach of a contractual obligation.
- Y. Arising out of the purchase, sale, offer of sale, solicitation, depreciation, or decline in price or value, of any security, debt, bank deposit or financial interest or instrument. This exclusion shall not apply to economic loss suffered by a governmental entity other than a **Covered Party**, as a result of **Public Officials Errors and Omissions Injury** to which this **Memorandum** applies, arising out of financial investment services undertaken by an **Entity** for compensation on behalf of that governmental entity.

SECTION V - DEFENSE AND SETTLEMENT

- A. **Defense Of Claims Or Suits.**

1. **PLAN** shall have the right and duty to defend any claim or suit against a **Covered Party** seeking **Damages** to which this **Memorandum** applies, even if any allegations are groundless, false or fraudulent. In the event this **Memorandum** is excess over any **Insurance** with respect to a claim or suit, then **PLAN** shall not have any duty to defend such claim or suit until the available limits of liability of all such **Insurance** are exhausted and the defense obligation under all such **Insurance** has terminated.
2. The **Covered Party** may select counsel to represent its interests, subject to approval of counsel by **PLAN**.
3. The **Covered Party** shall:
 - a. Cooperate with **PLAN** in the investigation, defense and settlement of any claim or suit,
 - b. Upon the request of **PLAN**, attend hearings and trials, assist in securing and giving evidence, and assist in obtaining the attendance of witnesses, and
 - c. Upon the request of **PLAN**, authorize **PLAN** to obtain records and other information.
4. In the event a **Covered Party** elects not to appeal a judgment, **PLAN** may elect to do so if it pays the fees and costs of that appeal.
5. The **Covered Party** must disclose to **PLAN** all information concerning the claim or suit (including but not limited to all facts giving rise to the claim or suit) which may assist in the defense of the claim or suit. The **Covered Party** is required to provide such information even if the information may relate to or affect matters pertaining to coverage under this **Memorandum**. The **Covered Party** shall instruct its defense counsel to disclose all such information to **PLAN**, and hereby waives any and all privileges (including but not limited to the attorney/client privilege and the attorney work product privilege) to the extent necessary to allow for the disclosure of that information to **ABAG**. Any such waiver of a privilege shall extend only to **PLAN**, and shall not be construed to allow for the disclosure of any such information to any claimant.

6. It is understood and agreed that the purpose of this provision is to ensure that **PLAN** is provided with all information which is or may be useful in defending the claim or suit, in whole or part, notwithstanding the existence of any coverage limitation or dispute.

B. Settlement Of Claims Or Suits.

1. **PLAN** shall not have any obligation to pay any sum on behalf of a **Covered Party** under the terms of a settlement of any claim or suit, unless such settlement is finalized in a written agreement signed by the **Covered Party**, the claimant and **PLAN**.
2. No **Covered Party** shall have the right to enter into a settlement of any claim or suit, which seeks **Damages** to which this **Memorandum** applies without the express written consent of **PLAN**.

SECTION VI - LIMIT OF COVERAGE

A. Limit Of Coverage - Per Occurrence.

1. The **Limit of Coverage**, and the rule set forth under paragraph 2 below, fix the most that **PLAN** will pay with respect to an **Occurrence**, regardless of:
 - a. The number of **Covered Parties**,
 - b. The number of claims made or suits brought,
 - c. The number of persons or organizations making claims or bringing suits,
 - d. The number of persons or organizations who sustain injury or damage,
 - e. The nature and types of injuries or damage sustained,
 - f. The number of coverages under this **Memorandum** which may be applicable to the **Occurrence**.

2. All Defense Costs shall be paid and applied first against, and shall reduce, the Limit of Coverage. The difference between the Limit of Coverage and the total amount of Defense Costs shall be the amount available, if any, to pay on behalf of all Covered Parties with respect to an Occurrence.

B. Self-Insured Retention (“SIR”) - Per Occurrence.

1. The amount of the **SIR** is the amount that the **Entity** must pay (or cause to be paid) before **PLAN** is obligated to pay any amount under the terms of this **Memorandum**.
2. The **Entity** shall be obligated to pay one **SIR** with respect to all claims and suits relating to an **Occurrence**.
3. The **Deductible** is the sole responsibility of the **Entity**. **PLAN** shall not be responsible for payment of the **SIR** or any part thereof.

C. PLAN’s Obligations Upon Exhaustion Of Limit Of Coverage.

1. **PLAN**’s duties under this **Memorandum** end with respect to any **Occurrence** when **PLAN** has used up the **Limit of Coverage** by payments with respect to claims and suits relating to or arising out of that **Occurrence** (including payment of **Defense Costs**). In that event:
 - a. **PLAN** shall not have any further obligation to pay **Defense Costs** and shall have the right to withdraw from the further investigation and defense of any and all claims and suits relating to such **Occurrence**,
 - b. **PLAN** shall not have any further obligation to pay any judgment or settlement, and
 - c. **PLAN** shall not have any other obligation under this **Memorandum**.

SECTION VII - CONDITIONS

A. Duties In The Event Of Occurrence, Claim Or Suit.

1. In the event of an **Occurrence**, the **Entity** must provide to **PLAN** (or any of its authorized agents), as soon as practicable, written notice of the **Occurrence**, which includes the following information:
 - a. The identity of each **Covered Party** involved in the **Occurrence**,
 - b. How, when and where the **Occurrence** took place,
 - c. The names and addresses of any injured persons,
 - d. The names and addresses of any witnesses,
 - e. The nature and location of any injury or damage arising out of the **Occurrence**, and
 - f. Any and all other information which is available and reasonably obtainable pertaining to the **Occurrence**.
2. If a claim is made or suit is brought against any **Covered Party**, the **Entity** must:
 - a. Immediately provide **PLAN** with written notice of the claim or suit,
 - b. Immediately make a record of the specifics of the claim or suit, and
 - c. Immediately forward to **PLAN** a copy of all documents related to the claim or suit, including but not limited to all correspondence, demands, notices, summonses and pleadings.
3. Upon the request of **PLAN**, each **Covered Party** involved in the **Occurrence** shall assist **ABAG** in the enforcement of any right (including but not limited to any right of contribution or indemnity) against any person or organization which may be liable to a **Covered**

Party because of actual or alleged damages to which this **Memorandum** may also apply.

4. No **Covered Party** shall, except at its own cost, make a payment, assume any obligation or incur any expense (including but not limited to any attorney fees) without the prior express consent of **PLAN**. In the event a **Covered Party** makes any payment, assumes any obligation or incurs any expense (including but not limited to any attorney fees) without the prior express consent of **PLAN**, then any such payment, obligation or expense shall be the sole responsibility of that **Covered Party**.

B. Bankruptcy.

Bankruptcy or insolvency of the **Covered Party** shall not relieve **PLAN** of any of its obligations under this **Memorandum**.

C. Insurance.

1. This **Memorandum** shall be in excess of the amount of any **Insurance** available to pay any sum otherwise covered under this **Memorandum**, except with respect to any such **Insurance** which is written only as specific excess insurance over the **Limit of Coverage**.
2. Regardless of the duration of any Occurrence and the number of other Memorandums between **PLAN** and the Entity, under no circumstances shall this **Memorandum** and any other memorandum of coverage between **PLAN** and an **Entity** both apply to a claim or suit. In the event of a dispute as to whether:
 - a. This **Memorandum**, or
 - b. Another memorandum of coverage between **PLAN** and an **Entity**

is applicable to a claim or suit, such dispute shall be resolved by application of the following rule. The first memorandum of coverage (between **PLAN** and the **Entity**) issued by **PLAN** shall be deemed the memorandum of coverage which is applicable (and only that memorandum of coverage shall be applicable). A “*continuous trigger*” rule or similar rule shall not apply.

D. Cancellation.

This **Memorandum** may be canceled at any time in accordance with the provisions of the **Liability Risk Coverage Agreement**.

E. Legal Action Against PLAN.

1. No person or organization may join **PLAN** as a party, or otherwise bring **PLAN** into a suit seeking damages from a **Covered Party**.
2. A person or organization may sue **PLAN** to recover on an agreed settlement (meaning a settlement and release of liability signed by **PLAN**, the **Covered Party** and the claimant or the claimant's legal representative) or on a final judgment against a **Covered Party** obtained after an actual trial; but **PLAN** will not be liable for damages that are not payable under the terms of this **Memorandum** or that are in excess of the **Limit of Coverage**.
3. No **Covered Party** may pursue any claim or file any action against **PLAN** unless and until it has fully complied with the procedures established by **PLAN** for presentation and resolution of disputes, including but not limited to the **Risk Coverage Agreement**.

F. Transfer Of Rights Of Recovery Against Others To PLAN.

1. If the **Covered Party** has rights to recover all or part of any payment **PLAN** has made under this Memorandum, those rights are transferred to **PLAN**. The **Covered Party** must do nothing after an **Occurrence** to impair them. At **PLAN**'s request, the **Covered Party** will bring suit or transfer those rights to **PLAN** and help enforce them. All amounts so recovered shall be paid to **PLAN**.
2. In the event any amounts recovered exceed the costs incurred to recover them plus the amount of **PLAN**'s payments, then those additional amounts shall be apportioned as follows:
 - a. The **Covered Party** shall first be reimbursed in an amount up to any payments it made, and
 - b. The remainder shall be paid to **PLAN** and the **Covered Party** in proportion to the ratio of their respective recoveries

G. **Premium.**

1. The **Entity** is authorized to act on behalf of all **Covered Parties** with respect to all matters pertaining to premium.

POOLED LIABILITY ASSURANCE NETWORK
JOINT POWERS AUTHORITY

MEMORANDUM OF COVERAGE

ENDORSEMENT NO. 1

This ENDORSEMENT, effective 12:01 a.m. 7/1/18, forms part of a Memorandum No. PLAN 2018-GL.

It is understood that the named Covered Party of the Declaration is completed as follows:

Pooled Liability Assurance Network,

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

POOLED LIABILITY ASSURANCE NETWORK
JOINT POWERS AUTHORITY

MEMORANDUM OF COVERAGE

ENDORSEMENT NO. 2

This ENDORSEMENT, effective 12:01 a.m. 7/1/18, forms part of Memorandum No. PLAN 2018-GL.

It is understood the Retained Limits for the named Covered Parties listed in ENDORSEMENT NO. 1 are as follows:

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

June 20, 2018

Agenda Item 7.C.

ADMINISTRATIVE MATTERS

SUBJECT: Consideration of Master Plan Document (MPD) for the Pooled Liability Program for PLAN JPA

BACKGROUND AND HISTORY:

As with the Bylaws and Memorandum of Coverage documents, the Master Plan Document (MPD) for the Pooled Liability Program for PLAN JPA was presented and reviewed by the Executive Committee at their April and June meetings.

Previously, ABAG PLAN had a document entitled “Risk Coverage Agreement.” This document served both as the document that contractually bound the members together in ABAG PLAN, as well as outlined some of the member responsibilities and obligations for participation in the program. Since the PLAN Joint Powers Agreement has replaced many of the items previously memorialized in the Risk Coverage Agreement, staff recommended maintaining a separate document for those items specifically related to the operation of the PLAN pooled liability program.

Going forward, it is staff’s recommendation that a MPD and MOC be created for each coverage program. Staff will bring forth MPDs for the other pooled coverage lines upon approval of this document.

The Executive Committee agreed to establish the MPD presented at the meeting, and staff is now bringing it to the Board of Directors for formal consideration.

As with the MOC, the MPD can be approved by the PLAN Executive Committee, once constituted. However, the new PLAN JPA Board of Directors will meet at this meeting prior to the formal constitution of the PLAN JPA Executive Committee; therefore, staff recommended the Executive Committee recommend the Board formally consider this document along with the Bylaws and Memorandum of Coverage.

RECOMMENDATION:

The Executive Committee recommends the Board of Directors approve the Master Plan Document for PLAN JPA.

REFERENCE MATERIALS ATTACHED:

- Master Program Document for the Pooled Liability Program

POOLED LIABILITY ASSURANCE NETWORK JOINT POWERS AUTHORITY (PLAN)

MASTER PROGRAM DOCUMENT (MPD)
FOR THE
POOLED LIABILITY PROGRAM (PLP)

ARTICLE I: DEFINITIONS

The following definitions apply to this MPD:

1. **Administrator** shall mean the person responsible for the daily administration, management, and operation of the **Authority's** programs as defined in the Bylaws.
2. **Authority** shall mean the Pooled Liability Assurance Network Joint Powers Authority (PLAN).
3. **Board** shall mean the Board of Directors of the PLAN.
4. **Deposit Premium** shall mean that amount to be paid by each **Participant** for each **program year** as determined by the **Board** in accordance with Article III, Section C of this MPD.
5. **Joint Powers Agreement** shall mean the agreement made by and among the public entities listed in Appendix A (**Member Entities**) of the **Joint Powers Agreement**, hereafter referred to as **Agreement**.
6. **Loss Experience** shall mean such amounts as are paid by the **Participant** or the **Authority** in settlement of claims, or in satisfaction of awards or judgments for liabilities imposed by law for **bodily injury, property damage, personal injury, public officials errors and omissions, sudden and accidental pollution**, as those terms are defined in the PLP Memorandum of Coverage (MOC) and to which that MOC applies.
7. **Limit of Coverage** shall mean the amount of coverage stated in the Declarations or certificate of coverage, or sublimits as stated therein or in the MOC for each **Participant** or **covered party per occurrence**, subject to any lower sublimit stated in the MOC.
8. **Participant** shall mean a **Member Entity**, which shall mean a signatory to the **Agreement** establishing the Pooled Liability Assurance Network Joint Powers Authority, who has elected to participate in the PLP.
9. **Program Year** shall mean that period of time commencing at 12:01 a.m. on July 1 and ending at 12:00 a.m. on the following July 1.
10. **Retained Limit** shall mean the amount stated on the applicable Declarations or certificate of coverage, which will be paid by the **Participant** before the **Authority** is obligated to make

any payment from the pooled funds.

11. **Self-Insured Retention (SIR)** shall mean the **Authority's limit of coverage** above **Participant's retained limits** and up to the attachment point for excess coverage.
12. **Third Party Administrator (TPA)** shall mean the claims administrator for the **Authority** for the PLP.

ARTICLE II: GENERAL

A. AUTHORITY

1. The Pooled Liability Program (PLP) Master Program Document (MPD) is one of the **Authority's** governing documents. However, any conflict between the PLP MPD, the **Authority's Agreement**, the Bylaws, or the PLP MOC shall be determined in favor of the **Agreement**, the Bylaws, or the MOC, in that order.
2. The PLP MPD is intended to be the primary source of information, contain the rules and regulations, and serve as the operational guide for the conduct of the PLP.
3. The PLP has been organized under authority granted by, and shall be conducted in accordance with, the laws of the State of California.

B. PURPOSE

The primary purpose in establishing a PLP is to create a method for providing coverage for legal exposures incurred by the **Participants** and the **Authority** as provided in the MOC and, if applicable, the excess coverage.

C. PARTICIPATION

Any **Member Entity** may participate in the PLP. However, the terms and conditions which may be imposed on a **Participant** which desires to join the PLP may be different, depending upon payroll, number of employees, the size of the entity, its loss record, and other pertinent information.

D. GOVERNANCE

Each **Participant's** appointed primary representative and one alternate representative shall be the representative for the PLP. The **Participant** will be entitled to one vote on all issues or decisions that involve the PLP.

E. GOALS AND OBJECTIVES

1. The PLP shall provide liability coverage for the **Participants** utilizing an optimum mix of risk retention and risk transfer. The PLP shall provide various **retained limits** for the **Participants**, provide a risk sharing pool for losses above individual **retained limits** up to the **Authority's Self-Insured Retention (SIR)**, and obtain excess coverage for the amount of the loss which exceeds the **Authority's SIR**. Additionally, the PLP shall provide for the sharing of operating costs and payment of the excess coverage by charging all **Participants** their share of such costs.
2. Although the PLP is provided to the **Participants** under those terms and conditions which prevail at the time the **Participant** joins the PLP, the **Board** shall have the right to alter, from time to time, the terms and conditions of the excess coverage and the pooled underlying coverage in response to the needs and abilities of the PLP and the **Participants**, as well as in response to availability of coverage from outside sources.
3. The **Authority** offers participation in a risk sharing pool, covering losses of **Participants** in accordance with the MOC adopted by the **Participants**. The assets of the pooled program shall be maintained at all times as the assets of the **Participants** collectively. The assets may be disbursed only pursuant to the provisions of this MPD, and no **Participant** shall have an individual right to exercise control over said assets.
4. The PLP will provide coverage under the terms and conditions set forth in the MOC. The amount of coverage to be pooled and/or purchased is at the discretion of the **Board**.

ARTICLE III: PROGRAM ELEMENTS

A. PROGRAM YEARS

1. Each **program year** shall be accounted for separately. The income and expenses of each **program year** shall be accounted for separately from any other **program year's** income or expenses.
2. A **program year** shall not be closed until at least ten years of age if, at such time the **Board** authorizes closure, being convinced that all known claims for the year are closed and the probability of further claims being discovered is minimal. Any closed years, however, may be reopened if deemed necessary and approved by the **Board**.

B. RETAINED LIMITS

1. The PLP shall annually establish the **limit of coverage** for the pool. The underlying coverage of the PLP shall provide **Participants retained limits** of various amounts per occurrence. The **Participants** may annually select their **retained limits** from the options offered. The amount of each loss, including expenses, which is less than the **retained limit** chosen by the applicable **Participant**, shall be paid by the **Participant**.
2. A **Participant** may only alter its **retained limit** at the inception of a **program year** upon thirty (30) days' advance written notice. The **Board**, with a two-thirds vote, and by providing 60 days' advance written notice to the **Participant**, may require a **Participant** at the inception of the **program year** to take a **retained limit** different than the **Participant's retained limit** in the expiring **program year**.
3. The amount of each loss, including expenses, which is less than the **retained limit** chosen by the applicable **Participant** shall be paid by the **Participant**. Those amounts of each loss that are less than the **retained limit** chosen by the applicable **Participant** may be paid on behalf of the **Participant**, from the pay-as-you-go reserve fund. If a **Participant** directly pays any claim within its **retained limit**, such **Participant** shall report all payments to the **Authority** to ensure better claims control and actuarial analysis.

C. DEPOSIT PREMIUMS

1. The **Administrator**, in conjunction with an actuary, shall establish rates and **deposit premiums**, subject to **Board** approval, adequate to fund the actuarially determined losses in the pooled layer of the PLP, including attorney fees and other claims related costs, the cost of excess coverage, and the projected administrative costs, including retirement of debt, if any, of the PLP.
2. The annual **deposit premium** for each **Participant** shall be calculated by applying the **Participant's** estimated annual payroll to 1) the funding level as determined by the actuary and recommended by the **Administrator**, adjusted for individual **Participant's loss experience**, relative risk and **Participant retained limit** and/or the cost of any purchased primary insurance or reinsurance, 2) the cost of any excess coverage, and 3) a charge for the administrative and claims servicing expenses of the PLP as determined by the **Administrator**. After the end of the **program year**, adjustments from estimated to actual payroll may be made. Debit adjustments shall be billed to the **Participant**, and credit adjustments will apply to the next year's billings. An annual audit of a **Participant's** payroll may be conducted by the Authority.

3. The administrative expenses charged to each **Participant** shall be calculated as follows: Thirty three percent of the amount calculated is allocated equally to each **Participant**. Of the remaining sixty seven percent, one-third is calculated based upon reported claims greater than \$1 (i.e. excluding claims closed without payment) and two-thirds is calculated based upon paid losses from past five years;
4. The change in deposit premiums from year to year will be capped at thirty percent.

D. EXPERIENCE MODIFICATION

1. Each **Participant** shall be evaluated each year for an experience modification adjustment that shall be applied to the **deposit premium**.
2. The calculation of the adjustment shall include the actual **loss experience** of the individual **Participant** as it relates to the average **loss experience** of the group as a whole. Such **loss experience** shall not consider loss years that are more than five years old. The losses shall be valued as of December 31. For example, when calculating ex-mod for 18/19, loss data from July 1, 2012 through June 30, 2017, valued at December 31, 2017 would be considered. The criterion that shall be used is the relationship of actual average **loss experience** over the period being rated as it relates to the average payroll for the same period.

E. DIVIDEND AND ASSESSMENTS

1. DIVIDENDS

- (a). At the end of each **fiscal year**, a dividend calculation shall be performed for all open **program years**. Each year thereafter there shall be an additional dividend calculation made until such time as the **program year** is closed. Any dividends available to be declared and returned to the **Participants** will be at the discretion of the **Board** provided that the total dividend to be distributed from all qualifying **program years** shall not reduce the total equity for all **program years** below a discounted 90% confidence level.
- (b). Calculation
 - i. Dividends may not be declared from a **program year** until five years after the end of that **program year**.
 - ii. Dividends may be declared only at such time as the PLP has equity, with liabilities actuarially stated discounted at a 90% confidence level. The calculated amount shall represent the maximum dividend available to be declared.

- iii. The dividend shall be reduced if any of the five succeeding years (after the five years eligible for dividend calculation) have negative equity, with liabilities actuarially stated at a discounted 90% confidence level.
- iv. Dividends may only be declared if the equity at the expected confidence level is five times the Self Insured Retention.

2. ASSESSMENTS

- (a). Assessments may be levied on the **Participants** for the risk sharing layer of any **program year(s)**, as approved by the **Board**, at such time as an actuary finds that the assets of the PLP, as a whole, do not meet the expected discounted losses of the PLP. Each **Participant's** share of the assessment shall be allocated based upon the **deposit premiums** collected for the self-insured layer of each respective **program year** being assessed. If such assessment is not sufficient to relieve the pool of its actuarially determined deficit in the year of the assessment, such assessment shall be levied each subsequent year until the actuarially determined deficit is relieved. The timing of payment shall be determined by the **Board** at the time of assessment.
- (b). Equity from the risk sharing layer may be exchanged between eligible **program years** if sufficient funds are available. The transfer of equity will be performed so that the individual **Participant's** share of equity is separately applied so as to maintain the integrity of each **Participant's** balance.

F. EXCESS COVERAGE

- 1. The **Board** shall ensure that each **program year** is provided with excess liability coverage for the **Participants**. It is the intent and purpose of the **Authority** to continue to provide such coverage to the **Participants**, provided that such coverage can be obtained and is not unreasonably priced. This coverage may be obtained from an insurance company, by participating in another pool established under the Government Code as a joint powers authority, or offered through another PLP pooling procedure. If the coverage is purchased from an insurance company, such insurance company shall have an A.M. Best Rating Classification of A or better and an A.M. Best Financial Rating of VII or better or their equivalents.
- 2. Premiums for such coverage shall be paid by the PLP from the proceeds received as **deposit premiums** from the **Participants**.

3. The **Board** may, from time to time, alter excess coverage based on insurance market conditions, available alternatives, costs, and other factors. The **Board** shall place excess coverage with the two competing objectives of security and minimizing costs to the PLP as a whole.

G. PAY-AS-YOU-GO RESERVE FUND FOR PAYMENT OF CLAIMS

1. ESTABLISHMENT OF FUND

- (a). PLAN shall pay all losses from \$1 and then charge the members back monthly for the amounts within their Retained Limit.

2. ACCOUNTING AND REPLENISHMENT OF FUND

- (a). Payments from the fund shall be initiated by sending a check requisition form to the **Third Party Administrator**. Upon receipt, the **Third Party Administrator** shall execute payment and charge the payment to the requesting **Participant's** account.
- (b). Each month, a register of payments made on behalf of each **Participant** shall be sent to the **Participant** for whom payments were made from the fund. Accompanying the register will be an invoice for the amounts needed to replenish the fund to its original amount. The **Participants** shall have thirty (30) days from the date of said invoice to make repayments to the fund.

ARTICLE IV: ADMINISTRATION

A. BOARD

1. Discussion of developments and performance of the PLP may occur as part of any scheduled **Board** meeting.
2. The **Board** shall have the responsibility and authority to carry out and perform all functions and make all decisions affecting the PLP, consistent with the powers of the **Authority** and not in conflict with the **Agreement**, the Bylaws, or the MOC.

B. EXECUTIVE COMMITTEE

1. The Executive Committee shall have the responsibility and authority to carry out and perform all other functions and make all other decisions affecting the PLP, provided that such functions and decision are consistent with the powers of the **Authority** and are not in conflict with the **Agreement**, the Bylaws, or the MOC.
2. The Executive Committee shall meet at least twice a year to review the developments and performance of this PLP. The Executive Committee shall review, study, advise, make recommendations to the **Board**, or take any action which the Committee believes to be in the best interests of the PLP and its **Participants**, provided that such action is not prohibited by law or is not an action reserved unto the **Board**.

C. ADMINISTRATOR

The **Administrator** shall be responsible for:

1. The overall operation of the PLP;
2. Monitoring the status of the PLP and its operations, the development of losses, the program's administrative and operational costs, service companies' performance, and brokers' performance;
3. Assisting the **Board** in selecting brokers, actuaries, auditors, and other service companies;
4. Promoting the programs to prospective new participants;
5. Preparing, distributing, and maintaining all records of the PLP, including its MPD and MOC as these may be amended from time to time; and
6. Preparing Certificates of Coverage and Waivers of Subrogation as may be required by the **Participants** in the PLP.

D. DUTIES OF THE LITIGATION MANAGER

The Litigation Manager shall:

1. Control and oversee the administration and management of all general liability claims including those in litigation and shall have the authority to settle any claim as set forth herein, subject to the provisions of Article V.C.;
2. Perform a monthly review of claims files including the new claims that are likely to exceed fifty percent (50%) of the **retained limit** of the involved **Participant** as well as those claims for which a **Participant** or the **Board** has requested a specific review;
3. Review, at least quarterly, all open claims in excess of the involved **Participant's retained limit** and, if necessary, recommend action to be taken on such claims;
4. Report to the **Board** or Executive Committee at each meeting summarizing the active claims that are of general interest to **Participants**, claims for which a **Participant** or the **Board** or Executive Committee has specifically requested a review, and also review monthly claims reports and report to the **Board** or Executive Committee any significant trends that may be developing;
5. Monitor the reporting of formal tort claims and any action to be taken as recommended by the Liability Claims Procedures Manual;
6. Assist the **Participants** in training their personnel on the statutory government tort claims filing process, including the legal effect of taking (or not taking) certain actions on the formal claim;
7. Advise, where needed, on the setting and changing of reserves for all liability claims;
8. Report to any excess insurance, reinsurance company, or excess pool, all claims that meet the reporting requirements of such excess insurance, reinsurance company, or excess pool, or that will likely exceed the Authority's **retained limit**;
9. Provide guidance to the **Third Party Administrator** on the management of complex or "problem" claims;
10. Review the performance of the **Third Party Administrator**;
11. Advise and assist the **Administrator** in the selection of a **Third Party Administrator**;
12. Recommend the amount of money to be paid on particular claims for settlement;

13. Answer inquiries from **Participants** regarding liability claims or procedures;
14. Establish, monitor and continually update a panel of outside defense attorneys and law firms who have demonstrated proficiency in defending liability actions against public agencies, including a list of attorneys who have demonstrated special expertise in certain areas of litigation;
15. Assist the **Participant** and the **Third Party Administrator** in the selection of the appropriate defense attorney and/or law firm, for claims within the **Participant's retained limit**;
16. Assist in the selection of defense counsel for each claim where the ultimate net loss, as defined in the MOC, is at least fifty percent (50%) of the involved **Participant's retained limit**;
17. Advise, where needed, on the selection of defense counsel in claims where litigation is anticipated but not yet filed;
18. Have the authority to approve or deny the assignment of any claim, whether or not in litigation, to any law firm where the **Participant's** in-house or contract city or town attorney has been or is presently employed, or any law firm which has any form of contractual relationship with the **Participant**;
19. Continually monitor and evaluate the effectiveness of the panel defense firms and the overall management of the litigated claims, including, but not limited to, requiring the subject defense firm and/or individual defense attorney to submit their total legal billings on any one file for an independent legal bill audit as more fully outlined in the current Litigation Management Program Resolution; and
19. Provide other services as may reasonably be requested by the **Board**, Executive Committee, or a **Participant**.

ARTICLE V: CLAIMS ADMINISTRATION

A. CLAIMS PROCEDURES MANUAL

1. A Liability Claims Procedures Manual (Manual) including reporting procedures, forms, and other pertinent information shall be adopted by the **Board** and provided to all **Participants**.
2. All **Participants** shall follow the procedures stated in the Manual, as well as any changes thereto.

B. CLAIMS AUDIT

1. At least once every two years, the adequacy of claims adjusting for both the **Authority** and the **Participants** shall be examined by an independent auditor who specializes in claims auditing.
2. The Executive Committee shall approve the claims auditor. The costs of such claims audit shall be paid by the **Authority**.
3. The claims audit report shall address the issues of both adequacy of claims procedures and accuracy of claims data. The report shall be filed with the **Authority** and sent to each **Participant**.

C. CLAIM SETTLEMENT AUTHORITY

1. Each **Participant** shall have settlement authority for all claims, including attorney fees and other costs, which do not exceed 100% of the **Participant's retained limit**. The Litigation Manager will review these claims from time to time and may offer a recommendation to the **Participant's Third Party Administrator** and the **Participant** regarding settlement. This provision does not apply to claims for bodily injury or personal injury with bodily injury component for Medicare eligible or beneficiary claimants; **Participants** shall immediately notify the Litigation Manager once a claimant has been identified as Medicare eligible or a Medicare beneficiary.
2. The Litigation Manager shall have the authority to settle any claim with an ultimate net loss equal to or less than two hundred thousand dollars (\$200,000) in excess of the **retained limit** of the **Participant**.
3. The Claims Committee shall have the authority to settle any claim with an ultimate net loss equal to or less than the Self-Insured Retention combined with any reinsurance retention of the **Authority**. However, such authority shall only apply to those claims where the ultimate net loss, as defined in the PLP MOC, is in excess of the settlement authority given to the Litigation Manager and above the **retained limit** of the **Participant** involved.
4. The **Board** retains unto itself the authority to approve settlement of all other claims. However, the Claims Committee shall periodically review such claims and may make recommendations to the Board.

D. DISPUTES REGARDING MANAGEMENT OF A CLAIM

1. Any matter in dispute between a **Participant** and the **Third Party Administrator** shall be called to the attention of the **Administrator** and heard by the Executive Committee whose decision may be appealed to the **Board** within thirty (30) days of the Committee's decision. If no appeal is filed, the decision of the Executive

Committee shall be final.

2. When an appeal has been filed, the **Board** shall meet within thirty (30) days to hear the appeal. The decision of the **Board** will be final.
3. Where the Litigation Manager has the right to, and does, select legal counsel, the **Participant** for which such counsel was selected may appeal the selection to the Executive Committee. The decision of the Executive Committee shall be binding and final with no further right of appeal to the **Board**.

ARTICLE VI: PARTICIPATION

A. ELIGIBILITY AND APPLICATION

1. ELIGIBILITY

- (a). A new applicant must commit to at least three full **program years** of participation in this PLP.
- (b). Any **Member Entity** may apply to participate in the PLP by providing an adopted resolution of its governing body and such other information/materials as may be required. The applicant's resolution shall commit the applicant to three full **program years** of participation in the PLP, if accepted, and consent to be governed for liability coverage in accordance with the MPD, the MOC and other documents and policies adopted by the **Board**. The resolution may also state the **retained limit** desired by the applicant.
- (c). The application for participation shall be submitted at least thirty (30) days prior to the date of the last **Board** meeting of the **program year** to ensure the **Board** has adequate time to review and evaluate the acceptability of the applicant. It is recommended that an applicant only enter the PLP at the commencement of a new **program year**. If an applicant chooses to enter the PLP at any other time, the **deposit premium** for the remainder of the **program year** will be pro-rated. The new **Participant** will begin coverage on the date that is mutually acceptable to the new **Participant** and the **Board**; however, the new **Participant** will be required to share losses with the other **Participants** of the PLP for the entire **program year**.

2. APPROVAL OF APPLICATION

The **Board** shall, after reviewing the resolution and other underwriting criteria, determine the acceptability of the exposures presented by the applicant and shall advise the applicant in writing of its decision to accept or reject the request within 10 days after the decision has been made.

B. PARTICIPANTS' DUTIES

1. The **Participants** shall provide payroll, using the State DE-6 form, and all other requested information in conformance with the policies adopted by the **Board**.
2. The **Participants** shall disclose activities not usual and customary in their operation.
3. The **Participants** shall at all times cooperate with the **Authority's Administrator**, Litigation Manager, **Third Party Administrator**, and loss control personnel, in regards to underwriting activities of the **Authority**.
4. Each year the **Authority** shall bill **Participants** for a liability **deposit premium** for the next **program year**. The billings shall be due and payable in accordance with the Bylaws.
5. Billings may be made to **Participants** for a **program year** found to be actuarially unsound. All billings for payments to bring a **program year** into an actuarially sound condition are due and payable upon receipt.
6. Former **Participants** in the PLP shall be required to pay all applicable billings for the **program years** in which they participated. Delinquent billings, together with penalties and interest, shall be charged and collected from the **Participant** in accordance with the Bylaws.
7. Penalties and interest shall be charged against any amounts delinquent in accordance with the Bylaws.

C. TERMINATION

1. VOLUNTARY TERMINATION
 - (a). A **Participant** shall not be permitted to withdraw from the PLP prior to the end of its commitment period of three full **program years**, and shall be obligated for payment of premiums for these three years.
 - (b). A **Participant** which has maintained its participation in the PLP for three full **program years** may terminate its participation if, at least six months before the next **program year**, a written request to terminate participation is received from the **Participant**.
 - (c). Any **Participant** seeking to terminate its participation without proper and timely notice shall be responsible for the full cost of the next **program year's** premium. The notice will be deemed effective for the **program year** following the year in which the additional premium is paid.

2. INVOLUNTARY TERMINATION

- (a) The **Board** may initiate termination of a **Participant** from the PLP for the following reasons:
 - (i) Termination as a **Member Entity** of the **Authority**;
 - (ii) Declination to cover the **Participant** by the entity providing excess coverage;
 - (iii) Nonpayment of premiums, assessments, or other charges;
 - (iv) Frequent late payment of premiums, assessments, and/or other charges, subject to interest and penalty charges;
 - (v) Failure to timely provide requested underwriting information;
 - (vi) Consistent poor loss history relative to the pool;
 - (vii) Substantial change in exposures which are not acceptable in this PLP; and/or
 - (viii) Financial impairment that is likely to jeopardize this PLP's ability to collect amounts due in the future.

The Board's determination of the existence of any of these conditions shall be final.

- (b) The **Board** shall have the authority, upon a two-thirds approval, to authorize a termination notice be sent to a **Participant**. Such notice shall be sent at least 60 days prior to the effective date of termination.

3. CONTINUED LIABILITY UPON TERMINATION

Termination of participation, whether voluntary or involuntary, in future **program years** does not relieve the terminated **Participant** of any benefits or obligations of those **program years** in which it participated. These obligations include payment of assessments, retrospective adjustments, or any other amounts due and payable.

ARTICLE VII: TERMINATION AND DISSOLUTION OF THE PLP

The PLP may be terminated and dissolved any time by a vote of two-thirds of the **Participants**. However, the PLP shall continue to exist for the purpose of disposing of all claims, distributing assets, and all other functions necessary to conclude the affairs of the PLP.

Upon termination of the PLP, all assets of the PLP shall be distributed only among the **Participants**, including any of those which previously withdrew pursuant to Article VI, in accordance with and proportionate to their **deposit premiums** and assessments paid during the term of participation. The **Board** shall determine such distribution within six months after the last pending claim or loss covered by the PLP has been finally resolved and there is a reasonable expectation that no new claims will be filed.

ARTICLE VIII: AMENDMENTS

This MPD may be amended by a two-thirds (2/3rds) vote of the **Participants** present and voting at the meeting, provided prior written notice, as provided within the **Agreement**, has been given to the **Board**.

POOLED LIABILITY ASSURANCE NETWORK JOINT POWERS AUTHORITY

MASTER PROGRAM DOCUMENT
FOR THE
POOLED LIABILITY PROGRAM

Draft for July 1, 2018

POOLED LIABILITY ASSURANCE NETWORK JOINT POWERS AUTHORITY

MASTER PROGRAM DOCUMENT
FOR THE
POOLED LIABILITY PROGRAM

TABLE OF CONTENTS

ARTICLE I: DEFINITIONS	1
ARTICLE II: GENERAL.....	3
ARTICLE I: DEFINITIONS	1
ARTICLE II: GENERAL.....	2
A. AUTHORITY	2
B. PURPOSE.....	2
C. PARTICIPATION.....	2
D. GOVERNANCE	2
E. GOALS AND OBJECTIVES	3
ARTICLE III: PROGRAM ELEMENTS	3
A. PROGRAM YEARS.....	3
B. RETAINED LIMITS.....	4
C. DEPOSIT PREMIUMS	4
E. DIVIDEND AND ASSESSMENTS.....	5
F. EXCESS COVERAGE.....	6
G. PAY-AS-YOU-GO RESERVE FUND FOR PAYMENT OF CLAIMS	7
A. BOARD.....	8
B. EXECUTIVE COMMITTEE.....	8
C. ADMINISTRATOR.....	8
D. DUTIES OF THE LITIGATION MANAGER.....	9
ARTICLE V: CLAIMS ADMINISTRATION	10
A. CLAIMS PROCEDURES MANUAL	10
B. CLAIMS AUDIT	11
C. CLAIM SETTLEMENT AUTHORITY	11
D. DISPUTES REGARDING MANAGEMENT OF A CLAIM	11
ARTICLE VI: PARTICIPATION.....	12
A. ELIGIBILITY AND APPLICATION	12
B. PARTICIPANTS' DUTIES.....	13
C. TERMINATION	13
ARTICLE VII: TERMINATION AND DISSOLUTION OF THE PLP	14
ARTICLE VIII: AMENDMENTS	15
Approved June 1, 2018	i

Appendix A

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

ADMINISTRATIVE MATTERS

SUBJECT: Consideration of PLAN JPA Conflict of Interest Code

BACKGROUND AND HISTORY:

With the transition of ABAG PLAN to PLAN JPA, the Conflict of Interest Code (COIC) requires amendment to reflect the name of PLAN JPA and to include the Board of Directors and Alternates to the designated positions list. Additionally, staff requested the FPPC become the filing officer in order to provide filers with the option to file their FPPC Form 700s electronically.

Any time an amendment is made to the COIC, the Fair Political Practices Commission (FPPC) requires the Code be submitted to them for approval. Staff recently received the back from the FPPC and it is enclosed in redline/strikeout showing the recommended amendments as follows:

- Changing the name from ABAG PLAN to PLAN JPA throughout the document
- Changing the entity responsible for retaining the original copies of statements from ABAG PLAN to the FPPC in order to permit electronic submissions of filers FPPC Forms;
- Designating Positions – adding the Board and Alternates to the list and removing the Claims Manager, Risk Manager and Legal Counsel as these positions fall under “Consultants”
- Clearly listing the disclosure categories

As required by the FPPC, a public Notice of Intention to Amend ABAG PLAN’s Conflict of Interest Code was distributed to the entire membership, staff and service providers on June 7, 2018. The notice requires a 45-day commenting period be provided for PLAN members and members of the public to provide feedback, and ends July 23, 2018.

Should there be no further changes to the COIC, once the commenting period has terminated, staff will provide a final to the membership and post the COIC to the PLAN JPA website.

RECOMMENDATION:

None.

REFERENCE MATERIALS ATTACHED:

- PLAN JPA Conflict of Interest Code – redline/strikeout
- Notice of Intention to Amend the Conflict of Interest Code

~~ASSOCIATION OF BAY AREA GOVERNMENTS~~ POOLED LIABILITY ASSURANCE
NETWORK ~~JOINT POWERS AUTHORITY~~ (ABAG-PLAN JPA)
CONFLICT OF INTEREST CODE

The Political Reform Act (Government Code Section 81000, et seq.) requires state and local government agencies to adopt and promulgate conflict of interest codes. The Fair Political Practices Commission has adopted a regulation (2 California Code of Regulations Section 18730) that contains the terms of a standard conflict of interest code, which can be incorporated by reference in an agency's code. After public notice and hearing, the standard code may be amended by the Fair Political Practices Commission to conform to amendments in the Political Reform Act. Therefore, the terms of 2 California Code of Regulations Section 18730 and any amendments to it duly adopted by the Fair Political Practices Commission are hereby incorporated by reference. This regulation and the attached Appendices, designating positions and establishing disclosure categories, shall constitute the conflict of interest code of ~~Association of Bay Area Governments~~ Pooled Liability Assurance Network Joint Powers Authority (ABAG-PLAN JPA).

Officials and employees holding positions listed in this code must file their statements of economic interests electronically with the Fair Political Practices Commission. All statements must be made available for public inspection and reproduction under Government Code Section 81008.

~~Individuals holding designated positions shall file their statements of economic interests with ABAG PLAN JPA, which will make the statements available for public inspection and reproduction. (Gov. Code Sec. 81008.) All statements will be retained by ABAG PLAN in the office of the Association of Bay Area Governments. Upon receipt of the statements, PLAN JPA shall make and retain copies and forward original statements to the Fair Political Practices Commission. All original statements will be retained by the Fair Political Practices Commission.~~

~~AMENDED JANUARY XX, 2018~~

POOLED LIABILITY ASSURANCE NETWORK JOINT POWERS AUTHORITY
APPENDIX TO THE CONFLICT OF INTEREST CODE

APPENDIX A-
DESIGNATED POSITIONS

<u>Designated Positions</u>	<u>Disclosure Categories</u>
Executive Director/ President	1, 2, 3, and , 4
Assistant Executive Director	1, 2, 3, and 4
Secretary	1
Litigation Manager	1, 2, 3, and 4
Workers' Compensation Compensation Program Manager	1, 2, 3, and 4
Risk Manager	1, 2, 3, and 4
Finance Manager	1, 2, 3
Legal Counsel	1, 2, 3
Coverage Counsel	1, 2, 3, and 4
Legal Counsel to the Corporation	1, 2, 3, 4
Manager – Liability Claims	1, 2, 3, 4

Consultants/New Positions*

*Consultants/New Positions shall be included in the list of designated positions and shall disclose pursuant to the broadest disclosure category in the code subject to the following limitation:

The Executive ~~Director/President may~~Director may determine in writing that a particular consultant or new positions, although a "designated position," is hired to perform a range of duties that is limited in scope and thus is not required to comply fully with the disclosure requirements described in this section. Such determination shall include a description of the consultants or new position's duties and, based upon that description, a statement of the extent of disclosure requirements. The Executive Director's/~~President's~~ determination is a public record and shall be retained for public inspection in the same manner and location as this conflict of interest code. (Gov. Code Sec. 81008)

Note: The positions ~~of Executive Director/President, Risk Manager and Manager – Liability Claims are filled by employees of Association of Bay Area Governments, but act in a staff~~

capacity. The position of Legal Counsel to the Corporation is filled by an outside consultant, but acts in a staff capacity. ~~are filled by outside consultants, but act in a staff capacity for PLAN JPA.~~

The following positions are NOT covered by the conflict of interest code because ~~they must file under Government Code Section 87200 and, therefore, are listed for informational purposes only;~~ the positions manage public investments. Individuals holding such positions must file under Government Code Section 87200 and are listed for informational purposes only. Section 87200 requires disclosure of all investments and business positions in business entities, all income, including gifts, loans and travel payments, and real property.

Treasurer

Assistant Treasurer

Consultants that manage public investments

Members of the Board of Directors

Alternates for Members of the Board of Directors

Chief Financial Officer

An individual holding one of the above listed positions may contact the Fair Political Practices Commission for assistance or written advice regarding their filing obligations if they believe that their position has been categorized incorrectly. The Fair Political Practices Commission makes the final determination whether a position is covered by Government Code Section 87200.

DISCLOSURE CATEGORIES:

1. Investments and business positions in business entities and income (including receipt of loans, gifts, and travel payments) from sources of the type that contract with PLAN JPA to supply goods, services, materials, or supplies.
2. Investments and business positions in business entities, and income (including receipt of loans, gifts and travel expenses) from sources that are engaged in the performance of work or services of the type utilized by PLAN JPA, including insurance companies, carriers, holding companies, underwriters, brokers, solicitors, agents, adjusters, claims managers, and actuaries.
3. Investments and business positions in business entities, and income (including receipt of loans, gifts, and travel payments) from sources that have filed a claim or have a claim pending that are reviewed and administered by PLAN JPA.
4. ~~Investments and business positions in business entities, and income (including receipt of loans, gifts, and travel payments), which are financial institutions including banks, savings and loan associations and credit unions.~~

~~5. Interests in real property of the type to be leased or purchased by PLAN JPA.~~

~~APPENDIX B DISCLOSURE CATEGORIES~~

~~Designated positions must disclose pursuant to the categories below.~~

~~1. Investments and business positions in business entities, and income (including receipt of loans, gifts, and travel payments), from sources of the type that contract with ABAG PLAN to supply goods, services, materials, or supplies.~~

~~2. Investments and business positions in business entities, and income (including receipt of loans, gifts, and travel payments), from sources that are engaged in the performance of work or services of the type utilized by ABAG PLAN, including insurance companies, carriers, holding companies, underwriters, brokers, solicitors, agents, adjusters, claims managers, and actuaries.~~

~~3. Investments and business positions in business entities, and income (including receipt of loans, gifts, and travel payments), from sources that have filed a claim that is reviewed and administered by ABAG PLAN.~~

~~4. Investments and business positions in business entities, and income (including receipt of loans, gifts, and travel payments), which are financial institutions including banks, savings and loan associations and credit unions.~~

NOTICE OF INTENTION TO AMEND THE CONFLICT OF INTEREST CODE
OF THE POOLED LIABILITY ASSURANCE NETWORK JOINT POWERS AUTHORITY

NOTICE IS HEREBY GIVEN that the **Pooled Liability Assurance Network Joint Powers Authority (PLAN JPA)**, pursuant to the authority vested in it by section 87306 of the Government Code, proposes amendment to its conflict of interest code. A comment period has been established commencing on June 7, 2018, and closing on July 23, 2018. All inquiries should be directed to the contact listed below.

The **Pooled Liability Assurance Network Joint Powers Authority** proposes to amend its conflict of interest code to include employee positions that involve the making or participation in the making of decisions that may foreseeably have a material effect on any financial interest, as set forth in subdivision (a) of section 87302 of the Government Code. The amendment carries out the purposes of the law and no other alternative would do so and be less burdensome to affected persons.

Changes to the conflict of interest code include: changing the name from ABAG PLAN to PLAN JPA; changing the entity responsible for retaining original copies of the statements to the FPPC; designating positions to include the Board and Alternate Directors; clearly listing the disclosure categories; and also makes other technical changes.

The proposed amendment and explanation of the reasons can be obtained from the agency's contact.

Any interested person may submit written comments relating to the proposed amendment by submitting them no later than **July 23, 2018**, or at the conclusion of the public hearing, if requested, whichever comes later. At this time, no public hearing is scheduled. A person may request a hearing no later than **July 6, 2018**.

The **Pooled Liability Assurance Network Joint Powers Authority** has determined that the proposed amendments:

1. Impose no mandate on local agencies or school districts.
2. Impose no costs or savings on any state agency.
3. Impose no costs on any local agency or school district that are required to be reimbursed under Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.
4. Will not result in any nondiscretionary costs or savings to local agencies.
5. Will not result in any costs or savings in federal funding to the state.
6. Will not have any potential cost impact on private persons, businesses or small businesses.

All inquiries concerning this proposed amendment and any communication required by this notice should be directed to: Yahaira Martinez, Assistant General Manager, at YMartinez@Bickmore.net, or 800.541.4591 ext. 19019.

RISK CONTROL MATTERS

SUBJECT: Update on PLAN JPA Risk Control Program for 2018/19

BACKGROUND AND HISTORY:

At the last two Risk Management Committee meetings, discussion centered around developing a risk control plan that would provide “core risk control services” for all members. Also discussed, was consideration of a streamlined and simplified annual Grant Fund program to supplement and support each member’s respective risk management program.

As a result, a revised service model for the 2018/19 program year was developed, refined, and recommended for approval to the Executive Committee. Subsequently, this plan was reviewed and approved at the June 6, 2018 Executive Committee meeting with the caveat of limiting the contract to one year and providing high-level summary reports of service on a regular basis. In addition, the Executive Committee directed the Risk Management Committee to survey membership satisfaction toward the end of the program year to gauge member satisfaction and evaluate the desire to develop a request for proposal at that point in time.

1. Core Services Risk Management Program

Mr. Jeff Johnston Bickmore, will be in attendance to review the attached core services risk management program. This program will include a first year on-site risk control orientation, an annual risk assessment of select best practices, dedicated time to assist with recommendation implementation(s), regional training, unlimited phone and email support as well as a couple of additional refinements. The cost will be funded through the annual budget process.

2. Grant Fund Program

The current Grant Fund program will remain in place, but guidelines were revised to allow for broader use of funds with fewer restrictions than in the past. These revised guidelines are provided in the attachment.

The Grant Fund accounts will be funded in 2018/19 as follows:

1. A total of \$500,000 will be allocated from equity to the Grant Fund Program in 2018/19. These funds will be distributed “pro-rata” based on each member’s percentage of premium as outlined in the policy. An example of this allocation has been attached. This is the same method utilized in the past.
2. Additionally, after all reimbursement requests for the 2017/18 program year have been completed, all remaining funds in “all” of the current buckets will

June 20, 2018

Agenda Item 8.A.
Page 2

be combined and re-allocated to the members via the same pro-rata formula outlined above.

In essence, members will receive their initial allocation on July 1, funded from equity. Additionally a supplemental allocation will be funded from the remainder of all funds unused from the prior program years sometime in January 2019. This combination should provide a nice starting balance for most, if not all members.

Annually, thereafter, staff will recommend the Board review the equity position of the group and make further allocations of equity, as appropriate, to continue to replenish or add funds to the individual Grant Fund account balances.

RECOMMENDATION:

None.

REFERENCE MATERIALS ATTACHED:

- Proposed 2018/19 Risk Management Program Service Detail
- PLAN JPA Grant Fund Policy
- PLAN JPA Sample Grant Fund Allocation

Core Services Risk Management Program Service Detail For the 2018/19 Program Year

On-Site Risk Control Orientation / Action Plan

Conduct on-site orientation visits for each member. The purpose of the visit is to provide an overview of the PLAN Risk Control Service plan, discuss member specific needs, develop action plans and review the available risk control resources for department managers and supervisors.

PLAN Risk Assessments

Conduct annual risk assessments. Each year, the assessments focus on PLAN performance measures for a preselected risk exposure(s) from the following topics:

- Risk Management Policy
- Injury & Illness Prevention Program (IIPP)
- Risk Management Organization
- Risk Management Goals and Action Plans
- Claim Reporting and Follow-up
- Vehicle Use and Operations
- Sidewalk Inspection and Maintenance
- Urban Forest management (Trees and Vegetation)
- Sewer Loss Prevention and Management
- Police Risk Management
- Fire Risk Management
- Contractor Selection and Control
- Road Maintenance
- Contractual Risk Transfer
- ADA Compliance and Transition Plans
- Playground Safety
- Facilities Maintenance and Hazard Identification
- Aquatics Programs
- Special Events and Facility Rentals
- Employment Best Practices

PLAN Risk Management Software Refinement and Management

Update and refine Risk Console to improve data collection and warehousing and reporting. In addition, the capability to add tracking for grant usage will be added to the platform, allowing each member to have access to monitor grant balances. The pricing includes consultation time from Ventive to make the necessary changes and training to members.

Risk Control Service Days on Request

Provide risk control service days to assist with liability risk management. Services may include assisting with best practice recommendations identified in risk assessments, providing on-site training, participating/facilitating in risk management committee meetings, developing written programs, inspecting facilities, and other consulting services.

Driver Training on Request

Provide on-site biennial Defensive Driving training.

Driver Ride-a-long Evaluations

Provide on-site biennial employee ride-a-long evaluations.

Contractual Risk Transfer (CRT) Training on Request

Provide on-site CRT training.

Resource Development

Create resources and tools to make it easier to implement recommendations. Examples of new tools include simplified guides and checklists, information about vendor and member solutions, and new industry best practices. These resources will be distributed to members via email where appropriate and all resources will be housed on the Bickmore Risk Control website.

Regional Training

Provide four regional training classes (includes Sewer Summit). This service includes topic research, trainer selection and fees, location selection, announcements, electronic registration management, and materials coordination. Depending on the response to these initial trainings at one location, regional training for the next program year could include multiple locations for one class.

Unlimited Phone and Email Consultation

Provide unlimited access to a risk control professional for technical information and guidance. This service provides one central resource to help answer risk management questions.

Bickmore Risk Control Website Resources

Members will have unlimited access to all the resources available on the Bickmore Risk Control website which includes over 300 on-line streaming videos, hundreds of safety training handouts and risk management regulatory publications, recorded safety webinars, sample programs, forms, and checklists. In addition, members will be invited to participate in all live webinars and will be included on our distribution of monthly safety communications.



PLAN JPA GRANT FUND PROGRAM GUIDELINES PROPOSAL

Purpose:

The purpose of the Grant Fund Program is to provide a mechanism for PLAN JPA members to fund expenditures that support their safety and risk management programs. These additional resources serve as incentives to encourage safety programs tailored to agencies' individual needs, and will allow Members to contend with city procedure barriers, city funding shortfalls and other challenges.

Funding:

Annually the PLAN JPA Board of Directors will determine what, if any amount to allocate in total to the Grant Fund Program.

Allocations to each member's individual account will be made based pro-rata on the premium allocation percentage of the member as it relates to the overall premium of the group for the year in question. (For example if Member X's annual premium is 5% of the total premium for the group, 5% of the total allocation of Grant Funds will be allocated to that member's individual grant fund account.)

A participating Member's Grant Fund Allocation will be for that Member's account only. The Grant Fund accounts will be non-interest bearing. Any funds remaining in a Member's account at the end of a fiscal year will be carried over to that Member's account in the following fiscal year.

Should a Member withdraw from the Pool, the balance of their Risk Management Fund account will be returned within 90 days of the effective date of the Member's withdrawal or termination.

Use Guidelines:

Program funds will be used to reimburse Member expenditures for the following:

1. Controlling or minimizing risks that could result in injury, illness, and/or claims filed against the Member
2. Development, implementation, and maintenance of safety and risk management programs.
3. Emergency and disaster preparedness.
4. Purchase of equipment, items or improvements that enhance safety of employees or the public.
5. Attend outside training or conferences; or provide in-house training relating to safety and risk management programs.
6. Special expenditures permitted by the PLAN JPA Risk Management Committee.

Program funds will not be used to fund:

1. Deferred maintenance,
2. "Wear and tear" repair or replacement,
3. Operating supplies, materials, or equipment that are normally addressed in another department's budget

4. Employee wages
5. Monetary fines resulting from regulatory citations.

Reimbursement Process:

1. Each Member will designate a person authorized to submit requests for reimbursement from its individual Grant Fund account.
2. The Member's authorized representative will submit a completed request form to the PLAN JPA Risk Control Manager.
 - i. "Proposals for Purchase" submission will include a quote from the vendor, including the vendor's name and address.
 - ii. "Requests for Reimbursement" will include proof of payment and full description of the service or product.
 - iii. The PLAN JPA Risk Control Manager or his/her designee will be responsible for reviewing the proposals and requests, and initiating the payment or reimbursement process.
3. When a "Proposal for Purchase" is approved:
 - i. The check will be made payable to the Member designated on the request form and delivered to the requesting Member for completion or reimbursement of the purchase.
 - ii. The member will provide the PLAN JPA Risk Control Manager with a copy of the "paid" invoice once the purchase has been made to confirm the purchase.
 - iii. PLAN JPA accounting staff will combine this documentation with the documentation from the original purchase proposal as complete record of the transaction.
 - iv. If a copy of the paid invoice is not received by PLAN JPA, no further disbursements will be made until the required documentation of finished transaction is provided.
4. When a "Request for Reimbursement" is approved, the check will be made payable to the member and sent to the normal mailing address for that member unless as otherwise directed by the member's authorized representative.
5. The PLAN JPA Risk Control Manager will contact Members to discuss submissions that do not appear to meet PLAN JPA guidelines.
6. A Member may appeal denied requests to the Risk Management Committee.
7. PLAN JPA Accounting Staff will process reimbursements in accordance with the internal controls established by PLAN JPA.
8. The PLAN JPA Accounting Manager will prepare semi-annual reports of Grant Fund account balances. The PLAN JPA Risk Control Manager will prepare an annual report of how the funds were used. Both reports will be made to the Risk Management Committee.

**PLAN JPA
Grant Fund Program
Use of Funds Request**

City:		Date:	
Name of Authorized City Representative:		Title:	
Signature:			
Phone No:		Email address:	
Make check payable¹ to:			
Deliver the check to:			
Use of Funds Description			Amount Requested
			\$
<input type="checkbox"/> Supporting documentation attached.			Total
<i>Email request and support documents to PLAN JPA Risk Control Manager: Gail Zeigler at gzeigler@bickmore.net.</i>			\$
Distribution of funds contingent on available fund balance. <div style="display: flex; justify-content: space-around;"> Approved_____ Denied_____ Copy Rian Potvin_____ </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> Signature_____ Date: _____ </div> <p style="text-align: center; margin-top: 5px;"><i>PLAN JPA Risk Control Manager</i></p>			

¹ Use a separate form for each vendor.

ABAG PLAN

SAMPLE GRANT FUND ALLOCATION

Member	2018/19 60% CL Loss & Admin Funding	Allocation Percentage	2018/19 GRANT FUND
AMERICAN CANYON	\$ 185,383	2.04%	\$ 10,216
ATHERTON	130,568	1.44%	7,195
BENICIA	655,902	7.23%	36,146
BURLINGAME	335,106	3.69%	18,467
CAMPBELL	365,430	4.03%	20,138
COLMA	102,532	1.13%	5,650
CUPERTINO	419,166	4.62%	23,099
DUBLIN	332,645	3.67%	18,331
EAST PALO ALTO	219,613	2.42%	12,102
FOSTER CITY	229,282	2.53%	12,635
HALF MOON BAY	113,452	1.25%	6,252
HILLSBOROUGH	204,264	2.25%	11,257
LOS ALTOS HILLS	104,193	1.15%	5,742
LOS GATOS	326,892	3.60%	18,014
MILLBRAE	207,108	2.28%	11,413
MILPITAS	565,977	6.24%	31,190
MORGAN HILL	595,485	6.56%	32,816
NEWARK	455,649	5.02%	25,110
PACIFICA	484,208	5.34%	26,684
PORTOLA VALLEY	46,942	0.52%	2,587
ROSS	83,120	0.92%	4,581
SAN BRUNO	847,460	9.34%	46,703
SAN CARLOS	504,316	5.56%	27,792
SARATOGA	181,873	2.00%	10,023
SOUTH SAN FRANCISCO	969,293	10.68%	53,417
SUISUN CITY	185,655	2.05%	10,231
TIBURON	146,336	1.61%	8,064
WOODSIDE	75,223	0.83%	4,145
GRAND TOTAL	\$ 9,073,073	100%	\$ 500,000

June 20, 2018

Agenda Item 9.A.

FINANCIAL MATTERS

SUBJECT: Review of the General Liability Actuarial Report

BACKGROUND AND HISTORY:

The Actuarial Committee met on April 18, 2018, and reviewed the most recent actuarial report for ABAG PLAN. The actuarial report is composed of two main components. Part one of the study is to determine the appropriate funding for the 2018/19 year. Part two is a review of the estimates of the outstanding liabilities projected as of June 30, 2018. The actuary was able to compile the report using December 31, 2017, loss run and financial statements. The report indicated the following items:

Part One:

Below is a comparison of the funding:

<u>Program Year Funding</u>	<u>Expected</u>	<u>60%</u>	<u>70%</u>
2018/2019	\$ 4,922,000	\$ 5,035,000	\$ 5,788,000
2017/2018	4,300,000	4,497,000	5,007,000
Change	<u>\$ 622,000</u>	<u>\$ 538,000</u>	<u>\$ 781,000</u>
% Change	<u>14.5%</u>	<u>12.0%</u>	<u>15.6%</u>

In the past year, ABAG PLAN has funded at the 60% confidence level. The increase in funding from past year can be related to increase in payroll of 7.8% and development of claims in past years.

Part Two:

Below is a comparison of outstanding liabilities:

<u>Outstanding Liabilities</u>	<u>Expected</u>
June 30, 2018	\$ 20,630,000
June 30, 2017	16,170,000
Change	<u>\$ 4,460,000</u>
% Change	<u>27.6%</u>

Increase in liabilities is a result of development in claims 2015/16 and 2016/17 program years.

RECOMMENDATION:

None.

REFERENCE MATERIALS ATTACHED:

- Draft Actuarial Review for Fiscal Year 2017/18

DRAFT



Friday, June 8, 2018

Mr. Rob Kramer
Pool Administrator
Association of Bay Area Governments – PLAN
1750 Creekside Oaks Drive, Suite 200
Sacramento, CA 95833

Re: Actuarial Review of the Self-Insured Liability Program

Dear Mr. Kramer:

As you requested, we have completed our review of ABAG's self-insured liability program (the PLAN). We estimate the ultimate cost of claims and expenses for claims incurred during the 2018-19 program year to be \$4,922,000 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 3.0% return on investments per year. For budgeting purposes, the expected cost of 2018-19 claims translates to a rate of \$1.150 per \$100 payroll.

In addition, we estimate the program's liability for outstanding claims to be \$20,630,000 as of June 30, 2018, including ALAE, unallocated loss adjustment expenses (ULAE), and discounted for anticipated investment income. ULAE is the remainder of the cost to administer all claims to final settlement. Given estimated program assets of \$45,476,000 (including SIR Fund assets), the program is funded above the 95% confidence level (see Graph 1 on Page 8).

DRAFT

The \$20,630,000 estimate is the minimum liability to be booked by the PLAN in accordance with Governmental Accounting Standards Board (GASB) Statement #10. GASB #10 requires PLAN to accrue a liability on its financial statements for the ultimate cost of claims and expenses associated with all reported and unreported claims, including ALAE and ULAE. GASB #10 does not prohibit the discounting of losses to recognize investment income.

Estimated Liability for Unpaid Loss and LAE at June 30, 2018

	Expected	Marginally Acceptable 70% CL	Recommended Range			Conservative 90% CL
			Low 75% CL	80% CL	High 85% CL	
Loss and ALAE	\$19,621,000					
ULAE (Claims Administration)	2,453,000					
Investment Income Offset	(1,444,000)					
Discounted Loss and LAE	\$20,630,000	\$22,941,000	\$23,951,000	\$25,127,000	\$26,613,000	\$28,593,000
Program Assets Includes SIR Fund	45,476,000					
Redundancy	\$24,846,000	\$22,535,000	\$21,525,000	\$20,349,000	\$18,863,000	\$16,883,000

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

Estimated Liability for Unpaid Loss and LAE at June 30, 2018

Discount Rate	Outstanding Liability
2.0%	\$21,089,000
3.0%	\$20,630,000
4.0%	\$20,192,000

GASB #10 does not address an actual funding requirement for the program, but only speaks of the liability to be recorded on the PLAN's financial statements. Because actuarial estimates of claims costs are subject to some uncertainty, we recommend that an amount in addition to the discounted expected loss costs be set aside as a margin for contingencies. Generally, the amount should be sufficient to bring funding to the 75% to 85% confidence level.

It should be noted that the \$45,476,000 of program assets can be broken downs as follows:

- \$20,630,000 of assets backing discounted loss and LAE liabilities at expected level
- \$7,963,000 of assets backing discounted loss and LAE liabilities from the expected level to the 90% confidence level (Risk-Margin Fund)
- \$16,883,000 of assets backing discounted loss and LAE liabilities above the 90% confidence level (SIR Fund)

DRAFT

The following tables show our funding recommendations for PLAN for the 2018-19 fiscal year assuming \$2.5 million limit at 4.0%, 3.0% and 2.0% discount rate assumptions.

Loss and ALAE Funding Guidelines

	2.0%	3.0%	4.0%
Expected Loss and ALAE	\$5,442,000	\$5,442,000	\$5,442,000
Discounted Loss and ALAE	5,086,000	4,922,000	4,766,000
60% Confidence Level	5,203,000	5,035,000	4,876,000
70% Confidence Level	5,981,000	5,788,000	5,605,000
80% Confidence Level	7,009,000	6,783,000	6,568,000
90% Confidence Level	8,651,000	8,372,000	8,108,000

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

DRAFT

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

We appreciate the opportunity to be of service to PLAN in preparing this report. Please feel free to call Becky Richard at (916) 244-1183, Mike Harrington at (916) 244-1162 or David Kim at (916) 244-1166 with any questions you may have concerning this report.

Sincerely,

Bickmore

DRAFT

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

DRAFT

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

DRAFT

David Kim, MA
Senior Actuarial Analyst, Property and Casualty Actuarial Services, Bickmore

TABLE OF CONTENTS

I. BACKGROUND	6
II. CONCLUSIONS AND RECOMMENDATIONS	7
A. LIABILITY FOR OUTSTANDING CLAIMS AS OF JUNE 30, 2018	7
B. COSTS OF 2018-19 CLAIMS	11
C. PROGRAM FUNDING: GOALS AND OBJECTIVES	12
D. OTHER RESULTS	17
E. COMPARISON WITH OUR PREVIOUS RESULTS	21
F. DATA ISSUES	26
III. ASSUMPTIONS AND LIMITATIONS	27
IV. GLOSSARY OF ACTUARIAL TERMS	29
V. EXHIBITS	31
VI. APPENDICES	49

I. BACKGROUND

PLAN 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 State 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. As of June 30, 2018, the PLAN is expected to have available assets of \$45,476,000 for the program including SIR Fund.

In PLAN's loss history, there have been claims made relating to property development actions, specifically inverse condemnation claims. Effective July 1, 2008, the ABAG PLAN 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 to determine reasonable funding levels for its self-insurance program according to the funding policy PLAN has adopted to comply with Governmental Accounting Standards Board Statements #10 and #30. The specific objectives of the study are to estimate PLAN's liability for outstanding claims as of June 30, 2018, project ultimate loss cost for 2018-19 and provide funding guidelines to meet these liabilities and future costs.

II. CONCLUSIONS AND RECOMMENDATIONS

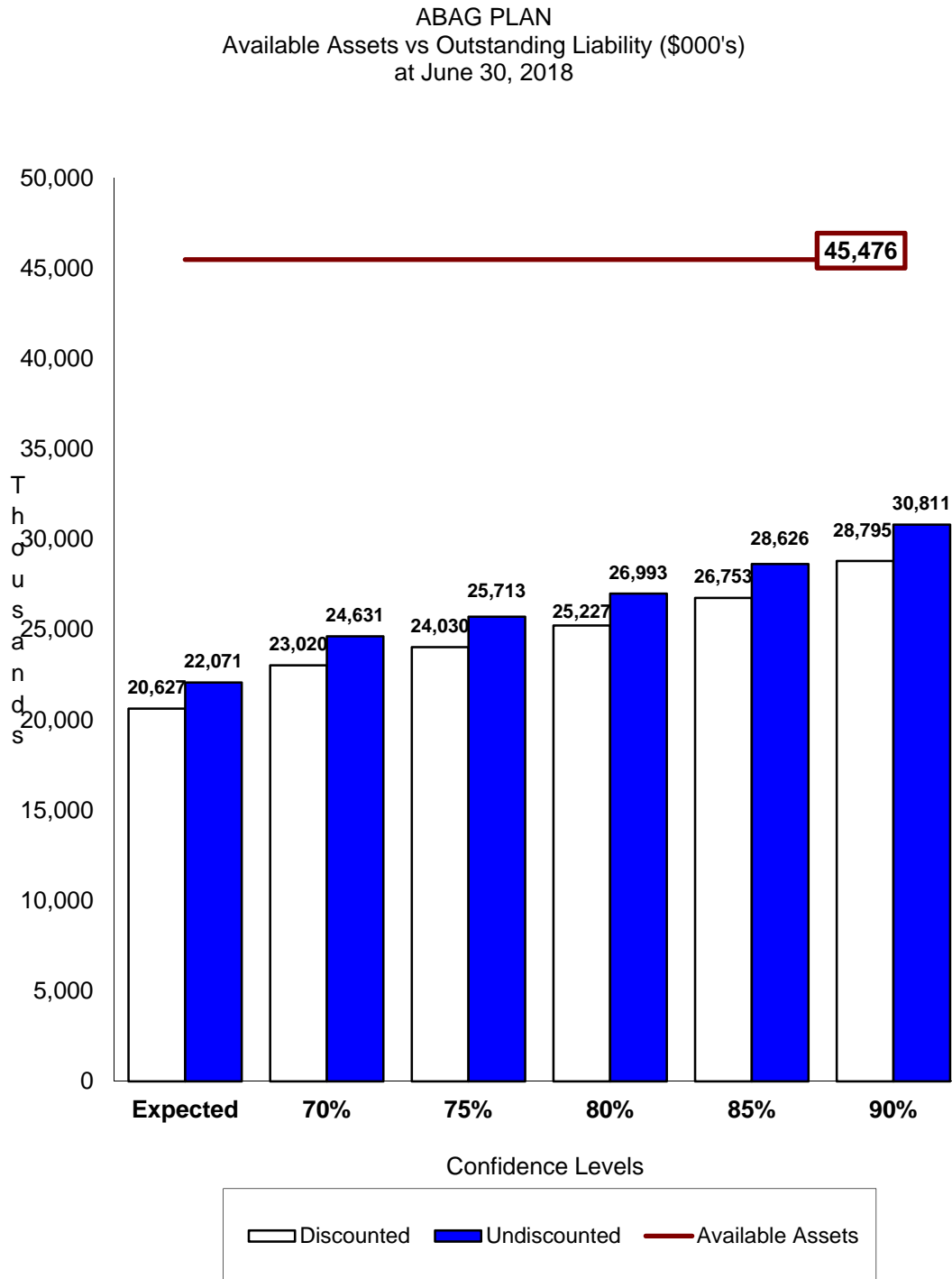
A. LIABILITY FOR OUTSTANDING CLAIMS AS OF JUNE 30, 2018

Graph 1 on the following page summarizes our assessment of the PLAN's funding position as of June 30, 2018. The dark-colored bars indicate our estimates of the program's liability for outstanding claims before recognition of the investment income that can be earned on the assets held before the claim payments come due. The solid horizontal line across the graph indicates the PLAN's available assets at June 30, 2018 including the SIR Fund.

Our best estimate of the full value of PLAN's liability for outstanding claims within its self-insured retention (SIR) is \$22,074,000. This amount includes losses, allocated loss adjustment expenses (ALAE) and unallocated loss adjustment expenses (ULAE), and is shown at the far left of the graph. ALAE is basically the direct cost associated with the defense of individual claims (e.g. legal fees, investigation fees, court charges, etc.). ULAE is the additional cost to administer all claims to final settlement, which may be years into the future (e.g. claims adjusters' salaries, taxes, etc.), and is estimated to be 10% of outstanding loss and ALAE.

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

Graph 1



DRAFT

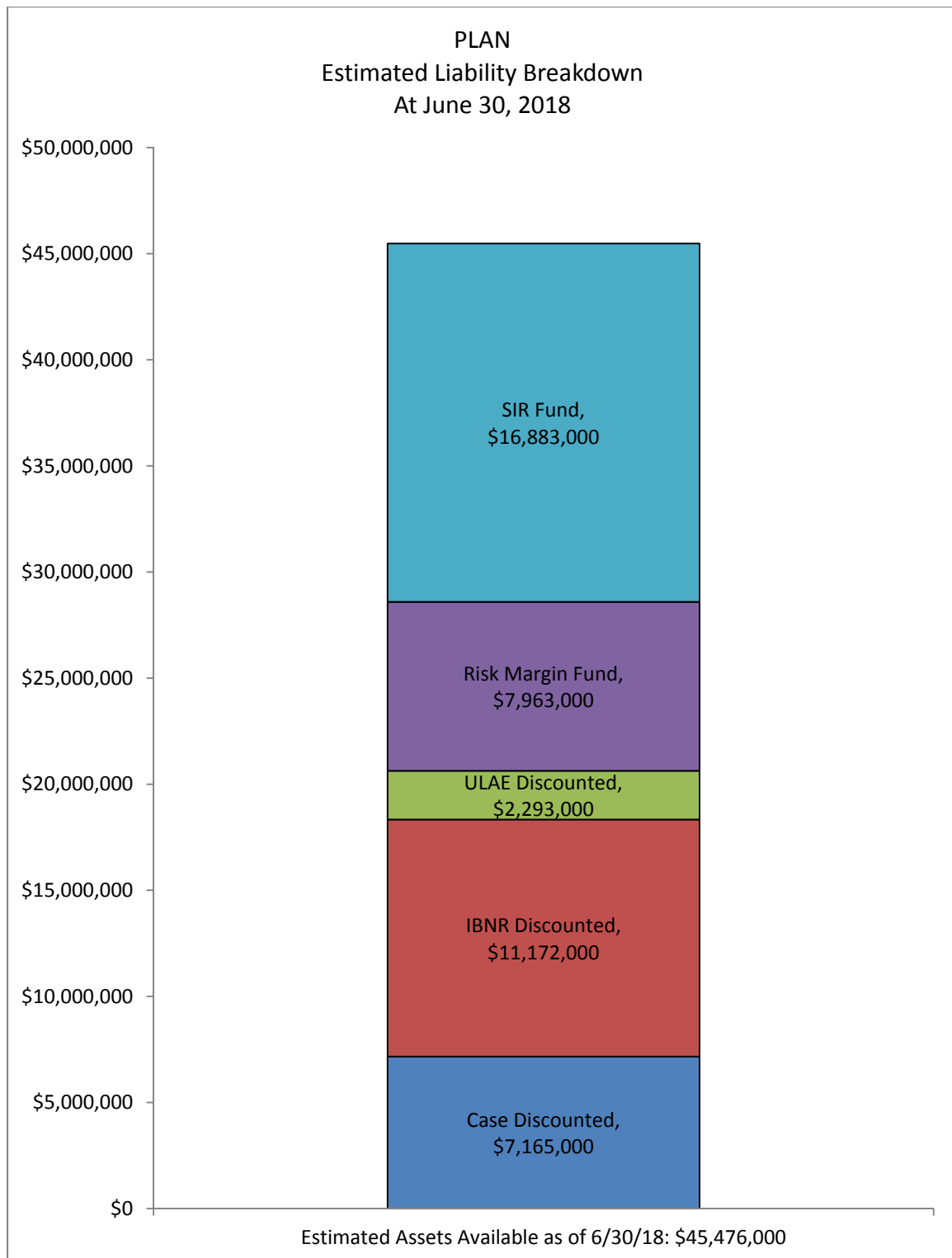
The PLAN can earn investment income on the assets it holds until claims payments come due. Assuming a long-term average annual return on investments of 3.0%, we estimate the impact of investment income earnings to be about 6.5% if the program is funded within the range indicated in Graph 1. Investment income earnings will be less than this when the program does not maintain sufficient funding, and more when there is excess funding. Thus, thinking in terms of liabilities discounted for investment income can actually mask funding deficiencies and redundancies that might otherwise be obvious. However, the discounted liabilities do represent legitimate funding targets. The light-colored bars on Graph 1 show our estimates of the PLAN's discounted liability for outstanding claims.

We estimate the program's expected discounted liability for outstanding claims to be \$20,630,000 again including ALAE and ULAE. With recognition of the investment income that can be earned on the assets held, the program is funded above the 90% confidence level. The information presented in Graph 1 is also summarized in tabular form below.

Liability for Outstanding Claims at 6/30/18						
Confidence Levels	Expected	70%	75%	80%	85%	90%
Not Discounted	\$22,074,000	\$24,546,000	\$25,628,000	\$26,886,000	\$28,475,000	\$30,595,000
Discounted	20,630,000	22,941,000	23,951,000	25,127,000	26,613,000	28,593,000
Assets Available at 6/30/18	\$45,476,000					

GASB #10 does not address an actual funding requirement for the program, but only speaks to the liability to be recorded on the PLAN's financial statements. Because actuarial estimates of claims costs are subject to some uncertainty, we recommend that an amount in addition to the discounted expected loss costs be set aside as a margin for contingencies. Optimally, the amount should be sufficient to bring funding to the 75% to 85% confidence level. We consider funding to the 90% confidence level to be conservative.

The following chart shows the breakdown of PLAN's estimated assets available as of June 30, 2018. The discounted value of PLAN's estimated case reserves, IBNR and ULAE as of June 30, 2018 are \$7,165,000, \$11,172,000, and \$2,293,000, respectively. An additional \$7,963,000 increases the funding to 90% confidence.



B. COSTS OF 2018-19 CLAIMS

The following chart shows our funding recommendations for PLAN for the 2018-19 fiscal year assuming \$2.5 million limit at 4.0%, 3.0% and 2.0% discount rate assumptions.

Loss and ALAE Funding Guidelines

	2.0%	3.0%	4.0%
Expected Loss and ALAE	\$5,442,000	\$5,442,000	\$5,442,000
Discounted Loss and ALAE	5,086,000	4,922,000	4,766,000
60% Confidence Level	5,203,000	5,035,000	4,876,000
70% Confidence Level	5,981,000	5,788,000	5,605,000
80% Confidence Level	7,009,000	6,783,000	6,568,000
90% Confidence Level	8,651,000	8,372,000	8,108,000

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

C. PROGRAM FUNDING: GOALS AND OBJECTIVES

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

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

DRAFT

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.

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

<u>Funding Benchmarks</u>	<u>Score</u> <u>(SIR: \$2.5M)</u>	<u>Target</u>	<u>Result</u>
Net Assets to SIR	9.94	> 3 : 1	Pass
SIR fund to SIR	6.75	> 2 : 1	Pass
Net Premium to Net Assets	0.20	< 2 : 1	Pass
Claim Reserve/IBNR to Net Assets	0.74	< 3.5 : 1	Pass
Ultimate Loss Development to Net Assets	-2%	< 20%	Pass

Net Assets to SIR ratio: Target >3:1

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

SIR Fund to SIR ratio: Target >2:1

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

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

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

Claim Reserve/IBNR to Net Assets ratio: Target <3.5:1

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

Ultimate Loss Development to Net Assets ratio: Target <20%

This ratio is a measure of the development in prior year's ultimate losses from one year to the next. A low ratio is desirable.

DRAFT

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 (3%). This is shown in further detail on Exhibit 1, page 2a.

Member	Loss Funding	Excess Insurance	Admin Expenses	Loss Prevention Expense	Total Deposit
American Canyon	\$81,603	\$46,424	\$52,950	\$0	\$180,977
Atherton	78,323	16,292	32,454	0	127,069
Benicia	469,888	62,663	120,276	0	652,827
Burlingame	162,948	67,729	77,167	0	307,844
Campbell	196,707	97,031	71,691	0	365,430
Colma	67,171	3,438	29,878	0	100,488
Cupertino	188,101	137,146	75,879	0	401,126
Dublin	141,422	130,675	44,906	0	317,003
East Palo Alto	93,257	69,599	47,545	0	210,401
Foster City	102,193	75,651	41,672	0	219,517
Half Moon Bay	58,255	28,482	26,715	0	113,453
Hillsborough	112,248	24,766	54,144	0	191,158
Los Altos Hills	47,947	19,728	33,067	0	100,742
Los Gatos	163,745	68,358	75,063	0	307,165
Millbrae	92,321	52,717	62,070	0	207,109
Milpitas	257,871	172,081	112,432	0	542,383
Morgan Hill	378,897	99,449	98,827	0	577,172
Newark	276,638	101,928	77,083	0	455,649
Pacifica	322,515	86,144	75,549	0	484,208
Portola Valley	24,179	10,295	21,110	0	55,584
Ross, Town of	47,458	5,758	27,949	0	81,165
San Bruno	434,113	103,357	285,309	0	822,779
San Carlos	350,763	64,725	88,828	0	504,316
Saratoga	61,417	68,857	51,599	0	181,873
South SF	626,034	147,162	167,203	0	940,399
Suisun City	80,069	66,286	36,003	0	182,359
Tiburon	84,707	20,735	37,487	0	142,929
Woodside	34,441	12,669	29,478	0	76,588
Total	\$5,035,232	\$1,860,145	\$1,954,335	\$0	\$8,849,712

DRAFT

As shown in the previous table, total PLAN contributions are \$8,849,712, 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 2018-19. 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 (2012-13 through 2016-17) 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 2018-19 are \$1,954,335. Total PLAN administrative expenses of \$1,954,335 are split into \$1,563,468 for general liability and \$390,867 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 \$644,931 and 28 members for the 2018-19 fiscal year, this results in an initial charge of \$23,033 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

DRAFT

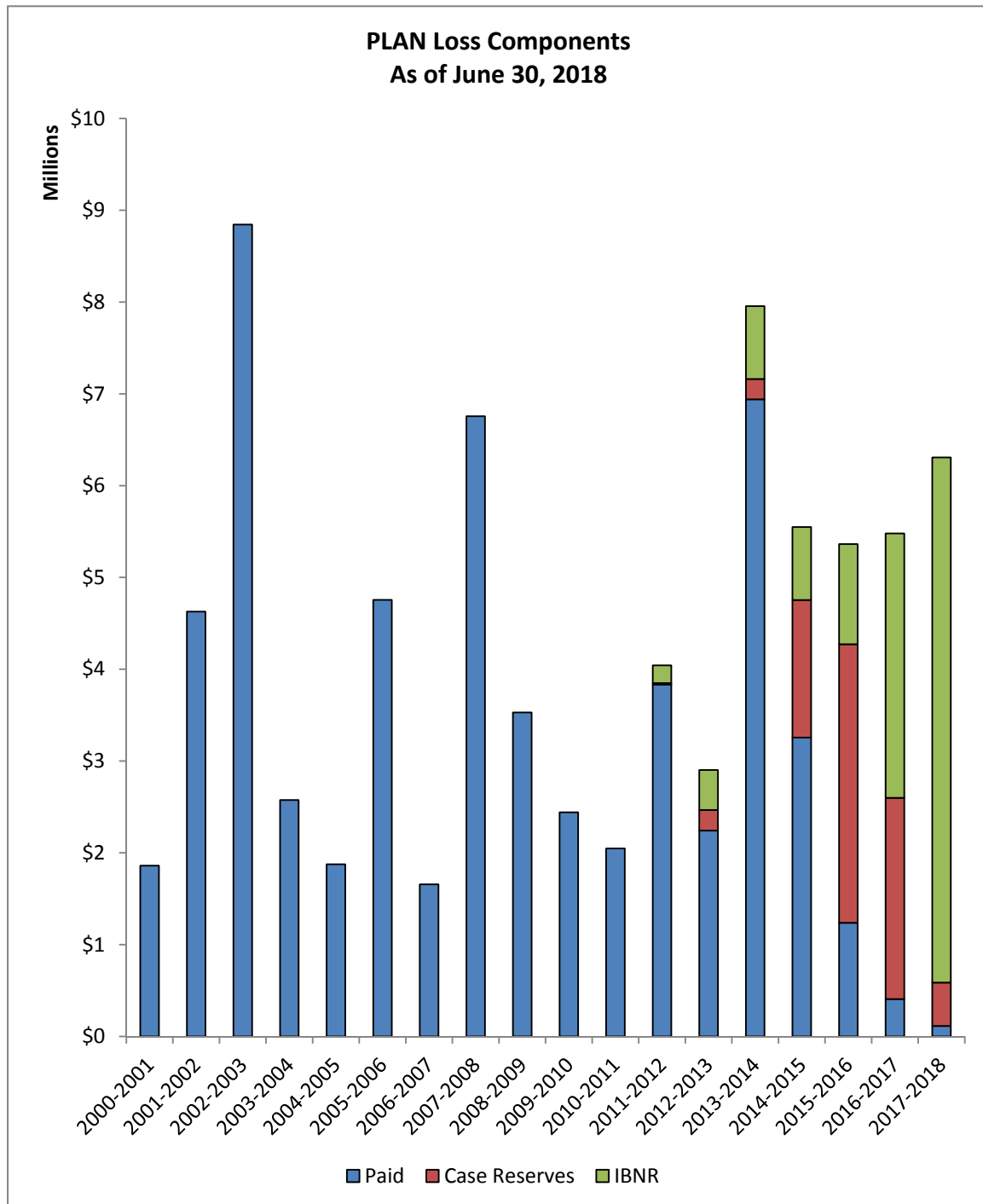
greater than \$1 (i.e. excluding claims closed without payment) and two-thirds weight to paid losses in the period 2012-13 through 2016-17. Liability and Property are treated separately for the allocation, then added into the premium in total.

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 deposit between the upcoming year and the current year. As directed by PLAN, the annual change in deposit is limited to 30%, assuming the member keeps the same deductible. The net impact of limiting the change in deposit is spread back to all members whose deposits are not already limited so that total deposit collected for the 2018-19 after limiting will be equal to prior deposit.

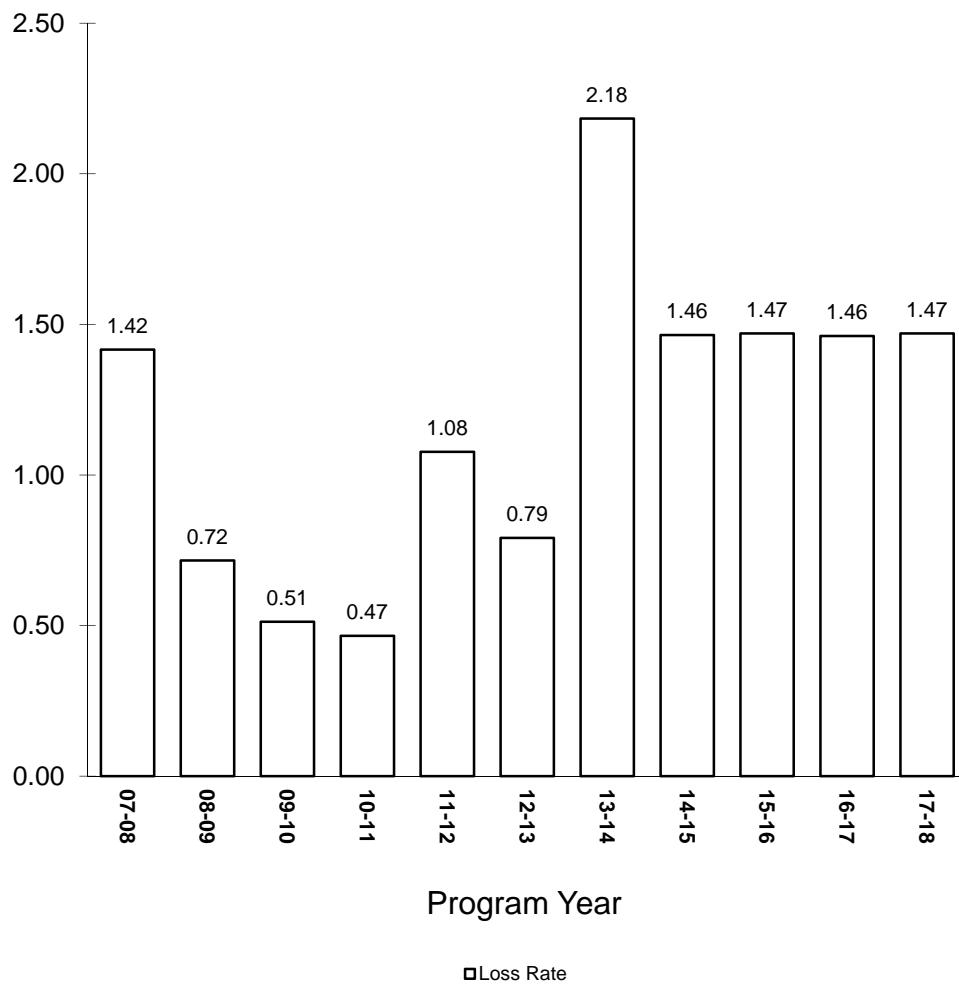
D. OTHER RESULTS

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



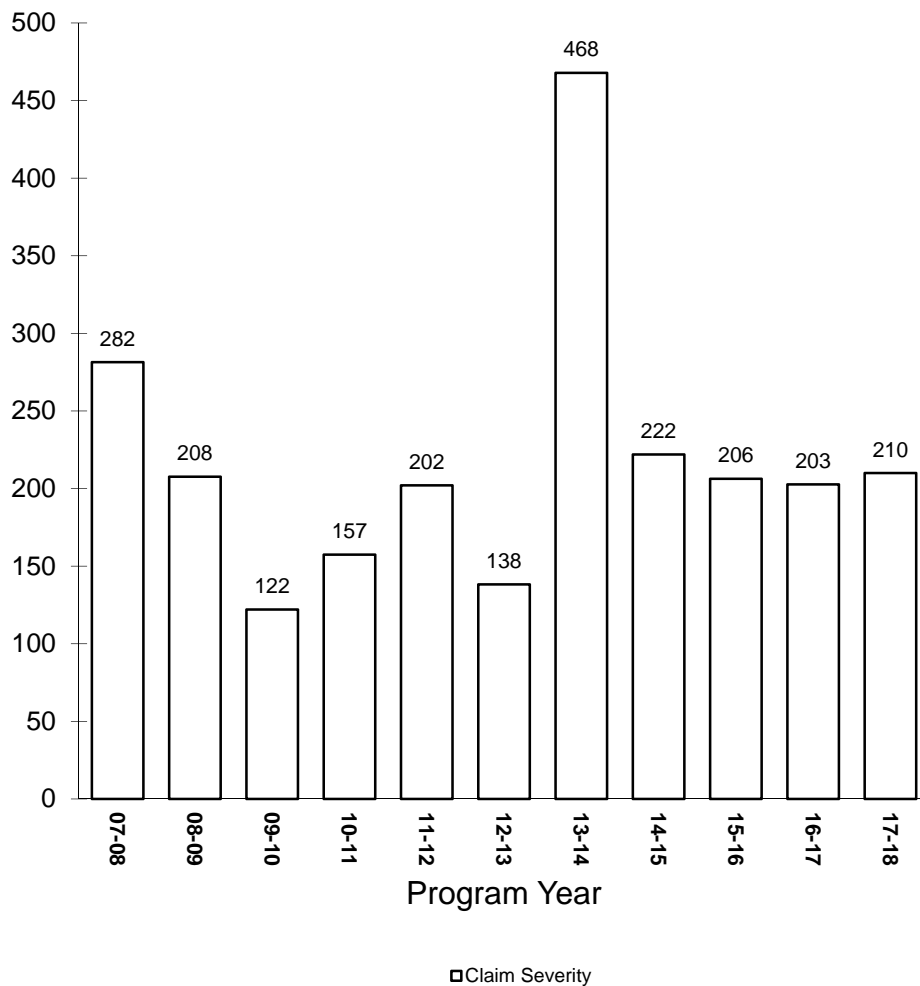
PLAN's loss rate per \$100 of payroll has varied significantly over the past ten years. The loss rate dropped to a low of \$0.47 in 2010-11 then averaged a high of \$2.18 in 2013-14. The projected loss rate of 1.47 per \$100 of payroll for the 2017-18 year is based on the most recent three years.

**Indicated Loss Rate per \$100 of Payroll
ABAG Layer**



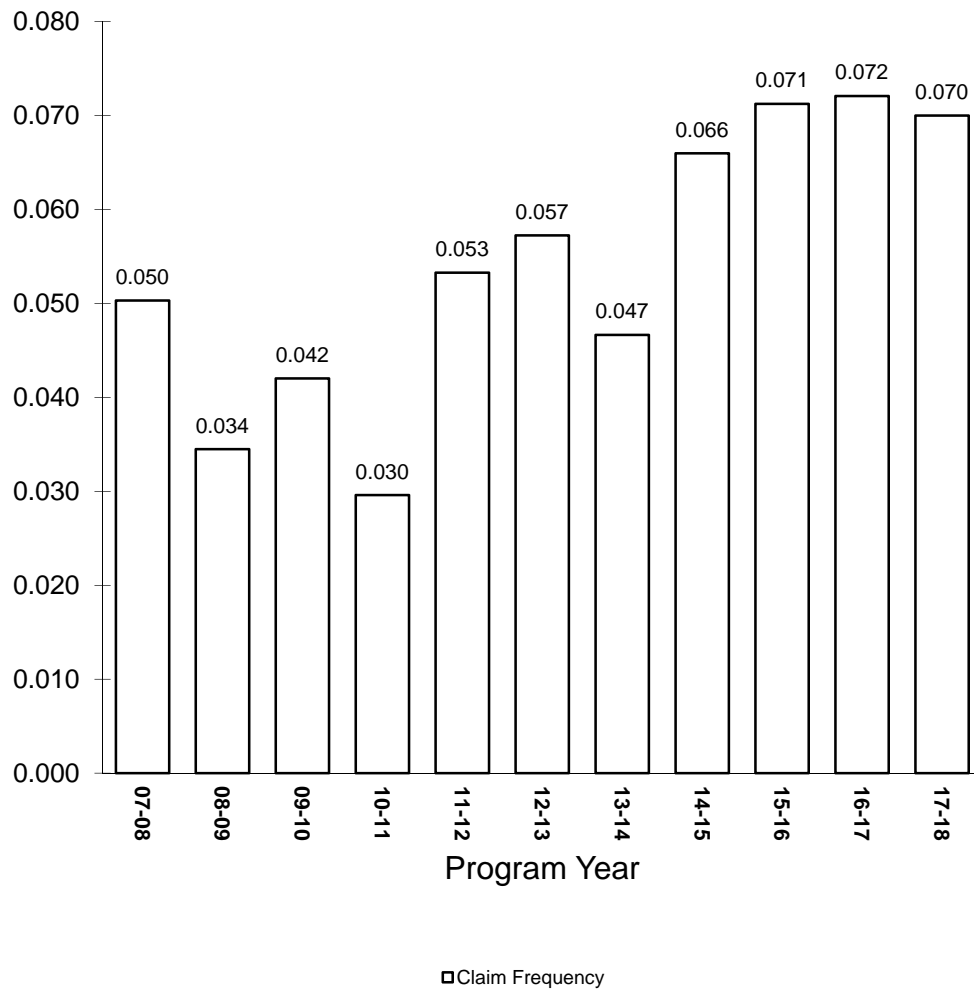
The program's cost per claim has been in a general downward trend except for the unusually high 2013-14 year. The projected severity for the 2017-18 program year of \$210,000 is based on the most recent three years. The claim severities in the following chart are limited to ABAG limits.

**Indicated Severity
ABAG Layer (\$000)**



PLAN's claims frequency per \$1 million of payroll averaged 0.039 claims per \$1 million of payroll during the 2007-08 through 2010-11 years. However, the average frequency for the period between 2011-12 and 2016-17 increased to 0.061 claims per \$1 million of payroll. The projected frequency for the 2017-18 program year of 0.070 is based on the most recent three years.

**Indicated Frequency
ABAG Layer**



E. COMPARISON WITH OUR PREVIOUS RESULTS

The prior report for PLAN was dated June 29, 2017. In the table below we display actual versus expected development of incurred losses and ALAE by accident year between the December 31, 2016 evaluation date of the prior report and the December 31, 2017 evaluation date of the current report.

Actual Versus Expected Incurred Loss and ALAE Development

Accident Year	Expected Incurred Development	Actual Incurred Development	Actual Minus Expected
1986-97	\$0	\$0	\$0
1997-98	0	0	0
1998-99	0	0	0
1999-00	0	0	0
2000-01	0	0	0
2001-02	0	0	0
2002-03	3,000	0	(3,000)
2003-04	0	0	0
2004-05	0	0	0
2005-06	0	0	0
2006-07	0	0	0
2007-08	0	0	0
2008-09	0	0	0
2009-10	37,000	(23,000)	(60,000)
2010-11	69,000	0	(69,000)
2011-12	272,000	148,000	(124,000)
2012-13	402,000	377,000	(25,000)
2013-14	790,000	554,000	(236,000)
2014-15	953,000	1,105,000	152,000
2015-16	1,537,000	3,215,000	1,678,000
2016-17	840,000	1,828,000	988,000
Total	\$4,903,000	\$7,204,000	\$2,301,000

As shown, actual incurred development was greater than anticipated since the prior report. Based on the assumptions from the prior report, it was expected that incurred losses through accident year 2016-17 would increase by \$4,903,000 between the two evaluation dates. However, actual development was approximately \$7,204,000; or about \$2,301,000 greater than expected.

DRAFT

In the table below we display actual versus expected development of paid losses and ALAE by accident year between the December 31, 2016 evaluation date of the prior report and the December 31, 2017 evaluation date of the current report.

Actual Versus Expected Paid Loss and ALAE Development

Accident Year	Expected Paid Development	Actual Paid Development	Actual Minus Expected
1986-97	\$0	\$0	\$0
1997-98	0	0	0
1998-99	0	0	0
1999-00	1,000	0	(1,000)
2000-01	0	0	0
2001-02	0	0	0
2002-03	34,000	0	(34,000)
2003-04	0	0	0
2004-05	0	0	0
2005-06	0	0	0
2006-07	0	0	0
2007-08	0	0	0
2008-09	0	0	0
2009-10	62,000	3,000	(59,000)
2010-11	101,000	0	(101,000)
2011-12	447,000	145,000	(302,000)
2012-13	392,000	198,000	(194,000)
2013-14	883,000	873,000	(10,000)
2014-15	1,515,000	484,000	(1,031,000)
2015-16	666,000	210,000	(456,000)
2016-17	163,000	1,000	(162,000)
Total	\$4,264,000	\$1,914,000	(\$2,350,000)

As shown, actual paid development was less than anticipated since the prior report. Based on the assumptions from the prior report, it was expected that paid losses through accident year 2016-17 would increase by \$4,264,000 between the two evaluation dates. However, actual development was approximately \$1,914,000; or about \$2,350,000 less than expected.

DRAFT

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

Change in Loss and ALAE Ultimate Losses

Accident Year	Prior Ultimate Losses	Current Ultimate Losses	Change
1986-97	\$18,874,000	\$18,874,000	\$0
1997-98	2,463,000	2,463,000	0
1998-99	5,606,000	5,606,000	0
1999-00	1,201,000	1,200,000	(1,000)
2000-01	1,860,000	1,860,000	0
2001-02	4,627,000	4,627,000	0
2002-03	8,847,000	8,844,000	(3,000)
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	1,657,000	1,657,000	0
2007-08	6,756,000	6,756,000	0
2008-09	3,529,000	3,529,000	0
2009-10	2,564,000	2,441,000	(123,000)
2010-11	2,255,000	2,047,000	(208,000)
2011-12	4,500,000	4,042,000	(458,000)
2012-13	2,943,000	2,902,000	(41,000)
2013-14	8,014,000	7,955,000	(59,000)
2014-15	6,040,000	5,549,000	(491,000)
2015-16	4,486,000	5,363,000	877,000
2016-17	4,527,000	5,491,000	964,000
Total	\$99,953,000	\$100,410,000	\$457,000

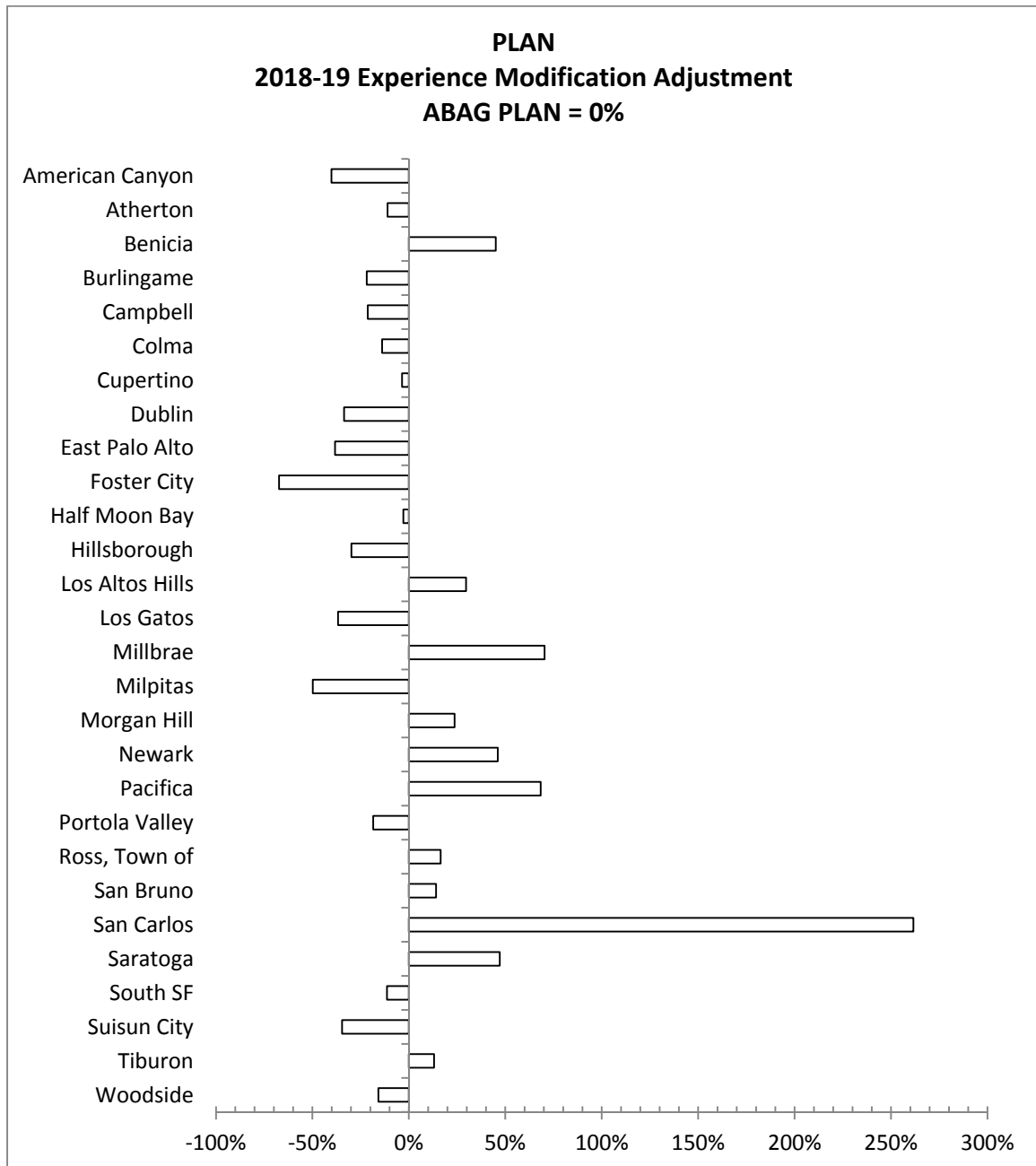
As shown, overall we have increased our estimated ultimate losses by \$457,000 since our prior report. The changes in our estimates of ultimate losses take into account both the incurred and paid development listed on the previous two pages.

DRAFT

The following table displays a comparison of the PLAN's proposed 2018-19 funding and actual 2017-18 funding by member.

Member	2017-18 Actual Funding	2018-19 Proposed Funding	Dollar Change	Percent Change
American Canyon	\$153,197	\$180,977	\$27,780	18.1%
Atherton	111,111	127,069	15,957	14.4%
Benicia	555,989	652,827	96,839	17.4%
Burlingame	268,001	307,844	39,843	14.9%
Campbell	281,100	365,430	84,330	30.0%
Colma	92,068	100,488	8,420	9.1%
Cupertino	387,069	401,126	14,057	3.6%
Dublin	269,850	317,003	47,153	17.5%
East Palo Alto	227,447	210,401	(17,046)	-7.5%
Foster City	237,701	219,517	(18,184)	-7.7%
Half Moon Bay	87,271	113,453	26,181	30.0%
Hillsborough	215,886	191,158	(24,728)	-11.5%
Los Altos Hills	86,655	100,742	14,088	16.3%
Los Gatos	251,945	307,165	55,220	21.9%
Millbrae	159,314	207,109	47,794	30.0%
Milpitas	473,159	542,383	69,225	14.6%
Morgan Hill	482,889	577,172	94,283	19.5%
Newark	350,499	455,649	105,150	30.0%
Pacifica	372,468	484,208	111,740	30.0%
Portola Valley	48,491	55,584	7,093	14.6%
Ross, Town of	70,796	81,165	10,369	14.6%
San Bruno	902,536	822,779	(79,757)	-8.8%
San Carlos	387,935	504,316	116,381	30.0%
Saratoga	139,902	181,873	41,971	30.0%
South SF	975,185	940,399	(34,786)	-3.6%
Suisun City	163,723	182,359	18,635	11.4%
Tiburon	112,566	142,929	30,362	27.0%
Woodside	62,155	76,588	14,433	23.2%
Total	\$7,926,910	\$8,849,712	\$922,802	11.6%

The following table displays PLAN members' 2018-19 experience modification adjustment. This is the experience modification factor minus 100%, and shows how each member performs relative to the pool average. A negative percentage indicates better than average performance, while a positive percentage indicates worse than average performance. A detailed calculation of the experience modification factors is shown in Exhibit 1, page 6.



F. DATA ISSUES

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

We received loss data evaluated as of December 31, 2017. This data appeared to be consistent with the data provided for prior reviews.

We were provided with fiscal year payrolls for the 2017-18 program year. We estimated the payroll using a 5% trend when necessary.

The City of Burlingame, the City of Millbrae and the Town of Hillsborough have combined to form the Central County Fire Department (CCFD). Premiums for Burlingame, Millbrae and Hillsborough had been calculated based upon historical loss experience for both entities, thus preserving the matching of payrolls and losses in the calculation of the x-mods. The CCFD left PLAN effective July 1, 2016.

Excess insurance premium is estimated to be \$1,860,145 for the \$2.5 million to \$30 million layer. Premiums for individual layers are estimated based upon ABAG limits factors.

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

The City of Los Altos has withdrawn from the pool effective July 1, 2012.

The City of Gilroy will withdraw from the pool effective July 1, 2015.

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.

DRAFT

- We have assumed that the loss costs associated with liability claims are increasing at 2.7% per year. We have assumed that the average claim size decreases at 4.5% per year and that the average number of claims per \$1 million increases at 7.5% 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 3%.
- The claims costs we have estimated include indemnity and medical payments, and all loss adjustment expenses. We have not provided estimates for excess insurance contributions, and other expenses associated with the program.
- Our funding recommendations do not include provision for catastrophic events not in the PLAN's history, such as earthquakes, flooding, mass civil disorder, or mass occupational disease.
- Our estimates assume that all excess insurance is valid and collectible. Further, our funding recommendations do not include a provision for losses greater than PLAN's excess coverage.
- PLAN available assets have been estimated to be \$45,476,000 as of June 30, 2018 for use in this report.

IV. GLOSSARY OF ACTUARIAL TERMS

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

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

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

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

Claim Frequency - Number of claims per \$1 million payroll.

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

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

Expected Losses - The best estimate of the full, ultimate value of loss costs.

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

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

DRAFT

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.)

ABAG PLAN CORPORATION

Summary of 2018-19 Deposit by Retention Limit

Member (A)	2017-18 Premium Deposit (B)	Total Deposit \$2.5 Million Retention \$30 Million Limit (C)	Percent Change (D)
American Canyon	\$153,197	\$180,977	18.1%
Atherton	111,111	127,069	14.4%
Benicia	555,989	652,827	17.4%
Burlingame	268,001	307,844	14.9%
Campbell	281,100	365,430	30.0%
Colma	92,068	100,488	9.1%
Cupertino	387,069	401,126	3.6%
Dublin	269,850	317,003	17.5%
East Palo Alto	227,447	210,401	-7.5%
Foster City	237,701	219,517	-7.7%
Half Moon Bay	87,271	113,453	30.0%
Hillsborough	215,886	191,158	-11.5%
Los Altos Hills	86,655	100,742	16.3%
Los Gatos	251,945	307,165	21.9%
Millbrae	159,314	207,109	30.0%
Milpitas	473,159	542,383	14.6%
Morgan Hill	482,889	577,172	19.5%
Newark	350,499	455,649	30.0%
Pacifica	372,468	484,208	30.0%
Portola Valley	48,491	55,584	14.6%
Ross, Town of	70,796	81,165	14.6%
San Bruno	902,536	822,779	-8.8%
San Carlos	387,935	504,316	30.0%
Saratoga	139,902	181,873	30.0%
South SF	975,185	940,399	-3.6%
Suisun City	163,723	182,359	11.4%
Tiburon	112,566	142,929	27.0%
Woodside	62,155	76,588	23.2%
Total	\$7,926,910	\$8,849,712	11.6%

(B) From provided by ABAG.

(C) From Exhibit 1 - page 2a

(D) $1 - (C) / (B)$

ABAG PLAN CORPORATION

Split of 2018-19 Deposit Between Loss Funding and Administrative Expenses
\$2.5M Retention / \$30M Limit

Member (A)	Loss Funding (B)	Excess Insurance (C)	Admin Expenses (D)	Loss Prevention Expense (D)	Total Deposit (E)
American Canyon	\$81,603	\$46,424	\$52,950	\$0	\$180,977
Atherton	78,323	16,292	32,454	0	127,069
Benicia	469,888	62,663	120,276	0	652,827
Burlingame	162,948	67,729	77,167	0	307,844
Campbell	196,707	97,031	71,691	0	365,430
Colma	67,171	3,438	29,878	0	100,488
Cupertino	188,101	137,146	75,879	0	401,126
Dublin	141,422	130,675	44,906	0	317,003
East Palo Alto	93,257	69,599	47,545	0	210,401
Foster City	102,193	75,651	41,672	0	219,517
Half Moon Bay	58,255	28,482	26,715	0	113,453
Hillsborough	112,248	24,766	54,144	0	191,158
Los Altos Hills	47,947	19,728	33,067	0	100,742
Los Gatos	163,745	68,358	75,063	0	307,165
Millbrae	92,321	52,717	62,070	0	207,109
Milpitas	257,871	172,081	112,432	0	542,383
Morgan Hill	378,897	99,449	98,827	0	577,172
Newark	276,638	101,928	77,083	0	455,649
Pacifica	322,515	86,144	75,549	0	484,208
Portola Valley	24,179	10,295	21,110	0	55,584
Ross, Town of	47,458	5,758	27,949	0	81,165
San Bruno	434,113	103,357	285,309	0	822,779
San Carlos	350,763	64,725	88,828	0	504,316
Saratoga	61,417	68,857	51,599	0	181,873
South SF	626,034	147,162	167,203	0	940,399
Suisun City	80,069	66,286	36,003	0	182,359
Tiburon	84,707	20,735	37,487	0	142,929
Woodside	34,441	12,669	29,478	0	76,588
Total	\$5,035,232	\$1,860,145	\$1,954,335	\$0	\$8,849,712

(E) - (D) - (C)

From Exhibit 1, page 2c.

Sum of (H) and (I) from Exhibit 1, page 2c.

From Exhibit 1, page 2b.

ABAG PLAN CORPORATION

2018-19 Deposit - Change from 2017-18 Deposit Limited to 30%
\$2.5M Retention / \$30M Limit

Member (A)	2018-19 Indicated Deposit (B)	2017-18 Deposit (C)	Initial Indicated Difference (D)	2018-19 Deposit Limited to 30% change (E)	Adjusted 2018-19 Deposit Limited to 30% change (F)	Adjusted Indicated Difference (G)
American Canyon	170,986	153,197	11.6%	170,986	180,977	18.1%
Atherton	120,054	111,111	8.0%	120,054	127,069	14.4%
Benicia	616,786	555,989	10.9%	616,786	652,827	17.4%
Burlingame	290,849	268,001	8.5%	290,849	307,844	14.9%
Campbell	374,077	281,100	33.1%	365,430	365,430	30.0%
Colma	94,940	92,068	3.1%	94,940	100,488	9.1%
Cupertino	378,981	387,069	-2.1%	378,981	401,126	3.6%
Dublin	299,502	269,850	11.0%	299,502	317,003	17.5%
East Palo Alto	198,785	227,447	-12.6%	198,785	210,401	-7.5%
Foster City	207,398	237,701	-12.7%	207,398	219,517	-7.7%
Half Moon Bay	110,838	87,271	27.0%	110,838	113,453	30.0%
Hillsborough	180,604	215,886	-16.3%	180,604	191,158	-11.5%
Los Altos Hills	95,180	86,655	9.8%	95,180	100,742	16.3%
Los Gatos	290,207	251,945	15.2%	290,207	307,165	21.9%
Millbrae	297,439	159,314	86.7%	207,109	207,109	30.0%
Milpitas	512,439	473,159	8.3%	512,439	542,383	14.6%
Morgan Hill	545,308	482,889	12.9%	545,308	577,172	19.5%
Newark	501,543	350,499	43.1%	455,649	455,649	30.0%
Pacifica	575,214	372,468	54.4%	484,208	484,208	30.0%
Portola Valley	52,516	48,491	8.3%	52,516	55,584	14.6%
Ross, Town of	76,684	70,796	8.3%	76,684	81,165	14.6%
San Bruno	777,355	902,536	-13.9%	777,355	822,779	-8.8%
San Carlos	532,785	387,935	37.3%	504,316	504,316	30.0%
Saratoga	281,074	139,902	100.9%	181,873	181,873	30.0%
South SF	888,481	975,185	-8.9%	888,481	940,399	-3.6%
Suisun City	172,291	163,723	5.2%	172,291	182,359	11.4%
Tiburon	135,038	112,566	20.0%	135,038	142,929	27.0%
Woodside	72,360	62,155	16.4%	72,360	76,588	23.2%
Total	8,849,712	7,926,910	11.6%	8,486,165	8,849,712	11.6%

(B) From Exhibit 1, page 2c.

(C) From provided by ABAG.

(D) (B) / (C) - 1

(E) Deposit limited to plus or minus 30% change from 2017-18 level.

(F) Difference in deposit due to limiting (if any) is added to column (E) on a pro-rata basis using column (E).

(G) (F) / (C) - 1

ABAG PLAN CORPORATION

2018-19 Deposit by Member
\$2.5M Retention / \$30M Limit

Member (A)	Deductible (B)	Deductible Factor (C)	Adjusted Experience Modification Factor (D)	2018-19 Payroll (00) (E)	ABAG PLAN Loss Fund Contribution (F)	Excess Insurance (G)	Adjusted Admin. Expenses (H)	Loss Prevention Expense (I)	Indicated Total Deposit (J)
American Canyon	25,000	1.371	60%	77,779	71,611	46,424	52,950	0	170,986
Atherton	25,000	1.371	89%	52,113	71,308	16,292	32,454	0	120,054
Benicia	25,000	1.371	145%	194,485	433,847	62,663	120,276	0	616,786
Burlingame	250,000	0.685	78%	242,974	145,953	67,729	77,167	0	290,849
Campbell	100,000	1.000	79%	232,720	205,355	97,031	71,691	0	374,077
Colma	50,000	1.204	86%	53,000	61,623	3,438	29,878	0	94,940
Cupertino	250,000	0.685	96%	223,963	165,956	137,146	75,879	0	378,981
Dublin	50,000	1.204	66%	138,149	123,921	130,675	44,906	0	299,502
East Palo Alto	100,000	1.000	62%	118,000	81,641	69,599	47,545	0	198,785
Foster City	100,000	1.000	33%	245,600	90,074	75,651	41,672	0	207,398
Half Moon Bay	50,000	1.204	97%	42,422	55,640	28,482	26,715	0	110,838
Hillsborough	50,000	1.204	70%	107,286	101,694	24,766	54,144	0	180,604
Los Altos Hills	25,000	1.371	130%	21,262	42,385	19,728	33,067	0	95,180
Los Gatos	50,000	1.204	63%	171,768	146,787	68,358	75,063	0	290,207
Millbrae	100,000	1.000	170%	95,602	182,651	52,717	62,070	0	297,439
Milpitas	100,000	1.000	50%	405,069	227,927	172,081	112,432	0	512,439
Morgan Hill	100,000	1.000	124%	250,190	347,032	99,449	98,827	0	545,308
Newark	100,000	1.000	146%	196,830	322,533	101,928	77,083	0	501,543
Pacifica	50,000	1.204	168%	181,894	413,520	86,144	75,549	0	575,214
Portola Valley	25,000	1.371	82%	16,844	21,110	10,295	21,110	0	52,516
Ross, Town of	25,000	1.371	116%	24,000	42,977	5,758	27,949	0	76,684
San Bruno	100,000	1.000	114%	303,726	388,689	103,357	285,309	0	777,355
San Carlos	100,000	1.000	362%	93,506	379,231	64,725	88,828	0	532,785
Saratoga	25,000	1.371	147%	71,000	160,618	68,857	51,599	0	281,074
South SF	100,000	1.000	89%	577,262	574,116	147,162	167,203	0	888,481
Suisun City	25,000	1.371	65%	69,632	70,002	66,286	36,003	0	172,291
Tiburon	50,000	1.204	113%	50,155	76,816	20,735	37,487	0	135,038
Woodside	25,000	1.371	84%	23,331	30,212	12,669	29,478	0	72,360
Total		1.049	99%	4,280,564	5,035,232	1,860,145	1,954,335	0	8,849,712

(B) Deductible provided by ABAG. See Exhibit 3, Page 6.

(C) Based on Exhibit 3, Page 2. Hillsborough is weighted average of \$250K for Fire and \$50K for all other departments.

(D) From Exhibit 1, Page 7.

(E) From Exhibit 3, Page 4.

(F) $\{ [\$5,035,232 / \text{Total (E)}] \times [(C) / \text{Weighted Average of (C)}] \times (D) \times (E) \}$.

\$5,035,232 is the discounted expected loss & ALAE at 60% CL from Exhibit 2, Page 1a. (3.0% Discount Rate).

(G) From Exhibit 1, page 3.

(H) $[\text{Total fixed expenses} / \text{Total number of members}]$.

Total fixed expenses are equal to 33% of total expenses. Total expenses of \$1,954,335 projected by ABAG.

(I) From Exhibit 1, Page 6.

(J) $(F) + (G) + (H) + (I)$

ABAG PLAN CORPORATION

2018-19 Allocation of Excess Insurance Premium by Member

Member (A)	2018-19 Population (B)	Percent 2018-19 Population (C)	2018-19 Excess Insurance \$2.5M XS \$27.5M (D)
American Canyon	20,374	2.50%	46,424
Atherton	7,150	0.88%	16,292
Benicia	27,501	3.37%	62,663
Burlingame	29,724	3.64%	67,729
Campbell	42,584	5.22%	97,031
Colma	1,509	0.18%	3,438
Cupertino	60,189	7.37%	137,146
Dublin	57,349	7.02%	130,675
East Palo Alto	30,545	3.74%	69,599
Foster City	33,201	4.07%	75,651
Half Moon Bay	12,500	1.53%	28,482
Hillsborough	10,869	1.33%	24,766
Los Altos Hills	8,658	1.06%	19,728
Los Gatos	30,000	3.67%	68,358
Millbrae	23,136	2.83%	52,717
Milpitas	75,521	9.25%	172,081
Morgan Hill	43,645	5.35%	99,449
Newark	44,733	5.48%	101,928
Pacifica	37,806	4.63%	86,144
Portola Valley	4,518	0.55%	10,295
Ross, Town of	2,527	0.31%	5,758
San Bruno	45,360	5.56%	103,357
San Carlos	28,406	3.48%	64,725
Saratoga	30,219	3.70%	68,857
South SF	64,585	7.91%	147,162
Suisun City	29,091	3.56%	66,286
Tiburon	9,100	1.11%	20,735
Woodside	5,560	0.68%	12,669
Total	816,360	100.0%	1,860,145

(B) Provided by ABAG.

(C) (B) / Total (B)

(D) (C) X Total (D)

ABAG PLAN CORPORATION

2018-19 Allocation of Variable Administrative Expenses by Member
Liability Claims

Member (A)	Liability Reported Counts > \$1 2012-13 to 2016-17 (B)	Liability Paid Losses 2012-13 to 2016-17 (C)	Percent Liability Reported Counts > \$1 (D)	Percent Liability Paid Losses 2012-13 to 2016-17 (E)	Percent Liability Variable Administrative Expenses (G)	Liability Variable Administrative Expenses (H)
American Canyon	22	40,099	1.91%	0.19%	0.76%	8,003
Atherton	14	96,975	1.22%	0.46%	0.71%	7,452
Benicia	76	1,772,876	6.61%	8.38%	7.79%	81,594
Burlingame	91	790,206	7.91%	3.73%	5.13%	53,713
Campbell	44	448,838	3.83%	2.12%	2.69%	28,175
Colma	10	79,386	0.87%	0.38%	0.54%	5,657
Cupertino	49	726,191	4.26%	3.43%	3.71%	38,848
Dublin	26	216,014	2.26%	1.02%	1.43%	15,024
East Palo Alto	37	145,756	3.22%	0.69%	1.53%	16,045
Foster City	21	141,829	1.83%	0.67%	1.06%	11,058
Half Moon Bay	2	78,810	0.17%	0.37%	0.31%	3,209
Hillsborough	51	286,723	4.43%	1.36%	2.38%	24,949
Los Altos Hills	8	166,500	0.70%	0.79%	0.76%	7,925
Los Gatos	51	367,862	4.43%	1.74%	2.64%	27,627
Millbrae	32	752,145	2.78%	3.56%	3.30%	34,543
Milpitas	110	677,777	9.57%	3.20%	5.32%	55,771
Morgan Hill	78	1,078,950	6.78%	5.10%	5.66%	59,297
Newark	48	860,802	4.17%	4.07%	4.10%	42,987
Pacifica	50	869,759	4.35%	4.11%	4.19%	43,890
Portola Valley	1	24	0.09%	0.00%	0.03%	304
Ross, Town of	4	100,680	0.35%	0.48%	0.43%	4,538
San Bruno	96	6,769,398	8.35%	32.00%	24.11%	252,590
San Carlos	64	1,393,094	5.57%	6.58%	6.24%	65,415
Saratoga	18	370,066	1.57%	1.75%	1.69%	17,680
South SF	98	2,613,145	8.52%	12.35%	11.07%	116,010
Suisun City	26	69,010	2.26%	0.33%	0.97%	10,172
Tiburon	14	230,526	1.22%	1.09%	1.13%	11,860
Woodside	9	13,739	0.78%	0.06%	0.30%	3,186
Total	1,150	21,157,178	100.00%	100.00%	100.00%	1,047,524

(B) Based on reported claims count > \$1 for 2012-13 to 2016-17 from Appendix E, Page 8.

(C) Based on paid losses for 2012-13 to 2016-17 from Appendix E, Page 6b.

(D) (B) / Total (B)

(E) (C) / Total (C)

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

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

Total variable liability expenses are equal to 53.6% of total expenses. Total expenses of \$1,954,335 projected by ABAG.

ABAG PLAN CORPORATION

2018-19 Allocation of Variable Administrative Expenses by Member
Property Claims

Member (A)	Property Reported Counts > \$1 2012-13 to 2016-17 (B)	Property Paid Losses 2012-13 to 2016-17 (C)	Percent Property Reported Counts > \$1 (D)	Percent Property Paid Losses 2012-13 to 2016-17 (E)	Percent Property Variable Administrative Expenses (G)	Property Variable Administrative Expenses (H)
American Canyon	28	221,692	8.26%	8.39%	8.34%	21,853
Atherton	4	13,647	1.18%	0.52%	0.74%	1,931
Benicia	29	121,755	8.55%	4.61%	5.92%	15,510
Burlingame	1	1,123	0.29%	0.04%	0.13%	332
Campbell	32	184,114	9.44%	6.97%	7.79%	20,401
Colma	2	9,673	0.59%	0.37%	0.44%	1,154
Cupertino	18	140,430	5.31%	5.31%	5.31%	13,910
Dublin	14	48,318	4.13%	1.83%	2.60%	6,796
East Palo Alto	11	84,464	3.24%	3.20%	3.21%	8,411
Foster City	10	75,071	2.95%	2.84%	2.88%	7,533
Half Moon Bay	1	2,800	0.29%	0.11%	0.17%	442
Hillsborough	11	49,458	3.24%	1.87%	2.33%	6,099
Los Altos Hills	5	11,863	1.47%	0.45%	0.79%	2,071
Los Gatos	33	239,496	9.73%	9.06%	9.29%	24,316
Millbrae	8	35,771	2.36%	1.35%	1.69%	4,423
Milpitas	47	323,926	13.86%	12.25%	12.79%	33,498
Morgan Hill	6	224,645	1.77%	8.50%	6.26%	16,383
Newark	12	119,354	3.54%	4.52%	4.19%	10,973
Pacifica	5	109,784	1.47%	4.15%	3.26%	8,539
Portola Valley	0	0	0.00%	0.00%	0.00%	0
Ross, Town of	1	1,333	0.29%	0.05%	0.13%	346
San Bruno	4	126,067	1.18%	4.77%	3.57%	9,357
San Carlos	1	299	0.29%	0.01%	0.11%	277
Saratoga	4	148,319	1.18%	5.61%	4.13%	10,826
South SF	33	294,769	9.73%	11.15%	10.68%	27,967
Suisun City	6	18,341	1.77%	0.69%	1.05%	2,756
Tiburon	4	23,015	1.18%	0.87%	0.97%	2,550
Woodside	9	13,739	2.65%	0.52%	1.23%	3,225
Total	339	2,643,265	100.00%	100.00%	100.00%	261,881

(B) Based on reported claims count > \$1 for 2012-13 to 2016-17 from Appendix E, Page 8.

Reported property claims for 2012-13 to 2016-17 included.

(C) Based on paid losses for 2012-13 to 2016-17 from Appendix E, Page 6b.

Property paid losses for 2012-13 to 2016-17 are included.

(D) (B) / Total (B)

(E) (C) / Total (C)

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

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

Total variable liability expenses are equal to 13.4% of total expenses. Total expenses of \$1,954,335 projected by ABAG.

ABAG PLAN CORPORATION

2018-19 Allocation of Loss Prevention Expenses by Member

Member (A)	2018-19 Budgeted Loss Prevention Expense (B)	Percent 2018-19 Budgeted Loss Prevention Expense (C)	2018-19 Charged Loss Prevention Expense (D)
American Canyon	0	0.00%	0
Atherton	0	0.00%	0
Benicia	0	0.00%	0
Burlingame	0	0.00%	0
Campbell	0	0.00%	0
Colma	0	0.00%	0
Cupertino	0	0.00%	0
Dublin	0	0.00%	0
East Palo Alto	0	0.00%	0
Foster City	0	0.00%	0
Half Moon Bay	0	0.00%	0
Hillsborough	0	0.00%	0
Los Altos Hills	0	0.00%	0
Los Gatos	0	0.00%	0
Millbrae	0	0.00%	0
Milpitas	0	0.00%	0
Morgan Hill	0	0.00%	0
Newark	0	0.00%	0
Pacifica	0	0.00%	0
Portola Valley	0	0.00%	0
Ross, Town of	0	0.00%	0
San Bruno	0	0.00%	0
San Carlos	0	0.00%	0
Saratoga	0	0.00%	0
South SF	0	0.00%	0
Suisun City	0	0.00%	0
Tiburon	0	0.00%	0
Woodside	0	0.00%	0
Total	0	0.00%	0

(B) Provided by ABAG.

(C) (B) / Total (B)

(D) (C) / Total (D)

Total (D) is amount required for a 20% increase total premium collected.

ABAG PLAN CORPORATION

Calculation of Experience Modification Factors by Member

Member (A)	2012-13 to 2016-17 Limited Incurred Losses (B)	2012-13 to 2016-17 Payroll (00) (C)	Percent Incurred Losses (D)	Percent Payroll (E)	Indicated Differential (F)	Credibility (G)	Indicated Experience Modification Factor (H)	Adjusted Experience Modification Factor (I)
American Canyon	59,715	312,764	0.3%	1.8%	0.176	50%	59%	60%
Atherton	145,636	195,806	0.8%	1.1%	0.684	40%	87%	89%
Benicia	1,467,714	840,338	7.6%	4.7%	1.606	70%	142%	145%
Burlingame	898,250	1,164,193	4.7%	6.6%	0.709	80%	77%	78%
Campbell	772,558	992,886	4.0%	5.6%	0.715	80%	77%	79%
Colma	143,061	214,559	0.7%	1.2%	0.613	40%	85%	86%
Cupertino	833,226	829,117	4.3%	4.7%	0.924	70%	95%	96%
Dublin	232,890	509,671	1.2%	2.9%	0.420	60%	65%	66%
East Palo Alto	178,182	478,199	0.9%	2.7%	0.343	60%	61%	62%
Foster City	160,494	975,669	0.8%	5.5%	0.151	80%	32%	33%
Half Moon Bay	80,001	95,871	0.4%	0.5%	0.767	20%	95%	97%
Hillsborough	338,112	559,333	1.8%	3.2%	0.556	70%	69%	70%
Los Altos Hills	237,281	92,325	1.2%	0.5%	2.363	20%	127%	130%
Los Gatos	389,363	780,139	2.0%	4.4%	0.459	70%	62%	63%
Millbrae	1,076,570	466,835	5.6%	2.6%	2.120	60%	167%	170%
Milpitas	815,490	1,719,318	4.2%	9.7%	0.436	90%	49%	50%
Morgan Hill	1,439,736	1,044,343	7.5%	5.9%	1.268	80%	121%	124%
Newark	1,302,630	739,177	6.8%	4.2%	1.620	70%	143%	146%
Pacifica	1,787,290	850,407	9.3%	4.8%	1.932	70%	165%	168%
Portola Valley	24	61,959	0.0%	0.3%	0.000	20%	80%	82%
Ross, Town of	159,760	85,602	0.8%	0.5%	1.716	20%	114%	116%
San Bruno	1,610,447	1,287,451	8.4%	7.3%	1.150	80%	112%	114%
San Carlos	2,116,027	370,613	11.0%	2.1%	5.249	60%	355%	362%
Saratoga	604,527	294,337	3.1%	1.7%	1.888	50%	144%	147%
South SF	2,020,517	2,170,033	10.5%	12.2%	0.856	90%	87%	89%
Suisun City	85,903	278,535	0.4%	1.6%	0.284	50%	64%	65%
Tiburon	313,026	224,253	1.6%	1.3%	1.283	40%	111%	113%
Woodside	13,745	94,692	0.1%	0.5%	0.133	20%	83%	84%
Total	19,282,175	17,728,427	100.0%	100.0%	1.000	100%	98%	100%

(B) Based on losses limited to \$250,000 for 2012-13 to 2016-17 from Appendix E, Page 4b.

(C) Based on payroll for Incurred Losses from Appendix D, Page 2.

(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) Adjusted for off-balance using payroll as weights.

ABAG PLAN CORPORATION
ABAG LayerFunding Options for 2018-2019 Losses
3.0% Discount Rate

		\$2.5M Retention \$30M Limit	\$3M Retention \$30M Limit	\$3.5M Retention \$30M Limit	\$4M Retention \$30M Limit	\$5M Retention \$30M Limit
(A) Payroll (\$00's)		4,280,564	4,280,564	4,280,564	4,280,564	4,280,564
(B) Average SIR Discount factor:		104.9%	104.9%	104.9%	104.9%	104.9%
(C) Base Loss Rate:		\$1.212	\$1.269	\$1.283	\$1.335	\$1.296
(D) ABAG PLAN Expected Losses:		\$5,442,000	\$5,699,000	\$5,760,000	\$5,996,000	\$5,818,000
(E) Discount Factor for Future Funding: at 3% interest		90.4%	90.4%	90.4%	90.4%	90.4%
(F) Estimated Cost of Excess Insurance		\$1,860,145	\$1,752,000	\$1,726,000	\$1,626,000	\$1,553,000
(G) Estimated Administration Expenses		\$1,954,335	\$1,954,335	\$1,954,335	\$1,954,335	\$1,954,335
(H) Discounted Losses w/ Excess Insurance		\$8,737,000	\$8,861,000	\$8,890,000	\$9,003,000	\$8,769,000
(I) 60% Confidence Margin	1.023	113,000	119,000	120,000	125,000	121,000
70% Confidence Margin	1.176	866,000	907,000	917,000	954,000	926,000
80% Confidence Margin	1.378	1,861,000	1,948,000	1,969,000	2,050,000	1,989,000
90% Confidence Margin	1.701	3,450,000	3,613,000	3,652,000	3,802,000	3,689,000
(J) Funding at the 60% confidence Level:		8,850,000	8,980,000	9,010,000	9,128,000	8,890,000
Funding at the 70% confidence Level:		9,603,000	9,768,000	9,807,000	9,957,000	9,695,000
Funding at the 80% confidence Level:		10,598,000	10,809,000	10,859,000	11,053,000	10,758,000
Funding at the 90% confidence Level:		12,187,000	12,474,000	12,542,000	12,805,000	12,458,000
(A) From Exhibit 3, Page 4.						
(B) Based on Exhibit 3, Page 2.						
(C) From Exhibit 2, Page 2.						
(D) (A) x (B) x (C)						
(E) Based on Appendix I, Page 1.						
(F) Based on \$1,860,145 in Excess Insurance Premium for the \$2.5M to \$30M layer and ILF factors.						
(G) Provided by ABAG						
(H) (D) x (E) + (F)						
(I) Based on Appendix J.						
(J) (H) + (I)						

ABAG PLAN CORPORATION
ABAG LayerFunding Options for 2018-2019 Losses
4.0% Discount Rate

	\$2.5M Retention \$30M Limit
(A) Payroll (\$00's)	4,280,564
(B) Average SIR Discount factor:	104.9%
(C) Base Loss Rate:	\$1.212
(D) ABAG PLAN Expected Losses:	\$5,440,000
(E) Discount Factor for Future Funding: at 4.0% interest	87.6%
(F) Estimated Cost of Excess Insurance	\$1,860,145
(G) Estimated Administration Expenses	\$1,954,335
(H) Discounted Losses w/ Excess Insurance	\$8,579,000
(I) 60% Confidence Margin	110,000
70% Confidence Margin	839,000
80% Confidence Margin	1,801,000
90% Confidence Margin	3,340,000
(J) Funding at the 60% confidence Level:	8,689,000
Funding at the 70% confidence Level:	9,418,000
Funding at the 80% confidence Level:	10,380,000
Funding at the 90% confidence Level:	11,919,000
(A) From Exhibit 3, Page 4.	
(B) Based on Exhibit 3, Page 2.	
(C) From Exhibit 2, Page 2.	
(D) (A) x (B) x (C)	
(E) Based on Appendix I, Page 1.	
(F) Based on \$1,860,145 in Excess Insurance Premium for the \$2.5M to \$30M layer and ILF factors.	
(G) (D) x (E) + (F)	
(H) Based on Appendix J.	
(I) (H) + (I)	

ABAG PLAN CORPORATION
ABAG Layer

Selected 2018-2019 Base Loss Rate (\$100K - \$1M Layer)

	Current 2018-2019	Prior 2017-2018
(A) Estimated based on \$1M Ultimate Less \$100K Ultimate	\$0.968	\$0.926
(B) Estimated based on \$100K - \$1M Analysis:	0.971	0.947
(C) Estimated based on \$100K Analysis & Size of Loss Factors:	0.987	0.937
(D) Selected Base Loss Rate (\$100K - \$1M Layer):	0.980	0.930
(E) Factor to \$2.5M Retention	1.237	1.233
Factor to \$3M Retention	1.295	1.290
Factor to \$3.5M Retention	1.309	N/A
Factor to \$4M Retention	1.363	1.355
Factor to \$5M Retention	1.402	1.393
(F) Selected Base Loss Rate for \$2.5M Retention :	\$1.212	\$1.147
Selected Base Loss Rate for \$3M Retention :	1.269	1.200
Selected Base Loss Rate for \$3.5M Retention :	1.283	N/A
Selected Base Loss Rate for \$4M Retention :	1.335	1.260
Selected Base Loss Rate for \$5M Retention :	1.374	1.296

(A) From ABAG PLAN Corporation - Liability Program (\$100K and \$1M Analysis), Appendix B, Page 1.

(B) From ABAG PLAN Corporation - Liability Program (\$100K to \$1M Analysis), \$100K to \$1M Rate Analysis Exhibit 1, Page

(C) From ABAG PLAN Corporation - Liability Program (\$100K and \$1M Analysis), \$100K and \$1M Rate Analysis Exhibit 1, P

(D) Based on (A) - (C).

(E) Based on ABAG and Industry experience.

(F) (D) x (E).

ABAG PLAN CORPORATION

Exposure x Deductible Discount Factor

Member	2018-19	2017-18	2016-17	2015-16	2014-15	2013-14	2012-13	2011-12	2010-11	2009-10	2008-09	2007-08	2006-07	2005-06	2004-05	2003-04	2002-03	2001-02
American Canyon	1,066	996	921	859	830	781	739	709	734	836	827	760	702	631	534	445	367	312
Atherton	714	677	577	558	522	460	468	497	611	672	680	612	600	599	579	548	531	454
Benicia	2,666	2,524	2,293	2,273	2,204	2,111	2,213	2,231	2,373	2,572	2,912	2,811	2,604	2,383	2,253	2,136	2,009	1,966
Burlingame	1,664	1,709	1,408	1,713	1,651	1,818	1,701	1,774	1,556	1,741	1,829	1,799	1,704	1,635	1,595	1,580	1,574	1,288
Campbell	2,327	2,259	2,188	2,149	1,983	1,825	1,785	1,706	1,659	1,790	1,757	1,705	1,621	1,588	1,599	1,597	1,522	1,395
Colma	638	601	576	515	464	487	472	508	485	468	490	493	489	425	383	346	298	290
Cupertino	1,534	1,611	1,406	1,242	1,147	1,075	1,040	992	986	978	940	887	1,214	1,158	1,151	1,121	1,094	942
Dublin	1,663	1,592	1,312	1,224	1,176	1,170	1,089	1,025	828	931	959	932	886	840	791	726	636	558
East Palo Alto	1,180	1,080	966	939	954	967	956	986	1,088	1,056	1,240	1,092	1,048	1,030	952	770	556	455
Foster City	2,456	2,373	2,182	2,033	1,941	1,639	1,962	1,783	1,903	2,353	2,157	2,078	1,967	1,912	1,884	1,885	1,871	1,736
Half Moon Bay	511	490	308	239	188	218	170	175	396	503	595	672	665	611	532	493	489	457
Hillsborough	1,292	1,221	1,089	1,216	1,126	1,220	1,252	1,171	1,315	1,529	1,537	1,437	1,321	1,252	1,102	970	919	0
Los Altos Hills	292	271	256	239	236	234	254	241	243	248	224	208	208	197	185	185	189	180
Los Gatos	2,068	1,984	1,898	1,843	1,787	1,794	1,817	1,833	1,773	1,796	1,910	1,813	1,729	1,694	1,648	1,626	1,609	1,532
Millbrae	956	928	691	888	1,070	1,030	990	950	946	941	942	926	894	972	1,000	976	1,115	1,129
Milpitas	4,051	3,933	3,861	3,585	3,257	3,044	3,445	3,445	3,660	4,411	4,489	4,441	4,327	4,363	4,419	4,385	4,216	3,565
Morgan Hill	2,502	2,403	2,519	2,396	2,024	1,832	1,671	1,659	1,670	2,005	2,048	1,905	1,721	1,499	1,377	1,244	1,148	1,321
Newark	1,968	1,731	1,633	1,500	1,469	1,446	1,344	1,362	1,298	2,174	2,499	2,560	2,517	2,414	2,466	2,425	2,121	1,867
Pacifica	2,190	2,101	2,180	1,994	1,942	1,921	1,926	1,994	2,202	2,035	2,073	2,035	1,967	1,826	1,520	1,480	1,448	1,387
Portola Valley	231	220	193	159	173	155	138	152	155	150	142	130	113	103	103	100	92	87
Ross, Town of	329	304	273	247	236	176	198	331	331	324	324	274	244	222	202	183	158	168
San Bruno	3,037	2,932	2,857	2,690	2,533	2,425	2,370	2,307	2,309	2,337	2,208	2,029	2,070	2,079	2,040	2,045	2,015	1,907
San Carlos	935	894	719	724	685	650	928	767	822	1,218	1,161	1,128	1,161	1,155	1,105	1,115	1,100	1,053
Saratoga	973	909	843	820	761	745	718	698	695	820	700	649	592	530	499	505	502	474
South SF	5,773	5,654	4,538	4,191	4,440	4,284	4,246	4,228	4,230	4,294	4,496	4,342	3,823	3,597	3,791	3,695	3,567	3,401
Suisun City	955	909	737	744	713	725	759	863	881	852	894	769	742	658	658	645	638	644
Tiburon	604	571	544	546	516	512	509	502	564	569	593	565	390	328	320	317	300	274
Woodside	320	300	249	245	260	240	257	292	313	307	351	324	235	211	194	198	181	158
	44,895	43,177	39,217	37,771	36,288	34,984	35,417	35,181	36,026	39,910	40,977	39,376	37,554	35,912	34,882	33,741	32,265	29,000
	1.049	1.042	1.043	1.035	1.035	1.032	1.034	1.033	1.038	1.039	1.038	1.035	1.043	1.040	1.029	1.026	1.023	0.999

Based on Exhibit 3, Page 4 and Exhibit 3, Page 6.

ABAG PLAN CORPORATION

Exposure x Deductible Discount Factor

Member	2000-01	1999-00	1998-99	1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92	1990-91	1989-90	1988-89	1987-88	1986-87
American Canyon	283	270	224	191	165	149	134	113	0	0	0	0	0	0	0
Atherton	363	418	404	373	331	267	239	223	189	182	180	169	146	127	0
Benicia	1,772	1,616	1,339	1,261	1,289	1,223	1,161	1,151	1,137	1,059	937	804	697	566	0
Burlingame	1,117	921	956	901	858	871	878	835	791	0	0	0	0	0	0
Campbell	1,275	1,185	1,107	984	899	881	873	935	1,075	1,092	925	782	769	729	0
Colma	267	226	186	0	0	0	0	0	0	0	0	0	0	0	0
Cupertino	846	902	828	746	680	636	591	551	553	564	531	479	435	400	0
Dublin	473	390	315	285	259	224	182	174	212	202	169	134	100	79	0
East Palo Alto	391	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Foster City	1,574	1,476	1,367	1,169	1,074	1,060	1,074	1,066	976	922	847	767	685	614	0
Half Moon Bay	387	335	289	263	235	206	188	178	193	0	0	0	0	0	0
Hillsborough	0	704	623	572	544	516	462	430	422	398	373	339	311	0	0
Los Altos Hills	149	141	127	117	112	99	86	80	71	60	59	56	49	43	0
Los Gatos	1,348	1,208	1,094	1,000	880	857	842	819	821	807	808	773	688	625	0
Millbrae	991	913	874	837	738	645	546	508	554	530	514	504	460	426	0
Milpitas	3,254	3,339	3,137	2,829	2,623	2,566	2,315	2,035	1,925	1,823	1,643	1,443	1,272	1,158	0
Morgan Hill	1,161	953	819	790	712	717	725	634	670	736	726	651	546	466	0
Newark	1,727	1,577	1,433	1,346	1,280	1,243	1,244	1,111	991	1,093	1,158	1,084	954	817	0
Pacifica	1,265	1,151	1,064	1,010	975	944	897	849	853	847	792	756	702	614	0
Portola Valley	82	76	65	58	49	44	43	40	38	35	31	28	26	24	0
Ross, Town of	173	173	165	154	147	124	0	0	0	0	0	0	0	0	0
San Bruno	1,694	1,463	1,376	1,336	1,228	1,085	1,051	1,064	1,060	1,003	546	504	461	439	0
San Carlos	942	800	716	655	597	556	514	480	474	452	414	373	348	332	0
Saratoga	399	355	305	316	346	337	301	307	323	306	276	247	229	205	0
South SF	3,126	2,885	2,641	2,468	2,345	2,201	2,092	2,058	2,036	1,926	1,821	1,706	1,589	1,498	0
Suisun City	591	541	497	466	420	397	377	380	395	393	351	291	210	157	0
Tiburon	238	213	197	189	184	175	170	171	175	177	165	145	127	119	0
Woodside	140	123	105	104	100	87	83	84	77	67	55	45	34	22	0
	26,028	24,354	22,253	20,420	19,070	18,110	17,068	16,276	16,011	14,674	13,321	12,080	10,838	9,460	0
	0.995	1.027	1.019	1.017	1.015	1.011	1.005	1.001	1.001	1.027	1.000	0.906	0.813	0.710	0.000

Based on Exhibit 3, Page 4 and Exhibit 3, Page 6.

ABAG PLAN CORPORATION

Historical Payroll By Member

Member	2018-19	2017-18	2016-17	2015-16	2014-15	2013-14	2012-13	2011-12	2010-11	2009-10	2008-09	2007-08	2006-07	2005-06	2004-05	2003-04	2002-03	2001-02
American Canyon	77,779	75,148	69,561	64,947	62,832	59,261	56,164	53,981	56,022	63,972	63,432	58,502	54,210	48,886	41,573	34,774	28,801	23,329
Atherton	52,113	51,091	43,565	42,209	39,550	34,937	35,545	37,816	46,631	51,401	52,195	47,137	46,296	46,438	45,090	42,884	41,691	33,897
Benicia	194,485	190,467	173,152	171,965	166,828	160,195	168,198	169,886	181,176	196,769	223,492	216,379	201,112	184,705	175,342	167,020	157,824	146,929
Burlingame	242,974	237,048	196,142	239,528	231,821	256,080	240,622	251,946	221,933	249,446	263,140	260,414	247,716	238,630	233,938	232,967	233,156	220,967
Campbell	232,720	225,939	218,751	214,910	198,257	182,514	178,455	170,613	165,855	179,036	175,659	170,485	162,148	158,774	159,918	159,710	152,214	139,549
Colma	53,000	51,000	49,000	43,825	39,640	41,650	40,444	43,667	41,755	40,374	42,433	42,816	42,586	37,186	33,602	30,491	26,388	24,965
Cupertino	223,963	223,465	195,868	173,727	161,102	151,388	147,032	140,904	140,719	140,147	135,281	128,347	121,432	115,840	115,054	112,134	109,351	94,215
Dublin	138,149	135,149	111,558	104,238	100,467	100,057	93,350	88,098	71,288	80,426	83,003	80,975	77,164	73,392	69,383	63,867	56,225	48,120
East Palo Alto	118,000	108,000	96,600	93,900	95,400	96,658	95,641	98,602	108,799	105,571	124,046	109,199	104,816	102,956	95,210	76,978	55,609	45,549
Foster City	245,600	237,296	218,156	203,308	194,081	163,877	196,247	178,272	190,344	235,278	215,710	207,814	196,666	191,224	188,439	188,490	187,072	173,648
Half Moon Bay	42,422	41,590	26,228	20,366	16,067	18,640	14,571	15,028	34,148	43,416	51,556	58,398	57,960	53,434	46,703	43,371	43,240	39,430
Hillsborough	107,286	103,619	92,561	119,338	109,606	118,411	119,416	115,334	127,494	132,040	133,081	124,871	115,084	109,435	96,662	85,419	81,224	83,585
Los Altos Hills	21,262	20,445	19,350	18,097	17,831	17,747	19,300	18,321	18,579	18,952	17,168	16,045	16,038	15,289	14,424	14,484	14,819	13,461
Los Gatos	171,768	168,400	161,384	156,997	152,590	153,503	155,665	157,468	152,679	155,119	165,399	157,508	150,600	148,037	144,536	143,117	142,289	132,046
Millbrae	95,602	92,818	69,085	88,757	106,975	102,998	99,021	95,043	94,594	94,145	94,247	92,645	89,438	97,221	99,998	97,572	111,464	112,895
Milpitas	405,069	393,272	386,120	358,546	325,730	304,432	344,491	344,491	366,038	441,054	448,889	444,093	432,705	436,269	441,923	438,501	421,607	356,493
Morgan Hill	250,190	240,286	251,938	239,627	202,443	183,195	167,140	165,875	167,044	200,536	204,796	190,530	172,093	149,919	137,728	124,354	114,774	113,909
Newark	196,830	173,081	163,274	150,011	146,941	144,580	134,370	136,196	129,813	217,351	249,935	256,035	251,735	241,409	246,589	242,485	212,080	186,663
Pacifica	181,894	178,327	185,399	169,885	165,816	164,300	165,008	171,323	189,639	175,749	179,461	176,774	171,322	159,638	152,041	148,004	144,805	138,719
Portola Valley	16,844	16,612	14,568	12,050	13,103	11,785	10,454	11,564	11,826	11,504	10,897	9,972	8,755	7,988	7,986	7,847	7,211	6,493
Ross, Town of	24,000	22,920	20,655	18,705	17,852	13,324	15,066	25,237	25,270	24,782	24,902	21,107	18,825	17,180	15,697	14,306	12,401	12,583
San Bruno	303,726	293,203	285,710	269,032	253,278	242,461	236,970	230,690	230,925	233,714	220,779	202,857	206,998	207,920	203,992	204,509	201,479	190,694
San Carlos	93,506	89,363	71,929	72,414	68,533	64,984	92,753	76,684	82,213	121,766	116,056	112,842	116,107	115,540	110,517	111,538	109,999	105,272
Saratoga	71,000	68,611	63,691	61,993	57,618	56,508	54,527	53,195	53,060	62,759	53,711	49,948	45,739	41,102	38,859	39,497	39,416	35,396
South SF	577,262	565,361	453,825	419,145	444,008	428,430	424,625	422,835	423,010	429,352	449,625	434,203	382,327	359,738	379,065	369,514	356,737	340,070
Suisun City	69,632	68,603	55,650	56,250	53,967	54,988	57,679	65,699	67,250	65,158	68,617	59,200	57,315	50,974	51,221	50,443	50,101	48,106
Tiburon	50,155	48,461	46,297	46,506	44,036	43,809	43,606	43,134	48,589	49,134	51,385	49,096	34,001	28,668	28,096	27,861	26,514	23,603
Woodside	23,331	22,651	18,785	18,549	19,657	18,193	19,508	22,232	23,855	23,465	26,909	24,922	18,128	16,325	15,104	15,442	14,220	11,813
	4,280,564	4,142,227	3,758,803	3,648,825	3,506,027	3,388,905	3,425,867	3,404,136	3,470,548	3,842,416	3,945,802	3,803,114	3,599,315	3,454,117	3,388,690	3,287,579	3,152,712	2,902,402

Provided by ABAG.

ABAG PLAN CORPORATION

Historical Payroll By Member

Member	2000-01	1999-00	1998-99	1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92	1990-91	1989-90	1988-89	1987-88	1986-87
American Canyon	21,177	20,203	18,050	15,446	13,454	12,254	11,165	9,461	0	0	0	0	0	0	0
Atherton	27,166	31,332	32,490	30,204	27,006	21,994	19,903	18,723	16,029	15,567	15,624	14,850	13,077	11,552	10,870
Benicia	132,610	121,142	107,684	102,166	105,206	100,743	96,475	96,545	96,427	90,851	81,395	70,783	62,257	51,389	43,093
Burlingame	196,241	166,244	144,880	137,391	131,569	134,385	136,295	130,393	124,633	0	0	0	0	0	0
Campbell	127,519	118,458	110,701	98,416	89,906	88,144	87,342	93,486	107,542	109,245	92,451	78,187	76,901	72,912	63,609
Colma	23,094	19,577	16,750	0	0	0	0	0	0	0	0	0	0	0	0
Cupertino	84,590	90,186	82,820	74,561	68,016	63,569	59,143	55,146	55,321	56,403	53,122	47,905	43,530	40,021	35,052
Dublin	40,855	33,806	28,380	25,770	23,572	20,531	16,766	16,156	18,003	17,306	14,691	11,821	8,904	7,156	5,832
East Palo Alto	39,095	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Foster City	157,391	147,566	136,709	116,853	107,421	105,972	107,402	106,598	97,560	92,190	84,743	76,679	68,547	61,362	53,553
Half Moon Bay	33,432	29,072	26,065	23,821	21,432	18,848	17,351	16,568	16,399	0	0	0	0	0	0
Hillsborough	80,727	70,429	62,273	57,203	54,368	51,625	46,180	42,990	42,222	39,758	37,308	33,934	31,056	0	0
Los Altos Hills	11,175	10,538	10,251	9,442	9,135	8,125	7,129	6,734	6,022	5,182	5,091	4,970	4,351	3,906	3,457
Los Gatos	116,501	104,685	98,557	90,521	80,135	78,517	77,609	76,018	76,683	76,035	76,749	73,997	66,430	60,952	57,030
Millbrae	99,094	91,266	87,385	83,674	73,782	64,463	54,580	50,797	55,364	53,038	51,373	50,378	46,012	42,567	40,028
Milpitas	325,352	333,863	313,742	282,924	262,262	256,595	231,545	203,500	192,500	182,298	164,267	144,330	127,163	115,803	104,500
Morgan Hill	100,320	82,561	73,742	71,488	64,871	65,666	66,798	63,417	67,015	73,568	72,634	65,146	54,604	46,557	38,378
Newark	172,712	157,671	143,323	134,648	127,954	124,341	124,395	111,102	99,134	109,323	115,846	108,391	95,390	81,744	69,964
Pacifica	126,509	115,121	106,432	100,978	97,465	94,404	89,709	84,887	85,326	84,695	79,216	75,590	70,159	61,433	55,502
Portola Valley	6,168	5,704	5,257	4,732	4,037	3,663	3,549	3,379	3,258	3,034	2,703	2,456	2,282	2,153	1,850
Ross, Town of	12,980	12,988	13,264	12,468	11,976	10,226	0	0	0	0	0	0	0	0	0
San Bruno	169,400	146,259	137,628	133,585	122,789	108,525	105,124	106,409	105,991	100,326	87,227	81,109	74,845	71,827	67,609
San Carlos	94,196	79,997	71,599	65,526	59,659	55,645	51,384	48,037	47,446	45,228	41,404	37,305	34,839	33,160	30,294
Saratoga	29,873	26,608	24,553	25,574	28,241	27,723	24,998	25,781	27,431	26,213	23,946	21,715	20,442	18,597	16,319
South SF	312,618	288,547	264,110	246,804	234,521	220,097	209,165	205,840	203,571	192,595	182,063	170,607	158,868	149,812	144,920
Suisun City	44,248	40,541	39,954	37,769	34,298	32,734	31,337	31,852	33,545	33,698	30,536	25,614	18,766	14,221	14,608
Tiburon	20,601	18,474	17,744	17,108	16,742	16,014	15,709	15,894	16,324	16,678	15,633	13,916	12,234	11,642	11,440
Woodside	10,453	9,230	8,453	8,430	8,151	7,179	6,938	7,044	6,513	5,733	4,739	3,917	3,026	2,012	1,550
	2,616,098	2,372,070	2,182,797	2,007,499	1,877,967	1,791,981	1,697,989	1,626,757	1,600,262	1,428,963	1,332,760	1,213,601	1,093,685	960,778	869,457

Provided by ABAG.

ABAG PLAN CORPORATION

Deductible History

Member	2018-19	2017-18	2016-17	2015-16	2014-15	2013-14	2012-13	2011-12	2010-11	2009-10	2008-09	2007-08	2006-07	2005-06	2004-05	2003-04	2002-03	2001-02
American Canyon	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Atherton	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Benicia	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Burlingame	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000
Campbell	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Colma	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Cupertino	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	100,000	100,000	100,000	100,000	100,000	100,000
Dublin	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
East Palo Alto	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Foster City	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Half Moon Bay	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Hillsborough	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	0
Los Altos Hills	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Los Gatos	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Millbrae	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Milpitas	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Morgan Hill	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	50,000
Newark	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Pacifica	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	100,000	100,000	100,000	100,000
Portola Valley	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Ross, Town of	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
San Bruno	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
San Carlos	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Saratoga	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
South SF	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Suisun City	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Tiburon	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Woodside	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000

Provided by ABAG.

ABAG PLAN CORPORATION

Deductible History

Member	2000-01	1999-00	1998-99	1997-98	1996-97	1995-96	1994-95	1993-94	1992-93	1991-92	1990-91	1989-90	1988-89	1987-88	1986-87
American Canyon	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	0	0	0	0	0	0	0
Atherton	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Benicia	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Burlingame	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	0	0	0	0	0	0
Campbell	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Colma	50,000	50,000	50,000	0	0	0	0	0	0	0	0	0	0	0	0
Cupertino	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Dublin	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
East Palo Alto	100,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Foster City	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Half Moon Bay	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	25,000	0	0	0	0	0	0
Hillsborough	0	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	0	0
Los Altos Hills	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Los Gatos	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Millbrae	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Milpitas	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Morgan Hill	50,000	50,000	50,000	50,000	50,000	50,000	50,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Newark	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Pacifica	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Portola Valley	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Ross, Town of	25,000	25,000	25,000	25,000	25,000	25,000	0	0	0	0	0	0	0	0	0
San Bruno	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	250,000	250,000	250,000	250,000	250,000
San Carlos	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Saratoga	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
South SF	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Suisun City	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Tiburon	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Woodside	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000

Provided by ABAG.

DRAFT

ABAG PLAN CORPORATION - Liability

Funding Guidelines for Outstanding Liabilities at
June 30, 2018

(A) Estimated Ultimate Losses Incurred through 6/30/18: (From Reserve Appendix F)	\$106,757,000
(B) Estimated Paid Losses through 6/30/18: (From Reserve Appendix F)	87,136,000
(C) Estimated Liability for Claims Outstanding at 6/30/18: (From Reserve Appendix F)	<u>\$19,621,000</u>
(D) Estimated Liability for Outstanding Claims Administration Fees at 6/30/18: (From Reserve Not Included)	2,453,000
(E) Total Outstanding Liability for Claims at 6/30/18: ((C) + (D))	<u>\$22,074,000</u>
(F) Reserve Discount Factor (Based on a Discount Rate of 3.0%): (Reserve Appendix H, Page 1, (H))	0.935
(G) Discounted Outstanding Liability for Claims at 6/30/18: ((E) x (F))	<u>\$20,630,000</u>

Confidence Level of Adequacy:	Marginally Acceptable 70%	75%	Recommended 80%	85%	Conservative 90%
(H) Confidence Level Factor: (From Reserve Appendix I)	1.112	1.161	1.218	1.290	1.386
(I) Margin for Adverse Experience: ((G) x [(H) - 1])	2,311,000	3,321,000	4,497,000	5,983,000	7,963,000
(J) Total Required Assets at 6/30/18: ((G) + (I))	<u>\$22,941,000</u>	<u>\$23,951,000</u>	<u>\$25,127,000</u>	<u>\$26,613,000</u>	<u>\$28,593,000</u>
(K) Estimated Total Assets at 6/30/18: (From Reserve Appendix K)	45,476,000	45,476,000	45,476,000	45,476,000	45,476,000
(L) Indicated Funding Redundancy/ (Deficiency): ((K) - (J))	<u>\$22,535,000</u>	<u>\$21,525,000</u>	<u>\$20,349,000</u>	<u>\$18,863,000</u>	<u>\$16,883,000</u>

DRAFT

ABAG PLAN CORPORATION - Liability

IBNR as of 6/30/18 at Expected Claims Level

Accident Year	Estimated Ultimate (A)	Reported as of 12/31/17 (B)	Estimated IBNR as of 12/31/17 (C)	Estimated Percent of IBNR Reported Between 1/1/18 and 6/30/18 (D)	Estimated IBNR Reported (E)	Estimated IBNR as of 6/30/18 (F)
1986-1997	\$18,874,096	\$18,874,096	\$0	100.0%	\$0	\$0
1997-1998	2,462,528	2,462,528	0	100.0%	0	0
1998-1999	5,606,097	5,606,097	0	100.0%	0	0
1999-2000	1,200,348	1,200,348	0	100.0%	0	0
2000-2001	1,860,106	1,860,106	0	100.0%	0	0
2001-2002	4,627,263	4,627,263	0	100.0%	0	0
2002-2003	8,843,841	8,843,841	0	100.0%	0	0
2003-2004	2,574,481	2,574,481	0	100.0%	0	0
2004-2005	1,874,487	1,874,487	0	100.0%	0	0
2005-2006	4,756,022	4,756,022	0	33.3%	0	0
2006-2007	1,656,563	1,656,563	0	33.2%	0	0
2007-2008	6,755,660	6,755,660	0	19.8%	0	0
2008-2009	3,528,864	3,528,864	0	19.8%	0	0
2009-2010	2,441,417	2,441,417	0	19.6%	0	0
2010-2011	2,046,846	2,046,846	0	19.4%	0	0
2011-2012	4,042,000	3,809,185	232,815	17.2%	40,000	192,815
2012-2013	2,902,000	2,383,230	518,770	16.0%	83,000	435,770
2013-2014	7,955,000	6,948,858	1,006,142	21.2%	213,000	793,142
2014-2015	5,549,000	4,496,980	1,052,020	24.4%	257,000	795,020
2015-2016	5,363,000	4,031,962	1,331,038	18.0%	240,000	1,091,038
2016-2017	5,491,000	1,838,105	3,652,895	20.9%	763,000	2,889,895
2017-2018	6,346,000		3,173,000	9.3%	590,000	5,756,000
Totals	\$106,756,619	\$92,616,939	\$10,966,680		\$2,186,000	\$11,953,680

Notes:

- (A) From Reserve Exhibit 3, Page 1.
- (B) Provided by the Authority. These losses exclude amounts incurred above the Authority's SIR for each year.
- (C) (A) - (B).
- (D) Percentage of incurred but not reported (IBNR) expected to be reported between 1/1/18 and 6/30/18. The percentage is based on the development pattern selected in Reserve Appendix A.
- (E) ((A) - (B)) x (D).
- (F) (A) - (B) - (E).

This exhibit shows the calculation of the amount of incurred but not reported losses we expect as of 6/30/18. This amount is dependent on both the strength of the case reserves and the average frequency and severity of the losses incurred.

DRAFT

ABAG PLAN CORPORATION - Liability

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)
1986-1997	\$18,874,096	\$18,874,096	\$18,874,096	\$18,874,096	\$18,874,080	\$18,874,096
1997-1998	2,462,528	2,462,528	2,462,528	2,462,528	2,462,533	2,462,528
1998-1999	5,606,097	5,606,097	5,606,097	5,606,097	5,606,104	5,606,097
1999-2000	1,200,348	1,199,565	1,200,348	1,199,565	1,200,353	1,200,348
2000-2001	1,860,106	1,860,106	1,860,106	1,860,106	1,860,105	1,860,106
2001-2002	4,627,263	4,627,263	4,627,263	4,627,263	4,627,260	4,627,263
2002-2003	8,843,841	8,812,482	8,843,841	8,812,482	8,843,828	8,843,841
2003-2004	2,574,481	2,574,481	2,574,481	2,574,481	2,574,480	2,574,481
2004-2005	1,876,361	1,876,361	1,876,362	1,876,362	1,874,484	1,874,487
2005-2006	4,770,290	4,770,290	4,770,294	4,770,294	4,756,016	4,756,022
2006-2007	1,666,502	1,666,502	1,666,491	1,666,491	1,656,564	1,656,563
2007-2008	6,823,217	6,823,217	6,823,245	6,823,245	6,755,664	6,755,660
2008-2009	3,581,797	3,581,797	3,581,778	3,581,778	3,528,860	3,528,864
2009-2010	2,502,452	2,502,452	2,500,049	2,500,049	2,441,420	2,441,417
2010-2011	2,128,720	2,151,235	2,124,652	2,147,175	2,046,850	2,046,846
2011-2012	4,041,545	4,155,506	4,039,551	4,143,948	4,042,000	4,042,000
2012-2013	2,604,870	2,493,556	2,815,639	2,989,088	5,157,432	2,902,000
2013-2014	7,307,408	9,514,795	7,702,884	8,206,986	3,984,375	7,955,000
2014-2015	6,340,742	5,284,524	6,032,156	5,278,986	5,597,025	5,549,000
2015-2016	5,391,386	1,231,918	6,344,078	4,381,821	5,553,132	5,363,000
2016-2017	8,424,035	22,064	5,944,645	5,036,925	5,513,076	5,491,000
Totals						\$100,410,619
Projected Losses for the Year 2017-2018 (G)						\$6,346,000
Projected Losses for the Year 2018-2019 (H)						\$6,780,000

Notes:

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

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

DRAFT

ABAG PLAN CORPORATION - Liability

Estimated Ultimate Limited Losses Capped at \$100,000 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)
1986-1997	\$18,874,096	\$18,874,096	\$18,874,096	\$18,874,096	\$18,874,080	\$18,874,096
1997-1998	2,462,528	2,462,528	2,462,528	2,462,528	2,462,533	2,462,528
1998-1999	5,606,097	5,606,097	5,606,097	5,606,097	5,606,104	5,606,097
1999-2000	1,200,348	1,199,565	1,200,348	1,199,565	1,200,353	1,200,348
2000-2001	1,860,106	1,860,106	1,860,106	1,860,106	1,860,105	1,860,106
2001-2002	4,627,263	4,627,263	4,627,263	4,627,263	4,627,260	4,627,263
2002-2003	8,843,841	8,812,482	8,843,841	8,812,482	8,843,828	8,843,841
2003-2004	2,574,481	2,574,481	2,574,481	2,574,481	2,574,480	2,574,481
2004-2005	1,876,361	1,876,361	1,876,362	1,876,362	1,874,484	1,874,487
2005-2006	4,770,290	4,770,290	4,770,294	4,770,294	4,756,016	4,756,022
2006-2007	1,666,502	1,666,502	1,666,491	1,666,491	1,656,564	1,656,563
2007-2008	6,823,217	6,823,217	6,823,245	6,823,245	6,755,664	6,755,660
2008-2009	3,581,797	3,581,797	3,581,778	3,581,778	3,528,860	3,528,864
2009-2010	2,502,452	2,502,452	2,500,049	2,500,049	2,441,420	2,441,417
2010-2011	2,128,720	2,151,235	2,124,652	2,147,175	2,046,850	2,046,846
2011-2012	4,041,545	4,155,506	4,039,551	4,143,948	4,042,000	4,042,000
2012-2013	2,604,870	2,493,556	2,815,639	2,989,088	5,157,432	2,902,000
2013-2014	7,307,408	9,514,795	7,702,884	8,206,986	3,984,375	7,955,000
2014-2015	6,340,742	5,284,524	6,032,156	5,278,986	5,597,025	5,549,000
2015-2016	5,391,386	1,231,918	6,344,078	4,381,821	5,553,132	5,363,000
2016-2017	8,424,035	22,064	5,944,645	5,036,925	5,513,076	5,491,000
Totals						\$100,410,619
			Projected Losses for the Year 2017-2018 (G)			\$6,090,000
			Projected Losses for the Year 2018-2019 (H)			\$6,463,000

Notes:

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

DRAFT

ABAG PLAN CORPORATION - Liability

Reported Loss Development

Accident Year (A)	Program Reported Losses as of 12/31/17 (B)	Reported Loss Development Factor (C)	Ultimate Program Losses (D)	Program Reported Losses of 12/31/17 (E)	Reported Loss Development Factor (F)	Ultimate Program Losses (G)
1986-1997	\$18,874,096	1.000	\$18,874,096	\$18,874,096	1.000	\$18,874,096
1997-1998	2,462,528	1.000	2,462,528	2,462,528	1.000	2,462,528
1998-1999	5,606,097	1.000	5,606,097	5,606,097	1.000	5,606,097
1999-2000	1,200,348	1.000	1,200,348	1,200,348	1.000	1,200,348
2000-2001	1,860,106	1.000	1,860,106	1,860,106	1.000	1,860,106
2001-2002	4,627,263	1.000	4,627,263	4,627,263	1.000	4,627,263
2002-2003	8,843,841	1.000	8,843,841	8,843,841	1.000	8,843,841
2003-2004	2,574,481	1.000	2,574,481	2,574,481	1.000	2,574,481
2004-2005	1,874,487	1.001	1,876,361	1,874,487	1.001	1,876,361
2005-2006	4,756,022	1.003	4,770,290	4,756,022	1.003	4,770,290
2006-2007	1,656,563	1.006	1,666,502	1,656,563	1.006	1,666,502
2007-2008	6,755,660	1.010	6,823,217	6,755,660	1.010	6,823,217
2008-2009	3,528,864	1.015	3,581,797	3,528,864	1.015	3,581,797
2009-2010	2,441,417	1.025	2,502,452	2,441,417	1.025	2,502,452
2010-2011	2,046,846	1.040	2,128,720	2,046,846	1.040	2,128,720
2011-2012	3,809,185	1.061	4,041,545	3,809,185	1.061	4,041,545
2012-2013	2,383,230	1.093	2,604,870	2,383,230	1.093	2,604,870
2013-2014	6,948,858	1.175	7,307,408	6,948,858	1.175	7,307,408
2014-2015	4,496,980	1.410	6,340,742	4,496,980	1.410	6,340,742
2015-2016	4,031,962	1.833	5,391,386	4,031,962	1.833	5,391,386
2016-2017	1,838,105	4.583	8,424,035	1,838,105	4.583	8,424,035
Totals	\$92,616,939		\$103,508,085	\$92,616,939		\$103,508,085

Notes:

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

ABAG PLAN CORPORATION - Liability
Reported Loss Development

Program Losses Reported as of:

Accident Year	6 Months	18 Months	30 Months	42 Months	54 Months	66 Months	78 Months	90 Months	102 Months	114 Months	126 Months
1996-1997							629,224	636,225	627,703	627,703	627,703
1997-1998						2,720,128	2,544,624	2,544,624	2,544,624	2,544,624	2,390,163
1998-1999					4,720,056	4,913,712	5,464,162	5,614,162	5,639,162	5,593,878	5,593,878
1999-2000				1,090,980	1,240,651	1,295,651	1,258,685	1,258,685	1,199,915	1,199,915	1,199,915
2000-2001			1,029,802	1,075,802	1,110,538	1,151,880	1,736,208	1,709,846	1,709,846	1,709,846	1,709,846
2001-2002		486,199	2,720,670	2,906,359	3,303,530	4,806,236	6,530,242	4,585,777	4,573,678	4,573,678	4,664,570
2002-2003	567,543	1,906,336	4,062,177	8,370,243	9,217,066	8,542,877	8,721,640	8,719,727	8,808,032	8,850,963	8,792,658
2003-2004	4,001	184,321	558,456	670,955	1,173,162	1,318,511	1,591,251	1,881,919	2,790,812	2,568,802	2,569,681
2004-2005		671,598	1,275,449	1,852,243	1,904,110	1,876,140	1,884,486	1,876,140	1,876,140	1,876,140	1,876,140
2005-2006	25,000	422,143	1,922,276	2,886,625	3,514,764	4,881,587	4,993,818	5,096,734	5,171,734	4,812,387	4,775,006
2006-2007	250,000	429,839	388,247	544,541	885,717	1,181,310	1,717,627	1,656,699	1,656,563	1,656,563	1,656,563
2007-2008	228,140	748,802	1,944,679	3,425,750	4,743,123	7,031,234	6,805,660	6,755,660	6,755,660	6,755,660	6,755,660
2008-2009	40,000	593,853	2,272,388	4,424,148	5,587,036	5,819,751	3,573,895	3,528,864	3,528,864	3,528,864	
2009-2010	588,210	3,130,545	3,852,129	3,616,630	3,528,002	3,528,002	2,483,987	2,463,987	2,441,417		
2010-2011		3,235,361	13,599,043	6,660,508	1,961,674	2,096,846	2,046,846				
2011-2012	25,000	6,136,433	10,300,736	3,657,810	3,711,615	3,660,880	3,809,185				
2012-2013	25,000	4,721,268	2,820,517	2,142,134	2,006,231	2,383,230					
2013-2014	357,000	1,085,300	1,453,782	6,394,575	6,948,858						
2014-2015		2,581,639	3,391,765	4,496,980							
2015-2016		816,550	4,031,962								
2016-2017	10,002	1,838,105									
2017-2018											

Reported Loss Development Factors:

	6-18 Months	18-30 Months	30-42 Months	42-54 Months	54-66 Months	66-78 Months	78-90 Months	90-102 Months	102-114 Months	114-126 Months	126-138 Months
1996-1997							1.011	0.987	1.000	1.000	1.000
1997-1998						0.935	1.000	1.000	1.000	0.939	1.000
1998-1999					1.041	1.112	1.027	1.004	0.992	1.000	1.000
1999-2000				1.137	1.044	0.971	1.000	0.953	1.000	1.000	1.000
2000-2001			1.045	1.032	1.037	1.507	0.985	1.000	1.000	1.000	1.000
2001-2002		5.596	1.068	1.137	1.455	1.359	0.702	0.997	1.000	1.020	0.989
2002-2003	3.359	2.131	2.061	1.101	0.927	1.021	1.000	1.010	1.005	0.993	1.008
2003-2004	46.069	3.030	1.201	1.748	1.124	1.207	1.183	1.483	0.920	1.000	1.000
2004-2005		1.899	1.452	1.028	0.985	1.004	0.996	1.000	1.000	1.000	1.000
2005-2006	16.886	4.554	1.502	1.218	1.389	1.023	1.021	1.015	0.931	0.992	1.000
2006-2007	1.719	0.903	1.403	1.627	1.334	1.454	0.965	1.000	1.000	1.000	1.000
2007-2008	3.282	2.597	1.762	1.385	1.482	0.968	0.993	1.000	1.000	1.000	
2008-2009	14.846	3.827	1.947	1.263	1.042	0.614	0.987	1.000	1.000		
2009-2010	5.322	1.230	0.939	0.975	1.000	0.704	0.992	0.991			
2010-2011		4.203	0.490	0.295	1.069	0.976	1.000				
2011-2012	245.457	1.679	0.355	1.015	0.986	1.041					
2012-2013	188.851	0.597	0.759	0.937	1.188						
2013-2014	3.040	1.340	4.399	1.087							
2014-2015		1.314	1.326								
2015-2016		4.938									
2016-2017	183.774										
Average	64.782	2.656	1.447	1.132	1.140	1.060	0.991	1.031	0.988	0.995	1.000
Dollar-Weighted											
Averages											
3-yr		1.980	1.700	1.039	1.060	0.898	0.992	0.998	1.000	0.997	1.000
4-yr		1.271	0.929	0.776	1.041	0.789	0.992	0.998	0.979	0.998	1.000
Comparative											
Factors	2.945	1.254	1.006	0.965	0.972	1.000	1.000	1.000	1.000	1.000	1.000
Prior	5.500	2.500	1.300	1.200	1.075	1.030	1.020	1.015	1.010	1.005	1.004
Selected	5.500	2.500	1.300	1.200	1.075	1.030	1.020	1.015	1.010	1.005	1.004
Cumulated	25.207	4.583	1.833	1.410	1.175	1.093	1.061	1.040	1.025	1.015	1.010

DRAFTABAG PLAN CORPORATION - Liability
Reported Loss Development

Accident Year	Program Losses Reported as of:										
	138 Months	150 Months	162 Months	174 Months	186 Months	198 Months	210 Months	222 Months	234 Months	246 Months	258 Months
1996-1997	627,703	627,703	627,703	627,703	627,703	627,703	627,703	627,703	627,703	627,703	627,603
1997-1998	2,390,163	2,390,163	2,390,163	2,390,163	2,390,163	2,390,163	2,390,163	2,390,163	2,390,163	2,390,163	
1998-1999	5,593,721	5,593,721	5,593,721	5,593,721	5,593,721	5,593,721	5,593,721	5,593,721	5,593,721		
1999-2000	1,199,915	1,199,565	1,199,565	1,199,565	1,200,348	1,200,348	1,200,348	1,200,348			
2000-2001	1,709,846	1,874,146	1,860,684	1,860,684	1,860,684	1,860,684	1,860,684				
2001-2002	4,615,125	4,643,008	4,627,263	4,627,263	4,627,263	4,627,263					
2002-2003	8,866,771	8,864,201	8,864,200	8,864,200	8,864,200						
2003-2004	2,569,681	2,569,681	2,569,681								
2004-2005	1,876,140	1,876,140	1,876,140								
2005-2006	4,775,006	4,775,006									
2006-2007	1,656,563										
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											
2014-2015											
2015-2016											
2016-2017											
2017-2018											

Reported Loss Development Factors:

	138-150 Months	150-162 Months	162-174 Months	174-186 Months	186-198 Months	198-210 Months	210-222 Months	222-234 Months	234-246 Months	246-258 Months	258-Ult. Months
1996-1997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1997-1998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
1998-1999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
1999-2000	1.000	1.000	1.000	1.001	1.000	1.000	1.000				
2000-2001	1.096	0.993	1.000	1.000	1.000	1.000					
2001-2002	1.006	0.997	1.000	1.000	1.000						
2002-2003	1.000	1.000	1.000	1.000							
2003-2004	1.000	1.000	1.000								
2004-2005	1.000	1.000									
2005-2006	1.000										
2006-2007											
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											
2014-2015											
2015-2016											
2016-2017											
Average	1.010	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Dollar-Weighted											
Averages											
3-yr	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
4-yr	1.000	0.999	1.000	1.000	1.000	1.000	1.000				
Comparative											
Factors	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Prior	1.003	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Selected	1.003	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulated	1.006	1.003	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

DRAFT

ABAG PLAN CORPORATION - Liability

Paid Loss Development

Accident Year (A)	Program Paid Losses as of 12/31/17 (B)	Paid Loss Development Factor (C)	Ultimate Program Losses (D)	Program Paid Losses of 12/31/17 (E)	Paid Loss Development Factor (F)	Ultimate Program Losses (G)
1986-1997	\$18,874,096	1.000	\$18,874,096	\$18,874,096	1.000	\$18,874,096
1997-1998	2,462,528	1.000	2,462,528	2,462,528	1.000	2,462,528
1998-1999	5,606,097	1.000	5,606,097	5,606,097	1.000	5,606,097
1999-2000	1,199,565	1.000	1,199,565	1,199,565	1.000	1,199,565
2000-2001	1,860,106	1.000	1,860,106	1,860,106	1.000	1,860,106
2001-2002	4,627,263	1.000	4,627,263	4,627,263	1.000	4,627,263
2002-2003	8,812,482	1.000	8,812,482	8,812,482	1.000	8,812,482
2003-2004	2,574,481	1.000	2,574,481	2,574,481	1.000	2,574,481
2004-2005	1,874,487	1.001	1,876,361	1,874,487	1.001	1,876,361
2005-2006	4,756,022	1.003	4,770,290	4,756,022	1.003	4,770,290
2006-2007	1,656,563	1.006	1,666,502	1,656,563	1.006	1,666,502
2007-2008	6,755,660	1.010	6,823,217	6,755,660	1.010	6,823,217
2008-2009	3,528,864	1.015	3,581,797	3,528,864	1.015	3,581,797
2009-2010	2,441,417	1.025	2,502,452	2,441,417	1.025	2,502,452
2010-2011	2,046,846	1.051	2,151,235	2,046,846	1.051	2,151,235
2011-2012	3,764,045	1.104	4,155,506	3,764,045	1.104	4,155,506
2012-2013	2,017,440	1.236	2,493,556	2,017,440	1.236	2,493,556
2013-2014	6,724,237	1.415	9,514,795	6,724,237	1.415	9,514,795
2014-2015	2,667,604	1.981	5,284,524	2,667,604	1.981	5,284,524
2015-2016	226,123	5.448	1,231,918	226,123	5.448	1,231,918
2016-2017	900	24.516	22,064	900	24.516	22,064
Totals	\$84,476,826		\$92,090,835	\$84,476,826		\$92,090,835

Notes:

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

ABAG PLAN CORPORATION - Liability
Paid Loss Development

Accident Year	<u>Program Losses Paid as of:</u>										
	6 Months	18 Months	30 Months	42 Months	54 Months	66 Months	78 Months	90 Months	102 Months	114 Months	126 Months
1996-1997							621,724	627,703	627,703	627,703	627,703
1997-1998						2,305,273	2,544,624	2,544,624	2,544,624	2,544,624	2,390,163
1998-1999					3,820,237	4,138,290	5,424,711	5,512,152	5,607,478	5,593,878	5,593,878
1999-2000				1,062,616	1,185,651	1,258,685	1,258,685	1,258,685	1,199,915	1,199,915	1,199,915
2000-2001			917,795	1,045,181	1,051,918	1,061,561	1,705,561	1,709,846	1,709,846	1,709,846	1,709,846
2001-2002		309,735	1,134,971	2,673,383	3,181,741	3,268,324	3,280,242	4,573,678	4,573,678	4,573,678	4,613,136
2002-2003	150,543	1,228,821	1,665,669	6,933,745	8,246,287	8,190,377	8,708,241	8,719,727	8,719,727	8,742,645	8,772,745
2003-2004	4,000	77,051	495,103	608,305	921,312	1,087,642	1,376,804	1,647,154	2,608,353	2,568,802	2,569,681
2004-2005		81,598	417,717	1,814,469	1,878,960	1,876,140	1,876,140	1,876,140	1,876,140	1,876,140	1,876,140
2005-2006		247,187	294,551	1,141,504	2,514,423	3,122,718	4,717,976	4,734,927	4,753,612	4,756,021	4,775,006
2006-2007	6,182	16,629	124,634	476,923	689,869	1,110,840	1,669,292	1,656,563	1,656,563	1,656,563	1,656,563
2007-2008		73,131	687,414	1,833,480	3,126,455	5,793,113	6,755,660	6,755,660	6,755,660	6,755,660	6,755,660
2008-2009	20,033	75,913	531,423	2,267,616	2,681,095	3,030,640	3,494,736	3,528,864	3,528,864	3,528,864	
2009-2010	219,495	304,644	724,295	2,093,891	2,352,952	2,372,163	2,421,490	2,438,686	2,441,417		
2010-2011		249,199	684,682	1,176,359	1,846,866	2,046,846	2,046,846	2,046,846			
2011-2012	14,083	197,650	1,183,434	2,859,227	3,523,538	3,619,018	3,764,045				
2012-2013		550,184	901,080	1,725,493	1,819,616	2,017,440					
2013-2014		128,965	746,799	5,850,808	6,724,237						
2014-2015		1,676,100	2,183,993	2,667,604							
2015-2016		16,532	226,123								
2016-2017		900									
2017-2018											

Paid Loss Development Factors:

	6-18 Months	18-30 Months	30-42 Months	42-54 Months	54-66 Months	66-78 Months	78-90 Months	90-102 Months	102-114 Months	114-126 Months	126-138 Months
1996-1997							1.010	1.000	1.000	1.000	1.000
1997-1998						1.104	1.000	1.000	1.000	0.939	1.000
1998-1999					1.083	1.311	1.016	1.017	0.998	1.000	1.000
1999-2000				1.116	1.062	1.000	1.000	0.953	1.000	1.000	1.000
2000-2001			1.139	1.006	1.009	1.607	1.003	1.000	1.000	1.000	1.000
2001-2002		3.664	2.355	1.190	1.027	1.004	1.394	1.000	1.000	1.009	1.000
2002-2003	8.163	1.356	4.163	1.189	0.993	1.063	1.001	1.000	1.003	1.003	1.004
2003-2004	19.263	6.426	1.229	1.515	1.181	1.266	1.196	1.584	0.985	1.000	1.000
2004-2005		5.119	4.344	1.036	0.998	1.000	1.000	1.000	1.000	1.000	1.000
2005-2006		1.192	3.875	2.203	1.242	1.511	1.004	1.004	1.001	1.004	1.000
2006-2007	2.690	7.495	3.827	1.446	1.610	1.503	0.992	1.000	1.000	1.000	1.000
2007-2008		9.400	2.667	1.705	1.853	1.166	1.000	1.000	1.000	1.000	
2008-2009	3.789	7.000	4.267	1.182	1.130	1.153	1.010	1.000	1.000		
2009-2010	1.388	2.378	2.891	1.124	1.008	1.021	1.007	1.001			
2010-2011		2.748	1.718	1.570	1.108	1.000	1.000				
2011-2012	14.035	5.988	2.416	1.232	1.027	1.040					
2012-2013		1.638	1.915	1.055	1.109						
2013-2014		5.791	7.835	1.149							
2014-2015		1.303	1.221								
2015-2016		13.678									
2016-2017											

	6-18 Months	18-30 Months	30-42 Months	42-54 Months	54-66 Months	66-78 Months	78-90 Months	90-102 Months	102-114 Months	114-126 Months	126-138 Months
Average	8.221	5.012	3.057	1.315	1.163	1.183	1.042	1.040	0.999	0.996	1.000
Dollar-Weighted											
Averages											
3-yr		1.733	2.673	1.156	1.069	1.024	1.006	1.000	1.000	1.001	1.000
4-yr		1.711	2.613	1.198	1.054	1.059	1.003	1.000	1.000	1.001	1.000
Comparative											
Factors	4.218	2.117	1.446	1.151	1.057	1.033	1.015	1.010	1.008	1.008	1.006
Prior	9.100	4.500	2.750	1.400	1.145	1.120	1.050	1.025	1.010	1.005	1.004
Selected	9.100	4.500	2.750	1.400	1.145	1.120	1.050	1.025	1.010	1.005	1.004
Cumulated	223.096	24.516	5.448	1.981	1.415	1.236	1.104	1.051	1.025	1.015	1.010

DRAFTABAG PLAN CORPORATION - Liability
Paid Loss Development

<u>Program Losses Paid as of:</u>											
Accident	138	150	162	174	186	198	210	222	234	246	258
Year	Months	Months	Months	Months	Months	Months	Months	Months	Months	Months	Months
1996-1997	627,703	627,703	627,703	627,703	627,703	627,703	627,703	627,703	627,703	627,703	627,603
1997-1998	2,390,163	2,390,163	2,390,163	2,390,163	2,390,163	2,390,163	2,390,163	2,390,163	2,390,163	2,390,163	
1998-1999	5,593,721	5,593,721	5,593,721	5,593,721	5,593,721	5,593,721	5,593,721	5,593,721	5,593,721		
1999-2000	1,199,915	1,199,565	1,199,565	1,199,565	1,199,565	1,199,565	1,199,565	1,199,565			
2000-2001	1,709,846	1,804,869	1,860,684	1,860,684	1,860,684	1,860,684	1,860,684				
2001-2002	4,615,125	4,615,701	4,627,263	4,627,263	4,627,263	4,627,263					
2002-2003	8,809,636	8,825,154	8,832,114	8,832,841	8,832,841						
2003-2004	2,569,681	2,569,681	2,569,681								
2004-2005	1,876,140	1,876,140	1,876,140								
2005-2006	4,775,006	4,775,006									
2006-2007	1,656,563										
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											
2014-2015											
2015-2016											
2016-2017											
2017-2018											

Paid Loss Development Factors:

	138-150	150-162	162-174	174-186	186-198	198-210	210-222	222-234	234-246	246-258	258-Ult.
	Months	Months	Months	Months	Months	Months	Months	Months	Months	Months	Months
1996-1997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1997-1998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
1998-1999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
1999-2000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
2000-2001	1.056	1.031	1.000	1.000	1.000	1.000					
2001-2002	1.000	1.003	1.000	1.000	1.000						
2002-2003	1.002	1.001	1.000	1.000							
2003-2004	1.000	1.000	1.000								
2004-2005	1.000	1.000									
2005-2006	1.000										
2006-2007											
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											
2014-2015											
2015-2016											
2016-2017											
	138-150	150-162	162-174	174-186	186-198	198-210	210-222	222-234	234-246	246-258	258-Ult.
	Months	Months	Months	Months	Months	Months	Months	Months	Months	Months	Months
Average	1.006	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Dollar-Weighted											
Averages											
3-yr	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000			
4-yr	1.001	1.001	1.000	1.000	1.000	1.000	1.000				
Comparative											
Factors	1.006	1.004	1.004	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.000
Prior	1.003	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Selected	1.003	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

DRAFT

ABAG PLAN CORPORATION - Liability

Exposure and Development Method
Based on Reported Losses

Accident Year	Trended Payroll (\$00) (A)	Reported Losses as of 12/31/17 (B)	Loss Development Factor (C)	Percentage of Losses Yet to Be Reported (D)	Program Rate (E)	Incurred but not Reported (IBNR) (F)	Ultimate Program Losses (G)
1986-1997	29,445,392	18,874,096	1.000	0.000	0.641	0	18,874,096
1997-1998	3,610,806	2,462,528	1.000	0.000	0.682	0	2,462,528
1998-1999	3,821,996	5,606,097	1.000	0.000	1.467	0	5,606,097
1999-2000	4,042,911	1,200,348	1.000	0.000	0.297	0	1,200,348
2000-2001	4,222,121	1,860,106	1.000	0.000	0.441	0	1,860,106
2001-2002	4,581,236	4,627,263	1.000	0.000	1.010	0	4,627,263
2002-2003	4,982,604	8,843,841	1.000	0.000	1.775	0	8,843,841
2003-2004	5,081,729	2,574,481	1.000	0.000	0.507	0	2,574,481
2004-2005	5,804,301	1,874,487	1.001	0.001	0.323	1,875	1,876,362
2005-2006	5,780,294	4,756,022	1.003	0.003	0.823	14,272	4,770,294
2006-2007	5,909,590	1,656,563	1.006	0.006	0.280	9,928	1,666,491
2007-2008	6,105,257	6,755,660	1.010	0.010	1.107	67,585	6,823,245
2008-2009	6,156,341	3,528,864	1.015	0.015	0.573	52,914	3,581,778
2009-2010	5,802,822	2,441,417	1.025	0.024	0.421	58,632	2,500,049
2010-2011	5,223,291	2,046,846	1.040	0.038	0.392	77,806	2,124,652
2011-2012	4,355,083	3,809,185	1.061	0.057	0.928	230,366	4,039,551
2012-2013	4,152,787	2,383,230	1.093	0.085	1.225	432,409	2,815,639
2013-2014	4,022,715	6,948,858	1.175	0.149	1.258	754,026	7,702,884
2014-2015	4,080,062	4,496,980	1.410	0.291	1.293	1,535,176	6,032,156
2015-2016	3,834,915	4,031,962	1.833	0.454	1.328	2,312,116	6,344,078
2016-2017	3,852,773	1,838,105	4.583	0.782	1.363	4,106,540	5,944,645
Totals	124,869,026	\$92,616,939				\$9,653,645	\$102,270,584

Notes:

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

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

DRAFT

ABAG PLAN CORPORATION - Liability

Exposure and Development Method
Based on Paid Losses

Accident Year	Trended Payroll (\$00) (A)	Paid Losses as of 12/31/17 (B)	Loss Development Factor (C)	Percentage of Losses Yet to Be Paid (D)	Program Rate (E)	Incurred but not Paid (F)	Ultimate Program Losses (G)
1986-1997	29,445,392	18,874,096	1.000	0.000	0.641	0	18,874,096
1997-1998	3,610,806	2,462,528	1.000	0.000	0.682	0	2,462,528
1998-1999	3,821,996	5,606,097	1.000	0.000	1.467	0	5,606,097
1999-2000	4,042,911	1,199,565	1.000	0.000	0.297	0	1,199,565
2000-2001	4,222,121	1,860,106	1.000	0.000	0.441	0	1,860,106
2001-2002	4,581,236	4,627,263	1.000	0.000	1.010	0	4,627,263
2002-2003	4,982,604	8,812,482	1.000	0.000	1.775	0	8,812,482
2003-2004	5,081,729	2,574,481	1.000	0.000	0.507	0	2,574,481
2004-2005	5,804,301	1,874,487	1.001	0.001	0.323	1,875	1,876,362
2005-2006	5,780,294	4,756,022	1.003	0.003	0.823	14,272	4,770,294
2006-2007	5,909,590	1,656,563	1.006	0.006	0.280	9,928	1,666,491
2007-2008	6,105,257	6,755,660	1.010	0.010	1.107	67,585	6,823,245
2008-2009	6,156,341	3,528,864	1.015	0.015	0.573	52,914	3,581,778
2009-2010	5,802,822	2,441,417	1.025	0.024	0.421	58,632	2,500,049
2010-2011	5,223,291	2,046,846	1.051	0.049	0.392	100,329	2,147,175
2011-2012	4,355,083	3,764,045	1.104	0.094	0.928	379,903	4,143,948
2012-2013	4,152,787	2,017,440	1.236	0.191	1.225	971,648	2,989,088
2013-2014	4,022,715	6,724,237	1.415	0.293	1.258	1,482,749	8,206,986
2014-2015	4,080,062	2,667,604	1.981	0.495	1.293	2,611,382	5,278,986
2015-2016	3,834,915	226,123	5.448	0.816	1.328	4,155,698	4,381,821
2016-2017	3,852,773	900	24.516	0.959	1.363	5,036,025	5,036,925
Totals	124,869,026	\$84,476,826				\$14,942,940	\$99,419,766

Notes:

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

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

DRAFT

ABAG PLAN CORPORATION - Liability

Exposure and Development Method

Accident Year	Trended Payroll (\$00) (A)	Ultimate Program Losses (B)	Trend Factor (C)	Trended Program Losses (D)	Trended Program Loss Rate (E)	Program Loss Rate (F)	Factor to SIR (G)	Program Loss Rate (H)
1986-1997	29,445,392	18,874,096	1.748	32,991,920	1.120	0.641	1.000	0.641
1997-1998	3,610,806	2,462,528	1.702	4,191,223	1.161	0.682	1.000	0.682
1998-1999	3,821,996	5,606,097	1.657	9,289,303	2.430	1.467	1.000	1.467
1999-2000	4,042,911	1,200,348	1.614	1,937,362	0.479	0.297	1.000	0.297
2000-2001	4,222,121	1,860,106	1.572	2,924,087	0.693	0.441	1.000	0.441
2001-2002	4,581,236	4,627,263	1.530	7,079,712	1.545	1.010	1.000	1.010
2002-2003	4,982,604	8,843,841	1.489	13,168,479	2.643	1.775	1.000	1.775
2003-2004	5,081,729	2,574,481	1.451	3,735,572	0.735	0.507	1.000	0.507
2004-2005	5,804,301	1,874,487	1.413	2,648,650	0.456	0.323	1.000	0.323
2005-2006	5,780,294	4,756,022	1.376	6,544,286	1.132	0.823	1.000	0.823
2006-2007	5,909,590	1,656,563	1.340	2,219,794	0.376	0.280	1.000	0.280
2007-2008	6,105,257	6,755,660	1.305	8,816,136	1.444	1.107	1.000	1.107
2008-2009	6,156,341	3,528,864	1.271	4,485,186	0.729	0.573	1.000	0.573
2009-2010	5,802,822	2,441,417	1.237	3,020,033	0.520	0.421	1.000	0.421
2010-2011	5,223,291	2,046,846	1.205	2,466,449	0.472	0.392	1.000	0.392
2011-2012	4,355,083	4,042,000	1.174	4,745,308	1.090	0.928	1.000	0.928
2012-2013	4,152,787	2,605,000	1.143	2,977,515	0.717	1.225	1.000	1.225
2013-2014	4,022,715	7,307,000	1.113	8,132,691	2.022	1.258	1.000	1.258
2014-2015	4,080,062	5,549,000	1.083	6,009,567	1.473	1.293	1.000	1.293
2015-2016	3,834,915	5,391,000	1.054	5,682,114	1.482	1.328	1.000	1.328
2016-2017	3,852,773	6,324,000	1.027	6,494,748	1.686	1.363	1.000	1.363
Total/Avg	124,869,026	\$100,326,619		\$139,560,135	\$1.118			
11/12-15/16	20,445,562	24,894,000		27,547,195	1.347			
12/13-16/17	19,943,252	27,176,000		29,296,635	1.469			
Selected Program Rate:					\$1.400			
Prior:					\$1.285			

Notes:

- (A) From Reserve Appendix M, Column (C).
- (B) Selected average of results from Appendices p and p.
- (C) From Reserve Appendix E, Page 1, Column (B).
- (D) (B) x (C).
- (E) (D) / (A).
- (F) Selected Program Rate / (C). For 2011-2012 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.

DRAFT

ABAG PLAN CORPORATION - Liability

Frequency and Severity Method

Accident Year	Ultimate Program Severity (A)	Adjusted Ultimate Claims (B)	Ultimate Program Losses (C)
1986-1997	\$157,284	120	\$18,874,080
1997-1998	129,607	19	2,462,533
1998-1999	400,436	14	5,606,104
1999-2000	109,123	11	1,200,353
2000-2001	143,085	13	1,860,105
2001-2002	308,484	15	4,627,260
2002-2003	315,851	28	8,843,828
2003-2004	128,724	20	2,574,480
2004-2005	208,276	9	1,874,484
2005-2006	297,251	16	4,756,016
2006-2007	118,326	14	1,656,564
2007-2008	281,486	24	6,755,664
2008-2009	207,580	17	3,528,860
2009-2010	122,071	20	2,441,420
2010-2011	157,450	13	2,046,850
2011-2012	202,100	20	4,042,000
2012-2013	245,592	21	5,157,432
2013-2014	234,375	17	3,984,375
2014-2015	223,881	25	5,597,025
2015-2016	213,582	26	5,553,132
2016-2017	204,188	27	5,513,076
Total		489	\$98,955,641

Notes:

- (A) From Reserve Appendix D, Page 2, Column (H).
- (B) From Reserve 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.

DRAFT

ABAG PLAN CORPORATION - Liability

Frequency and Severity Method

Accident Year	Ultimate Program Losses (A)	Adjusted Ultimate Claims (B)	Ultimate Program Severity (C)	Trend Factor (D)	Trended Program Severity (E)	Program Severity (F)	Factor to SIR (G)	Program Severity (H)
1986-1997	\$18,874,096	120	\$157,284	0.378	\$59,453	\$157,284	1.000	\$157,284
1997-1998	2,462,528	19	129,607	0.396	51,324	129,607	1.000	129,607
1998-1999	5,606,097	14	400,436	0.414	165,781	400,436	1.000	400,436
1999-2000	1,200,348	11	109,123	0.434	47,359	109,123	1.000	109,123
2000-2001	1,860,106	13	143,085	0.455	65,104	143,085	1.000	143,085
2001-2002	4,627,263	15	308,484	0.476	146,838	308,484	1.000	308,484
2002-2003	8,843,841	28	315,851	0.499	157,610	315,851	1.000	315,851
2003-2004	2,574,481	20	128,724	0.524	67,451	128,724	1.000	128,724
2004-2005	1,874,487	9	208,276	0.549	114,344	208,276	1.000	208,276
2005-2006	4,756,022	16	297,251	0.575	170,919	297,251	1.000	297,251
2006-2007	1,656,563	14	118,326	0.603	71,351	118,326	1.000	118,326
2007-2008	6,755,660	24	281,486	0.631	177,618	281,486	1.000	281,486
2008-2009	3,528,864	17	207,580	0.661	137,210	207,580	1.000	207,580
2009-2010	2,441,417	20	122,071	0.692	84,473	122,071	1.000	122,071
2010-2011	2,046,846	13	157,450	0.724	113,994	157,450	1.000	157,450
2011-2012	4,042,000	20	202,100	0.759	153,394	202,100	1.000	202,100
2012-2013	2,710,000	21	129,048	0.794	102,464	245,592	1.000	245,592
2013-2014	8,411,000	17	494,765	0.832	411,644	234,375	1.000	234,375
2014-2015	5,549,000	25	221,960	0.871	193,327	223,881	1.000	223,881
2015-2016	5,615,000	26	215,962	0.913	197,173	213,582	1.000	213,582
2016-2017	5,491,000	27	203,370	0.955	194,218	204,188	1.000	204,188

Average Program Severity: \$137,288
Average 10/11-15/16 Program Severity: 195,333
Average 12/13-16/17 Program Severity: 219,765

Selected Program Severity: \$195,000
Prior: \$140,000

Notes:

- (A) Selected average of results from Appendices p, p, and p.
- (B) Reserve Appendix D, Page 3, Column (C).
- (C) (A) / (B).
- (D) From Reserve 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.

DRAFT

ABAG PLAN CORPORATION - Liability

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)
1986-1997	120	120	120	2,944.5	0.041	4.570	0.187
1997-1998	19	19	19	361.1	0.053	4.251	0.225
1998-1999	14	14	14	382.2	0.037	3.954	0.146
1999-2000	11	10	11	404.3	0.027	3.678	0.099
2000-2001	13	13	13	422.2	0.031	3.422	0.106
2001-2002	15	15	15	458.1	0.033	3.183	0.105
2002-2003	28	27	28	498.3	0.056	2.961	0.166
2003-2004	20	20	20	508.2	0.039	2.754	0.107
2004-2005	9	9	9	580.4	0.016	2.562	0.041
2005-2006	16	16	16	578.0	0.028	2.383	0.067
2006-2007	14	14	14	591.0	0.024	2.216	0.053
2007-2008	24	24	24	610.5	0.039	2.062	0.080
2008-2009	17	17	17	615.6	0.028	1.918	0.054
2009-2010	20	20	20	580.3	0.034	1.784	0.061
2010-2011	13	13	13	522.3	0.025	1.660	0.042
2011-2012	20	19	20	435.5	0.046	1.544	0.071
2012-2013	21	17	21	415.3	0.051	1.436	0.073
2013-2014	17	12	17	402.3	0.042	1.335	0.056
2014-2015	25	8	25	408.0	0.061	1.242	0.076
2015-2016	26	9	26	383.5	0.068	1.155	0.079
2016-2017	15	11	27	385.3	0.070	1.075	0.075
Total	477	427	489	12,486.9			0.109
11/12-15/16	109	65	109	2,044.6			0.071
(H) Selected Frequency:							0.070
Prior:							0.085
Program Year:				2017-2018	2018-2019		
(I) Trend Factor:				1.000	1.075		
(J) Selected Frequency:				0.070	0.075		
(K) Est. Payroll (\$000,000):				414.2	428.1		
(L) Ultimate Claims:				29	32		

Notes:

- (A) From Reserve Appendix D, Page 4, (C).
 (B) From Reserve Appendix D, Page 5, (C).
 (C) Selected from (A) and (B).
 (D) From Reserve Appendix M, Column (C) / 10,000.
 (E) (C) / (D).
 (F) From Reserve Appendix E, Page 1, Column (H).
 (G) (E) x (F).
 (H) The selected frequency of 0.070 is based on (G).
 (I) From Reserve Appendix E, Page 1, Column (H).
 (J) (H) x (I).
 (K) From Reserve Appendix M, 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.

DRAFT

ABAG PLAN CORPORATION - Liability

Frequency and Severity Method
Reported Claim Count Development

Accident Year	Claims Reported as of 12/31/2017 (A)	Reported Claim Development Factor (B)	Ultimate Claims (C)	Trended Claim Frequency (D)
1986-1997	120	1.000	120	0.186
1997-1998	19	1.000	19	0.224
1998-1999	14	1.000	14	0.145
1999-2000	11	1.000	11	0.100
2000-2001	13	1.000	13	0.105
2001-2002	15	1.000	15	0.104
2002-2003	28	1.000	28	0.166
2003-2004	20	1.000	20	0.108
2004-2005	9	1.000	9	0.040
2005-2006	16	1.001	16	0.066
2006-2007	14	1.001	14	0.052
2007-2008	24	1.001	24	0.081
2008-2009	17	1.002	17	0.053
2009-2010	20	1.003	20	0.061
2010-2011	13	1.004	13	0.041
2011-2012	20	1.005	20	0.071
2012-2013	21	1.015	21	0.073
2013-2014	16	1.040	17	0.056
2014-2015	21	1.196	25	0.076
2015-2016	18	1.435	26	0.078
2016-2017	6	2.440	15	0.042
Total	455		477	0.108

Notes:

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

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

DRAFT

ABAG PLAN CORPORATION - Liability

Frequency and Severity Method
Closed Claim Count Development

Accident Year	Claims Closed as of 12/31/2017 (A)	Closed Claim Development Factor (B)	Ultimate Claims (C)	Trended Claim Frequency (D)
1986-1997	120	1.000	120	0.186
1997-1998	19	1.000	19	0.224
1998-1999	14	1.000	14	0.145
1999-2000	10	1.000	10	0.091
2000-2001	13	1.000	13	0.105
2001-2002	15	1.000	15	0.104
2002-2003	27	1.000	27	0.160
2003-2004	20	1.000	20	0.108
2004-2005	9	1.001	9	0.040
2005-2006	16	1.002	16	0.066
2006-2007	14	1.003	14	0.052
2007-2008	24	1.004	24	0.081
2008-2009	17	1.005	17	0.053
2009-2010	20	1.006	20	0.061
2010-2011	13	1.007	13	0.041
2011-2012	19	1.008	19	0.067
2012-2013	17	1.009	17	0.059
2013-2014	12	1.010	12	0.040
2014-2015	8	1.011	8	0.024
2015-2016	3	3.033	9	0.027
2016-2017	1	10.616	11	0.031
Total	411		427	0.103

Notes:

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

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

DRAFTABAG PLAN CORPORATION - Liability
Reported Claim Count DevelopmentClaims Reported as of:

Accident Year	18 Months	30 Months	42 Months	54 Months	66 Months	78 Months	90 Months	102 Months	114 Months	126 Months	138 Months	150 Months	162 Months
1996-1997									11	11	11	11	11
1997-1998								20	20	19	19	19	19
1998-1999							14	14	14	14	14	14	14
1999-2000						11	11	11	11	11	11	11	11
2000-2001					13	12	12	12	12	12	12	13	13
2001-2002				13	13	14	14	14	14	15	15	15	15
2002-2003			26	25	27	27	27	29	29	28	28	28	28
2003-2004		11	12	18	19	19	19	20	20	20	20	20	20
2004-2005	4	5	9	10	9	10	9	9	9	9	9	9	9
2005-2006	4	13	13	14	16	16	16	16	16	16	16	16	
2006-2007	9	11	10	11	12	14	14	14	14	14	14		
2007-2008	7	16	23	25	25	25	24	24	24	24			
2008-2009	12	16	17	17	17	17	17	17	17				
2009-2010	18	25	20	20	20	20	20	20					
2010-2011	15	18	16	14	14	13	13						
2011-2012	19	19	20	20	20	20							
2012-2013	23	23	22	22	21								
2013-2014	7	14	15	16									
2014-2015	11	21	21										
2015-2016	10	18											
2016-2017	6												

Reported Claim Count Development Factors:

	18-30 Months	30-42 Months	42-54 Months	54-66 Months	66-78 Months	78-90 Months	90-102 Months	102-114 Months	114-126 Months	126-138 Months	138-150 Months	150-162 Months	162-174 Months
1996-1997									1.000	1.000	1.000	1.000	1.000
1997-1998								1.000	0.950	1.000	1.000	1.000	1.000
1998-1999							1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999-2000						1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000-2001					0.923	1.000	1.000	1.000	1.000	1.000	1.083	1.000	1.000
2001-2002				1.000	1.077	1.000	1.000	1.000	1.071	1.000	1.000	1.000	1.000
2002-2003			0.962	1.080	1.000	1.000	1.074	1.000	0.966	1.000	1.000	1.000	1.000
2003-2004		1.091	1.500	1.056	1.000	1.000	1.053	1.000	1.000	1.000	1.000	1.000	1.000
2004-2005	1.250	1.800	1.111	0.900	1.111	0.900	1.000	1.000	1.000	1.000	1.000	1.000	
2005-2006	3.250	1.000	1.077	1.143	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
2006-2007	1.222	0.909	1.100	1.091	1.167	1.000	1.000	1.000	1.000	1.000			
2007-2008	2.286	1.438	1.087	1.000	1.000	0.960	1.000	1.000	1.000				
2008-2009	1.333	1.063	1.000	1.000	1.000	1.000	1.000	1.000					
2009-2010	1.389	0.800	1.000	1.000	1.000	1.000	1.000						
2010-2011	1.200	0.889	0.875	1.000	0.929	1.000							
2011-2012	1.000	1.053	1.000	1.000	1.000								
2012-2013	1.000	0.957	1.000	0.955									
2013-2014	2.000	1.071	1.067										
2014-2015	1.909	1.000											
2015-2016	1.800												

	18-30 Months	30-42 Months	42-54 Months	54-66 Months	66-78 Months	78-90 Months	90-102 Months	102-114 Months	114-126 Months	126-138 Months	138-150 Months	150-162 Months	162-174 Months
Average	1.637	1.089	1.065	1.019	1.017	0.988	1.011	1.000	0.999	1.000	1.008	1.000	1.000
Claim-Weighted													
Averages													
3-yr	1.893	1.000	1.018	0.982	0.981	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
4-yr	1.490	1.013	0.986	0.987	0.986	0.987	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Comparative													
Factors	1.136	1.018	1.005	1.005	1.004	1.004	1.002	1.002	1.001	1.000	1.000	1.000	1.000
Prior	1.700	1.200	1.150	1.025	1.010	1.001	1.001	1.001	1.001	1.000	1.000	1.001	1.000
Selected	1.700	1.200	1.150	1.025	1.010	1.001	1.001	1.001	1.001	1.000	1.000	1.001	1.000
Cumulated	2.440	1.435	1.196	1.040	1.015	1.005	1.004	1.003	1.002	1.001	1.001	1.001	1.000

DRAFTABAG PLAN CORPORATION - Liability
Closed Claim Development

Accident Year	Claims Closed as of:												
	18 Months	30 Months	42 Months	54 Months	66 Months	78 Months	90 Months	102 Months	114 Months	126 Months	138 Months	150 Months	162 Months
1996-1997									11	11	11	11	11
1997-1998								20	20	19	19	19	19
1998-1999							13	13	14	14	14	14	14
1999-2000						11	11	11	11	11	11	11	11
2000-2001					11	11	12	12	12	12	12	12	13
2001-2002				8	11	12	14	14	14	14	15	14	15
2002-2003			15	23	25	26	27	27	27	27	27	27	27
2003-2004		9	11	13	13	14	15	18	20	20	20	20	20
2004-2005	1	1	7	7	9	9	9	9	9	9	9	9	9
2005-2006	2	3	9	11	12	14	14	14	15	16	16	16	
2006-2007	1	3	7	8	9	12	14	14	14	14	14		
2007-2008		2	11	17	22	24	24	24	24	24			
2008-2009	1	5	9	11	13	16	17	17	17				
2009-2010	2	6	13	18	18	19	19	20					
2010-2011		4	9	11	13	13	13						
2011-2012	1	3	11	13	18	19							
2012-2013	1	5	15	17	17								
2013-2014	1	6	9	12									
2014-2015	3	7	8										
2015-2016	1	3											
2016-2017	1												

Closed Claim Count Development Factors:

	18-30 Months	30-42 Months	42-54 Months	54-66 Months	66-78 Months	78-90 Months	90-102 Months	102-114 Months	114-126 Months	126-138 Months	138-150 Months	150-162 Months	162-174 Months
1996-1997									1.000	1.000	1.000	1.000	1.000
1997-1998								1.000	0.950	1.000	1.000	1.000	1.000
1998-1999							1.000	1.077	1.000	1.000	1.000	1.000	1.000
1999-2000						1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000-2001					1.000	1.091	1.000	1.000	1.000	1.000	1.000	1.083	1.000
2001-2002				1.375	1.091	1.167	1.000	1.000	1.000	1.071	0.933	1.071	1.000
2002-2003			1.533	1.087	1.040	1.038	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003-2004		1.222	1.182	1.000	1.077	1.071	1.200	1.111	1.000	1.000	1.000	1.000	1.000
2004-2005	1.000	7.000	1.000	1.286	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2005-2006	1.500	3.000	1.222	1.091	1.167	1.000	1.000	1.071	1.067	1.000	1.000		
2006-2007	3.000	2.333	1.143	1.125	1.333	1.167	1.000	1.000	1.000	1.000			
2007-2008		5.500	1.545	1.294	1.091	1.000	1.000	1.000	1.000				
2008-2009	5.000	1.800	1.222	1.182	1.231	1.063	1.000	1.000					
2009-2010	3.000	2.167	1.385	1.000	1.056	1.000	1.053						
2010-2011		2.250	1.222	1.182	1.000	1.000							
2011-2012	3.000	3.667	1.182	1.385	1.056								
2012-2013	5.000	3.000	1.133	1.000									
2013-2014	6.000	1.500	1.333										
2014-2015	2.333	1.143											
2015-2016	3.000												
Average Claim-Weighted Averages													
3-yr	3.200	1.778	1.200	1.171	1.041	1.021	1.017	1.000	1.019	1.000	1.000	1.000	1.000
4-yr	3.500	2.048	1.205	1.119	1.081	1.014	1.014	1.014	1.016	1.000	1.000	1.014	1.000
Comparative Factors													
Prior	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
Selected	3.500	3.000	1.500	1.250	1.100	1.010	1.005	1.002	1.002	1.002	1.001	1.001	1.001
Cumulated	3.500	3.000	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
Cumulated	10.616	3.033	1.011	1.010	1.009	1.008	1.007	1.006	1.005	1.004	1.003	1.002	1.001

DRAFT

ABAG PLAN CORPORATION - Liability

Loss Trend Factors

Accident Year	Benefit Level Factor (A)	Factor to 2017-2018 Loss Rate Level (B)	Factor to 2018-2019 Loss Rate Level (C)	Factor to 2019-2020 Loss Rate Level (D)	Factor to 2020-2021 Loss Rate Level (E)	Factor to 2017-2018 Frequency Level (F)	Factor to 2018-2019 Frequency Level (G)	Factor to 2019-2020 Frequency Level (H)	Factor to 2020-2021 Frequency Level (I)	Factor to 2017-2018 Severity Level (J)
1986-1997	1.000	1.748	1.794	1.843	1.893	4.570	4.913	5.284	5.680	0.378
1997-1998	1.000	1.702	1.747	1.795	1.843	4.251	4.571	4.915	5.284	0.396
1998-1999	1.000	1.657	1.701	1.748	1.795	3.954	4.252	4.572	4.915	0.414
1999-2000	1.000	1.614	1.657	1.702	1.748	3.678	3.955	4.253	4.572	0.434
2000-2001	1.000	1.572	1.613	1.657	1.702	3.422	3.679	3.956	4.253	0.455
2001-2002	1.000	1.530	1.571	1.613	1.657	3.183	3.422	3.680	3.956	0.476
2002-2003	1.000	1.489	1.529	1.571	1.613	2.961	3.183	3.423	3.680	0.499
2003-2004	1.000	1.451	1.489	1.530	1.571	2.754	2.961	3.184	3.423	0.524
2004-2005	1.000	1.413	1.450	1.490	1.530	2.562	2.754	2.962	3.184	0.549
2005-2006	1.000	1.376	1.412	1.451	1.490	2.383	2.562	2.755	2.962	0.575
2006-2007	1.000	1.340	1.375	1.413	1.451	2.216	2.383	2.563	2.755	0.603
2007-2008	1.000	1.305	1.339	1.376	1.413	2.062	2.217	2.384	2.563	0.631
2008-2009	1.000	1.271	1.304	1.340	1.376	1.918	2.062	2.218	2.384	0.661
2009-2010	1.000	1.237	1.270	1.305	1.340	1.784	1.919	2.063	2.218	0.692
2010-2011	1.000	1.205	1.237	1.271	1.305	1.660	1.785	1.919	2.063	0.724
2011-2012	1.000	1.174	1.205	1.238	1.271	1.544	1.660	1.785	1.919	0.759
2012-2013	1.000	1.143	1.173	1.205	1.238	1.436	1.544	1.660	1.785	0.794
2013-2014	1.000	1.113	1.142	1.173	1.205	1.335	1.436	1.544	1.660	0.832
2014-2015	1.000	1.083	1.112	1.142	1.173	1.242	1.336	1.436	1.544	0.871
2015-2016	1.000	1.054	1.082	1.112	1.142	1.155	1.242	1.336	1.436	0.913
2016-2017	1.000	1.027	1.054	1.083	1.112	1.075	1.156	1.243	1.336	0.955
2017-2018	1.000	1.000	1.027	1.055	1.083	1.000	1.075	1.156	1.243	1.000
2018-2019	1.000	--	1.000	1.027	1.055	--	1.000	1.075	1.156	--
2019-2020	1.000	--	--	1.000	1.027	--	--	1.000	1.075	--
2020-2021	1.000	--	--	--	1.000	--	--	--	1.000	--

Notes:

- (A) No benefit level adjustment applied.
 (B) - (E) (A) adjusted for a 2.7% annual loss rate trend.
 (F) - (I) (A) adjusted for a 7.5% annual frequency trend.
 (J) (A) adjusted for a -4.5% annual severity trend.

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

DRAFT

ABAG PLAN CORPORATION - Liability

Residual Trend Factors

Accident Year	Initial Estimate of Ultimate Limited Losses (A)	Ultimate Reported Claims (B)	BLF (C)	Adjusted Limited Severity (D)	Trended Payroll (\$00) (E)	Ultimate Frequency (F)
1986-1997	\$18,874,096	120	1.000	157,284	29,445,392	0.041
1997-1998	2,462,528	19	1.000	129,607	3,610,806	0.053
1998-1999	5,606,097	14	1.000	400,436	3,821,996	0.037
1999-2000	1,200,348	11	1.000	109,123	4,042,911	0.027
2000-2001	1,860,106	13	1.000	143,085	4,222,121	0.031
2001-2002	4,627,263	15	1.000	308,484	4,581,236	0.033
2002-2003	8,843,841	28	1.000	315,851	4,982,604	0.056
2003-2004	2,574,481	20	1.000	128,724	5,081,729	0.039
2004-2005	1,874,487	9	1.000	208,276	5,804,301	0.016
2005-2006	4,756,022	16	1.000	297,251	5,780,294	0.028
2006-2007	1,656,563	14	1.000	118,326	5,909,590	0.024
2007-2008	6,755,660	24	1.000	281,486	6,105,257	0.039
2008-2009	3,528,864	17	1.000	207,580	6,156,341	0.028
2009-2010	2,441,417	20	1.000	122,071	5,802,822	0.034
2010-2011	2,046,846	13	1.000	157,450	5,223,291	0.025
2011-2012	4,042,000	20	1.000	202,100	4,355,083	0.046
2012-2013	2,605,000	21	1.000	124,048	4,152,787	0.051
2013-2014	7,307,000	17	1.000	429,824	4,022,715	0.042
2014-2015	5,549,000	25	1.000	221,960	4,080,062	0.061
2015-2016	5,391,000	26	1.000	207,346	3,834,915	0.068
2016-2017	6,324,000	27	1.000	234,222	3,852,773	0.070

Severity Trend FactorsFrequency Trend Factors

2003-2004 through 2012-2013	0.976	1.063
2004-2005 through 2013-2014	1.005	1.098
2005-2006 through 2014-2015	1.015	1.086
Prior	0.930	1.105
Default	1.030	0.975

Selected Residual Trend	0.955	1.075
-------------------------	-------	-------

Notes:

- (A) Selected average of results from Reserve Appendix A and Reserve Appendix B.
- (B) Reserve Appendix D, Page 3, Column (C).
- (C) Reserve Appendix E, Page 1, (A).
- (D) (A) x (C) / (B).
- (E) From Reserve Appendix M, Column (C).
- (F) (B) / (E) x 10,000.

DRAFT

ABAG PLAN CORPORATION - Liability

Payment and Reserve Forecast

<u>Accident Year</u>	<u>As of 12/31/2017</u>	<u>Calendar Period</u>	
		<u>1/1/2018 to 6/30/2018</u>	<u>7/1/2018 to 6/30/2019</u>
Prior			
Ultimate Loss	\$30,003,175	\$30,003,175	\$30,003,175
Paid in Calendar Period	-	783	
Paid to Date	30,002,392	30,003,175	30,003,175
Outstanding Liability	783		
2001-2002			
Ultimate Loss	\$4,627,263	\$4,627,263	\$4,627,263
Paid in Calendar Period	-		
Paid to Date	4,627,263	4,627,263	4,627,263
Outstanding Liability			
2002-2003			
Ultimate Loss	\$8,843,841	\$8,843,841	\$8,843,841
Paid in Calendar Period	-	31,359	
Paid to Date	8,812,482	8,843,841	8,843,841
Outstanding Liability	31,359		
2003-2004			
Ultimate Loss	\$2,574,481	\$2,574,481	\$2,574,481
Paid in Calendar Period	-		
Paid to Date	2,574,481	2,574,481	2,574,481
Outstanding Liability			
2004-2005			
Ultimate Loss	\$1,874,487	\$1,874,487	\$1,874,487
Paid in Calendar Period	-		
Paid to Date	1,874,487	1,874,487	1,874,487
Outstanding Liability			
2005-2006			
Ultimate Loss	\$4,756,022	\$4,756,022	\$4,756,022
Paid in Calendar Period	-		
Paid to Date	4,756,022	4,756,022	4,756,022
Outstanding Liability			
2006-2007			
Ultimate Loss	\$1,656,563	\$1,656,563	\$1,656,563
Paid in Calendar Period	-		
Paid to Date	1,656,563	1,656,563	1,656,563
Outstanding Liability			
2007-2008			
Ultimate Loss	\$6,755,660	\$6,755,660	\$6,755,660
Paid in Calendar Period	-		
Paid to Date	6,755,660	6,755,660	6,755,660
Outstanding Liability			

DRAFT

ABAG PLAN CORPORATION - Liability

Payment and Reserve Forecast

<u>Accident Year</u>	<u>As of 12/31/2017</u>	<u>Calendar Period</u>	
		<u>1/1/2018 to 6/30/2018</u>	<u>7/1/2018 to 6/30/2019</u>
2008-2009			
Ultimate Loss	\$3,528,864	\$3,528,864	\$3,528,864
Paid in Calendar Period	-		
Paid to Date	3,528,864	3,528,864	3,528,864
Outstanding Liability			
2009-2010			
Ultimate Loss	\$2,441,417	\$2,441,417	\$2,441,417
Paid in Calendar Period	-		
Paid to Date	2,441,417	2,441,417	2,441,417
Outstanding Liability			
2010-2011			
Ultimate Loss	\$2,046,846	\$2,046,846	\$2,046,846
Paid in Calendar Period	-		
Paid to Date	2,046,846	2,046,846	2,046,846
Outstanding Liability			
2011-2012			
Ultimate Loss	\$4,042,000	\$4,042,000	\$4,042,000
Paid in Calendar Period	-	66,987	102,952
Paid to Date	3,764,045	3,831,032	3,933,984
Outstanding Liability	277,955	210,968	108,016
2012-2013			
Ultimate Loss	\$2,902,000	\$2,902,000	\$2,902,000
Paid in Calendar Period	-	224,678	328,621
Paid to Date	2,017,440	2,242,118	2,570,739
Outstanding Liability	884,560	659,882	331,261
2013-2014			
Ultimate Loss	\$7,955,000	\$7,955,000	\$7,955,000
Paid in Calendar Period	-	215,384	417,321
Paid to Date	6,724,237	6,939,621	7,356,942
Outstanding Liability	1,230,763	1,015,379	598,058
2014-2015			
Ultimate Loss	\$5,549,000	\$5,549,000	\$5,549,000
Paid in Calendar Period	-	587,805	887,620
Paid to Date	2,667,604	3,255,409	4,143,029
Outstanding Liability	2,881,396	2,293,591	1,405,971
2015-2016			
Ultimate Loss	\$5,363,000	\$5,363,000	\$5,363,000
Paid in Calendar Period	-	1,011,965	1,645,840
Paid to Date	226,123	1,238,088	2,883,928
Outstanding Liability	5,136,877	4,124,912	2,479,072

DRAFT

ABAG PLAN CORPORATION - Liability

Payment and Reserve Forecast

<u>Accident Year</u>	<u>As of</u> <u>12/31/2017</u>	<u>Calendar Period</u>	
		<u>1/1/2018</u> <u>to</u> <u>6/30/2018</u>	<u>7/1/2018</u> <u>to</u> <u>6/30/2019</u>
2016-2017			
Ultimate Loss	\$5,491,000	\$5,491,000	\$5,491,000
Paid in Calendar Period	-	406,267	1,326,880
Paid to Date	900	407,167	1,734,047
Outstanding Liability	5,490,100	5,083,833	3,756,953
2017-2018			
Ultimate Loss	\$3,173,000	\$6,346,000	\$6,346,000
Paid in Calendar Period	-	114,228	573,323
Paid to Date	-	114,228	687,551
Outstanding Liability	3,173,000	6,231,772	5,658,449
2018-2019			
Ultimate Loss	-	-	\$6,780,000
Paid in Calendar Period	-	-	155,940
Paid to Date	-	-	155,940
Outstanding Liability	-	-	6,624,060
Totals			
Ultimate Loss	\$103,583,619	\$106,756,619	\$113,536,619
Paid in Calendar Period	-	2,659,456	5,438,497
Paid to Date	84,476,826	87,136,282	92,574,779
Outstanding Liability	19,106,793	19,620,337	20,961,840
Total Outstanding ULAE	2,388,349	2,452,542	2,620,230
Outstanding Liability plus ULAE	21,495,142	22,072,879	23,582,070

Notes appear on the next page.

DRAFT

ABAG PLAN CORPORATION - Liability

Payment and Reserve Forecast

Notes to previous page:

- Accident Year is associated with date of loss. Calendar Period is associated with date of transaction. For example, for the losses which occurred during 2015-2016, \$1,011,965 is expected to be paid between 1/1/18 and 6/30/18, \$1,238,088 will have been paid by 6/30/18, and the reserve for remaining payments on these claims should be \$4,124,912.
- Ultimate Losses for each accident year are from Reserve Exhibit 3, Page 1.
- Paid in Calendar Period is a proportion of the Outstanding Liability from the previous calendar period. These proportions are derived from the paid loss development pattern selected in Appendix B. For example, $\$1,645,840 = \$4,124,912 \times 39.9\%$.
- Paid to Date is Paid in Calendar Period plus Paid to Date from previous calendar period. For example, $\$2,883,928 = \$1,645,840 + \$1,238,088$.
- Outstanding Liability is Ultimate Loss minus Paid to Date. For example, $\$4,124,912 = \$5,363,000 - \$1,238,088$.

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

DRAFT

ABAG PLAN CORPORATION - Liability

Short- and Long-Term Liabilities

<u>Liabilities as of 12/31/17:</u>		<u>Expected</u>	<u>Discounted</u>
<u>Current (Short Term)</u>	Loss and ALAE:	\$5,100,290	\$5,025,465
	ULAE:	0	0
	Short-Term Loss and LAE:	\$5,100,290	\$5,025,465
<u>Non-Current (Long Term)</u>	Loss and ALAE:	\$14,006,503	\$12,794,424
	ULAE:	2,388,349	2,227,486
	Long-Term Loss and LAE:	\$16,394,852	\$15,021,910
<u>Total Liability</u>	Loss and ALAE:	\$19,106,793	\$17,819,889
	ULAE:	2,388,349	2,227,486
	Total Loss and LAE:	\$21,495,142	\$20,047,375
<u>Liabilities as of 6/30/18:</u>			
<u>Current (Short Term)</u>	Loss and ALAE:	\$5,282,557	\$5,205,058
	ULAE:	0	0
	Short-Term Loss and LAE:	\$5,282,557	\$5,205,058
<u>Non-Current (Long Term)</u>	Loss and ALAE:	\$14,337,780	\$13,131,966
	ULAE:	2,452,542	2,292,128
	Long-Term Loss and LAE:	\$16,790,322	\$15,424,094
<u>Total Liability</u>	Loss and ALAE:	\$19,620,337	\$18,337,024
	ULAE:	2,452,542	2,292,128
	Total Loss and LAE:	\$22,072,879	\$20,629,152

		<u>Discounted with a Margin for Contingencies</u>				
		<u>70%</u>	<u>75%</u>	<u>80%</u>	<u>85%</u>	<u>90%</u>
		<u>Confidence</u>	<u>Confidence</u>	<u>Confidence</u>	<u>Confidence</u>	<u>Confidence</u>
<u>Liabilities as of 12/31/17:</u>						
<u>Current (Short Term)</u>	Loss and ALAE:	\$5,588,317	\$5,834,565	\$6,121,016	\$6,482,850	\$6,965,294
	ULAE:	0	0	0	0	0
	Short-Term Loss and LAE:	\$5,588,317	\$5,834,565	\$6,121,016	\$6,482,850	\$6,965,294
<u>Non-Current (Long Term)</u>	Loss and ALAE:	\$14,227,400	\$14,854,326	\$15,583,609	\$16,504,807	\$17,733,072
	ULAE:	2,476,964	2,586,111	2,713,078	2,873,457	3,087,296
	Long-Term Loss and LAE:	\$16,704,364	\$17,440,437	\$18,296,687	\$19,378,264	\$20,820,368
<u>Total Liability</u>	Loss and ALAE:	\$19,815,717	\$20,688,891	\$21,704,625	\$22,987,657	\$24,698,366
	ULAE:	2,476,964	2,586,111	2,713,078	2,873,457	3,087,296
	Total Loss and LAE:	\$22,292,681	\$23,275,002	\$24,417,703	\$25,861,114	\$27,785,662
<u>Liabilities as of 6/30/18:</u>						
<u>Current (Short Term)</u>	Loss and ALAE:	\$5,788,024	\$6,043,072	\$6,339,761	\$6,714,525	\$7,214,210
	ULAE:	0	0	0	0	0
	Short-Term Loss and LAE:	\$5,788,024	\$6,043,072	\$6,339,761	\$6,714,525	\$7,214,210
<u>Non-Current (Long Term)</u>	Loss and ALAE:	\$14,602,747	\$15,246,213	\$15,994,734	\$16,940,236	\$18,200,905
	ULAE:	2,548,846	2,661,160	2,791,812	2,956,845	3,176,890
	Long-Term Loss and LAE:	\$17,151,593	\$17,907,373	\$18,786,546	\$19,897,081	\$21,377,795
<u>Total Liability</u>	Loss and ALAE:	\$20,390,771	\$21,289,285	\$22,334,495	\$23,654,761	\$25,415,115
	ULAE:	2,548,846	2,661,160	2,791,812	2,956,845	3,176,890
	Total Loss and LAE:	\$22,939,617	\$23,950,445	\$25,126,307	\$26,611,606	\$28,592,005

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

DRAFT

ABAG PLAN CORPORATION - Liability

Discount Factors to be Applied to Overall Reserves

Accident Year	Full Value of Reserve at 12/31/17 (A)	Discount Factor (B)	Discounted Reserve at 12/31/17 (C)	Full Value of Reserve at 6/30/18 (D)	Discount Factor (E)	Discounted Reserve at 6/30/18 (F)
1986-1997	\$0	1.000	\$0	\$0	1.000	\$0
1997-1998	0	1.000	0	0	1.000	0
1998-1999	0	1.000	0	0	1.000	0
1999-2000	783	1.000	783	0	1.000	0
2000-2001	0	1.000	0	0	1.000	0
2001-2002	0	1.000	0	0	1.000	0
2002-2003	31,359	1.000	31,359	0	1.000	0
2003-2004	0	1.000	0	0	1.000	0
2004-2005	0	0.993	0	0	1.000	0
2005-2006	0	0.978	0	0	0.985	0
2006-2007	0	0.967	0	0	0.971	0
2007-2008	0	0.958	0	0	0.964	0
2008-2009	0	0.950	0	0	0.952	0
2009-2010	0	0.950	0	0	0.949	0
2010-2011	0	0.952	0	0	0.951	0
2011-2012	277,955	0.954	265,289	210,968	0.953	201,153
2012-2013	884,560	0.953	843,300	659,882	0.955	630,443
2013-2014	1,230,763	0.949	1,168,486	1,015,379	0.951	965,954
2014-2015	2,881,396	0.947	2,727,902	2,293,591	0.947	2,173,124
2015-2016	5,136,877	0.941	4,833,517	4,124,912	0.946	3,902,094
2016-2017	5,490,100	0.926	5,082,678	5,083,833	0.936	4,757,995
2017-2018	3,173,000	0.903	2,866,575	6,231,772	0.916	5,706,261
Totals	\$19,106,793		\$17,819,889	\$19,620,337		\$18,337,024

(G) Discount Factor at 12/31/17 for Overall Reserve: 0.933
 (H) Discount Factor at 6/30/18 for Overall Reserve: 0.935

Notes:

- (A) From Reserve Appendix F, Outstanding Liability at 12/31/17.
- (B) Based on Reserve Appendix H, Page 2, Column (E).
- (C) (A) x (B).
- (D) From Reserve Appendix F, Outstanding Liability at 6/30/18.
- (E) Based on Reserve Appendix H, Page 2, Column (E).
- (F) (D) x (E).
- (G) Total of (C) / Total of (A).
- (H) Total of (F) / Total of (D).

This exhibit shows the expected impact of anticipated investment income on the liability for outstanding claims at the date of evaluation and the end of the current fiscal year. For example, if the discount factor in item (G) is 0.933, the discounted liability for outstanding claims is 93.3% of the full value.

DRAFT

ABAG PLAN CORPORATION - Liability

Confidence Level Table

Probability	Projected Losses	Outstanding Losses
95%	1.907	1.552
90%	1.635	1.386
85%	1.471	1.290
80%	1.348	1.218
75%	1.250	1.161
70%	1.167	1.112
65%	1.093	1.069
60%	1.029	1.030
55%	0.968	0.994
50%	0.911	0.960
45%	0.857	0.928
40%	0.806	0.896
35%	0.754	0.865
30%	0.703	0.833
25%	0.651	0.800

To read table: For the above retention, there is a 90% chance that final loss settlements will be less than 1.635 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.

DRAFT

ABAG PLAN CORPORATION - Liability

Program History

Policy Year Start Date	Policy Year End Date	Policy Year	Self-Insured Retention	
			Per Occurrence	Aggregate
7/1/1986	6/30/1997	1986-1997	\$5,000,000	(none)
7/1/1997	6/30/1998	1997-1998	5,000,000	(none)
7/1/1998	6/30/1999	1998-1999	7,000,000	(none)
7/1/1999	6/30/2000	1999-2000	7,000,000	(none)
7/1/2000	6/30/2001	2000-2001	7,000,000	(none)
7/1/2001	6/30/2002	2001-2002	5,000,000	(none)
7/1/2002	6/30/2003	2002-2003	5,000,000	(none)
7/1/2003	6/30/2004	2003-2004	5,000,000	(none)
7/1/2004	6/30/2005	2004-2005	5,000,000	(none)
7/1/2005	6/30/2006	2005-2006	5,000,000	(none)
7/1/2006	6/30/2007	2006-2007	5,000,000	(none)
7/1/2007	6/30/2008	2007-2008	5,000,000	(none)
7/1/2008	6/30/2009	2008-2009	5,000,000	(none)
7/1/2009	6/30/2010	2009-2010	5,000,000	(none)
7/1/2010	6/30/2011	2010-2011	5,000,000	(none)
7/1/2011	6/30/2012	2011-2012	5,000,000	(none)
7/1/2012	6/30/2013	2012-2013	5,000,000	(none)
7/1/2013	6/30/2014	2013-2014	5,000,000	(none)
7/1/2014	6/30/2015	2014-2015	5,000,000	(none)
7/1/2015	6/30/2016	2015-2016	2,500,000	(none)
7/1/2016	6/30/2017	2016-2017	2,500,000	(none)
7/1/2017	6/30/2018	2017-2018	2,500,000	(none)
7/1/2018	6/30/2019	2018-2019	2,500,000	(none)
Third Party Claims Administrator			Begin Date	End Date
York				Current

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

DRAFT

ABAG PLAN CORPORATION - Liability

Estimated Total Assets as of 6/30/18

	Admin Fund	Liability Fund
(A) <u>Total Assets as of 6/30/17:</u>	\$1,346,049	\$43,478,933
(B) <u>Total Income to Fund during 7/1/17 to 6/30/18</u>		
Premiums:	0	9,721,603
Interest Income:	0	600,000
Claims Tail Assessment:	0	0
Other Revenue:	0	0
Claims Dividend:	0	0
Total Income:	<u>\$0</u>	<u>\$10,321,603</u>
(C) <u>Total Payments from Fund during 7/1/17 to 6/30/18</u>		
Loss Payments:		6,938,000
Admin Fund / Personal:	650,000	
Admin Fund / Consultants:	1,299,150	
Admin Fund / Other Direct Charges:	22,500	
Liability Fund / Personal:		0
Liability Fund / Loss Prevention Program:		0
Liability Fund / Excess Insurance:		1,386,279
Liability Fund / Miscellaneous:		0
Total Payments:	<u>\$1,971,650</u>	<u>\$8,324,279</u>
(D) <u>Estimated Total Assets as of 6/30/18:</u>	(\$625,601)	\$45,476,257

Notes:

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

DRAFT

ABAG PLAN CORPORATION - Liability

Incurred Losses as of 12/31/17

Accident Year (A)	Unlimited Incurred (B)	Additions to Losses (C)	Subtractions from Losses (D)	Adjusted Incurred (E)	Incurred Over SIR (F)	Incurred Over \$100,000 (G)	Incurred Capped at \$100,000 (H)	Incurred \$100,000 to SIR Layer (I)	Incurred Capped at SIR (J)	Incurred Capped at SIR & Aggregate (K)
1986-1997	\$18,811,533	\$62,563	\$0	\$18,874,096	\$0	\$0	\$18,874,096	\$0	\$18,874,096	\$18,874,096
1997-1998	2,390,163	72,365	0	2,462,528	0	0	2,462,528	0	2,462,528	2,462,528
1998-1999	5,593,721	12,376	0	5,606,097	0	0	5,606,097	0	5,606,097	5,606,097
1999-2000	1,200,348	0	0	1,200,348	0	0	1,200,348	0	1,200,348	1,200,348
2000-2001	1,860,684	(578)	0	1,860,106	0	0	1,860,106	0	1,860,106	1,860,106
2001-2002	4,627,263	0	0	4,627,263	0	0	4,627,263	0	4,627,263	4,627,263
2002-2003	8,864,200	(20,359)	0	8,843,841	0	0	8,843,841	0	8,843,841	8,843,841
2003-2004	2,569,681	4,800	0	2,574,481	0	0	2,574,481	0	2,574,481	2,574,481
2004-2005	1,876,140	(1,653)	0	1,874,487	0	0	1,874,487	0	1,874,487	1,874,487
2005-2006	4,775,006	(18,984)	0	4,756,022	0	0	4,756,022	0	4,756,022	4,756,022
2006-2007	1,656,563	0	0	1,656,563	0	0	1,656,563	0	1,656,563	1,656,563
2007-2008	6,755,660	0	0	6,755,660	0	0	6,755,660	0	6,755,660	6,755,660
2008-2009	3,528,864	0	0	3,528,864	0	0	3,528,864	0	3,528,864	3,528,864
2009-2010	2,441,417	0	0	2,441,417	0	0	2,441,417	0	2,441,417	2,441,417
2010-2011	2,046,846	0	0	2,046,846	0	0	2,046,846	0	2,046,846	2,046,846
2011-2012	3,809,185	0	0	3,809,185	0	0	3,809,185	0	3,809,185	3,809,185
2012-2013	2,383,230	0	0	2,383,230	0	0	2,383,230	0	2,383,230	2,383,230
2013-2014	6,948,858	0	0	6,948,858	0	0	6,948,858	0	6,948,858	6,948,858
2014-2015	4,496,980	0	0	4,496,980	0	0	4,496,980	0	4,496,980	4,496,980
2015-2016	4,031,962	0	0	4,031,962	0	0	4,031,962	0	4,031,962	4,031,962
2016-2017	1,838,105	0	0	1,838,105	0	0	1,838,105	0	1,838,105	1,838,105
2017-2018	0	0	0	0	0	0	0	0	0	0
Total	\$92,506,408	\$110,529	\$0	\$92,616,938	\$0	\$0	\$92,616,938	\$0	\$92,616,938	\$92,616,938

Notes:

- (A) Years are 7/1 to 6/30.
 (B) Provided by the Authority.
 (C) Adjustments to Accounting
 (D)
 (E) (B) + (C) - (D).
 (F) Sum of incurred losses in excess of SIR.
 (G) Sum of incurred losses in excess of \$100,000.
 (H) (E) - (G).
 (I) (G) - (F).
 (J) (E) - (F).
 (K) Minimum of (J) and the aggregate stop loss. See Reserve Appendix J.

DRAFT

ABAG PLAN CORPORATION - Liability

Paid Losses as of 12/31/17

Accident Year (A)	Unlimited Paid (B)	Additions to Losses (C)	Subtractions from Losses (D)	Adjusted Paid (E)	Paid Over SIR (F)	Paid Over \$100,000 (G)	Paid Capped at \$100,000 (H)	Paid \$100,000 to SIR Layer (I)	Paid Capped at SIR (J)	Paid Capped at SIR & Aggregate (K)
1986-1997	\$18,811,533	\$62,563	\$0	\$18,874,096	\$0	\$0	\$18,874,096	\$0	\$18,874,096	\$18,874,096
1997-1998	2,390,163	72,365	0	2,462,528	0	0	2,462,528	0	2,462,528	2,462,528
1998-1999	5,593,721	12,376	0	5,606,097	0	0	5,606,097	0	5,606,097	5,606,097
1999-2000	1,199,565	0	0	1,199,565	0	0	1,199,565	0	1,199,565	1,199,565
2000-2001	1,860,684	(578)	0	1,860,106	0	0	1,860,106	0	1,860,106	1,860,106
2001-2002	4,627,263	0	0	4,627,263	0	0	4,627,263	0	4,627,263	4,627,263
2002-2003	8,832,841	(20,359)	0	8,812,482	0	0	8,812,482	0	8,812,482	8,812,482
2003-2004	2,569,681	4,800	0	2,574,481	0	0	2,574,481	0	2,574,481	2,574,481
2004-2005	1,876,140	(1,653)	0	1,874,487	0	0	1,874,487	0	1,874,487	1,874,487
2005-2006	4,775,006	(18,984)	0	4,756,022	0	0	4,756,022	0	4,756,022	4,756,022
2006-2007	1,656,563	0	0	1,656,563	0	0	1,656,563	0	1,656,563	1,656,563
2007-2008	6,755,660	0	0	6,755,660	0	0	6,755,660	0	6,755,660	6,755,660
2008-2009	3,528,864	0	0	3,528,864	0	0	3,528,864	0	3,528,864	3,528,864
2009-2010	2,441,417	0	0	2,441,417	0	0	2,441,417	0	2,441,417	2,441,417
2010-2011	2,046,846	0	0	2,046,846	0	0	2,046,846	0	2,046,846	2,046,846
2011-2012	3,764,045	0	0	3,764,045	0	0	3,764,045	0	3,764,045	3,764,045
2012-2013	2,017,440	0	0	2,017,440	0	0	2,017,440	0	2,017,440	2,017,440
2013-2014	6,724,237	0	0	6,724,237	0	0	6,724,237	0	6,724,237	6,724,237
2014-2015	2,667,604	0	0	2,667,604	0	0	2,667,604	0	2,667,604	2,667,604
2015-2016	226,123	0	0	226,123	0	0	226,123	0	226,123	226,123
2016-2017	900	0	0	900	0	0	900	0	900	900
2017-2018	0	0	0	0	0	0	0	0	0	0
Total	\$84,366,297	\$110,529	\$0	\$84,476,826	\$0	\$0	\$84,476,826	\$0	\$84,476,826	\$84,476,826

Notes:

- (A) Years are 7/1 to 6/30.
- (B) Provided by the Authority.
- (C) Adjustments to Accounting
- (D)
- (E) (B) + (C) - (D).
- (F) Sum of paid losses in excess of SIR.
- (G) Sum of paid losses in excess of \$100,000.
- (H) (E) - (G).
- (I) (G) - (F).
- (J) (E) - (F).
- (K) Minimum of (J) and the aggregate stop loss. See Reserve Appendix J.

DRAFT

ABAG PLAN CORPORATION - Liability

Case Reserves as of 12/31/17

Accident Year (A)	Unlimited Reserves (B)	Additions to Losses (C)	Subtractions from Losses (D)	Adjusted Reserves (E)	Reserves Over SIR (F)	Reserves Over \$100,000 (G)	Reserves Capped at \$100,000 (H)	Reserves \$100,000 to SIR Layer (I)	Reserves Capped at SIR (J)	Reserves Capped at SIR & Aggregate (K)
1986-1997	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1997-1998	0	0	0	0	0	0	0	0	0	0
1998-1999	0	0	0	0	0	0	0	0	0	0
1999-2000	783	0	0	783	0	0	783	0	783	783
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	31,359	0	0	31,359	0	0	31,359	0	31,359	31,359
2003-2004	0	0	0	0	0	0	0	0	0	0
2004-2005	0	0	0	0	0	0	0	0	0	0
2005-2006	0	0	0	0	0	0	0	0	0	0
2006-2007	0	0	0	0	0	0	0	0	0	0
2007-2008	0	0	0	0	0	0	0	0	0	0
2008-2009	0	0	0	0	0	0	0	0	0	0
2009-2010	0	0	0	0	0	0	0	0	0	0
2010-2011	0	0	0	0	0	0	0	0	0	0
2011-2012	45,139	0	0	45,139	0	0	45,139	0	45,139	45,139
2012-2013	365,790	0	0	365,790	0	0	365,790	0	365,790	365,790
2013-2014	224,621	0	0	224,621	0	0	224,621	0	224,621	224,621
2014-2015	1,829,376	0	0	1,829,376	0	0	1,829,376	0	1,829,376	1,829,376
2015-2016	3,805,839	0	0	3,805,839	0	0	3,805,839	0	3,805,839	3,805,839
2016-2017	1,837,205	0	0	1,837,205	0	0	1,837,205	0	1,837,205	1,837,205
2017-2018	0	0	0	0	0	0	0	0	0	0
Total	\$8,140,112	\$0	\$0	\$8,140,112	\$0	\$0	\$8,140,112	\$0	\$8,140,112	\$8,140,112

Notes:

- (A) Years are 7/1 to 6/30.
 (B) Reserve Appendix L, Page 1, Column (B) - Reserve Appendix L, Page 2, Column (B).
 (C) Reserve Appendix L, Page 1, Column (C) - Reserve Appendix L, Page 2, Column (C).
 (D) Reserve Appendix L, Page 1, Column (D) - Reserve Appendix L, Page 2, Column (D).
 (E) (B) + (C) - (D).
 (F) Sum of case reserves in excess of SIR.
 (G) Sum of case reserves in excess of \$100,000.
 (H) (E) - (G).
 (I) (G) - (F).
 (J) (E) - (F).
 (K) Minimum of (J) and the aggregate stop loss. See Reserve Appendix J.

DRAFT

ABAG PLAN CORPORATION - Liability

Claim Counts as of 12/31/17

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)
1986-1997	120	0	0	120	120	0	0	120	0	0
1997-1998	19	0	0	19	19	0	0	19	0	0
1998-1999	14	0	0	14	14	0	0	14	0	0
1999-2000	11	0	0	11	10	0	0	10	1	1
2000-2001	13	0	0	13	13	0	0	13	0	0
2001-2002	15	0	0	15	15	0	0	15	0	0
2002-2003	28	0	0	28	27	0	0	27	1	1
2003-2004	20	0	0	20	20	0	0	20	0	0
2004-2005	9	0	0	9	9	0	0	9	0	0
2005-2006	16	0	0	16	16	0	0	16	0	0
2006-2007	14	0	0	14	14	0	0	14	0	0
2007-2008	24	0	0	24	24	0	0	24	0	0
2008-2009	17	0	0	17	17	0	0	17	0	0
2009-2010	20	0	0	20	20	0	0	20	0	0
2010-2011	13	0	0	13	13	0	0	13	0	0
2011-2012	20	0	0	20	19	0	0	19	1	1
2012-2013	21	0	0	21	17	0	0	17	4	4
2013-2014	16	0	0	16	12	0	0	12	4	4
2014-2015	21	0	0	21	8	0	0	8	13	13
2015-2016	18	0	0	18	3	0	0	3	15	15
2016-2017	6	0	0	6	1	0	0	1	5	5
2017-2018	0	0	0	0	0	0	0	0	0	0
Total	455	0	0	455	411	0	0	411	44	44

Notes:

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

DRAFT

ABAG PLAN CORPORATION - Liability

Exposure Measures

Accident Year	Total Payroll (\$00) (A)	Inflation Trend Factor (B)	Trended Payroll (\$00) (C)
1986-1997	17,537,458	1.679	29,445,392
1997-1998	2,204,399	1.638	3,610,806
1998-1999	2,391,737	1.598	3,821,996
1999-2000	2,593,272	1.559	4,042,911
2000-2001	2,775,885	1.521	4,222,121
2001-2002	3,087,086	1.484	4,581,236
2002-2003	3,441,025	1.448	4,982,604
2003-2004	3,596,411	1.413	5,081,729
2004-2005	4,209,065	1.379	5,804,301
2005-2006	4,297,616	1.345	5,780,294
2006-2007	4,504,261	1.312	5,909,590
2007-2008	4,769,732	1.280	6,105,257
2008-2009	4,929,016	1.249	6,156,341
2009-2010	4,760,313	1.219	5,802,822
2010-2011	4,393,012	1.189	5,223,291
2011-2012	3,754,382	1.160	4,355,083
2012-2013	3,668,540	1.132	4,152,787
2013-2014	3,643,764	1.104	4,022,715
2014-2015	3,788,358	1.077	4,080,062
2015-2016	3,648,825	1.051	3,834,915
2016-2017	3,758,803	1.025	3,852,773
2017-2018	4,142,227	1.000	4,142,227
2018-2019	4,280,564	1.000	4,280,564

Notes:

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

DRAFT

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

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)
1996-1997	271,001	1.976	535,498	3,153,107	0.170
1997-1998	2,074,105	1.913	3,967,763	3,288,283	1.207
1998-1999	1,823,244	1.852	3,376,648	3,488,110	0.968
1999-2000	942,240	1.793	1,689,436	3,698,057	0.457
2000-2001	1,719,728	1.736	2,985,448	3,856,299	0.774
2001-2002	2,949,541	1.681	4,958,178	4,183,124	1.185
2002-2003	4,268,822	1.627	6,945,373	4,565,127	1.521
2003-2004	2,205,881	1.575	3,474,263	4,645,349	0.748
2004-2005	1,424,731	1.525	2,172,715	4,673,004	0.465
2005-2006	2,684,321	1.476	3,962,058	4,645,787	0.853
2006-2007	1,413,623	1.429	2,020,067	4,722,301	0.428
2007-2008	2,651,368	1.384	3,669,493	4,867,986	0.754
2008-2009	2,653,385	1.339	3,552,883	4,928,307	0.721
2009-2010	1,335,978	1.297	1,732,763	4,683,905	0.370
2010-2011	1,557,549	1.255	1,954,724	4,126,482	0.474
2011-2012	3,399,509	1.215	4,130,403	3,948,798	1.046
2012-2013	2,387,000	1.176	2,807,112	3,878,081	0.724
2013-2014	2,384,000	1.139	2,715,376	3,741,351	0.726
2014-2015	4,498,000	1.103	4,961,294	3,775,991	1.314
2015-2016	3,333,000	1.067	3,556,311	3,834,915	0.927
2016-2017	3,997,000	1.033	4,128,901	3,852,773	1.072
Totals	\$49,974,026		\$69,296,707	86,557,137	\$0.801
12/13-16/17	16,599,000		18,168,994	19,083,111	0.952
12/13-15/16	12,602,000		14,040,093	15,230,338	0.922
(F) Selected Limited Rate:					\$0.940
Prior:					\$0.915
Program Year:		2017-2018	2018-2019		
(G) Factor to SIR:		1.000	1.000		
(H) Trend Factor:		1.000	1.033		
(I) Program Rate:		\$0.940	\$0.971		
(J) Trended Payroll (\$00):		4,142,227	4,280,564		
(K) Projected Program Losses:		3,894,000	4,156,000		
(L) Projected ULAE:		0	0		
(M) Projected Loss and ULAE:		\$3,894,000	\$4,156,000		

Notes appear on the next page.

DRAFT

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

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.

DRAFT

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

Reported Loss Development

Accident Year (A)	Limited Reported Losses as of 12/31/17 (B)	Reported Loss Development Factor (C)	Ultimate Limited Losses (D)	Program Reported Losses of 12/31/17 (E)	Reported Loss Development Factor (F)	Ultimate Program Losses (G)
1996-1997	\$271,001	1.000	\$271,001	\$271,001	1.000	\$271,001
1997-1998	2,074,105	1.000	2,074,105	2,074,105	1.000	2,074,105
1998-1999	1,823,244	1.000	1,823,244	1,823,244	1.000	1,823,244
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	4,268,822	1.000	4,268,822	4,268,822	1.000	4,268,822
2003-2004	2,205,881	1.000	2,205,881	2,205,881	1.000	2,205,881
2004-2005	1,424,731	1.001	1,426,156	1,424,731	1.001	1,426,156
2005-2006	2,684,321	1.003	2,692,374	2,684,321	1.003	2,692,374
2006-2007	1,413,623	1.006	1,422,105	1,413,623	1.006	1,422,105
2007-2008	2,651,368	1.010	2,677,882	2,651,368	1.010	2,677,882
2008-2009	2,653,385	1.015	2,693,186	2,653,385	1.015	2,693,186
2009-2010	1,335,978	1.025	1,369,377	1,335,978	1.025	1,369,377
2010-2011	1,557,549	1.040	1,619,851	1,557,549	1.040	1,619,851
2011-2012	3,399,509	1.061	3,606,879	3,399,509	1.061	3,606,879
2012-2013	2,184,184	1.093	2,387,313	2,184,184	1.093	2,387,313
2013-2014	2,028,583	1.175	2,383,585	2,028,583	1.175	2,383,585
2014-2015	3,396,606	1.410	4,789,214	3,396,606	1.410	4,789,214
2015-2016	2,175,661	1.833	3,987,987	2,175,661	1.833	3,987,987
2016-2017	1,822,500	4.583	8,352,518	1,822,500	4.583	8,352,518
Totals	\$44,982,560		\$55,662,989	\$44,982,560		\$55,662,989

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

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

Reported Loss Development

Accident Year	Limited Losses Reported as of:										
	6 Months	18 Months	30 Months	42 Months	54 Months	66 Months	78 Months	90 Months	102 Months	114 Months	126 Months
1996-1997								341,390	341,390	341,390	341,390
1997-1998							272,521	279,522	271,001	271,001	271,001
1998-1999						2,414,333	2,251,313	2,251,313	2,251,313	2,251,313	2,096,852
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	
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		
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			
2011-2012	510,509	2,770,955	3,631,019	3,415,805	3,302,356	3,237,194	3,127,725				
2012-2013	602,255	4,254,395	3,881,185	3,547,144	3,502,651	3,489,052					
2013-2014	842,948	2,251,578	2,694,553	2,631,490	2,671,389						
2014-2015	325,035	2,666,242	3,946,907	3,795,367							
2015-2016	371,511	2,328,347	4,341,861								
2016-2017	290,633	3,737,779									
2017-2018	199,803										

Reported Loss Development Factors:

	6-18 Months	18-30 Months	30-42 Months	42-54 Months	54-66 Months	66-78 Months	78-90 Months	90-102 Months	102-114 Months	114-126 Months	126-138 Months
1996-1997								1.000	1.000	1.000	1.000
1997-1998							1.026	0.970	1.000	1.000	1.000
1998-1999						0.932	1.000	1.000	1.000	0.931	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	
2008-2009	6.330	5.914	1.157	1.020	0.776	0.975	1.001	0.999	1.001		
2009-2010		1.228	0.944	0.952	0.999	1.000	1.000	1.000			
2010-2011	4.415	1.141	0.689	0.951	0.975	0.981	1.000				
2011-2012	5.428	1.310	0.941	0.967	0.980	0.966					
2012-2013	7.064	0.912	0.914	0.987	0.996						
2013-2014	2.671	1.197	0.977	1.015							
2014-2015	8.203	1.480	0.962								
2015-2016	6.267	1.865									
2016-2017	12.861										
Average	6.545	2.535	1.621	1.176	1.077	1.242	0.998	1.020	1.024	1.047	1.092
Dollar-Weighted											
Averages											
3-yr	8.846	1.516	0.948	0.988	0.985	0.982	1.000	1.000	1.000	1.000	1.000
4-yr	6.002	1.293	0.946	0.980	0.988	0.980	0.993	1.000	1.000	1.000	1.000
Comparative											
Factors	2.945	1.254	1.006	0.965	0.972	1.000	1.000	1.000	1.000	1.000	1.000
Prior	5.500	2.500	1.300	1.200	1.075	1.030	1.020	1.015	1.010	1.005	1.004
Selected	5.500	2.500	1.300	1.200	1.075	1.030	1.020	1.015	1.010	1.005	1.004
Cumulated	25.207	4.583	1.833	1.410	1.175	1.093	1.061	1.040	1.025	1.015	1.010

DRAFT

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

Reported Loss Development

Limited Losses Reported as of:

Accident Year	138 Months	150 Months	162 Months	174 Months	186 Months	198 Months	210 Months	222 Months	234 Months	246 Months	258 Months
1996-1997	341,390	341,390	341,390	2,146,026	2,146,026	2,146,026	2,573,489	2,573,489	2,573,489	2,589,808	2,589,808
1997-1998	271,001	271,001	2,573,489	2,573,489	2,575,789	3,047,280	3,047,280	3,047,280	3,047,280	3,047,280	
1998-1999	2,096,852	2,997,280	2,997,280	3,047,280	2,535,722	2,535,722	2,510,789	2,510,722	2,510,789		
1999-2000	2,509,278	2,515,050	2,510,722	1,825,620	1,825,620	1,826,007	1,825,620	1,826,007			
2000-2001	1,825,620	1,825,620	2,482,404	2,482,404	2,485,232	2,482,404	2,485,232				
2001-2002	2,382,504	3,027,919	3,012,173	3,012,173	3,012,173	3,012,173					
2002-2003	4,977,421	4,977,421	4,977,421	4,977,421	4,977,421						
2003-2004	3,560,542	3,560,542	3,560,542	3,560,542							
2004-2005	2,867,654	2,867,654	2,867,654								
2005-2006	3,789,394	3,788,958									
2006-2007	3,394,936										
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											
2014-2015											
2015-2016											
2016-2017											
2017-2018											

Reported Loss Development Factors:

	138-150 Months	150-162 Months	162-174 Months	174-186 Months	186-198 Months	198-210 Months	210-222 Months	222-234 Months	234-246 Months	246-258 Months	258-Ult. Months
1996-1997	1.000	1.000	6.286	1.000	1.000	1.199	1.000	1.000	1.006	1.000	
1997-1998	1.000	9.496	1.000	1.001	1.183	1.000	1.000	1.000	1.000		
1998-1999	1.429	1.000	1.017	0.832	1.000	0.990	1.000	1.000			
1999-2000	1.002	0.998	0.727	1.000	1.000	1.000	1.000				
2000-2001	1.000	1.360	1.000	1.001	0.999	1.001					
2001-2002	1.271	0.995	1.000	1.000	1.000						
2002-2003	1.000	1.000	1.000	1.000							
2003-2004	1.000	1.000	1.000								
2004-2005	1.000	1.000									
2005-2006	1.000										
2006-2007											
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											
2014-2015											
2015-2016											
2016-2017											
Average	1.070	1.983	1.629	0.976	1.030	1.038	1.000	1.000	1.003	1.000	
Dollar-Weighted Averages											
3-yr	1.000	1.000	1.000	1.000	1.000	0.997	1.000	1.000			
4-yr	1.000	0.999	1.000	1.000	1.000	0.998	1.000				
Comparative Factors	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Prior	1.003	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Selected	1.003	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulated	1.006	1.003	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

DRAFT

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

Paid Loss Development

Accident Year (A)	Limited Paid Losses as of 12/31/17 (B)	Paid Loss Development Factor (C)	Ultimate Limited Losses (D)	Program Paid Losses of 12/31/17 (E)	Paid Loss Development Factor (F)	Ultimate Program Losses (G)
1996-1997	\$271,001	1.000	\$271,001	\$271,001	1.000	\$271,001
1997-1998	2,074,105	1.000	2,074,105	2,074,105	1.000	2,074,105
1998-1999	1,823,244	1.000	1,823,244	1,823,244	1.000	1,823,244
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	1.001	1,426,156	1,424,731	1.001	1,426,156
2005-2006	2,684,321	1.003	2,692,374	2,684,321	1.003	2,692,374
2006-2007	1,413,623	1.006	1,422,105	1,413,623	1.006	1,422,105
2007-2008	2,651,369	1.010	2,677,883	2,651,369	1.010	2,677,883
2008-2009	2,653,385	1.015	2,693,186	2,653,385	1.015	2,693,186
2009-2010	1,335,978	1.025	1,369,377	1,335,978	1.025	1,369,377
2010-2011	1,557,549	1.051	1,636,984	1,557,549	1.051	1,636,984
2011-2012	3,354,369	1.104	3,703,223	3,354,369	1.104	3,703,223
2012-2013	1,803,697	1.236	2,229,369	1,803,697	1.236	2,229,369
2013-2014	1,815,984	1.415	2,569,617	1,815,984	1.415	2,569,617
2014-2015	2,123,961	1.981	4,207,567	2,123,961	1.981	4,207,567
2015-2016	155,478	5.448	847,044	155,478	5.448	847,044
2016-2017	0	24.516	0	0	24.516	0
Totals	\$39,196,866		\$43,697,306	\$39,196,866		\$43,697,306

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

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

Paid Loss Development

Accident Year	Limited Losses Paid as of:										
	6 Months	18 Months	30 Months	42 Months	54 Months	66 Months	78 Months	90 Months	102 Months	114 Months	126 Months
1996-1997									1,724,048	1,724,048	1,724,048
1997-1998								341,390	341,390	341,390	341,390
1998-1999							265,021	271,001	271,001	271,001	271,001
1999-2000						2,012,369	2,251,313	2,251,313	2,251,313	2,251,313	2,096,852
2000-2001					1,000,106	1,275,187	1,823,244	1,823,244	1,823,244	1,823,244	1,823,244
2001-2002				880,149	1,000,578	1,023,612	1,023,612	1,023,612	964,842	964,842	2,382,404
2002-2003			873,114	953,412	953,532	953,532	1,579,410	1,581,139	1,581,139	2,939,481	2,998,047
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		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	
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		
2010-2011		1,046,459	2,274,617	2,287,500	2,319,013	2,395,143	2,396,051				
2011-2012	106,645	872,432	2,112,380	2,750,332	3,122,242	3,118,744	3,127,725				
2012-2013	114,916	934,308	2,290,004	3,124,392	3,371,990	3,450,380					
2013-2014	130,461	888,140	1,780,866	2,316,155	2,654,568						
2014-2015	91,368	1,387,749	2,717,926	3,379,346							
2015-2016	98,110	679,755	1,938,077								
2016-2017	30,679	920,995									
2017-2018	31,268										

Paid Loss Development Factors:

	6-18 Months	18-30 Months	30-42 Months	42-54 Months	54-66 Months	66-78 Months	78-90 Months	90-102 Months	102-114 Months	114-126 Months	126-138 Months
1996-1997									1.000	1.000	1.000
1997-1998								1.000	1.000	1.000	1.000
1998-1999							1.023	1.000	1.000	1.000	1.000
1999-2000						1.119	1.000	1.000	1.000	0.931	1.000
2000-2001					1.275	1.430	1.000	1.000	1.000	1.000	1.001
2001-2002				1.137	1.023	1.000	1.000	0.943	1.000	2.469	1.000
2002-2003			1.092	1.000	1.000	1.656	1.001	1.000	1.859	1.020	1.660
2003-2004		3.300	1.458	1.307	1.042	1.006	1.442	1.662	1.008	0.722	1.000
2004-2005	11.960	2.464	1.548	1.145	0.991	1.132	0.782	1.029	0.805	1.000	1.001
2005-2006		23.173	1.044	1.797	1.124	3.721	1.002	1.322	1.002	1.000	1.000
2006-2007		47.128	5.387	1.000	2.181	1.030	0.902	1.000	1.000	1.000	1.000
2007-2008		1.013	4.078	3.599	1.048	1.300	1.007	1.001	1.000	1.000	
2008-2009	2.465	4.548	52.663	1.124	0.814	1.002	1.001	0.999	1.001		
2009-2010		40.282	1.277	1.074	1.025	1.014	1.004	1.000			
2010-2011		2.174	1.006	1.014	1.033	1.000	1.000				
2011-2012	8.181	2.421	1.302	1.135	0.999	1.003					
2012-2013	8.130	2.451	1.364	1.079	1.023						
2013-2014	6.808	2.005	1.301	1.146							
2014-2015	15.189	1.959	1.243								
2015-2016	6.928	2.851									
2016-2017	30.020										
Average	11.210	10.444	5.751	1.351	1.121	1.339	1.013	1.074	1.052	1.095	1.060
Dollar-Weighted											
Averages											
3-yr	13.574	2.178	1.299	1.117	1.017	1.006	1.002	1.000	1.000	1.000	1.000
4-yr	11.057	2.243	1.300	1.094	1.019	1.005	1.003	1.000	1.001	1.000	1.000
Comparative											
Factors	4.218	2.117	1.446	1.151	1.057	1.033	1.015	1.010	1.008	1.008	1.006
Prior	9.100	4.500	2.750	1.400	1.145	1.120	1.050	1.025	1.010	1.005	1.004
Selected	9.100	4.500	2.750	1.400	1.145	1.120	1.050	1.025	1.010	1.005	1.004
Cumulated	223.096	24.516	5.448	1.981	1.415	1.236	1.104	1.051	1.025	1.015	1.010

DRAFT

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

Paid Loss Development

Accident Year	<u>Limited Losses Paid as of:</u>										
	138 Months	150 Months	162 Months	174 Months	186 Months	198 Months	210 Months	222 Months	234 Months	246 Months	258 Months
1996-1997	1,724,048	1,724,048	1,633,372	1,633,372	2,146,026	2,146,026	2,573,489	2,573,489	2,573,489	2,589,808	2,589,808
1997-1998	341,390	341,390	341,390	2,573,489	2,573,489	3,047,280	3,047,280	3,047,280	3,047,280	3,047,280	
1998-1999	271,001	271,001	2,997,280	3,047,280	2,510,722	2,510,722	2,510,789	2,510,722	2,510,789		
1999-2000	2,096,852	2,510,050	2,510,722	1,825,620	1,825,620	1,826,007	1,825,620	1,826,007			
2000-2001	1,825,620	1,825,620	2,482,404	2,482,404	2,485,232	2,482,404	2,485,232				
2001-2002	2,382,404	3,000,611	3,012,173	3,012,173	3,012,173	3,012,173					
2002-2003	4,977,421	4,977,421	4,977,421	4,977,421	4,977,421						
2003-2004	3,560,542	3,560,542	3,560,542	3,560,542							
2004-2005	2,867,654	2,867,654	2,867,654								
2005-2006	3,789,394	3,788,958									
2006-2007	3,394,936										
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											
2014-2015											
2015-2016											
2016-2017											
2017-2018											

Paid Loss Development Factors:

	138-150 Months	150-162 Months	162-174 Months	174-186 Months	186-198 Months	198-210 Months	210-222 Months	222-234 Months	234-246 Months	246-258 Months	258-Ult. Months
1996-1997	1.000	0.947	1.000	1.314	1.000	1.199	1.000	1.000	1.006	1.000	
1997-1998	1.000	1.000	7.538	1.000	1.184	1.000	1.000	1.000	1.000		
1998-1999	1.000	11.060	1.017	0.824	1.000	1.000	1.000	1.000			
1999-2000	1.197	1.000	0.727	1.000	1.000	1.000	1.000				
2000-2001	1.000	1.360	1.000	1.001	0.999	1.001					
2001-2002	1.259	1.004	1.000	1.000	1.000						
2002-2003	1.000	1.000	1.000	1.000							
2003-2004	1.000	1.000	1.000								
2004-2005	1.000	1.000									
2005-2006	1.000										
2006-2007											
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											
2014-2015											
2015-2016											
2016-2017											
Average	1.046	2.152	1.785	1.020	1.031	1.040	1.000	1.000	1.003	1.000	
Dollar-Weighted											
Averages											
3-yr	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
4-yr	1.000	1.001	1.000	1.000	1.000	1.000	1.000				
Comparative											
Factors	1.006	1.004	1.004	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.000
Prior	1.003	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Selected	1.003	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

DRAFT

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

Exposure and Development Method
Based on Reported Losses

Accident Year	Trended Payroll (\$00) (A)	Reported Losses as of 12/31/17 (B)	Loss Development Factor (C)	Percentage of Losses Yet to Be Reported (D)	Program Rate (E)	Incurred but not Reported (IBNR) (F)	Ultimate Program Losses (G)
1996-1997	3,153,107	271,001	1.000	0.000	0.086	0	271,001
1997-1998	3,288,283	2,074,105	1.000	0.000	0.631	0	2,074,105
1998-1999	3,488,110	1,823,244	1.000	0.000	0.523	0	1,823,244
1999-2000	3,698,057	942,240	1.000	0.000	0.255	0	942,240
2000-2001	3,856,299	1,719,728	1.000	0.000	0.446	0	1,719,728
2001-2002	4,183,124	2,949,541	1.000	0.000	0.705	0	2,949,541
2002-2003	4,565,127	4,268,822	1.000	0.000	0.935	0	4,268,822
2003-2004	4,645,349	2,205,881	1.000	0.000	0.475	0	2,205,881
2004-2005	4,673,004	1,424,731	1.001	0.001	0.305	1,425	1,426,156
2005-2006	4,645,787	2,684,321	1.003	0.003	0.578	8,056	2,692,377
2006-2007	4,722,301	1,413,623	1.006	0.006	0.299	8,472	1,422,095
2007-2008	4,867,986	2,651,368	1.010	0.010	0.545	26,531	2,677,899
2008-2009	4,928,307	2,653,385	1.015	0.015	0.538	39,771	2,693,156
2009-2010	4,683,905	1,335,978	1.025	0.024	0.285	32,038	1,368,016
2010-2011	4,126,482	1,557,549	1.040	0.038	0.377	59,116	1,616,665
2011-2012	3,948,798	3,399,509	1.061	0.057	0.861	193,795	3,593,304
2012-2013	3,878,081	2,184,184	1.093	0.085	0.808	266,347	2,450,531
2013-2014	3,741,351	2,028,583	1.175	0.149	0.834	464,923	2,493,506
2014-2015	3,775,991	3,396,606	1.410	0.291	0.861	946,078	4,342,684
2015-2016	3,834,915	2,175,661	1.833	0.454	0.890	1,549,536	3,725,197
2016-2017	3,852,773	1,822,500	4.583	0.782	0.920	2,771,839	4,594,339
Totals	86,557,137	\$44,982,560				\$6,367,927	\$51,350,487

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) $(A) \times (D) \times (E)$.
- (G) $(B) + (F)$.

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

DRAFT

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

Exposure and Development Method
Based on Paid Losses

Accident Year	Trended Payroll (\$00) (A)	Paid Losses as of 12/31/17 (B)	Loss Development Factor (C)	Percentage of Losses Yet to Be Paid (D)	Program Rate (E)	Incurred but not Paid (F)	Ultimate Program Losses (G)
1996-1997	3,153,107	271,001	1.000	0.000	0.086	0	271,001
1997-1998	3,288,283	2,074,105	1.000	0.000	0.631	0	2,074,105
1998-1999	3,488,110	1,823,244	1.000	0.000	0.523	0	1,823,244
1999-2000	3,698,057	941,458	1.000	0.000	0.255	0	941,458
2000-2001	3,856,299	1,719,728	1.000	0.000	0.446	0	1,719,728
2001-2002	4,183,124	2,949,541	1.000	0.000	0.705	0	2,949,541
2002-2003	4,565,127	4,237,463	1.000	0.000	0.935	0	4,237,463
2003-2004	4,645,349	2,205,881	1.000	0.000	0.475	0	2,205,881
2004-2005	4,673,004	1,424,731	1.001	0.001	0.305	1,425	1,426,156
2005-2006	4,645,787	2,684,321	1.003	0.003	0.578	8,056	2,692,377
2006-2007	4,722,301	1,413,623	1.006	0.006	0.299	8,472	1,422,095
2007-2008	4,867,986	2,651,369	1.010	0.010	0.545	26,531	2,677,900
2008-2009	4,928,307	2,653,385	1.015	0.015	0.538	39,771	2,693,156
2009-2010	4,683,905	1,335,978	1.025	0.024	0.285	32,038	1,368,016
2010-2011	4,126,482	1,557,549	1.051	0.049	0.377	76,229	1,633,778
2011-2012	3,948,798	3,354,369	1.104	0.094	0.861	319,592	3,673,961
2012-2013	3,878,081	1,803,697	1.236	0.191	0.808	598,496	2,402,193
2013-2014	3,741,351	1,815,984	1.415	0.293	0.834	914,244	2,730,228
2014-2015	3,775,991	2,123,961	1.981	0.495	0.861	1,609,308	3,733,269
2015-2016	3,834,915	155,478	5.448	0.816	0.890	2,785,069	2,940,547
2016-2017	3,852,773		24.516	0.959	0.920	3,399,225	3,399,225
Totals	86,557,137	\$39,196,866				\$9,818,456	\$49,015,322

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) $(A) \times (D) \times (E)$.
- (G) $(B) + (F)$.

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

DRAFT

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

Exposure and Development Method

Accident Year	Trended Payroll (\$00) (A)	Ultimate Limited Losses (B)	Trend Factor (C)	Trended Limited Losses (D)	Trended Limited Loss Rate (E)	Limited Loss Rate (F)	Factor to SIR (G)	Program Loss Rate (H)
1996-1997	3,153,107	271,001	1.976	535,498	0.170	0.086	1.000	0.086
1997-1998	3,288,283	2,074,105	1.913	3,967,763	1.207	0.631	1.000	0.631
1998-1999	3,488,110	1,823,244	1.852	3,376,648	0.968	0.523	1.000	0.523
1999-2000	3,698,057	942,240	1.793	1,689,436	0.457	0.255	1.000	0.255
2000-2001	3,856,299	1,719,728	1.736	2,985,448	0.774	0.446	1.000	0.446
2001-2002	4,183,124	2,949,541	1.681	4,958,178	1.185	0.705	1.000	0.705
2002-2003	4,565,127	4,268,822	1.627	6,945,373	1.521	0.935	1.000	0.935
2003-2004	4,645,349	2,205,881	1.575	3,474,263	0.748	0.475	1.000	0.475
2004-2005	4,673,004	1,424,731	1.525	2,172,715	0.465	0.305	1.000	0.305
2005-2006	4,645,787	2,684,321	1.476	3,962,058	0.853	0.578	1.000	0.578
2006-2007	4,722,301	1,413,623	1.429	2,020,067	0.428	0.299	1.000	0.299
2007-2008	4,867,986	2,651,368	1.384	3,669,493	0.754	0.545	1.000	0.545
2008-2009	4,928,307	2,653,385	1.339	3,552,883	0.721	0.538	1.000	0.538
2009-2010	4,683,905	1,335,978	1.297	1,732,763	0.370	0.285	1.000	0.285
2010-2011	4,126,482	1,557,549	1.255	1,954,724	0.474	0.377	1.000	0.377
2011-2012	3,948,798	3,399,509	1.215	4,130,403	1.046	0.861	1.000	0.861
2012-2013	3,878,081	2,387,000	1.176	2,807,112	0.724	0.808	1.000	0.808
2013-2014	3,741,351	2,384,000	1.139	2,715,376	0.726	0.834	1.000	0.834
2014-2015	3,775,991	4,498,000	1.103	4,961,294	1.314	0.861	1.000	0.861
2015-2016	3,834,915	3,674,000	1.067	3,920,158	1.022	0.890	1.000	0.890
2016-2017	3,852,773	4,176,000	1.033	4,313,808	1.120	0.920	1.000	0.920
Total/Avg	86,557,137	\$50,494,026		\$69,845,461	\$0.807			
12/13-16/17	19,083,111	17,119,000		18,717,748	0.981			
12/13-15/16	15,230,338	12,943,000		14,403,940	0.946			
Selected Limited Rate:					\$0.950			
Prior:					\$0.910			

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 2011-2012 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.

DRAFT

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

Frequency and Severity Method

Accident Year	Ultimate Program Severity (A)	Adjusted Ultimate Claims (B)	Ultimate Program Losses (C)
1996-1997	\$67,750	4	\$271,000
1997-1998	259,263	8	2,074,104
1998-1999	607,748	3	1,823,244
1999-2000	134,606	7	942,242
2000-2001	245,675	7	1,719,725
2001-2002	294,954	10	2,949,540
2002-2003	213,441	20	4,268,820
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	108,740	13	1,413,620
2007-2008	220,947	12	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	242,822	14	3,399,508
2012-2013	252,904	15	3,793,560
2013-2014	258,920	9	2,330,280
2014-2015	264,733	12	3,176,796
2015-2016	270,554	14	3,787,756
2016-2017	276,908	13	3,599,804
Total		223	\$50,063,201

Notes:

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

DRAFT

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

Frequency and Severity Method

Accident Year	Ultimate Limited Losses (A)	Adjusted Ultimate Claims (B)	Ultimate Limited Severity (C)	Trend Factor (D)	Trended Limited Severity (E)	Limited Severity (F)	Factor to SIR (G)	Program Severity (H)
1996-1997	\$271,001	4	\$67,750	1.601	\$108,468	\$67,750	1.000	\$67,750
1997-1998	2,074,105	8	259,263	1.565	405,747	259,263	1.000	259,263
1998-1999	1,823,244	3	607,748	1.531	930,462	607,748	1.000	607,748
1999-2000	942,240	7	134,606	1.497	201,505	134,606	1.000	134,606
2000-2001	1,719,728	7	245,675	1.464	359,668	245,675	1.000	245,675
2001-2002	2,949,541	10	294,954	1.431	422,079	294,954	1.000	294,954
2002-2003	4,268,822	20	213,441	1.399	298,604	213,441	1.000	213,441
2003-2004	2,205,881	12	183,823	1.368	251,470	183,823	1.000	183,823
2004-2005	1,424,731	4	356,183	1.338	476,573	356,183	1.000	356,183
2005-2006	2,684,321	12	223,693	1.308	292,590	223,693	1.000	223,693
2006-2007	1,413,623	13	108,740	1.279	139,078	108,740	1.000	108,740
2007-2008	2,651,368	12	220,947	1.251	276,405	220,947	1.000	220,947
2008-2009	2,653,385	11	241,217	1.223	295,008	241,217	1.000	241,217
2009-2010	1,335,978	14	95,427	1.196	114,131	95,427	1.000	95,427
2010-2011	1,557,549	9	173,061	1.170	202,481	173,061	1.000	173,061
2011-2012	3,399,509	14	242,822	1.144	277,788	242,822	1.000	242,822
2012-2013	2,387,000	15	159,133	1.119	178,070	252,904	1.000	252,904
2013-2014	2,384,000	9	264,889	1.093	289,524	258,920	1.000	258,920
2014-2015	4,498,000	12	374,833	1.069	400,696	264,733	1.000	264,733
2015-2016	3,333,000	14	238,071	1.046	249,022	270,554	1.000	270,554
2016-2017	3,997,000	13	307,462	1.022	314,226	276,908	1.000	276,908

Average Limited Severity: \$308,743
Average 11/12-15/16 Limited Severity: 279,020
Average 12/13-16/17 Limited Severity: 286,308

Selected Limited Severity: \$283,000
Prior: \$250,000

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.

DRAFT

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

Frequency and Severity Method
Projection of Ultimate Claims

Accident Year	Reported Claim Development (A)	Closed Claim Development (B)	Selected Ultimate Claims (C)	Trended Payroll (\$000,000) (D)	Claim Frequency (E)	Trend Factor (F)	Trended Claim Frequency (G)
1996-1997	4	4	4	315.3	0.013	1.232	0.016
1997-1998	8	8	8	328.8	0.024	1.219	0.029
1998-1999	3	3	3	348.8	0.009	1.208	0.011
1999-2000	7	7	7	369.8	0.019	1.196	0.023
2000-2001	7	7	7	385.6	0.018	1.184	0.021
2001-2002	10	10	10	418.3	0.024	1.173	0.028
2002-2003	20	20	20	456.5	0.044	1.161	0.051
2003-2004	12	12	12	464.5	0.026	1.150	0.030
2004-2005	4	4	4	467.3	0.009	1.138	0.010
2005-2006	12	12	12	464.6	0.026	1.126	0.029
2006-2007	13	13	13	472.2	0.028	1.116	0.031
2007-2008	12	12	12	486.8	0.025	1.105	0.028
2008-2009	11	11	11	492.8	0.022	1.094	0.024
2009-2010	14	14	14	468.4	0.030	1.083	0.032
2010-2011	9	9	9	412.6	0.022	1.073	0.024
2011-2012	14	14	14	394.9	0.035	1.062	0.037
2012-2013	15	14	15	387.8	0.039	1.051	0.041
2013-2014	9	8	9	374.1	0.024	1.041	0.025
2014-2015	12	8	12	377.6	0.032	1.030	0.033
2015-2016	14	6	14	383.5	0.037	1.019	0.038
2016-2017	10	0	13	385.3	0.034	1.010	0.034
Total	220	196	223	8,655.7			0.028
11/12-15/16	64	50	64	1,917.9			0.035
(H) Selected Frequency: Prior:							0.035 0.035
Program Year:				2017-2018	2018-2019		
(I) Trend Factor:				1.000	1.010		
(J) Selected Frequency:				0.035	0.035		
(K) Est. Payroll (\$000,000):				414.2	428.1		
(L) Ultimate Claims:				14	15		

Notes:

- | | |
|--|---|
| (A) From \$100K to \$1M Rate Analysis Appendix D, Page 4, (C). | (G) (E) x (F). |
| (B) From \$100K to \$1M Rate Analysis Appendix D, Page 5, (B). | (H) The selected frequency of 0.035 is based on (G). |
| (C) Selected from (A) and (B). | (I) From \$100K to \$1M Rate Analysis Appendix E, Page 1, Column (H). |
| (D) From \$100K to \$1M Rate Analysis Appendix I, Column (C) / 10,000. | (J) (H) x (I). |
| (E) (C) / (D). | (K) From \$100K to \$1M Rate Analysis Appendix I, Column (H). |
| (F) From \$100K to \$1M Rate Analysis Appendix E, Page 1, Column (H). | (L) (J) x (K). |

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

DRAFT

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

Frequency and Severity Method
Reported Claim Count Development

Accident Year	Claims Reported as of 12/31/2017 (A)	Reported Claim Development Factor (B)	Ultimate Claims (C)	Trended Claim Frequency (D)
1996-1997	4	1.000	4	0.016
1997-1998	8	1.000	8	0.030
1998-1999	3	1.000	3	0.010
1999-2000	7	1.000	7	0.023
2000-2001	7	1.000	7	0.021
2001-2002	10	1.000	10	0.028
2002-2003	20	1.000	20	0.051
2003-2004	12	1.000	12	0.030
2004-2005	4	1.000	4	0.010
2005-2006	12	1.001	12	0.029
2006-2007	13	1.001	13	0.031
2007-2008	12	1.001	12	0.027
2008-2009	11	1.002	11	0.024
2009-2010	14	1.003	14	0.032
2010-2011	9	1.004	9	0.023
2011-2012	14	1.005	14	0.038
2012-2013	15	1.015	15	0.041
2013-2014	9	1.040	9	0.025
2014-2015	10	1.196	12	0.033
2015-2016	10	1.435	14	0.037
2016-2017	4	2.440	10	0.026
Total	208		220	0.028

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 Analy:

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

DRAFT

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

Frequency and Severity Method
Closed Claim Count Development

Accident Year	Claims Closed as of 12/31/2017 (A)	Closed Claim Development Factor (B)	Ultimate Claims (C)	Trended Claim Frequency (D)
1996-1997	4	1.000	4	0.016
1997-1998	8	1.000	8	0.030
1998-1999	3	1.000	3	0.010
1999-2000	7	1.000	7	0.023
2000-2001	7	1.000	7	0.021
2001-2002	10	1.000	10	0.028
2002-2003	20	1.000	20	0.051
2003-2004	12	1.000	12	0.030
2004-2005	4	1.001	4	0.010
2005-2006	12	1.002	12	0.029
2006-2007	13	1.003	13	0.031
2007-2008	12	1.004	12	0.027
2008-2009	11	1.005	11	0.024
2009-2010	14	1.006	14	0.032
2010-2011	9	1.007	9	0.023
2011-2012	14	1.008	14	0.038
2012-2013	14	1.009	14	0.038
2013-2014	8	1.010	8	0.022
2014-2015	8	1.011	8	0.022
2015-2016	2	3.033	6	0.016
2016-2017	0	10.616	0	
Total	192		196	0.025

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 Analy:

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

DRAFT

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

Reported Claim Count Development

Claims Reported as of:

Accident Year	6 Months	18 Months	30 Months	42 Months	54 Months	66 Months	78 Months	90 Months	102 Months	114 Months	126 Months	138 Months	150 Months	162 Months
1996-1997												7	7	6
1997-1998											3	3	3	3
1998-1999										4	4	4	4	4
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	
2006-2007		3	8	6	6	5	16	13	13	13	13	13		
2007-2008	1	5	9	11	14	11	19	18	18	18	18			
2008-2009	2	6	8	8	19	14	13	13	13	13				
2009-2010	3	5	14	14	16	16	16	16	16					
2010-2011		6	21	14	13	12	11	11						
2011-2012	3	11	19	17	17	16	16							
2012-2013	3	22	22	15	15	16								
2013-2014	3	4	8	10	11									
2014-2015	3	8	15	12										
2015-2016		4	10											
2016-2017		4												
2017-2018														

Reported Claim Count Development Factors:

	6-18 Months	18-30 Months	30-42 Months	42-54 Months	54-66 Months	66-78 Months	78-90 Months	90-102 Months	102-114 Months	114-126 Months	126-138 Months	138-150 Months	150-162 Months	162-174 Months
1996-1997												1.000	0.857	1.000
1997-1998											1.000	1.000	1.000	1.333
1998-1999										1.000	1.000	1.000	1.000	2.250
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	
2005-2006			1.750	1.286	1.111	1.100	0.455	3.000	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			
2007-2008	5.000	1.800	1.222	1.273	0.786	1.727	0.947	1.000	1.000	1.000				
2008-2009	3.000	1.333	1.000	2.375	0.737	0.929	1.000	1.000	1.000					
2009-2010	1.667	2.800	1.000	1.143	1.000	1.000	1.000	1.000						
2010-2011		3.500	0.667	0.929	0.923	0.917	1.000							
2011-2012	3.667	1.727	0.895	1.000	0.941	1.000								
2012-2013	7.333	1.000	0.682	1.000	1.067									
2013-2014	1.333	2.000	1.250	1.100										
2014-2015	2.667	1.875	0.800											
2015-2016		2.500												
2016-2017														
Average Claim-Weighted Averages	3.524	2.120	1.002	1.228	0.951	1.287	0.922	1.160	1.062	1.002	1.078	1.210	0.910	1.406
3-yr		2.063	0.822	1.024	0.978	0.977	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
4-yr		1.447	0.844	1.000	0.984	0.966	0.983	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Comparative Factors	2.633	1.136	1.018	1.005	1.005	1.004	1.004	1.002	1.002	1.001	1.000	1.000	1.000	1.000
Prior	3.700	1.700	1.200	1.150	1.025	1.010	1.001	1.001	1.001	1.001	1.000	1.000	1.001	1.000
Selected	3.700	1.700	1.200	1.150	1.025	1.010	1.001	1.001	1.001	1.001	1.000	1.000	1.001	1.000
Cumulated	9.028	2.440	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

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

Closed Claim Development

Claims Closed as of:

Accident Year	6 Months	18 Months	30 Months	42 Months	54 Months	66 Months	78 Months	90 Months	102 Months	114 Months	126 Months	138 Months	150 Months	162 Months
1996-1997												7	7	6
1997-1998											3	3	3	3
1998-1999										4	4	4	4	4
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	
2006-2007		1	1	5	5	5	13	13	13	13	13	13		
2007-2008			1	6	8	8	18	18	18	18	18			
2008-2009		1	2	6	12	10	12	13	13	13				
2009-2010			1	6	13	14	15	15	16					
2010-2011		1	4	7	10	11	11	11						
2011-2012			2	8	10	14	16							
2012-2013		1	5	10	11	15								
2013-2014			3	5	10									
2014-2015		2	5	9										
2015-2016			2											
2016-2017														
2017-2018														

Closed Claim Count Development Factors:

	6-18 Months	18-30 Months	30-42 Months	42-54 Months	54-66 Months	66-78 Months	78-90 Months	90-102 Months	102-114 Months	114-126 Months	126-138 Months	138-150 Months	150-162 Months	162-174 Months
1996-1997												1.000	0.857	1.000
1997-1998											1.000	1.000	1.000	1.333
1998-1999										1.000	1.000	1.000	1.000	2.250
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	
2005-2006			1.000	1.250	1.000	1.200	0.833	2.600	1.077	1.071	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			
2007-2008			6.000	1.333	1.000	2.250	1.000	1.000	1.000	1.000				
2008-2009		2.000	3.000	2.000	0.833	1.200	1.083	1.000	1.000					
2009-2010			6.000	2.167	1.077	1.071	1.000	1.067						
2010-2011		4.000	1.750	1.429	1.100	1.000								
2011-2012			4.000	1.250	1.400	1.143								
2012-2013		5.000	2.000	1.100	1.364									
2013-2014			1.667	2.000										
2014-2015		2.500	1.800											
2015-2016														
2016-2017														
Average Claim-Weighted Averages		2.900	3.222	1.495	1.100	1.383	1.022	1.117	1.108	1.000	1.088	1.210	0.910	1.406
3-yr			1.846	1.348	1.290	1.077	1.026	1.022	1.000	1.022	1.000	1.000	1.000	1.000
4-yr			2.133	1.367	1.227	1.102	1.018	1.017	1.018	1.020	1.000	1.000	1.000	1.000
Comparative Factors	3.387	1.495	1.122	1.051	1.033	1.020	1.012	1.010	1.007	1.005	1.005	1.003	1.003	1.001
Prior	4.000	3.500	3.000	1.500	1.250	1.100	1.010	1.005	1.002	1.002	1.002	1.001	1.001	1.001
Selected	4.000	3.500	3.000	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001
Cumulated	42.464	10.616	3.033	1.011	1.010	1.009	1.008	1.007	1.006	1.005	1.004	1.003	1.002	1.001

DRAFT

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

Loss Trend Factors

Accident Year	Benefit Level Factor (A)	Factor to 2017-2018 Loss Rate Level (B)	Factor to 2018-2019 Loss Rate Level (C)	Factor to 2019-2020 Loss Rate Level (D)	Factor to 2020-2021 Loss Rate Level (E)	Factor to 2017-2018 Frequency Level (F)	Factor to 2018-2019 Frequency Level (G)	Factor to 2019-2020 Frequency Level (H)	Factor to 2020-2021 Frequency Level (I)	Factor to 2017-2018 Severity Level (J)
1996-1997	1.000	1.976	2.041	2.108	2.178	1.232	1.244	1.256	1.269	1.601
1997-1998	1.000	1.913	1.976	2.041	2.108	1.219	1.231	1.244	1.256	1.565
1998-1999	1.000	1.852	1.913	1.976	2.041	1.208	1.220	1.232	1.244	1.531
1999-2000	1.000	1.793	1.852	1.913	1.976	1.196	1.208	1.220	1.232	1.497
2000-2001	1.000	1.736	1.793	1.852	1.913	1.184	1.196	1.208	1.220	1.464
2001-2002	1.000	1.681	1.736	1.793	1.852	1.173	1.184	1.196	1.208	1.431
2002-2003	1.000	1.627	1.680	1.736	1.793	1.161	1.173	1.184	1.196	1.399
2003-2004	1.000	1.575	1.627	1.681	1.736	1.150	1.161	1.172	1.184	1.368
2004-2005	1.000	1.525	1.575	1.627	1.681	1.138	1.149	1.160	1.172	1.338
2005-2006	1.000	1.476	1.525	1.575	1.627	1.126	1.137	1.149	1.160	1.308
2006-2007	1.000	1.429	1.476	1.525	1.575	1.116	1.126	1.138	1.149	1.279
2007-2008	1.000	1.384	1.429	1.476	1.525	1.105	1.116	1.127	1.138	1.251
2008-2009	1.000	1.339	1.383	1.429	1.476	1.094	1.105	1.116	1.127	1.223
2009-2010	1.000	1.297	1.339	1.383	1.429	1.083	1.094	1.105	1.116	1.196
2010-2011	1.000	1.255	1.296	1.339	1.383	1.073	1.083	1.094	1.105	1.170
2011-2012	1.000	1.215	1.255	1.296	1.339	1.062	1.073	1.083	1.094	1.144
2012-2013	1.000	1.176	1.215	1.255	1.296	1.051	1.062	1.072	1.083	1.119
2013-2014	1.000	1.139	1.176	1.215	1.255	1.041	1.051	1.061	1.072	1.093
2014-2015	1.000	1.103	1.139	1.176	1.215	1.030	1.040	1.050	1.061	1.069
2015-2016	1.000	1.067	1.102	1.138	1.176	1.019	1.029	1.040	1.050	1.046
2016-2017	1.000	1.033	1.067	1.102	1.138	1.010	1.020	1.030	1.040	1.022
2017-2018	1.000	1.000	1.033	1.067	1.102	1.000	1.010	1.020	1.030	1.000
2018-2019	1.000	--	1.000	1.033	1.067	--	1.000	1.010	1.020	--
2019-2020	1.000	--	--	1.000	1.033	--	--	1.000	1.010	--
2020-2021	1.000	--	--	--	1.000	--	--	--	1.000	--

Notes:

- (A) No benefit level adjustment applied.
- (B) - (E) (A) adjusted for a 3.3% annual loss rate trend.
- (F) - (I) (A) adjusted for a 1.0% annual frequency trend.
- (J) (A) adjusted for a 2.3% 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.

DRAFT

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

Residual Trend Factors

Accident Year	Initial Estimate of Ultimate Limited Losses (A)	Ultimate Reported Claims (B)	BLF (C)	Adjusted Limited Severity (D)	Trended Payroll (\$00) (E)	Ultimate Frequency (F)
1996-1997	\$271,001	4	1.000	67,750	3,153,107	0.013
1997-1998	2,074,105	8	1.000	259,263	3,288,283	0.024
1998-1999	1,823,244	3	1.000	607,748	3,488,110	0.009
1999-2000	942,240	7	1.000	134,606	3,698,057	0.019
2000-2001	1,719,728	7	1.000	245,675	3,856,299	0.018
2001-2002	2,949,541	10	1.000	294,954	4,183,124	0.024
2002-2003	4,268,822	20	1.000	213,441	4,565,127	0.044
2003-2004	2,205,881	12	1.000	183,823	4,645,349	0.026
2004-2005	1,424,731	4	1.000	356,183	4,673,004	0.009
2005-2006	2,684,321	12	1.000	223,693	4,645,787	0.026
2006-2007	1,413,623	13	1.000	108,740	4,722,301	0.028
2007-2008	2,651,368	12	1.000	220,947	4,867,986	0.025
2008-2009	2,653,385	11	1.000	241,217	4,928,307	0.022
2009-2010	1,335,978	14	1.000	95,427	4,683,905	0.030
2010-2011	1,557,549	9	1.000	173,061	4,126,482	0.022
2011-2012	3,399,509	14	1.000	242,822	3,948,798	0.035
2012-2013	2,387,000	15	1.000	159,133	3,878,081	0.039
2013-2014	2,384,000	9	1.000	264,889	3,741,351	0.024
2014-2015	4,498,000	12	1.000	374,833	3,775,991	0.032
2015-2016	3,674,000	14	1.000	262,429	3,834,915	0.037
2016-2017	4,176,000	13	1.000	321,231	3,852,773	0.034

Severity Trend Factors

Frequency Trend Factors

2003-2004 through 2012-2013	0.967	1.081
2004-2005 through 2013-2014	0.984	1.084
2005-2006 through 2014-2015	1.062	1.026
Prior	1.045	0.990
Default	1.030	0.975

Selected Residual Trend 1.023 1.010

Notes:

- (A) Selected average of results from \$100K to \$1M Rate Analysis Appendix A and \$100K to \$1M Rate Analysis Appendix D, Page 3, Column (C).
- (B) \$100K to \$1M Rate Analysis Appendix E, Page 1, (A).
- (C) (A) x (C) / (B).
- (E) From \$100K to \$1M Rate Analysis Appendix I, Column (C).
- (F) (B) / (E) x 10,000.

DRAFT

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

Calculation of Discount Factors

Payment Year (A)	Payment Pattern (B)	Return on Investment (C)	Discounted Reserves (D)	Undiscounted Reserves (E)	Discount Factor (F)
22	0.0%	3.0%	0.000	0.000	1.000
21	0.0%	3.0%	0.000	0.000	1.000
20	0.0%	3.0%	0.000	0.000	1.000
19	0.0%	3.0%	0.000	0.000	1.000
18	0.0%	3.0%	0.000	0.000	1.000
17	0.0%	3.0%	0.000	0.000	1.000
16	0.0%	3.0%	0.000	0.000	1.000
15	0.0%	3.0%	0.000	0.000	1.000
14	0.2%	3.0%	0.002	0.002	0.985
13	0.2%	3.0%	0.004	0.004	0.971
12	0.4%	3.0%	0.008	0.008	0.964
11	0.4%	3.0%	0.011	0.012	0.952
10	0.8%	3.0%	0.019	0.020	0.949
9	1.7%	3.0%	0.035	0.037	0.951
8	3.5%	3.0%	0.068	0.071	0.953
7	7.1%	3.0%	0.136	0.142	0.955
6	9.9%	3.0%	0.230	0.242	0.951
5	15.2%	3.0%	0.374	0.394	0.947
4	26.2%	3.0%	0.620	0.656	0.946
3	23.2%	3.0%	0.831	0.888	0.936
2	9.0%	3.0%	0.895	0.977	0.916
1	2.3%	3.0%	0.891	1.000	0.891
(G) Discount Factor for Future Funding:				2017-2018	0.904
				2018-2019	0.904

Notes:

- (A) This is the year of payment relative to the accident year. For example, year 7 refers to payments made in the seventh year after the inception of the accident year. We assume that payments are made at midyear.
- (B) Percent of ultimate loss paid this year. This payment pattern is based on the paid loss development pattern selected in \$100K to \$1M Rate Analysis Appendix B, Page 2.
- (C) Assumed Investment Income Rates.
- (D) Discounted Reserves at the beginning of this year is next year's Discounted Reserves discounted one year plus this year's payments discounted six months. For example, in year 2, $89.5\% = [83.1\% / 1.030] + [9.0\% / (1.015)]$.
- (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 0.90, on a discounted basis, \$0.90 must be budgeted for every \$1 that will actually be paid on claims that will be incurred in the next fiscal year.

DRAFT

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

Confidence Level Table

Probability	Projected Losses	Outstanding Losses
95%	2.012	1.542
90%	1.701	1.381
85%	1.516	1.286
80%	1.378	1.216
75%	1.268	1.159
70%	1.176	1.111
65%	1.094	1.069
60%	1.023	1.030
55%	0.956	0.995
50%	0.894	0.962
45%	0.836	0.930
40%	0.780	0.898
35%	0.725	0.867
30%	0.671	0.836
25%	0.616	0.802

To read table: For the above retention, there is a 90% chance that final loss settlements will be less than 1.701 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.

DRAFT

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

Incurred Losses as of 12/31/17

Accident Year (A)	Unlimited Incurred (B)	Additions to Losses (C)	Subtractions from Losses (D)	Adjusted Incurred (E)	Incurred Over SIR (F)	Incurred Over \$100,000 (G)	Incurred Capped at to SIR Layer (H)	Incurred \$100,000 to SIR Layer (I)	Incurred Capped at SIR (J)	Incurred Capped at SIR & Aggregate (K)
1996-1997	\$2,619,016	\$0	\$0	\$2,619,016	\$0	\$271,001	\$2,348,015	\$271,001	\$2,619,016	\$2,619,016
1997-1998	4,851,168	0	0	4,851,168	0	2,074,105	2,777,063	2,074,105	4,851,168	4,851,168
1998-1999	7,662,045	0	0	7,662,045	3,444,915	5,268,159	2,393,886	1,823,244	4,217,130	4,217,130
1999-2000	2,656,445	0	0	2,656,445	0	942,240	1,714,205	942,240	2,656,445	2,656,445
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	12,490,981	0	0	12,490,981	3,575,194	7,844,016	4,646,965	4,268,822	8,915,787	8,915,787
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	4,528,631	0	0	4,528,631	0	1,413,623	3,115,007	1,413,623	4,528,631	4,528,631
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	3,584,025	0	0	3,584,025	0	1,557,549	2,026,476	1,557,549	3,584,025	3,584,025
2011-2012	6,246,380	0	0	6,246,380	22,224	3,421,733	2,824,647	3,399,509	6,224,156	6,224,156
2012-2013	5,421,932	0	0	5,421,932	0	2,184,184	3,237,748	2,184,184	5,421,932	5,421,932
2013-2014	8,290,636	0	0	8,290,636	4,000,000	6,028,583	2,262,053	2,028,583	4,290,636	4,290,636
2014-2015	6,858,406	0	0	6,858,406	0	3,396,606	3,461,800	3,396,606	6,858,406	6,858,406
2015-2016	9,466,861	0	0	9,466,861	4,000,000	6,175,661	3,291,200	2,175,661	5,466,861	5,466,861
2016-2017	3,737,779	0	0	3,737,779	210,005	2,032,505	1,705,274	1,822,500	3,527,774	3,527,774
2017-2018	199,803	0	0	199,803	0	0	199,803	0	199,803	199,803
Total	\$122,017,984	\$0	\$0	\$122,017,984	\$18,693,106	\$63,675,667	\$58,342,317	\$44,982,561	\$103,324,878	\$103,324,878

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.

DRAFT

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

Paid Losses as of 12/31/17

Accident Year (A)	Unlimited Paid (B)	Additions to Losses (C)	Subtractions from Losses (D)	Adjusted Paid (E)	Paid Over SIR (F)	Paid Over \$100,000 (G)	Paid Capped at \$100,000 (H)	Paid \$100,000 to SIR Layer (I)	Paid Capped at SIR (J)	Paid Capped at SIR & Aggregate (K)
1996-1997	\$2,619,016	\$0	\$0	\$2,619,016	\$0	\$271,001	\$2,348,015	\$271,001	\$2,619,016	\$2,619,016
1997-1998	4,851,168	0	0	4,851,168	0	2,074,105	2,777,063	2,074,105	4,851,168	4,851,168
1998-1999	7,662,045	0	0	7,662,045	3,444,915	5,268,159	2,393,886	1,823,244	4,217,130	4,217,130
1999-2000	2,655,662	0	0	2,655,662	0	941,458	1,714,205	941,458	2,655,662	2,655,662
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	4,528,631	0	0	4,528,631	0	1,413,623	3,115,007	1,413,623	4,528,631	4,528,631
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	6,201,240	0	0	6,201,240	22,224	3,376,593	2,824,647	3,354,369	6,179,016	6,179,016
2012-2013	5,002,773	0	0	5,002,773	0	1,803,697	3,199,075	1,803,697	5,002,773	5,002,773
2013-2014	8,061,216	0	0	8,061,216	4,000,000	5,815,984	2,245,232	1,815,984	4,061,216	4,061,216
2014-2015	5,234,117	0	0	5,234,117	0	2,123,961	3,110,156	2,123,961	5,234,117	5,234,117
2015-2016	1,938,077	0	0	1,938,077	0	155,478	1,782,598	155,478	1,938,077	1,938,077
2016-2017	920,995	0	0	920,995	0	0	920,995	0	920,995	920,995
2017-2018	31,268	0	0	31,268	0	0	31,268	0	31,268	31,268
Total	\$109,140,781	\$0	\$0	\$109,140,781	\$14,483,101	\$53,679,968	\$55,460,813	\$39,196,867	\$94,657,680	\$94,657,680

Notes:

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

DRAFT

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

Case Reserves as of 12/31/17

Accident Year (A)	Unlimited Reserves (B)	Additions to Losses (C)	Subtractions from Losses (D)	Adjusted Reserves (E)	Reserves Over SIR (F)	Reserves Over \$100,000 (G)	Reserves Capped at to SIR Layer (H)	Reserves \$100,000 to SIR Layer (I)	Reserves Capped at SIR (J)	Reserves Capped at SIR & Aggregate (K)
1996-1997	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1997-1998	0	0	0	0	0	0	0	0	0	0
1998-1999	0	0	0	0	0	0	0	0	0	0
1999-2000	783	0	0	783	0	783	0	783	783	783
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	31,359	0	0	31,359	0	31,359	0	31,359	31,359	31,359
2003-2004	0	0	0	0	0	0	0	0	0	0
2004-2005	0	0	0	0	0	0	0	0	0	0
2005-2006	0	0	0	0	0	0	0	0	0	0
2006-2007	0	0	0	0	0	0	0	0	0	0
2007-2008	0	0	0	0	0	0	0	0	0	0
2008-2009	0	0	0	0	0	0	0	0	0	0
2009-2010	0	0	0	0	0	0	0	0	0	0
2010-2011	12,950	0	0	12,950	0	0	12,950	0	12,950	12,950
2011-2012	45,139	0	0	45,139	0	45,139	0	45,139	45,139	45,139
2012-2013	419,159	0	0	419,159	0	380,487	38,673	380,487	419,159	419,159
2013-2014	229,420	0	0	229,420	0	212,599	16,821	212,599	229,420	229,420
2014-2015	1,624,289	0	0	1,624,289	0	1,272,645	351,644	1,272,645	1,624,289	1,624,289
2015-2016	7,528,785	0	0	7,528,785	4,000,000	6,020,183	1,508,602	2,020,183	3,528,785	3,528,785
2016-2017	2,816,784	0	0	2,816,784	210,005	2,032,505	784,279	1,822,500	2,606,779	2,606,779
2017-2018	168,535	0	0	168,535	0	0	168,535	0	168,535	168,535
Total	\$12,877,203	\$0	\$0	\$12,877,203	\$4,210,005	\$9,995,699	\$2,881,504	\$5,785,694	\$8,667,198	\$8,667,198

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.

DRAFT

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

Claim Counts as of 12/31/17 in Excess of \$100K

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)
1996-1997	4	0	0	4	4	0	0	4	0	0
1997-1998	8	0	0	8	8	0	0	8	0	0
1998-1999	3	0	0	3	3	0	0	3	0	0
1999-2000	7	0	0	7	7	0	0	7	0	0
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	14	0	0	14	0	0
2012-2013	15	0	0	15	14	0	0	14	1	1
2013-2014	9	0	0	9	8	0	0	8	1	1
2014-2015	10	0	0	10	8	0	0	8	2	2
2015-2016	10	0	0	10	2	0	0	2	8	8
2016-2017	4	0	0	4	0	0	0	0	4	4
2017-2018	0	0	0	0	0	0	0	0	0	0
Total	208	0	0	208	192	0	0	192	16	16

Notes:

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

DRAFT

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

Exposure Measures

Accident Year	Total Payroll (\$00) (A)	Inflation Trend Factor (B)	Trended Payroll (\$00) (C)
1996-1997	1,877,967	1.679	3,153,107
1997-1998	2,007,499	1.638	3,288,283
1998-1999	2,182,797	1.598	3,488,110
1999-2000	2,372,070	1.559	3,698,057
2000-2001	2,535,371	1.521	3,856,299
2001-2002	2,818,817	1.484	4,183,124
2002-2003	3,152,712	1.448	4,565,127
2003-2004	3,287,579	1.413	4,645,349
2004-2005	3,388,690	1.379	4,673,004
2005-2006	3,454,117	1.345	4,645,787
2006-2007	3,599,315	1.312	4,722,301
2007-2008	3,803,114	1.280	4,867,986
2008-2009	3,945,802	1.249	4,928,307
2009-2010	3,842,416	1.219	4,683,905
2010-2011	3,470,548	1.189	4,126,482
2011-2012	3,404,136	1.160	3,948,798
2012-2013	3,425,867	1.132	3,878,081
2013-2014	3,388,905	1.104	3,741,351
2014-2015	3,506,027	1.077	3,775,991
2015-2016	3,648,825	1.051	3,834,915
2016-2017	3,758,803	1.025	3,852,773
2017-2018	4,142,227	1.000	4,142,227
2018-2019	4,280,564	1.000	4,280,564

Notes:

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

DRAFT

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

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)
1996-1997	2,348,015	1.862	4,372,004	3,153,107	1.387
1997-1998	2,777,063	1.808	5,020,930	3,288,283	1.527
1998-1999	2,393,886	1.755	4,201,270	3,488,110	1.204
1999-2000	1,714,205	1.704	2,921,005	3,698,057	0.790
2000-2001	2,192,130	1.654	3,625,783	3,856,299	0.940
2001-2002	2,847,057	1.606	4,572,374	4,183,124	1.093
2002-2003	4,646,965	1.559	7,244,618	4,565,127	1.587
2003-2004	3,509,537	1.513	5,309,929	4,645,349	1.143
2004-2005	2,444,607	1.469	3,591,128	4,673,004	0.768
2005-2006	2,947,359	1.426	4,202,934	4,645,787	0.905
2006-2007	3,115,007	1.385	4,314,285	4,722,301	0.914
2007-2008	3,147,259	1.345	4,233,063	4,867,986	0.870
2008-2009	2,711,703	1.306	3,541,484	4,928,307	0.719
2009-2010	2,538,522	1.267	3,216,307	4,683,905	0.687
2010-2011	2,029,000	1.231	2,497,699	4,126,482	0.605
2011-2012	2,830,000	1.195	3,381,850	3,948,798	0.856
2012-2013	3,251,000	1.160	3,771,160	3,878,081	0.972
2013-2014	2,278,000	1.126	2,565,028	3,741,351	0.686
2014-2015	3,552,000	1.093	3,882,336	3,775,991	1.028
2015-2016	3,354,000	1.061	3,558,594	3,834,915	0.928
2016-2017	2,750,000	1.030	2,832,500	3,852,773	0.735
Totals	\$59,377,315		\$82,856,281	86,557,137	\$0.957
12/13-16/17	15,185,000		16,609,618	19,083,111	0.870
13/14-16/17	11,934,000		12,838,458	15,205,030	0.844
(F) Selected Limited Rate:					\$0.860
Prior \$100K:					\$0.870
Prior \$100K to \$1M:					\$0.937
			\$100,000	\$1,000,000	\$100K - \$1M
Program Year:			2018-2019	2018-2019	2018-2019
(G) Factor to SIR:			1.000	2.115	
(H) Trend Factor:			1.030	1.030	
(I) Program Rate:			\$0.886	\$1.873	\$0.987
(J) Trended Payroll (\$00):			4,142,227	4,280,564	4,280,564
(K) Projected Program Losses:			3,670,000	8,017,000	4,225,000
(L) Projected ULAE:			0	0	0
(M) Projected Loss and ULAE:			\$3,670,000	\$8,017,000	\$4,225,000

Notes appear on the next page.

DRAFT

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

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

Notes:

- (A) From \$100K and \$1M Rate Analysis Not Included, Page 2, Column (F).
For purposes of projecting future losses, losses
are capped at \$100,000 per occurrence.
- (B) From \$100K and \$1M Rate Analysis Appendix E, Page 1, Column (B).
- (C) (A) 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.

DRAFT

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

Reported Loss Development

Accident Year (A)	Limited Reported Losses as of 12/31/17 (B)	Reported Loss Development Factor (C)	Ultimate Limited Losses (D)	Program Reported Losses of 12/31/17 (E)	Reported Loss Development Factor (F)	Ultimate Program Losses (G)
1996-1997	\$2,348,015	1.000	\$2,348,015	\$2,619,016	1.000	\$2,619,016
1997-1998	2,777,063	1.000	2,777,063	4,851,168	1.000	4,851,168
1998-1999	2,393,886	1.000	2,393,886	4,217,130	1.000	4,217,130
1999-2000	1,714,205	1.000	1,714,205	2,656,445	1.000	2,656,445
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	8,915,787	1.000	8,915,787
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	1.001	5,637,312
2006-2007	3,115,007	1.000	3,115,007	4,528,631	1.002	4,537,688
2007-2008	3,147,259	1.000	3,147,259	5,798,628	1.004	5,821,823
2008-2009	2,711,703	1.000	2,711,703	5,365,088	1.006	5,397,279
2009-2010	2,538,522	1.000	2,538,522	3,874,500	1.011	3,917,120
2010-2011	2,026,476	1.001	2,028,502	3,584,025	1.018	3,648,537
2011-2012	2,824,647	1.002	2,830,296	6,224,156	1.028	6,398,432
2012-2013	3,237,748	1.004	3,250,699	5,421,932	1.044	5,660,497
2013-2014	2,262,053	1.007	2,277,887	4,290,636	1.081	4,638,178
2014-2015	3,461,800	1.017	3,520,651	6,858,406	1.178	8,079,202
2015-2016	3,291,200	1.037	3,412,974	5,466,861	1.324	7,238,124
2016-2017	1,705,274	1.244	2,121,361	3,527,774	1.976	6,970,881
Totals	\$58,142,513		\$58,775,685	\$103,125,074		\$110,497,830

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

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

Accident Year	Limited Losses Reported as of:										
	6 Months	18 Months	30 Months	42 Months	54 Months	66 Months	78 Months	90 Months	102 Months	114 Months	126 Months
1996-1997							2,586,401	2,575,189	2,573,489	2,573,489	2,573,489
1997-1998						3,262,022	3,061,911	3,061,911	3,061,911	3,061,911	2,997,280
1998-1999					2,506,534	2,457,886	2,464,836	2,506,807	2,506,307	2,495,192	2,508,064
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	
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		
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			
2011-2012	602,255	3,518,281	3,631,019	3,415,805	3,302,356	3,237,194	3,127,725				
2012-2013	465,105	4,254,395	3,881,185	3,547,144	3,502,651	3,489,052					
2013-2014	842,948	2,251,578	2,694,553	2,631,490	2,671,389						
2014-2015	325,035	2,666,242	3,946,907	3,795,367							
2015-2016	371,511	2,328,347	3,291,200								
2016-2017	290,633	1,930,274									
2017-2018	199,803										

Reported Loss Development Factors:

	6-18 Months	18-30 Months	30-42 Months	42-54 Months	54-66 Months	66-78 Months	78-90 Months	90-102 Months	102-114 Months	114-126 Months	126-138 Months
1996-1997							0.996	0.999	1.000	1.000	1.000
1997-1998						0.939	1.000	1.000	1.000	0.979	1.000
1998-1999					0.981	1.003	1.017	1.000	0.996	1.005	1.000
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	1.011	0.988	1.003	1.000	1.000	1.001
2005-2006	4.397	1.295	1.059	1.041	1.005	1.021	1.001	1.007	0.998	1.000	1.000
2006-2007	3.097	1.209	1.046	1.046	1.037	1.028	1.001	1.000	1.000	1.000	1.000
2007-2008	2.771	1.281	1.157	1.020	0.991	0.995	0.977	1.000	1.000	1.000	
2008-2009	5.225	1.228	0.944	1.033	1.010	0.975	1.001	0.999	1.001		
2009-2010	4.415	1.141	0.810	1.005	0.999	1.000	1.000	1.000			
2010-2011	5.428	0.990	0.967	0.951	0.975	0.981	1.000				
2011-2012	5.842	1.032	0.941	0.967	0.980	0.966					
2012-2013	9.147	0.912	0.914	0.987	0.996						
2013-2014	2.671	1.197	0.977	1.015							
2014-2015	8.203	1.480	0.962								
2015-2016	6.267	1.414									
2016-2017	6.642										
	6-18 Months	18-30 Months	30-42 Months	42-54 Months	54-66 Months	66-78 Months	78-90 Months	90-102 Months	102-114 Months	114-126 Months	126-138 Months
Average	4.837	1.202	0.996	1.019	1.002	0.996	0.996	1.004	1.000	1.001	0.999
Dollar-Weighted											
Averages											
3-yr	7.015	1.371	0.948	0.988	0.985	0.982	1.000	1.000	1.000	1.000	1.000
4-yr	5.014	1.201	0.946	0.980	0.988	0.980	0.993	1.000	1.000	1.000	1.000
Comparative											
Factors	2.945	1.254	1.006	0.965	0.972	1.000	1.000	1.000	1.000	1.000	1.000
Prior	4.700	1.170	1.020	1.010	1.003	1.002	1.001	1.001	1.000	1.000	1.000
Selected	4.900	1.200	1.020	1.010	1.003	1.002	1.001	1.001	1.000	1.000	1.000
Cumulated	6.096	1.244	1.037	1.017	1.007	1.004	1.002	1.001	1.000	1.000	1.000

DRAFT

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

Reported Loss Development

Limited Losses Reported as of:

Accident Year	138 Months	150 Months	162 Months	174 Months	186 Months	198 Months	210 Months	222 Months	234 Months	246 Months	258 Months
1996-1997	2,573,489	2,573,489	2,573,489	2,573,489	2,575,789	2,573,489	2,573,489	2,573,489	2,573,489	2,589,808	2,589,808
1997-1998	2,997,280	2,997,280	2,997,280	3,047,280	3,047,280	3,047,280	3,047,280	3,047,280	3,047,280	3,047,280	
1998-1999	2,509,278	2,515,050	2,510,722	2,510,722	2,535,722	2,535,722	2,510,789	2,510,722	2,510,789		
1999-2000	1,825,620	1,825,620	1,825,620	1,825,620	1,825,620	1,826,007	1,825,620	1,826,007			
2000-2001	2,382,504	2,482,404	2,482,404	2,482,404	2,485,232	2,482,404	2,485,232				
2001-2002	3,000,035	3,027,919	3,012,173	3,012,173	3,012,173	3,012,173					
2002-2003	4,977,421	4,977,421	4,977,421	4,977,421	4,977,421						
2003-2004	3,560,542	3,560,542	3,560,542								
2004-2005	2,867,654	2,867,654	2,867,654								
2005-2006	3,789,394	3,788,958									
2006-2007	3,394,936										
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											
2014-2015											
2015-2016											
2016-2017											
2017-2018											

Reported Loss Development Factors:

	138-150 Months	150-162 Months	162-174 Months	174-186 Months	186-198 Months	198-210 Months	210-222 Months	222-234 Months	234-246 Months	246-258 Months	258-Ult. Months
1996-1997	1.000	1.000	1.000	1.001	0.999	1.000	1.000	1.000	1.006	1.000	
1997-1998	1.000	1.000	1.017	1.000	1.000	1.000	1.000	1.000	1.000		
1998-1999	1.002	0.998	1.000	1.010	1.000	0.990	1.000	1.000			
1999-2000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
2000-2001	1.042	1.000	1.000	1.001	0.999	1.001					
2001-2002	1.009	0.995	1.000	1.000	1.000						
2002-2003	1.000	1.000	1.000	1.000							
2003-2004	1.000	1.000	1.000								
2004-2005	1.000	1.000									
2005-2006	1.000										
2006-2007											
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											
2014-2015											
2015-2016											
2016-2017											
Average Dollar-Weighted Averages	1.005	0.999	1.002	1.002	1.000	0.998	1.000	1.000	1.003	1.000	
3-yr	1.000	1.000	1.000	1.000	1.000	0.997	1.000	1.000			
4-yr	1.000	0.999	1.000	1.000	1.000	0.998	1.000				
Comparative Factors	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Prior	1.000	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

DRAFT

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

Paid Loss Development

Accident Year (A)	Limited Paid Losses as of 12/31/17 (B)	Paid Loss Development Factor (C)	Ultimate Limited Losses (D)	Program Paid Losses of 12/31/17 (E)	Paid Loss Development Factor (F)	Ultimate Program Losses (G)
1996-1997	\$2,348,015	1.000	\$2,348,015	\$2,619,016	1.000	\$2,619,016
1997-1998	2,777,063	1.000	2,777,063	4,851,168	1.000	4,851,168
1998-1999	2,393,886	1.000	2,393,886	4,217,130	1.000	4,217,130
1999-2000	1,714,205	1.000	1,714,205	2,655,662	1.000	2,655,662
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	1.001	5,637,312
2006-2007	3,115,007	1.001	3,118,122	4,528,631	1.003	4,542,217
2007-2008	3,147,259	1.002	3,153,554	5,798,628	1.005	5,827,621
2008-2009	2,711,703	1.004	2,722,550	5,365,088	1.009	5,413,374
2009-2010	2,538,522	1.007	2,556,292	3,874,500	1.015	3,932,618
2010-2011	2,013,526	1.011	2,035,675	3,571,075	1.029	3,674,636
2011-2012	2,824,647	1.019	2,878,315	6,179,016	1.056	6,525,041
2012-2013	3,199,075	1.031	3,298,246	5,002,773	1.118	5,593,100
2013-2014	2,245,232	1.057	2,373,210	4,061,216	1.203	4,885,643
2014-2015	3,110,156	1.152	3,582,900	5,234,117	1.449	7,584,236
2015-2016	1,782,598	1.521	2,711,332	1,938,077	2.377	4,606,809
2016-2017	920,995	3.194	2,941,658	920,995	5.728	5,275,459
Totals	\$55,429,544		\$59,192,678	\$94,626,411		\$106,018,681

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

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

Paid Loss Development

Accident Year	Limited Losses Paid as of:										
	6 Months	18 Months	30 Months	42 Months	54 Months	66 Months	78 Months	90 Months	102 Months	114 Months	126 Months
1996-1997							2,573,489	2,573,489	2,573,489	2,573,489	2,573,489
1997-1998						2,993,393	3,047,280	3,047,280	3,047,280	3,047,280	2,997,280
1998-1999					2,360,276	2,430,641	2,431,091	2,448,352	2,471,781	2,479,344	2,506,179
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	2,635,467	3,650,448	4,101,554	4,208,833	4,228,474	4,256,077	4,259,284	4,259,284	4,259,284
2008-2009	161,539	1,020,079	2,186,680	2,792,089	3,110,459	3,338,980	3,345,621	3,347,708	3,346,029	3,347,708	
2009-2010	301,727	1,046,459	2,274,617	2,817,091	2,998,274	3,072,132	3,115,424	3,127,921	3,127,921		
2010-2011	106,645	872,432	1,692,195	2,287,500	2,319,013		2,395,143	2,396,051			
2011-2012	114,916	832,713	2,112,380	2,750,332	3,122,242	3,118,744	3,127,725				
2012-2013	98,607	934,308	2,290,004	3,124,392	3,371,990	3,450,380					
2013-2014	130,461	888,140	1,780,866	2,316,155	2,654,568						
2014-2015	91,368	1,387,749	2,717,926	3,379,346							
2015-2016	98,110	679,755	1,782,598								
2016-2017	30,679	920,995									
2017-2018	31,268										

Paid Loss Development Factors:

	6-18 Months	18-30 Months	30-42 Months	42-54 Months	54-66 Months	66-78 Months	78-90 Months	90-102 Months	102-114 Months	114-126 Months	126-138 Months
1996-1997							1.000	1.000	1.000	1.000	1.000
1997-1998						1.018	1.000	1.000	1.000	0.984	1.000
1998-1999					1.030	1.000	1.007	1.010	1.003	1.011	1.001
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	
2008-2009	6.315	2.144	1.277	1.114	1.073	1.002	1.001	0.999	1.001		
2009-2010	3.468	2.174	1.238	1.064	1.025	1.014	1.004	1.000			
2010-2011	8.181	1.940	1.352	1.014	1.033	1.000	1.000				
2011-2012	7.246	2.537	1.302	1.135	0.999	1.003					
2012-2013	9.475	2.451	1.364	1.079	1.023						
2013-2014	6.808	2.005	1.301	1.146							
2014-2015	15.189	1.959	1.243								
2015-2016	6.928	2.622									
2016-2017	30.020										

	6-18 Months	18-30 Months	30-42 Months	42-54 Months	54-66 Months	66-78 Months	78-90 Months	90-102 Months	102-114 Months	114-126 Months	126-138 Months
Average	9.567	2.032	1.331	1.093	1.029	1.012	1.004	1.004	1.001	1.002	1.001
Dollar-Weighted											
Averages											
3-yr	13.574	2.125	1.299	1.117	1.017	1.006	1.002	1.000	1.000	1.000	1.000
4-yr	11.057	2.203	1.300	1.094	1.019	1.005	1.003	1.000	1.001	1.000	1.000
Comparative											
Factors	4.218	2.117	1.446	1.151	1.057	1.033	1.015	1.010	1.008	1.008	1.006
Prior	8.500	2.200	1.320	1.085	1.030	1.012	1.008	1.004	1.003	1.002	1.001
Selected	8.900	2.100	1.320	1.090	1.025	1.012	1.008	1.004	1.003	1.002	1.001
Cumulated	28.427	3.194	1.521	1.152	1.057	1.031	1.019	1.011	1.007	1.004	1.002

DRAFT

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

Paid Loss Development

Limited Losses Paid as of:

Accident Year	138 Months	150 Months	162 Months	174 Months	186 Months	198 Months	210 Months	222 Months	234 Months	246 Months	258 Months
1996-1997	2,573,489	2,573,489	2,573,489	2,573,489	2,573,489	2,573,489	2,573,489	2,573,489	2,573,489	2,589,808	2,589,808
1997-1998	2,997,280	2,997,280	2,997,280	3,047,280	3,047,280	3,047,280	3,047,280	3,047,280	3,047,280	3,047,280	
1998-1999	2,509,278	2,510,050	2,510,722	2,510,722	2,510,722	2,510,722	2,510,789	2,510,722	2,510,789		
1999-2000	1,825,620	1,825,620	1,825,620	1,825,620	1,825,620	1,826,007	1,825,620	1,826,007			
2000-2001	2,382,404	2,482,404	2,482,404	2,482,404	2,485,232	2,482,404	2,485,232				
2001-2002	3,000,035	3,000,611	3,012,173	3,012,173	3,012,173	3,012,173					
2002-2003	4,977,421	4,977,421	4,977,421	4,977,421	4,977,421						
2003-2004	3,560,542	3,560,542	3,560,542								
2004-2005	2,867,654	2,867,654	2,867,654								
2005-2006	3,789,394	3,788,958									
2006-2007	3,394,936										
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											
2014-2015											
2015-2016											
2016-2017											
2017-2018											

Paid Loss Development Factors:

	138-150 Months	150-162 Months	162-174 Months	174-186 Months	186-198 Months	198-210 Months	210-222 Months	222-234 Months	234-246 Months	246-258 Months	258-Ult. Months
1996-1997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.006	1.000	
1997-1998	1.000	1.000	1.017	1.000	1.000	1.000	1.000	1.000	1.000		
1998-1999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
1999-2000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
2000-2001	1.042	1.000	1.000	1.001	0.999	1.001					
2001-2002	1.000	1.004	1.000	1.000	1.000						
2002-2003	1.000	1.000	1.000	1.000							
2003-2004	1.000	1.000	1.000								
2004-2005	1.000	1.000									
2005-2006	1.000										
2006-2007											
2007-2008											
2008-2009											
2009-2010											
2010-2011											
2011-2012											
2012-2013											
2013-2014											
2014-2015											
2015-2016											
2016-2017											
Average	1.004	1.000	1.002	1.000	1.000	1.000	1.000	1.000	1.003	1.000	
Dollar-Weighted Averages											
3-yr	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
4-yr	1.000	1.001	1.000	1.000	1.000	1.000	1.000				
Comparative Factors	1.006	1.004	1.004	1.002	1.002	1.001	1.001	1.001	1.001	1.001	1.000
Prior	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Selected	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulated	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

DRAFT

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

Exposure and Development Method
Based on Reported Losses

Accident Year	Trended Payroll (\$00) (A)	Reported Losses as of 12/31/17 (B)	Loss Development Factor (C)	Percentage of Losses Yet to Be Reported (D)	Program Rate (E)	Incurred but not Reported (IBNR) (F)	Ultimate Program Losses (G)
1996-1997	3,153,107	2,619,016	1.000	0.000	1.060	0	2,619,016
1997-1998	3,288,283	4,851,168	1.000	0.000	1.220	0	4,851,168
1998-1999	3,488,110	4,217,130	1.000	0.000	1.006	0	4,217,130
1999-2000	3,698,057	2,656,445	1.000	0.000	0.691	0	2,656,445
2000-2001	3,856,299	3,911,857	1.000	0.000	0.860	0	3,911,857
2001-2002	4,183,124	5,796,598	1.000	0.000	1.048	0	5,796,598
2002-2003	4,565,127	8,915,787	1.000	0.000	1.595	0	8,915,787
2003-2004	4,645,349	5,715,419	1.000	0.000	1.204	0	5,715,419
2004-2005	4,673,004	3,869,337	1.000	0.000	0.849	0	3,869,337
2005-2006	4,645,787	5,631,680	1.001	0.001	1.048	4,869	5,636,549
2006-2007	4,722,301	4,528,631	1.002	0.002	1.110	10,484	4,539,115
2007-2008	4,867,986	5,798,628	1.004	0.004	1.110	21,614	5,820,242
2008-2009	4,928,307	5,365,088	1.006	0.006	0.961	28,417	5,393,505
2009-2010	4,683,905	3,874,500	1.011	0.011	0.965	49,720	3,924,220
2010-2011	4,126,482	3,584,025	1.018	0.018	0.893	66,329	3,650,354
2011-2012	3,948,798	6,224,156	1.028	0.027	1.326	141,375	6,365,531
2012-2013	3,878,081	5,421,932	1.044	0.042	1.414	230,311	5,652,243
2013-2014	3,741,351	4,290,636	1.081	0.075	1.485	416,693	4,707,329
2014-2015	3,775,991	6,858,406	1.178	0.151	1.559	888,902	7,747,308
2015-2016	3,834,915	5,466,861	1.324	0.245	1.638	1,538,990	7,005,851
2016-2017	3,852,773	3,527,774	1.976	0.494	1.720	3,273,624	6,801,398
Totals	86,557,137	\$103,125,074				\$6,671,328	\$109,796,402

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) $(A) \times (D) \times (E)$.
- (G) $(B) + (F)$.

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

DRAFT

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

Exposure and Development Method
Based on Paid Losses

Accident Year	Trended Payroll (\$00) (A)	Paid Losses as of 12/31/17 (B)	Loss Development Factor (C)	Percentage of Losses Yet to Be Paid (D)	Program Rate (E)	Incurred but not Paid (F)	Ultimate Program Losses (G)
1996-1997	3,153,107	2,619,016	1.000	0.000	1.060	0	2,619,016
1997-1998	3,288,283	4,851,168	1.000	0.000	1.220	0	4,851,168
1998-1999	3,488,110	4,217,130	1.000	0.000	1.006	0	4,217,130
1999-2000	3,698,057	2,655,662	1.000	0.000	0.691	0	2,655,662
2000-2001	3,856,299	3,911,857	1.000	0.000	0.860	0	3,911,857
2001-2002	4,183,124	5,796,598	1.000	0.000	1.048	0	5,796,598
2002-2003	4,565,127	8,884,428	1.000	0.000	1.595	0	8,884,428
2003-2004	4,645,349	5,715,419	1.000	0.000	1.204	0	5,715,419
2004-2005	4,673,004	3,869,337	1.000	0.000	0.849	0	3,869,337
2005-2006	4,645,787	5,631,680	1.001	0.001	1.048	4,869	5,636,549
2006-2007	4,722,301	4,528,631	1.003	0.003	1.110	15,725	4,544,356
2007-2008	4,867,986	5,798,628	1.005	0.005	1.110	27,017	5,825,645
2008-2009	4,928,307	5,365,088	1.009	0.009	0.961	42,625	5,407,713
2009-2010	4,683,905	3,874,500	1.015	0.015	0.965	67,800	3,942,300
2010-2011	4,126,482	3,571,075	1.029	0.028	0.893	103,179	3,674,254
2011-2012	3,948,798	6,179,016	1.056	0.053	1.326	277,514	6,456,530
2012-2013	3,878,081	5,002,773	1.118	0.106	1.414	581,262	5,584,035
2013-2014	3,741,351	4,061,216	1.203	0.169	1.485	938,948	5,000,164
2014-2015	3,775,991	5,234,117	1.449	0.310	1.559	1,824,899	7,059,016
2015-2016	3,834,915	1,938,077	2.377	0.579	1.638	3,637,041	5,575,118
2016-2017	3,852,773	920,995	5.728	0.825	1.720	5,467,085	6,388,080
Totals	86,557,137	\$94,626,411				\$12,987,964	\$107,614,375

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) $(A) \times (D) \times (E)$.
- (G) $(B) + (F)$.

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

DRAFT

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

Exposure and Development Method

Accident Year	Trended Payroll (\$00) (A)	Ultimate Limited Losses (B)	Trend Factor (C)	Trended Limited Losses (D)	Trended Limited Loss Rate (E)	Limited Loss Rate (F)	Factor to SIR (G)	Program Loss Rate (H)
1996-1997	3,153,107	2,348,015	1.862	4,372,004	1.387	0.745	1.423	1.060
1997-1998	3,288,283	2,777,063	1.808	5,020,930	1.527	0.845	1.444	1.220
1998-1999	3,488,110	2,393,886	1.755	4,201,270	1.204	0.686	1.466	1.006
1999-2000	3,698,057	1,714,205	1.704	2,921,005	0.790	0.464	1.489	0.691
2000-2001	3,856,299	2,192,130	1.654	3,625,783	0.940	0.568	1.514	0.860
2001-2002	4,183,124	2,847,057	1.606	4,572,374	1.093	0.681	1.540	1.048
2002-2003	4,565,127	4,646,965	1.559	7,244,618	1.587	1.018	1.567	1.595
2003-2004	4,645,349	3,509,537	1.513	5,309,929	1.143	0.755	1.595	1.204
2004-2005	4,673,004	2,444,607	1.469	3,591,128	0.768	0.523	1.622	0.849
2005-2006	4,645,787	2,947,359	1.426	4,202,934	0.905	0.634	1.653	1.048
2006-2007	4,722,301	3,115,007	1.385	4,314,285	0.914	0.660	1.683	1.110
2007-2008	4,867,986	3,147,259	1.345	4,233,063	0.870	0.647	1.715	1.110
2008-2009	4,928,307	2,711,703	1.306	3,541,484	0.719	0.550	1.748	0.961
2009-2010	4,683,905	2,538,522	1.267	3,216,307	0.687	0.542	1.780	0.965
2010-2011	4,126,482	2,029,000	1.231	2,497,699	0.605	0.492	1.814	0.893
2011-2012	3,948,798	2,830,000	1.195	3,381,850	0.856	0.717	1.850	1.326
2012-2013	3,878,081	3,251,000	1.160	3,771,160	0.972	0.750	1.886	1.414
2013-2014	3,741,351	2,278,000	1.126	2,565,028	0.686	0.773	1.921	1.485
2014-2015	3,775,991	3,521,000	1.093	3,848,453	1.019	0.796	1.959	1.559
2015-2016	3,834,915	3,413,000	1.061	3,621,193	0.944	0.820	1.998	1.638
2016-2017	3,852,773	2,121,000	1.030	2,184,630	0.567	0.845	2.035	1.720
Total/Avg	86,557,137	\$58,776,315		\$82,237,127	\$0.950			
11/12-15/16	19,179,136	15,293,000		17,187,684	0.896			
12/13-16/17	19,083,111	14,584,000		15,990,464	0.838			

Selected Limited Rate: \$0.870
Prior: \$0.865

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 2011-2012 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.

DRAFT

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

Frequency and Severity Method

Accident Year	Ultimate Program Severity (A)	Adjusted Ultimate Claims (B)	Ultimate Program Losses (C)
1996-1997	\$4,905	681	\$3,340,305
1997-1998	5,744	698	4,009,312
1998-1999	5,223	672	3,509,856
1999-2000	4,275	597	2,552,175
2000-2001	5,862	566	3,317,892
2001-2002	6,464	678	4,382,592
2002-2003	9,646	755	7,282,730
2003-2004	8,926	627	5,596,602
2004-2005	7,007	566	3,965,962
2005-2006	8,670	562	4,872,540
2006-2007	9,131	574	5,241,194
2007-2008	8,153	662	5,397,286
2008-2009	8,032	590	4,738,880
2009-2010	8,724	518	4,519,032
2010-2011	8,891	414	3,680,874
2011-2012	12,063	434	5,235,342
2012-2013	11,542	493	5,690,206
2013-2014	12,116	453	5,488,548
2014-2015	12,724	489	6,222,036
2015-2016	13,369	511	6,831,559
2016-2017	14,028	505	7,084,140
Total		12,045	\$102,959,063

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.

DRAFT

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

Frequency and Severity Method

Accident Year	Ultimate Limited Losses (A)	Adjusted Ultimate Claims (B)	Ultimate Limited Severity (C)	Trend Factor (D)	Trended Limited Severity (E)	Limited Severity (F)	Factor to SIR (G)	Program Severity (H)
1996-1997	\$2,348,015	681	\$3,448	1.862	\$6,420	\$3,448	1.423	\$4,905
1997-1998	2,777,063	698	3,979	1.808	7,194	3,979	1.444	5,744
1998-1999	2,393,886	672	3,562	1.755	6,251	3,562	1.466	5,223
1999-2000	1,714,205	597	2,871	1.704	4,892	2,871	1.489	4,275
2000-2001	2,192,130	566	3,873	1.654	6,406	3,873	1.514	5,862
2001-2002	2,847,057	678	4,199	1.606	6,744	4,199	1.540	6,464
2002-2003	4,646,965	755	6,155	1.559	9,596	6,155	1.567	9,646
2003-2004	3,509,537	627	5,597	1.513	8,468	5,597	1.595	8,926
2004-2005	2,444,607	566	4,319	1.469	6,345	4,319	1.622	7,007
2005-2006	2,947,359	562	5,244	1.426	7,478	5,244	1.653	8,670
2006-2007	3,115,007	574	5,427	1.385	7,516	5,427	1.683	9,131
2007-2008	3,147,259	662	4,754	1.345	6,394	4,754	1.715	8,153
2008-2009	2,711,703	590	4,596	1.306	6,002	4,596	1.748	8,032
2009-2010	2,538,522	518	4,901	1.267	6,210	4,901	1.780	8,724
2010-2011	2,029,000	414	4,901	1.231	6,033	4,901	1.814	8,891
2011-2012	2,830,000	434	6,521	1.195	7,793	6,521	1.850	12,063
2012-2013	3,251,000	493	6,594	1.160	7,649	6,121	1.886	11,542
2013-2014	2,278,000	453	5,029	1.126	5,663	6,306	1.921	12,116
2014-2015	3,517,000	489	7,192	1.093	7,861	6,496	1.959	12,724
2015-2016	3,409,000	511	6,671	1.061	7,078	6,692	1.998	13,369
2016-2017	2,232,000	505	4,420	1.030	4,553	6,893	2.035	14,028

Average Limited Severity: \$6,788
Average 11/12-15/16 Limited Severity: 7,209
Average 12/13-15/16 Limited Severity: 7,063

Selected Limited Severity: \$7,100
Prior: \$7,350

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.

DRAFT

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

Frequency and Severity Method
Projection of Ultimate Claims

Accident Year	Reported Claim Development (A)	Closed Claim Development (B)	Selected Ultimate Claims (C)	Trended Payroll (\$000,000) (D)	Claim Frequency (E)	Trend Factor (F)	Trended Claim Frequency (G)
1996-1997	681	681	681	315.3	2.160	1.000	2.160
1997-1998	698	698	698	328.8	2.123	1.000	2.123
1998-1999	672	672	672	348.8	1.927	1.000	1.927
1999-2000	597	596	597	369.8	1.614	1.000	1.614
2000-2001	566	566	566	385.6	1.468	1.000	1.468
2001-2002	678	678	678	418.3	1.621	1.000	1.621
2002-2003	755	754	755	456.5	1.654	1.000	1.654
2003-2004	627	627	627	464.5	1.350	1.000	1.350
2004-2005	566	567	566	467.3	1.211	1.000	1.211
2005-2006	562	563	562	464.6	1.210	1.000	1.210
2006-2007	574	576	574	472.2	1.216	1.000	1.216
2007-2008	662	665	662	486.8	1.360	1.000	1.360
2008-2009	590	593	590	492.8	1.197	1.000	1.197
2009-2010	518	522	518	468.4	1.106	1.000	1.106
2010-2011	414	417	414	412.6	1.003	1.000	1.003
2011-2012	434	439	434	394.9	1.099	1.000	1.099
2012-2013	493	495	493	387.8	1.271	1.000	1.271
2013-2014	453	456	453	374.1	1.211	1.000	1.211
2014-2015	489	483	489	377.6	1.295	1.000	1.295
2015-2016	511	500	511	383.5	1.332	1.000	1.332
2016-2017	528	482	505	385.3	1.311	1.000	1.311
Total	12,068	12,030	12,045	8,655.7			1.392
11/12-15/16	2,380	2,373	2,380	1,917.9			1.241
(H) Selected Frequency: Prior:							1.300 1.325
Program Year:				2017-2018	2018-2019		
(I) Trend Factor:				1.000	1.000		
(J) Selected Frequency:				1.300	1.300		
(K) Est. Payroll (\$000,000):				414.2	428.1		
(L) Ultimate Claims:				538	556		

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).

- (G) (E) x (F).
 (H) The selected frequency of 1.300 is based on (G).
 (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).

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

DRAFT

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

Frequency and Severity Method
Reported Claim Count Development

Accident Year	Claims Reported as of 12/31/2017 (A)	Reported Claim Development Factor (B)	Ultimate Claims (C)	Trended Claim Frequency (D)
1996-1997	681	1.000	681	2.160
1997-1998	698	1.000	698	2.123
1998-1999	672	1.000	672	1.927
1999-2000	597	1.000	597	1.614
2000-2001	566	1.000	566	1.468
2001-2002	678	1.000	678	1.621
2002-2003	755	1.000	755	1.654
2003-2004	627	1.000	627	1.350
2004-2005	566	1.000	566	1.211
2005-2006	562	1.000	562	1.210
2006-2007	574	1.000	574	1.216
2007-2008	662	1.000	662	1.360
2008-2009	590	1.000	590	1.197
2009-2010	518	1.000	518	1.106
2010-2011	414	1.000	414	1.003
2011-2012	434	1.001	434	1.099
2012-2013	492	1.003	493	1.271
2013-2014	450	1.006	453	1.211
2014-2015	484	1.010	489	1.295
2015-2016	502	1.017	511	1.332
2016-2017	501	1.053	528	1.370
Total	12,023		12,068	1.394

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.

DRAFT

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

Frequency and Severity Method
Closed Claim Count Development

Accident Year	Claims Closed as of 12/31/2017 (A)	Closed Claim Development Factor (B)	Ultimate Claims (C)	Trended Claim Frequency (D)
1996-1997	681	1.000	681	2.160
1997-1998	698	1.000	698	2.123
1998-1999	672	1.000	672	1.927
1999-2000	596	1.000	596	1.612
2000-2001	566	1.000	566	1.468
2001-2002	678	1.000	678	1.621
2002-2003	754	1.000	754	1.652
2003-2004	627	1.000	627	1.350
2004-2005	566	1.001	567	1.213
2005-2006	562	1.002	563	1.212
2006-2007	574	1.003	576	1.220
2007-2008	662	1.004	665	1.366
2008-2009	590	1.005	593	1.203
2009-2010	518	1.007	522	1.114
2010-2011	413	1.010	417	1.011
2011-2012	433	1.014	439	1.112
2012-2013	486	1.019	495	1.276
2013-2014	444	1.026	456	1.219
2014-2015	464	1.042	483	1.279
2015-2016	450	1.110	500	1.304
2016-2017	316	1.526	482	1.251
Total	11,750		12,030	1.390

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

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

Reported Claim Count Development

Claims Reported as of:

Accident Year	6 Months	18 Months	30 Months	42 Months	54 Months	66 Months	78 Months	90 Months	102 Months	114 Months	126 Months	138 Months	150 Months	162 Months
1996-1997							732	733	732	731	732	732	732	733
1997-1998						752	748	749	747	747	747	747	750	750
1998-1999					708	709	710	700	702	702	702	712	713	713
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	
2006-2007	234	660	677	696	696	700	701	702	702	702	702	702		
2007-2008	242	659	803	809	814	814	814	814	814	814	814			
2008-2009	243	693	716	721	724	724	724	724	724	724				
2009-2010	238	632	647	646	646	646	646	646	647					
2010-2011	168	494	505	506	508	509	510	510						
2011-2012	129	452	465	467	470	471	471							
2012-2013	169	499	520	523	523	524								
2013-2014	144	455	467	471	473									
2014-2015	161	489	510	514										
2015-2016	170	487	502											
2016-2017	108	501												
2017-2018	152													

Reported Claim Count Development Factors:

	6-18 Months	18-30 Months	30-42 Months	42-54 Months	54-66 Months	66-78 Months	78-90 Months	90-102 Months	102-114 Months	114-126 Months	126-138 Months	138-150 Months	150-162 Months	162-174 Months
1996-1997							1.001	0.999	0.999	1.001	1.000	1.000	1.001	1.000
1997-1998						0.995	1.001	0.997	1.000	1.000	1.000	1.004	1.000	1.000
1998-1999					1.001	1.001	0.986	1.003	1.000	1.000	1.014	1.001	1.000	1.000
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	
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		
2006-2007	2.821	1.026	1.028	1.000	1.006	1.001	1.001	1.000	1.000	1.000	1.000			
2007-2008	2.723	1.219	1.007	1.006	1.000	1.000	1.000	1.000	1.000	1.000				
2008-2009	2.852	1.033	1.007	1.004	1.000	1.000	1.000	1.000	1.000					
2009-2010	2.655	1.024	0.998	1.000	1.000	1.000	1.000	1.002						
2010-2011	2.940	1.022	1.002	1.004	1.002	1.002	1.000							
2011-2012	3.504	1.029	1.004	1.006	1.002	1.000								
2012-2013	2.953	1.042	1.006	1.000	1.002									
2013-2014	3.160	1.026	1.009	1.004										
2014-2015	3.037	1.043	1.008											
2015-2016	2.865	1.031												
2016-2017	4.639													
Average Claim-Weighted Averages	6-18 Months	18-30 Months	30-42 Months	42-54 Months	54-66 Months	66-78 Months	78-90 Months	90-102 Months	102-114 Months	114-126 Months	126-138 Months	138-150 Months	150-162 Months	162-174 Months
Average	3.088	1.051	1.007	1.003	1.000	0.994	1.001	1.002	1.002	1.011	1.001	1.001	1.000	1.000
3-yr	3.364	1.034	1.007	1.003	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
4-yr	3.314	1.036	1.007	1.004	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Comparative Factors	6-18 Months	18-30 Months	30-42 Months	42-54 Months	54-66 Months	66-78 Months	78-90 Months	90-102 Months	102-114 Months	114-126 Months	126-138 Months	138-150 Months	150-162 Months	162-174 Months
Prior	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	3.000	1.040	1.007	1.004	1.003	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Selected	3.100	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	3.264	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

DRAFT

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

Closed Claim Development

Claims Closed as of:

Accident Year	6 Months	18 Months	30 Months	42 Months	54 Months	66 Months	78 Months	90 Months	102 Months	114 Months	126 Months	138 Months	150 Months	162 Months
1996-1997							730	731	732	731	732	732	732	733
1997-1998						749	748	749	747	747	747	747	749	750
1998-1999					701	704	707	697	700	701	701	712	712	713
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	
2006-2007	83	518	632	681	687	692	699	701	702	702	702	702		
2007-2008	94	480	742	786	800	808	811	813	814	814	814			
2008-2009	89	509	664	704	712	718	723	724	724	724				
2009-2010	45	464	599	631	643	644	645	645	647					
2010-2011	46	331	470	497	503	507	509	509						
2011-2012	27	285	421	451	459	467	470							
2012-2013	36	332	471	506	515	518								
2013-2014	28	304	430	456	467									
2014-2015	23	354	457	491										
2015-2016	43	336	450											
2016-2017	19	316												
2017-2018	22													

Closed Claim Count Development Factors:

	6-18 Months	18-30 Months	30-42 Months	42-54 Months	54-66 Months	66-78 Months	78-90 Months	90-102 Months	102-114 Months	114-126 Months	126-138 Months	138-150 Months	150-162 Months	162-174 Months
1996-1997							1.001	1.001	0.999	1.001	1.000	1.000	1.001	1.000
1997-1998						0.999	1.001	0.997	1.000	1.000	1.000	1.003	1.001	1.000
1998-1999					1.004	1.004	0.986	1.004	1.001	1.000	1.016	1.000	1.001	1.000
1999-2000				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	
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		
2006-2007	6.241	1.220	1.078	1.009	1.007	1.010	1.003	1.001	1.000	1.000	1.000			
2007-2008	5.106	1.546	1.059	1.018	1.010	1.004	1.002	1.001	1.000	1.000				
2008-2009	5.719	1.305	1.060	1.011	1.008	1.007	1.001	1.000	1.000					
2009-2010	10.311	1.291	1.053	1.019	1.002	1.002	1.000	1.003						
2010-2011	7.196	1.420	1.057	1.012	1.008	1.004	1.000							
2011-2012	10.556	1.477	1.071	1.018	1.017	1.006								
2012-2013	9.222	1.419	1.074	1.018	1.006									
2013-2014	10.857	1.414	1.060	1.024										
2014-2015	15.391	1.291	1.074											
2015-2016	7.814	1.339												
2016-2017	16.632													
Average	9.837	1.378	1.064	1.016	1.006	0.998	1.002	1.002	1.003	1.011	1.002	1.000	1.001	1.000
Claim-Weighted														
Averages														
3-yr	11.835	1.345	1.070	1.020	1.010	1.004	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000
4-yr	11.593	1.363	1.070	1.018	1.008	1.005	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000
Comparative														
Factors	3.387	1.495	1.122	1.051	1.033	1.020	1.012	1.010	1.007	1.005	1.005	1.003	1.003	1.001
Prior	9.500	1.400	1.065	1.016	1.008	1.005	1.004	1.003	1.002	1.001	1.001	1.001	1.001	1.001
Selected	9.800	1.375	1.065	1.016	1.007	1.005	1.004	1.003	1.002	1.001	1.001	1.001	1.001	1.001
Cumulated	14.955	1.526	1.110	1.042	1.026	1.019	1.014	1.010	1.007	1.005	1.004	1.003	1.002	1.001

DRAFT

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

Loss Trend Factors

Accident Year	Benefit Level Factor (A)	Factor to 2017-2018 Loss Rate Level (B)	Factor to 2018-2019 Loss Rate Level (C)	Factor to 2019-2020 Loss Rate Level (D)	Factor to 2020-2021 Loss Rate Level (E)	Factor to 2017-2018 Frequency Level (F)	Factor to 2018-2019 Frequency Level (G)	Factor to 2019-2020 Frequency Level (H)	Factor to 2020-2021 Frequency Level (I)	Factor to 2017-2018 Severity Level (J)
1996-1997	1.000	1.862	1.918	1.976	2.035	1.000	1.000	1.000	1.000	1.862
1997-1998	1.000	1.808	1.862	1.918	1.976	1.000	1.000	1.000	1.000	1.808
1998-1999	1.000	1.755	1.808	1.862	1.918	1.000	1.000	1.000	1.000	1.755
1999-2000	1.000	1.704	1.755	1.808	1.862	1.000	1.000	1.000	1.000	1.704
2000-2001	1.000	1.654	1.704	1.755	1.808	1.000	1.000	1.000	1.000	1.654
2001-2002	1.000	1.606	1.654	1.704	1.755	1.000	1.000	1.000	1.000	1.606
2002-2003	1.000	1.559	1.606	1.654	1.704	1.000	1.000	1.000	1.000	1.559
2003-2004	1.000	1.513	1.559	1.606	1.654	1.000	1.000	1.000	1.000	1.513
2004-2005	1.000	1.469	1.514	1.559	1.606	1.000	1.000	1.000	1.000	1.469
2005-2006	1.000	1.426	1.469	1.514	1.559	1.000	1.000	1.000	1.000	1.426
2006-2007	1.000	1.385	1.427	1.470	1.514	1.000	1.000	1.000	1.000	1.385
2007-2008	1.000	1.345	1.385	1.427	1.470	1.000	1.000	1.000	1.000	1.345
2008-2009	1.000	1.306	1.345	1.385	1.427	1.000	1.000	1.000	1.000	1.306
2009-2010	1.000	1.267	1.305	1.345	1.385	1.000	1.000	1.000	1.000	1.267
2010-2011	1.000	1.231	1.268	1.306	1.345	1.000	1.000	1.000	1.000	1.231
2011-2012	1.000	1.195	1.231	1.268	1.306	1.000	1.000	1.000	1.000	1.195
2012-2013	1.000	1.160	1.195	1.231	1.268	1.000	1.000	1.000	1.000	1.160
2013-2014	1.000	1.126	1.160	1.195	1.231	1.000	1.000	1.000	1.000	1.126
2014-2015	1.000	1.093	1.126	1.160	1.195	1.000	1.000	1.000	1.000	1.093
2015-2016	1.000	1.061	1.093	1.126	1.160	1.000	1.000	1.000	1.000	1.061
2016-2017	1.000	1.030	1.061	1.093	1.126	1.000	1.000	1.000	1.000	1.030
2017-2018	1.000	1.000	1.030	1.061	1.093	1.000	1.000	1.000	1.000	1.000
2018-2019	1.000	--	1.000	1.030	1.061	--	1.000	1.000	1.000	--
2019-2020	1.000	--	--	1.000	1.030	--	--	1.000	1.000	--
2020-2021	1.000	--	--	--	1.000	--	--	--	1.000	--

Notes:

- (A) No benefit level adjustment applied.
- (B) - (E) (A) adjusted for a 3.0% annual loss rate trend.
- (F) - (I) (A) adjusted for a 0.0% 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.

DRAFT

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

Residual Trend Factors

Accident Year	Initial Estimate of Ultimate Limited Losses (A)	Ultimate Reported Claims (B)	BLF (C)	Adjusted Limited Severity (D)	Trended Payroll (\$00) (E)	Ultimate Frequency (F)
1996-1997	\$2,348,015	681	1.000	3,448	3,153,107	2.160
1997-1998	2,777,063	698	1.000	3,979	3,288,283	2.123
1998-1999	2,393,886	672	1.000	3,562	3,488,110	1.927
1999-2000	1,714,205	597	1.000	2,871	3,698,057	1.614
2000-2001	2,192,130	566	1.000	3,873	3,856,299	1.468
2001-2002	2,847,057	678	1.000	4,199	4,183,124	1.621
2002-2003	4,646,965	755	1.000	6,155	4,565,127	1.654
2003-2004	3,509,537	627	1.000	5,597	4,645,349	1.350
2004-2005	2,444,607	566	1.000	4,319	4,673,004	1.211
2005-2006	2,947,359	562	1.000	5,244	4,645,787	1.210
2006-2007	3,115,007	574	1.000	5,427	4,722,301	1.216
2007-2008	3,147,259	662	1.000	4,754	4,867,986	1.360
2008-2009	2,711,703	590	1.000	4,596	4,928,307	1.197
2009-2010	2,538,522	518	1.000	4,901	4,683,905	1.106
2010-2011	2,029,000	414	1.000	4,901	4,126,482	1.003
2011-2012	2,830,000	434	1.000	6,521	3,948,798	1.099
2012-2013	3,251,000	493	1.000	6,594	3,878,081	1.271
2013-2014	2,278,000	453	1.000	5,029	3,741,351	1.211
2014-2015	3,521,000	489	1.000	7,200	3,775,991	1.295
2015-2016	3,413,000	511	1.000	6,679	3,834,915	1.332
2016-2017	2,121,000	505	1.000	4,200	3,852,773	1.311

Severity Trend Factors

Frequency Trend Factors

2005-2006 through 2014-2015	1.031	0.999
2006-2007 through 2015-2016	1.040	1.006
2011-2012 through 2015-2016	1.014	1.041
Prior	1.035	0.990
Default	1.030	0.975

Selected Residual Trend 1.030 1.000

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

DRAFT

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

Calculation of Discount Factors

Payment Year (A)	Payment Pattern (B)	Return on Investment (C)	Discounted Reserves (D)	Undiscounted Reserves (E)	Discount Factor (F)
22	0.0%	3.0%	0.000	0.000	1.000
21	0.0%	3.0%	0.000	0.000	1.000
20	0.0%	3.0%	0.000	0.000	1.000
19	0.0%	3.0%	0.000	0.000	1.000
18	0.0%	3.0%	0.000	0.000	1.000
17	0.0%	3.0%	0.000	0.000	1.000
16	0.0%	3.0%	0.000	0.000	1.000
15	0.0%	3.0%	0.000	0.000	1.000
14	0.1%	3.0%	0.001	0.001	0.985
13	0.2%	3.0%	0.003	0.003	0.976
12	0.2%	3.0%	0.005	0.005	0.962
11	0.3%	3.0%	0.008	0.008	0.953
10	0.5%	3.0%	0.012	0.013	0.948
9	1.1%	3.0%	0.022	0.023	0.950
8	2.1%	3.0%	0.043	0.045	0.952
7	4.2%	3.0%	0.083	0.087	0.954
6	6.1%	3.0%	0.140	0.147	0.951
5	10.5%	3.0%	0.239	0.252	0.949
4	20.6%	3.0%	0.435	0.458	0.950
3	25.3%	3.0%	0.672	0.711	0.945
2	19.4%	3.0%	0.844	0.906	0.932
1	9.4%	3.0%	0.912	1.000	0.912
(G) Discount Factor for Future Funding:				2017-2018	0.926
				2018-2019	0.926

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, $84.4\% = [67.2\% / 1.030] + [19.4\% / (1.015)]$.
- (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.

DRAFT

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

Confidence Level Table

Probability	Projected Losses	Outstanding Losses
95%	1.830	1.532
90%	1.583	1.373
85%	1.435	1.281
80%	1.324	1.211
75%	1.235	1.156
70%	1.159	1.109
65%	1.092	1.068
60%	1.032	1.030
55%	0.977	0.996
50%	0.924	0.963
45%	0.875	0.932
40%	0.826	0.901
35%	0.778	0.871
30%	0.730	0.840
25%	0.680	0.808

To read table: For the above retention, there is a 90% chance that final loss settlements will be less than 1.583 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.

DRAFT

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

Incurred Losses as of 12/31/17

Accident Year (A)	Unlimited Incurred (B)	Additions to Losses (C)	Subtractions from Losses (D)	Adjusted Incurred (E)	Incurred Over SIR (F)	Incurred Over \$100,000 (G)	Incurred Capped at \$100,000 (H)	Incurred \$100,000 to SIR Layer (I)	Incurred Capped at SIR (J)	Incurred Capped at SIR & Aggregate (K)
1996-1997	\$2,619,016	\$0	\$0	\$2,619,016	\$0	\$271,001	\$2,348,015	\$271,001	\$2,619,016	\$2,619,016
1997-1998	4,851,168	0	0	4,851,168	0	2,074,105	2,777,063	2,074,105	4,851,168	4,851,168
1998-1999	7,662,045	0	0	7,662,045	3,444,915	5,268,159	2,393,886	1,823,244	4,217,130	4,217,130
1999-2000	2,656,445	0	0	2,656,445	0	942,240	1,714,205	942,240	2,656,445	2,656,445
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	12,490,981	0	0	12,490,981	3,575,194	7,844,016	4,646,965	4,268,822	8,915,787	8,915,787
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	4,528,631	0	0	4,528,631	0	1,413,623	3,115,007	1,413,623	4,528,631	4,528,631
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	3,584,025	0	0	3,584,025	0	1,557,549	2,026,476	1,557,549	3,584,025	3,584,025
2011-2012	6,246,380	0	0	6,246,380	22,224	3,421,733	2,824,647	3,399,509	6,224,156	6,224,156
2012-2013	5,421,932	0	0	5,421,932	0	2,184,184	3,237,748	2,184,184	5,421,932	5,421,932
2013-2014	8,290,636	0	0	8,290,636	4,000,000	6,028,583	2,262,053	2,028,583	4,290,636	4,290,636
2014-2015	6,858,406	0	0	6,858,406	0	3,396,606	3,461,800	3,396,606	6,858,406	6,858,406
2015-2016	9,466,861	0	0	9,466,861	4,000,000	6,175,661	3,291,200	2,175,661	5,466,861	5,466,861
2016-2017	3,737,779	0	0	3,737,779	210,005	2,032,505	1,705,274	1,822,500	3,527,774	3,527,774
2017-2018	199,803	0	0	199,803	0	0	199,803	0	199,803	199,803
Total	\$122,017,984	\$0	\$0	\$122,017,984	\$18,693,106	\$63,675,667	\$58,342,317	\$44,982,561	\$103,324,878	\$103,324,878

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.

DRAFT

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

Paid Losses as of 12/31/17

Accident Year (A)	Unlimited Paid (B)	Additions to Losses (C)	Subtractions from Losses (D)	Adjusted Paid (E)	Paid Over SIR (F)	Paid Over \$100,000 (G)	Paid Capped at \$100,000 (H)	Paid \$100,000 to SIR Layer (I)	Paid Capped at SIR (J)	Paid Capped at SIR & Aggregate (K)
1996-1997	\$2,619,016	\$0	\$0	\$2,619,016	\$0	\$271,001	\$2,348,015	\$271,001	\$2,619,016	\$2,619,016
1997-1998	4,851,168	0	0	4,851,168	0	2,074,105	2,777,063	2,074,105	4,851,168	4,851,168
1998-1999	7,662,045	0	0	7,662,045	3,444,915	5,268,159	2,393,886	1,823,244	4,217,130	4,217,130
1999-2000	2,655,662	0	0	2,655,662	0	941,458	1,714,205	941,458	2,655,662	2,655,662
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	4,528,631	0	0	4,528,631	0	1,413,623	3,115,007	1,413,623	4,528,631	4,528,631
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	6,201,240	0	0	6,201,240	22,224	3,376,593	2,824,647	3,354,369	6,179,016	6,179,016
2012-2013	5,002,773	0	0	5,002,773	0	1,803,697	3,199,075	1,803,697	5,002,773	5,002,773
2013-2014	8,061,216	0	0	8,061,216	4,000,000	5,815,984	2,245,232	1,815,984	4,061,216	4,061,216
2014-2015	5,234,117	0	0	5,234,117	0	2,123,961	3,110,156	2,123,961	5,234,117	5,234,117
2015-2016	1,938,077	0	0	1,938,077	0	155,478	1,782,598	155,478	1,938,077	1,938,077
2016-2017	920,995	0	0	920,995	0	0	920,995	0	920,995	920,995
2017-2018	31,268	0	0	31,268	0	0	31,268	0	31,268	31,268
Total	\$109,140,781	\$0	\$0	\$109,140,781	\$14,483,101	\$53,679,968	\$55,460,813	\$39,196,867	\$94,657,680	\$94,657,680

Notes:

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

DRAFT

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

Case Reserves as of 12/31/17

Accident Year (A)	Unlimited Reserves (B)	Additions to Losses (C)	Subtractions from Losses (D)	Adjusted Reserves (E)	Reserves Over SIR (F)	Reserves Over \$100,000 (G)	Reserves Capped at \$100,000 (H)	Reserves \$100,000 to SIR Layer (I)	Reserves Capped at SIR (J)	Reserves Capped at SIR & Aggregate (K)
1996-1997	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1997-1998	0	0	0	0	0	0	0	0	0	0
1998-1999	0	0	0	0	0	0	0	0	0	0
1999-2000	783	0	0	783	0	783	0	783	783	783
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	31,359	0	0	31,359	0	31,359	0	31,359	31,359	31,359
2003-2004	0	0	0	0	0	0	0	0	0	0
2004-2005	0	0	0	0	0	0	0	0	0	0
2005-2006	0	0	0	0	0	0	0	0	0	0
2006-2007	0	0	0	0	0	0	0	0	0	0
2007-2008	0	0	0	0	0	0	0	0	0	0
2008-2009	0	0	0	0	0	0	0	0	0	0
2009-2010	0	0	0	0	0	0	0	0	0	0
2010-2011	12,950	0	0	12,950	0	0	12,950	0	12,950	12,950
2011-2012	45,139	0	0	45,139	0	45,139	0	45,139	45,139	45,139
2012-2013	419,159	0	0	419,159	0	380,487	38,673	380,487	419,159	419,159
2013-2014	229,420	0	0	229,420	0	212,599	16,821	212,599	229,420	229,420
2014-2015	1,624,289	0	0	1,624,289	0	1,272,645	351,644	1,272,645	1,624,289	1,624,289
2015-2016	7,528,785	0	0	7,528,785	4,000,000	6,020,183	1,508,602	2,020,183	3,528,785	3,528,785
2016-2017	2,816,784	0	0	2,816,784	210,005	2,032,505	784,279	1,822,500	2,606,779	2,606,779
2017-2018	168,535	0	0	168,535	0	0	168,535	0	168,535	168,535
Total	\$12,877,203	\$0	\$0	\$12,877,203	\$4,210,005	\$9,995,699	\$2,881,504	\$5,785,694	\$8,667,198	\$8,667,198

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.

DRAFT

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

Claim Counts as of 12/31/17

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)
1996-1997	681	0	0	681	681	0	0	681	0	0
1997-1998	698	0	0	698	698	0	0	698	0	0
1998-1999	672	0	0	672	672	0	0	672	0	0
1999-2000	597	0	0	597	596	0	0	596	1	1
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	754	0	0	754	1	1
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	574	0	0	574	574	0	0	574	0	0
2007-2008	662	0	0	662	662	0	0	662	0	0
2008-2009	590	0	0	590	590	0	0	590	0	0
2009-2010	518	0	0	518	518	0	0	518	0	0
2010-2011	414	0	0	414	413	0	0	413	1	1
2011-2012	434	0	0	434	433	0	0	433	1	1
2012-2013	492	0	0	492	486	0	0	486	6	6
2013-2014	450	0	0	450	444	0	0	444	6	6
2014-2015	484	0	0	484	464	0	0	464	20	20
2015-2016	502	0	0	502	450	0	0	450	52	52
2016-2017	501	0	0	501	316	0	0	316	185	185
2017-2018	152	0	0	152	22	0	0	22	130	130
Total	12,175	0	0	12,175	11,772	0	0	11,772	403	403

Notes:

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

DRAFT

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

Exposure Measures

Accident Year	Total Payroll (\$00) (A)	Inflation Trend Factor (B)	Trended Payroll (\$00) (C)
1996-1997	1,877,967	1.679	3,153,107
1997-1998	2,007,499	1.638	3,288,283
1998-1999	2,182,797	1.598	3,488,110
1999-2000	2,372,070	1.559	3,698,057
2000-2001	2,535,371	1.521	3,856,299
2001-2002	2,818,817	1.484	4,183,124
2002-2003	3,152,712	1.448	4,565,127
2003-2004	3,287,579	1.413	4,645,349
2004-2005	3,388,690	1.379	4,673,004
2005-2006	3,454,117	1.345	4,645,787
2006-2007	3,599,315	1.312	4,722,301
2007-2008	3,803,114	1.280	4,867,986
2008-2009	3,945,802	1.249	4,928,307
2009-2010	3,842,416	1.219	4,683,905
2010-2011	3,470,548	1.189	4,126,482
2011-2012	3,404,136	1.160	3,948,798
2012-2013	3,425,867	1.132	3,878,081
2013-2014	3,388,905	1.104	3,741,351
2014-2015	3,506,027	1.077	3,775,991
2015-2016	3,648,825	1.051	3,834,915
2016-2017	3,758,803	1.025	3,852,773
2017-2018	4,142,227	1.000	4,142,227
2018-2019	4,280,564	1.000	4,280,564

Notes:

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

June 20, 2018

Agenda Item 9.B.

FINANCIAL MATTERS

SUBJECT: Update on Alliant Insurance Renewals

BACKGROUND AND HISTORY:

Currently, Alliant Insurance Services (Alliant) places excess general liability coverage, and the Alliant Property Insurance Program (APIP), which provides coverage for excess property, boiler and machinery, auto physical damage, and crime exposures. Additionally, some PLAN members purchase standalone employment practices liability (EPL), cyber enhancement coverage and other ancillary coverages.

Mr. Seth Cole, Senior Vice President, Alliant will be in attendance to discuss the marketing and renewal for the 2018/19 programs that Alliant places.

RECOMMENDATION:

None.

REFERENCE MATERIALS ATTACHED:

None

FINANCIAL MATTERS

SUBJECT: Approval of Proposed Budget for 2018/19

BACKGROUND AND HISTORY:

Enclosed is the Proposed Operating Annual Budget (Budget) for PLAN JPA (PLAN) for the 2018/19 fiscal year. The funding model is similar to that which PLAN has approved in the past. 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 3% 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 3% discount factor. The coverage is pooled from members SIR up to \$225,000 and excess coverage is purchased to \$1 Billion. In the prior year, the Property program was funded at Expected.

The major components of the Budget are outlined below:

1. Overall Rates for Coverage

The Operating Budget contributions increased from \$9.7 million to \$10.9 million; an increase of 12% over the prior year. Contributing factors include an increase in estimated payroll of 7.8%, an increase in estimated funding rates, and an increase in estimated reinsurance and excess premiums. Below is a summary by program.

Liability Program (Page 2)

The Liability program shows a 12% increase in contributions over the 2017/18 Approved Budget. The increase in contributions is a result of:

- 1) *Payroll* - Overall, payroll increased by 7.8% over the prior year.
- 2) *Insurance cost* – increased 34.2% over the prior year. Due to an increase in loss activity, the reinsurance premium for the \$2.5M x \$2.5M layer increased 45.6%. The excess layers (\$10M x \$5M and \$15M x \$10M) increased by 21.8%.

Experience Modification (ex-mod) Factors:

PLAN's actuary developed the ex-mod factors by using the loss experience and payroll from 2012/13 through 2016/17. The losses were limited to \$250,000 per occurrence. Creditability was given to payroll, limited to a minimum of 10% and maximum of 90%. The ex-mod calculation is the same as what has been used in past years.

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 2012/13 to 2016/17. The allocation of administrative costs is same as it has been in the past years.

Property Program (Page 3)

The Property program shows a 12% increase over the 2017/18 Approved Budget. The underlying assumptions used in compiling the preliminary budget include:

1. Funding the 2018/19 program year at the **70% CL**. The 2017/18 Property program was funded at the Expected CL;
2. Increasing the Total Insured Value (TIV) by 3.8%;
3. Excess premium increase 11.2% from prior year;
4. Flood premiums increased 10% rate from prior year; and
5. Actuarial Report, dated on August 16, 2017, was used to compile the projected contributions for 2018/19.

2. Claims Expense

Total claims expenses for program year 2018/19 are budgeted at the expected confidence level and projected to increase 13.9% for the Liability program due to increased claims activity and remain flat for the Property program.

3. Insurance Expense

Total insurance expense shows an increase of 22.1% over prior year. The Liability Program is increasing by 34.2%, while the Property Program is increasing by 11.2% over the prior year.

4. Risk Management Grants

Risk Management Grants are funded out of PLAN's equity. The Risk Management Fund is earmarked for \$500,000, as part of the overall changes to Grant Management.

5. Administration Expenses

Overall, administrative expenses will decrease by 9.3%, over the prior year. The 2018/19 preliminary budget includes the following line item variances from the prior year:

- Cost of salaries line item will decrease by \$1.3M from the prior year as Bickmore was selected to provide Pool Administration services (needs to be read in conjunction with the next item);

- Program Administration - \$817,614. Per the Pool Administration Services contract, the 2017/18 service cost would have been \$793,800 with a 3.1% increase for the 2018/19 fees. Since Bickmore started providing Pool Administration service in November 2017, the 2017/18 fees were prorated for 8 months;
- Financial Audit: \$4,000 increase based upon new contract;
- Actuarial Study: \$31,000, a 3.3% increase over the prior year;
- Claims Administration & Audit –increase of 5% over prior year budget;
- Legal Counsel –increase of 4.6% over prior year;
- Risk Control Services – New budget line item in the amount of \$305,585. This is part of changes in the Risk Management Grants. This budget item provides for core risk services to be provided to all the members; and
- Meeting and Conferences – decrease of \$7,000 in meeting related expenses.

As mentioned above, the budgeted administration expense includes a new line item (Risk Control Services). By removing the Risk Control Services line item from the budget, there is a savings recognized of 23.5% or \$505,391 when comparing administrative expenses from 2017-18 to 2018-19. This savings is a result of the Board electing to have Bickmore provide administration services.

RECOMMENDATION:

Staff, the Finance Committee, and the Executive Committee recommend the Board of Directors approve the 2018/19 Operating Budget.

REFERENCE MATERIALS ATTACHED:

- Preliminary Operating 2018/19 Budget

PLAN JPA

Proposed 2018 / 2019 Operating Annual Budget Summary of Contributions by Program

Member	Liability Program	Property Program	2018/19 Total Contributions	Prior Year Comparison			Payroll Comparison			Ex-mod Comparison		
				2017/18 Total Contributions	Increase/ (Decrease)	Percent Change	Estimated Payroll 2018/19	Estimated Payroll 2017/18	% Change	2018/19	2017/18	% Change
	Page 2	Page 3										
American Canyon	\$180,977	\$57,374	\$238,351	\$204,405	\$33,946	17%	\$ 7,777,859	\$ 7,003,700	11.1%	60%	56%	7.1%
Atherton	127,069	11,276	138,345	121,180	17,165	14%	5,211,259	4,933,800	5.6%	89%	86%	3.5%
Benicia	652,827	187,483	840,310	723,438	116,872	16%	19,448,539	18,777,300	3.6%	145%	136%	6.6%
Burlingame	307,844	146,782	454,626	399,327	55,299	14%	24,297,439	23,038,000	5.5%	78%	81%	-3.7%
Campbell	365,429	53,451	418,880	328,932	89,948	27%	23,153,500	22,479,100	3.0%	79%	53%	49.1%
Colma	100,487	20,888	121,375	110,752	10,623	10%	5,300,000	4,975,000	6.5%	86%	88%	-2.3%
Cupertino	401,126	78,566	479,692	455,657	24,035	5%	22,396,280	20,714,500	8.1%	96%	136%	-29.4%
Dublin	317,003	125,573	442,576	378,371	64,205	17%	13,814,874	13,276,200	4.1%	66%	70%	-5.7%
East Palo Alto	210,401	17,804	228,205	242,823	(14,618)	-6%	11,800,000	10,800,000	9.3%	62%	94%	-34.0%
Foster City	219,516	104,547	324,063	331,141	(7,078)	-2%	24,560,000	23,588,600	4.1%	33%	52%	-36.5%
Half Moon Bay	113,452	8,275	121,727	94,010	27,717	29%	4,242,218	3,230,000	31.3%	97%	88%	10.2%
Hillsborough	191,158	59,880	251,038	267,072	(16,034)	-6%	10,728,645	9,479,800	13.2%	70%	110%	-36.4%
Los Altos Hills	100,742	11,803	112,545	97,268	15,277	16%	2,126,232	2,060,900	3.2%	130%	117%	11.1%
Los Gatos	307,166	45,699	352,865	292,902	59,963	20%	17,176,819	16,800,800	2.2%	63%	60%	5.0%
Millbrae	207,108	79,348	286,456	229,462	56,994	25%	9,560,214	7,702,000	24.1%	170%	83%	104.8%
Milpitas	542,384	150,644	693,028	608,225	84,803	14%	40,506,922	37,364,200	8.4%	50%	55%	-9.1%
Morgan Hill	577,173	114,865	692,038	585,602	106,436	18%	25,019,034	24,507,100	2.1%	124%	117%	6.0%
Newark	455,648	102,613	558,261	442,711	115,550	26%	19,683,040	15,905,400	23.8%	146%	116%	25.9%
Pacifica	484,208	179,500	663,708	533,096	130,612	25%	18,189,380	15,819,900	15.0%	168%	131%	28.2%
Portola Valley	55,584	10,686	66,270	58,020	8,250	14%	1,684,440	1,545,400	9.0%	82%	80%	2.5%
Ross	81,165	4,836	86,001	75,018	10,983	15%	2,400,000	2,283,000	5.1%	116%	112%	3.6%
San Bruno	822,779	72,137	894,916	967,084	(72,168)	-7%	30,372,630	28,159,700	7.9%	114%	137%	-16.8%
San Carlos	504,316	46,908	551,224	429,838	121,386	28%	9,350,600	8,816,800	6.1%	362%	264%	37.1%
Saratoga	181,873	33,141	215,014	169,472	45,542	27%	7,100,000	6,596,900	7.6%	147%	164%	-10.4%
South San Francisco	940,399	242,203	1,182,602	1,191,435	(8,833)	-1%	57,726,166	53,464,100	8.0%	89%	111%	-19.8%
Suisun City	182,358	28,737	211,095	189,549	21,546	11%	6,963,200	6,381,700	9.1%	65%	80%	-18.8%
Tiburon	142,929	15,047	157,976	126,051	31,925	25%	5,015,540	4,926,000	1.8%	113%	98%	15.3%
Woodside	76,588	7,375	83,963	68,745	15,218	22%	2,333,070	2,161,200	8.0%	83%	81%	2.5%
Total	\$ 8,849,709	\$ 2,017,440	\$ 10,867,149	\$ 9,721,586	\$ 1,145,563	12%	\$ 427,937,900	\$ 396,791,100	7.8%			
P/Y Actual	\$7,926,908	\$1,794,678	\$9,721,586									
Incr./(Decr.)	\$922,801	\$222,762	\$1,145,563									
% Change	12%	12%	12%									

Note:

Payroll comparison was obtained from the actuarial study. The payroll numbers are estimates that were used at the time of funding.
The ex-mod comparisons were obtained from actuarial reports. See attached exhibit 1, page 7 for the calculation of ex-mod by members.

PLAN JPA

Proposed 2018 / 2019 Operating Annual Budget

Liability Program Contribution Schedule

Pool Funding @ 60% Confidence Level, 3.0% Discount Factor

Member	Member SIR	Funding for Losses SIR-\$2.5 M	Reinsurance/Excess Insurance		Total Insurance	Administration Expense	2018/19 60% CL Liability Budget	Budget Comparison	
			Reinsurance \$2.5M x \$2.5M	Excess \$15M x \$15M \$10M x \$5M				2017/18 60% CL Liability Budget	Percent Increase / (Decrease)
	Note 1	Note 2			Note 3	Note 4	Note 5	Note 6	
American Canyon	\$25,000	\$81,603	\$26,205	\$20,219	\$46,424	\$52,950	\$180,977	\$153,197	18%
Atherton	25,000	78,323	9,196	7,096	16,292	32,454	127,069	111,111	14%
Benicia	25,000	469,888	35,372	27,291	62,663	120,276	652,827	555,989	17%
Burlingame	250,000	162,948	38,231	29,498	67,729	77,167	307,844	268,001	15%
Campbell	100,000	196,707	54,771	42,260	97,031	71,691	365,429	281,100	30%
Colma	50,000	67,171	1,941	1,497	3,438	29,878	100,487	92,068	9%
Cupertino	250,000	188,101	77,415	59,731	137,146	75,879	401,126	387,069	4%
Dublin	50,000	141,422	73,762	56,913	130,675	44,906	317,003	269,850	17%
East Palo Alto	100,000	93,257	39,287	30,312	69,599	47,545	210,401	227,447	-7%
Foster City	100,000	102,193	42,703	32,948	75,651	41,672	219,516	237,701	-8%
Half Moon Bay	50,000	58,255	16,077	12,405	28,482	26,715	113,452	87,271	30%
Hillsborough	50,000	112,248	13,980	10,786	24,766	54,144	191,158	215,886	-11%
Los Altos Hills	25,000	47,947	11,136	8,592	19,728	33,067	100,742	86,655	16%
Los Gatos	50,000	163,745	38,586	29,772	68,358	75,063	307,166	251,945	22%
Millbrae	100,000	92,321	29,757	22,960	52,717	62,070	207,108	159,314	30%
Milpitas	100,000	257,871	97,135	74,946	172,081	112,432	542,384	473,159	15%
Morgan Hill	100,000	378,897	56,136	43,313	99,449	98,827	577,173	482,889	20%
Newark	100,000	276,638	57,536	44,391	101,927	77,083	455,648	350,499	30%
Pacifica	50,000	322,515	48,626	37,518	86,144	75,549	484,208	372,468	30%
Portola Valley	25,000	24,179	5,811	4,484	10,295	21,110	55,584	48,491	15%
Ross	25,000	47,458	3,250	2,508	5,758	27,949	81,165	70,796	15%
San Bruno	100,000	434,113	58,342	45,015	103,357	285,309	822,779	902,536	-9%
San Carlos	100,000	350,763	36,535	28,190	64,725	88,828	504,316	387,935	30%
Saratoga	25,000	61,417	38,868	29,989	68,857	51,599	181,873	139,902	30%
South San Francisco	100,000	626,034	83,069	64,093	147,162	167,203	940,399	975,185	-4%
Suisun City	25,000	80,069	37,417	28,869	66,286	36,003	182,358	163,723	11%
Tiburon	50,000	84,707	11,704	9,031	20,735	37,487	142,929	112,566	27%
Woodside	25,000	34,441	7,151	5,518	12,669	29,478	76,588	62,155	23%
Total		\$5,035,232	1,049,999	810,145	\$1,860,145	\$1,954,335	8,849,709	7,926,908	12%
Prior Year Actual		4,497,000	721,000	665,279	1,386,279	2,043,629	7,926,908		
Incr./(Decr.)		538,232	328,999	144,866	473,866	(89,294)	922,801		
% Change		11.97%	45.63%	21.78%	34.18%	-4.37%	11.64%		

NOTES:

Note 1: Member Selected Self-Insured Retention

Note 2: Adjusted funding needed for SIR to \$2,500,000 at the 60% confidence level from draft Actuarial Study dated June 7, 2018.

Note 3: Insurance indications provided by the Alliant, broker; allocation based upon draft actuarial study dated June 7, 2018.

Note 4: Administrative Expense allocation: 33% allocated to the member equally. Of the remaining 67%, one-third is allocated using reported claims and two-thirds using paid losses; these numbers were provided in the draft actuarial study.

Note 5: Preliminary 2018/19 Liability Contributions

Note 6: 2017/18 Contributions paid by members.

PLAN JPA

Proposed 2018 / 2019 Operating Annual Budget Property Program Contributions Schedule Pool Funding @ 70% Confidence Level, 3.0% Discount Factor

Member	SIR	Insured Values		Pool Funding SIR-\$225k	Excess Prop. Premium \$225k-\$1B	Flood Premium	2018/19 Program Deposit	Budget Comparison	
		2017/18 Insured Values	2018/19 Insured Values					2017/18 Program Deposit	Percent Increase / (Decrease)
		Note 1	Note 2	Note 3	Note 4	Note 5	Note 6	Note 7	
American Canyon	\$5,000	\$68,699,971	\$71,073,217	\$20,396	\$35,878	\$1,100	\$ 57,374	\$51,208	12%
Atherton	5,000	13,777,638	14,241,561	4,087	7,189	-	11,276	10,069	12%
Benicia	5,000	225,702,953	233,312,912	66,955	117,778	2,750	187,483	167,449	12%
Burlingame	5,000	177,642,505	183,488,580	52,656	92,626	1,500	146,782	131,326	12%
Campbell	5,000	65,449,373	67,506,687	19,373	34,078	-	53,451	47,832	12%
Colma	5,000	24,197,656	24,991,239	7,172	12,616	1,100	20,888	18,684	12%
Cupertino	5,000	92,481,465	97,836,858	28,077	49,389	1,100	78,566	68,588	15%
Dublin	5,000	147,123,144	157,206,659	45,114	79,359	1,100	125,573	108,521	16%
East Palo Alto	5,000	21,038,634	22,485,864	6,453	11,351	-	17,804	15,376	16%
Foster City	5,000	127,855,812	132,041,127	37,892	66,655	-	104,547	93,440	12%
Half Moon Bay	5,000	9,221,460	10,451,031	2,999	5,276	-	8,275	6,739	23%
Hillsborough	5,000	70,039,118	75,625,931	21,703	38,177	-	59,880	51,186	17%
Los Altos Hills	5,000	14,521,897	14,906,827	4,278	7,525	-	11,803	10,613	11%
Los Gatos	5,000	56,041,867	57,716,787	16,563	29,136	-	45,699	40,957	12%
Millbrae	5,000	95,985,024	100,214,466	28,759	50,589	-	79,348	70,148	13%
Milpitas	5,000	181,391,906	186,439,603	53,503	94,116	3,025	150,644	135,066	12%
Morgan Hill	5,000	139,175,995	143,683,168	41,233	72,532	1,100	114,865	102,713	12%
Newark	5,000	126,175,226	129,597,124	37,191	65,422	-	102,613	92,212	11%
Pacifica	5,000	209,527,937	216,283,809	62,068	109,182	8,250	179,500	160,628	12%
Portola Valley	5,000	13,038,735	13,496,516	3,873	6,813	-	10,686	9,529	12%
Ross	5,000	4,408,604	4,718,121	1,354	2,382	1,100	4,836	4,222	15%
San Bruno	5,000	88,321,711	91,107,386	26,145	45,992	-	72,137	64,548	12%
San Carlos	5,000	55,967,665	57,853,828	16,603	29,205	1,100	46,908	41,903	12%
Saratoga	5,000	39,092,206	40,467,358	11,613	20,428	1,100	33,141	29,570	12%
South San Francisco	5,000	285,635,620	295,477,400	84,794	149,159	8,250	242,203	216,250	12%
Suisun City	5,000	31,916,760	32,821,160	9,419	16,568	2,750	28,737	25,826	11%
Tiburon	5,000	17,083,764	17,614,548	5,055	8,892	1,100	15,047	13,485	12%
Woodside	5,000	9,017,543	9,313,538	2,673	4,702	-	7,375	6,590	12%
Total		\$2,410,532,189	\$2,501,973,305	\$718,000	\$1,263,015	\$36,425	\$2,017,440	\$1,794,678	12%

P/Y Actual	\$2,410,532,189	\$593,000	\$1,168,677	\$33,000	\$1,794,678
Incr./(Decr.)	91,441,116	125,000	94,338	3,425	222,762
% Change	3.8%	21.1%	8.1%	10.4%	12.4%

Notes:

- Note 1: 2017/18 Total Insured property values obtained from Actuarial study
 Note 2: 2018/19 Total Insured property values as submitted by members.
 Note 3: Rate for PLAN pool (from actuarial report dated August 16, 2017) times total Note 2 Insured Value
 Note 4: Estimated Premium by Alliant Property Insurance Program (APIP).
 Note 5: Flood cost are based upon 2017/18 premiums with a 10% increase in premiums.
 Note 6: Total 2018/19 Contributions by member (Total Notes 3 through 5).
 Note 7: 2017/18 Contributions

Funding for the Pooled Layer

		17/18	18/19
Expected	Undiscounted	603,000	603,000
Expected	Discounted	593,000	593,000
70% confidence Level	Discounted	718,000	718,000
75% confidence Level	Discounted	781,000	781,000
80% confidence Level	Discounted	856,000	856,000
85% confidence Level	Discounted	950,000	950,000

PLAN JPA

Proposed 2018 / 2019 Operating Annual Budget

	2017/18		2018/19 Proposed Operating Budget	Prior Year	
	Operating Budget	Projected Actuals		Increase/ (Decrease)	Percent Incr./ (Decr.)
Revenues:					
Contributions	\$9,721,587	\$9,721,603	\$10,867,149	1,145,562	11.8%
Funding from Equity	1,149,052	1,023,156	500,000	(649,052)	-56.5%
Investment Income	-	600,000	-	-	0.0%
Total Revenues	10,870,639	11,344,759	11,367,149	496,510	4.6%
Expenses					
<i>Claims Expense</i>	4,913,470	6,938,000	5,515,000	601,530	12.2% a
<i>Insurance Expense</i>					
Insurance - Liability	1,386,279	1,386,279	1,860,145	473,866	34.2%
Insurance - Property	1,168,677	1,168,676	1,263,015	94,338	8.1%
Flood Insurance	33,000	26,561	36,425	3,425	10.4%
	2,587,956	2,581,516	3,159,585	571,629	22.1% b
<i>Risk Management Grants</i>					
Risk Service Credit	361,052	361,052	-	(361,052)	-100.0%
Risk Management Fund	450,000	450,000	500,000	50,000	11.1%
Training Grants	98,000	35,104	-	(98,000)	-100.0%
Defensive Driving	20,000	2,000	-	(20,000)	-100.0%
Sewer Smart	85,000	40,000	-	(85,000)	-100.0%
Risk Management Services	135,000	135,000	-	(135,000)	-100.0%
	1,149,052	1,023,156	500,000	(649,052)	-56.5% c
<i>Administration</i>					
Salaries	1,343,708	650,000	-	(1,343,708)	-100.0%
Program Administration - Bickmore	-	529,200	817,614	817,614	0.0%
Financial Audit	15,000	15,140	19,000	4,000	26.7%
Actuarial Studies	30,000	27,810	31,000	1,000	3.3%
Claims Admin & Audit	662,839	660,500	695,981	33,142	5.0%
Legal Counsel	39,344	39,000	41,155	1,811	4.6%
Risk Console Info System	20,000	20,000	20,000	-	0.0%
Risk Control Services	-	-	305,585	305,585	0.0%
Website Reconstruction	10,000	7,500	-	(10,000)	-100.0%
Meetings & Conferences:					
Meetings	15,000	13,000	16,000	1,000	6.7%
Memberships & Conferences	8,500	8,500	-	(8,500)	-100.0%
Training & Workshops	2,500	1,000	3,000	500	20.0%
Allowance for Contingencies	7,250	-	5,000	(2,250)	-31.0%
	2,154,141	1,971,650	1,954,335	(199,806)	-9.3% d
Total Expenses	10,804,619	12,514,322	11,128,920	324,301	3.0%
Budgeted Net Income (Loss)	66,020	(1,169,563)	238,229	172,209	260.8%

Notes:

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

	2017/18	2018/19	Difference	% Difference
Liability	\$4,320,470	\$4,922,000	\$601,530	13.9%
Property	593,000	593,000	-	0.0%
Total	\$4,913,470	\$5,515,000	\$601,530	12.2%

b Insurance expenses up by 23%. Liability program premiums will increase due to loss activity (Reinsurance will increase by 46% and excess premiums will go up 21.7%). Property rates are expected to be around 10% increase.

c Risk Management Grants are funded from the equity. Thus, a corresponding revenues has been recorded for budgeting purposes. These numbers are preliminary and subject to change after the Risk Committee meeting.

d Administration expenses are expected to decrease in comparison to 17/18 budget. In past year, salaries were associated with the budget. In 18/19, contract with Bickmore for program administration is lower than the cost of salaries. We are preliminary budgeting for Risk Control services to be paid out of the administration fees.

Comparison of admin expenses from prior year; savings projected in 2018-19.

	2017/18	2018/19	Savings	% Difference
Administration expenses	\$2,154,141	\$1,648,750	\$505,391	-23.5%

June 20, 2018

Agenda Item 9.D.

FINANCIAL MATTERS

SUBJECT: Presentation on Investment Manager Services

BACKGROUND AND HISTORY:

PFM Asset Management (PFM) was selected by the Executive Committee to manage PLAN and SHARP's investments at the February 2018 special meeting. Additionally, the Committee approved participation in California Asset Management Program (CAMP), a California Joint Powers Authority established to provide California public agencies with professional investment services.

The Executive Committee, at the recommendation of the Finance Committee, approved the investment policy which is included as a consent item on this agenda. Ms. Lesley Murphy from PFM will be in attendance to discuss PFM's investment strategy for PLAN JPA's investment portfolio and provide an update on the investment policy.

RECOMMENDATION:

None.

REFERENCE MATERIALS ATTACHED:

- Investment Strategy Presentation



Pooled Liability Assurance Network (PLAN)

Investment Strategy Discussion

Presented by:

Sarah Meacham, Managing Director
Lesley Murphy, Senior Managing Consultant

June 20, 2018

www.pfm.com

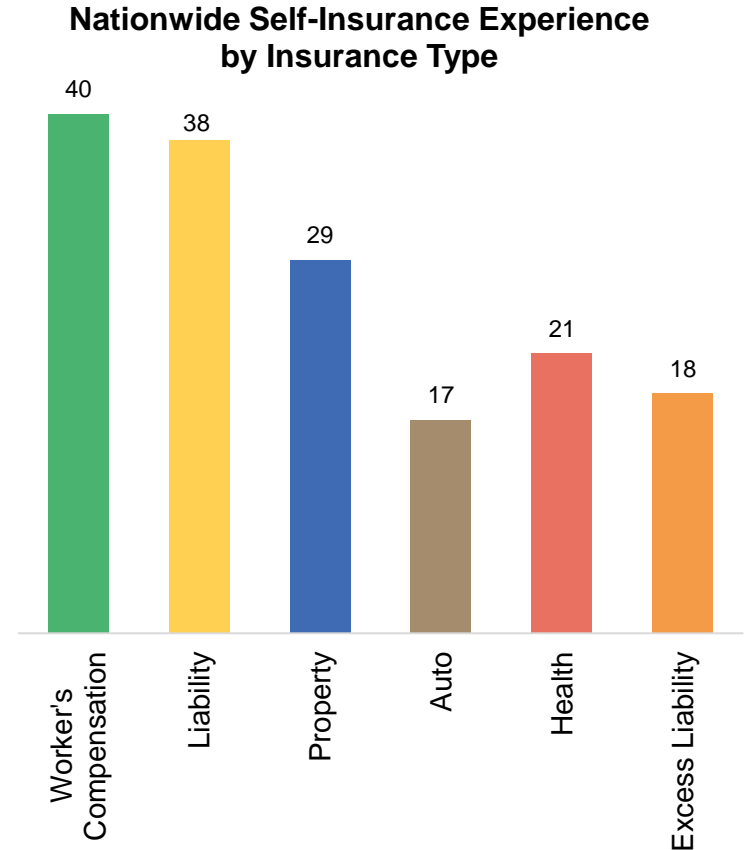
601 S. Figueroa Street,
Suite 4500
Los Angeles, CA 90017
213.415.1631
meachams@pfm.com

50 California Street,
Suite 2300
San Francisco, CA 94111
415.982.5544
murphyl@pfm.com



PFM Asset Management LLC (PFM)

- More than 35 years of public sector experience
- Significant resources and economies of scale
 - \$125.7 billion** total assets, including **\$86.8 billion** in discretionary assets under management
 - \$4.4 billion** in insurance assets nationwide
 - \$1.5 billion** for **26** self-insurance pools in California
- Members and educational partners of:
 - California Association of Joint Powers Authorities (CAJPA)
 - Association of Governmental Risk Pools (AGRiP)
 - Government Finance Officers Association (GFOA)



All data is as of March 31, 2018, unless otherwise noted.



Meeting PLAN's Objectives

Objective	Investment Strategies
Safety	<ul style="list-style-type: none">• Diversify the portfolio by sector, maturity, industry, and issuer• Ensure compliance with PLAN's Investment Policy• Employ PFM's rigorous credit research process
Liquidity	<ul style="list-style-type: none">• Understand elements that impact the General Liability and Property Liability's program liquidity needs (administrative expenses, premium cycle, known case reserves, reinsurance costs, etc.)• Match investment maturities to expected cash needs• Build liquidity cushion for unexpected claims• Utilize local government investment pools
Return on Investment	<ul style="list-style-type: none">• Design the investment program aligned with PLAN's liabilities• Establish portfolio duration to match liabilities• Select appropriate benchmark(s)• Enhance returns through active management



Investment Strategy Discussion with Finance Committee

- ◆ Align duration of portfolio assets with duration of liabilities
- ◆ Diversify across sectors permitted by California Government Code (Code) and PLAN's Investment Policy
- ◆ Measure total return performance against the ICE BofAML 1-5 year U.S. Treasury Index



PLAN's Statement of Net Position

ABAG PLAN CORPORATION
STATEMENT OF NET POSITION
JUNE 30, 2017

	General Liability Fund	Property Liability Fund	Administration Fund	Total
ASSETS				
Current Assets:				
Cash and Cash Equivalents (Note 2)	\$15,219,389	\$896,235	\$1,595,876	\$17,711,500
Investments, at Fair Value (Note 2)	28,163,985			28,163,985
Total Cash and Investments	43,383,374	896,235	1,595,876	45,875,485
Receivables:				
Due from Members	585,926	4,592		590,518
Interest	127,539			127,539
Total Assets	44,096,839	900,827	1,595,876	46,593,542
LIABILITIES				
Current Liabilities:				
Accounts Payable and Accrued Liabilities	617,906	3,830	249,827	871,563
Reserves for Claims and Claim Adjustment Expenses (Note 3)	2,106,000	350,000		2,456,000
Total Current Liabilities	2,723,906	353,830	249,827	3,327,563
Noncurrent Liabilities (Note 3):				
Reserves for Claims and Claim Adjustment Expenses	12,581,000			12,581,000
Reserves for Unallocated Loss Adjustment Expenses	1,975,000			1,975,000
Total Noncurrent Liabilities	14,556,000			14,556,000
Total Liabilities	17,279,906	353,830	249,827	17,883,563
NET POSITION (Note 4)				
Unrestricted	26,816,933	546,997	1,346,049	28,709,979
Total Net Position	\$26,816,933	\$546,997	\$1,346,049	\$28,709,979

Current Liabilities

Non-Current Liabilities

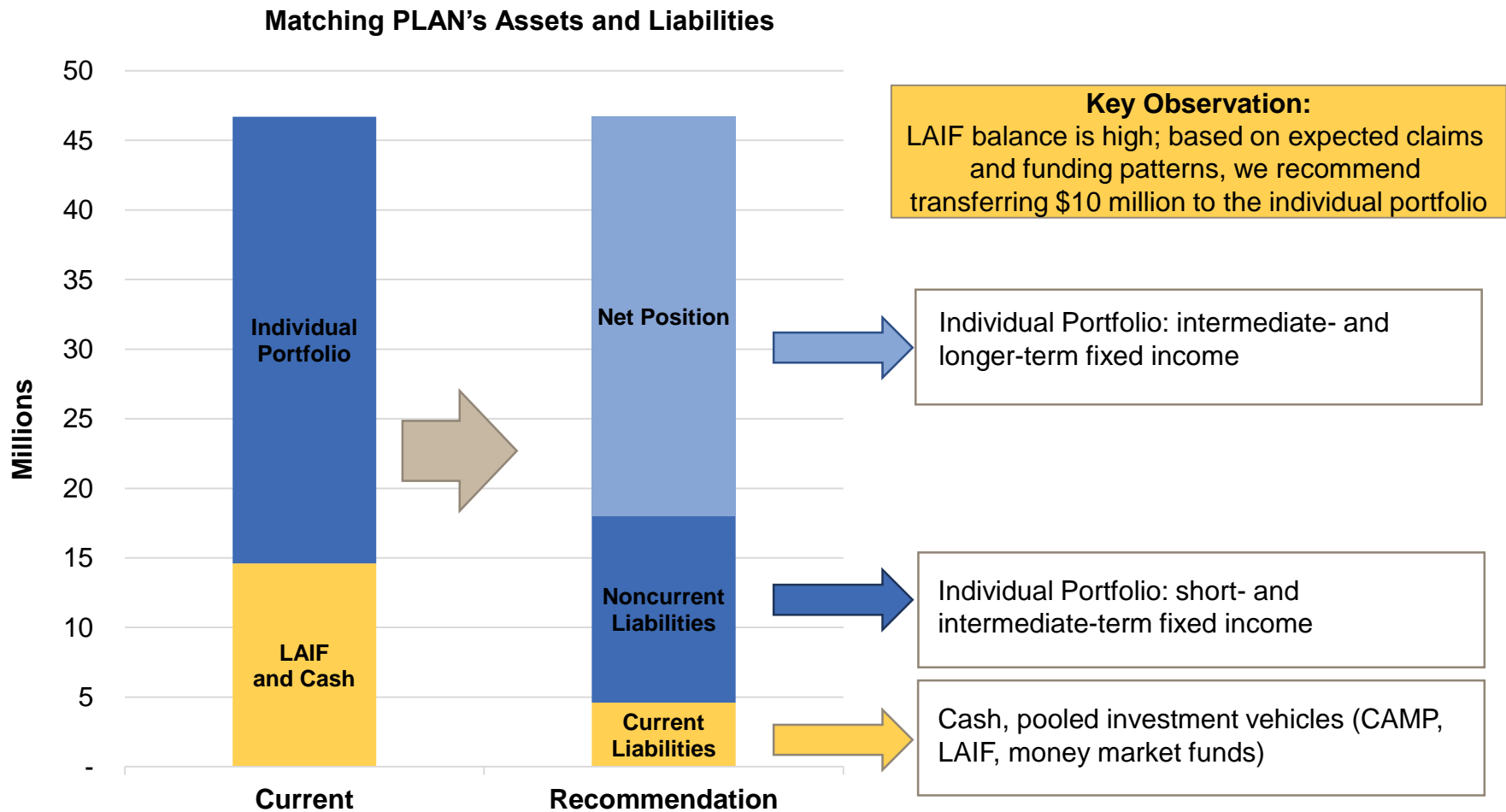
Net Position

See accompanying notes to basic financial statements

Source: PLAN Basic Financial Statements, June 30, 2017.



Customized Investment Strategy





Claims Projections

ABAG PLAN CORPORATION - Liability						
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)
1986-1997	\$18,874,096	\$18,874,096	\$18,874,096	\$18,874,096	\$18,874,080	\$18,874,096
1997-1998	2,462,528	2,462,528	2,462,528	2,462,528	2,462,533	2,462,528
1998-1999	5,606,097	5,606,097	5,606,097	5,606,097	5,606,104	5,606,097
1999-2000	1,200,348	1,199,565	1,200,348	1,199,565	1,200,353	1,200,348
2000-2001	1,860					
2001-2002	4,627					
2002-2003	8,843					
2003-2004	2,574					
2004-2005	1,876					
2005-2006	4,770					
2006-2007	1,666					
2007-2008	6,823					
2008-2009	3,581					
2009-2010	2,502					
2010-2011	2,128					
2011-2012	4,041					
2012-2013	2,604					
2013-2014	7,307					
2014-2015	6,340					
2015-2016	5,391					
2016-2017	8,424					
Totals						

ABAG PLAN - Property						
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 Estimate of Ultimate Limited Losses (F)
2010-2011	394,571	394,571	394,571	394,571	394,587	394,571
2011-2012	432,518	432,518	432,518	432,518	432,471	432,518
2012-2013	545,024	545,024	545,024	545,024	596,443	545,024
2013-2014	466,593	419,846	466,593	421,367	697,205	467,000
2014-2015	589,942	542,012	589,942	544,995	774,642	590,000
2015-2016	1,101,086	252,920	1,095,704	286,658	589,104	1,098,000
2016-2017	621,034	564,487	617,446	578,909	545,350	598,000
Totals						\$4,125,113
Projected Losses for the Year 2017-2018 (G)						\$603,000
Projected Losses for the Year 2018-2019 (H)						\$603,000

PLAN Liability Analysis Summary				
Projected Liability (PV)				
Year	Property	GL	Total	CTD
2018	277,612	2,959,210	3,236,823	0.182
2019	233,606	2,820,226	3,053,832	0.516
2020	322,744	1,034,401	1,357,146	0.382
2021	36,202	132,808	169,010	0.067
2022	27,017	304,478	331,495	0.168
2023	24,417	288,699	313,116	0.194
2024	461	157,661	158,122	0.116
2025	-	66,705	66,705	0.056
2026	-	46,197	46,197	0.044
2027	-	54,999	54,999	0.059
2028	-	34,998	34,998	0.041
2029	-	19,511	19,511	0.025
2030	-	1,131	1,131	0.002
2031	-	1,986	1,986	0.003
2032	-	2,723	2,723	0.004
2033	-	3,406	3,406	0.006
2034	-	3,872	3,872	0.007
2035	-	2,237	2,237	0.004
2036	-	6,686	6,686	0.014
2037	-	6,120	6,120	0.013
2038	-	3,058	3,058	0.007
Total	922,060	7,951,111	8,873,171	1.913
Duration (years)	1.82	1.92	1.91	

Source: Expected claim outflows are calculated by PFM, based on the losses provided in the Actuarial Review of PLAN's self-insured liability program, dated March 21, 2018, and Actuarial Review of PLAN's self-insured property program, dated August 16, 2017.



Why Use Total Return for Accountability?

Yield	Total Return
Percentage rate that expresses an annualized rate of return at a point in time	Percentage rate that expresses an annualized rate of return over a specific period
Forward- looking number	Historical number
Assumes no change in cash flow, no change in market value and reinvestment at the same rate	Takes into account all changes in portfolio, including interest earnings, market value changes, reinvestment rates, and all cash flows



Benchmark Selection

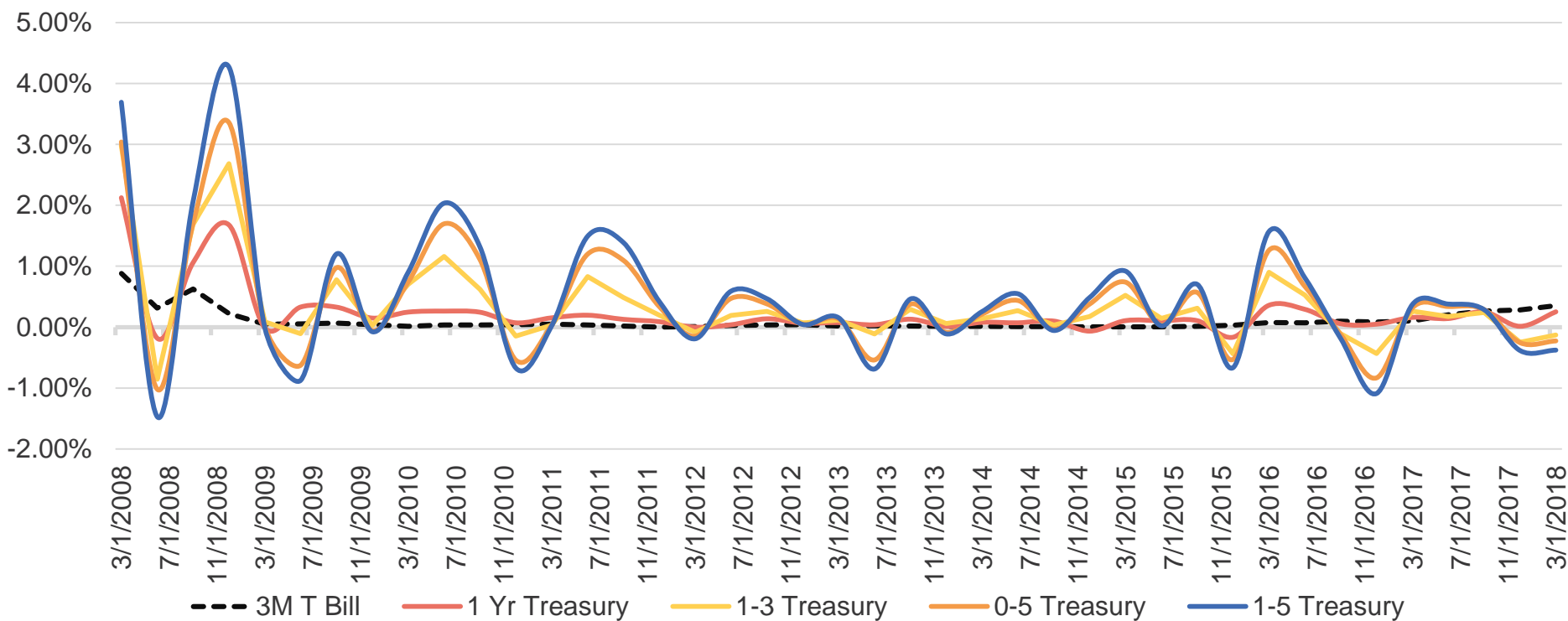
Risk/Return of Various Investment Strategies 10 Years Ended March 31, 2018					
Strategy	Duration (years)	Yield as of 3/31/18	Annualized Total Return	Cumulative Value of \$30 million	Quarters with Negative Total Return
3 Month Treasury	0.14	1.61%	0.34%	\$31,036,932	0 out of 40
1 Year Treasury	0.90	2.11%	0.71%	\$32,213,373	5 out of 40
1-3 Year Treasury	1.80	2.27%	1.13%	\$33,563,981	10 out of 40
0-5 Year Treasury	2.11	2.23%	1.39%	\$34,428,534	13 out of 40
1-5 Treasury	2.59	2.36%	1.62%	\$35,240,006	14 out of 40

Source: Bloomberg. Indices shown are ICE Bank of America Merrill Lynch indices. Non-rebalanced durations and yields shown.



Quarterly Unannualized Total Returns—10 Years

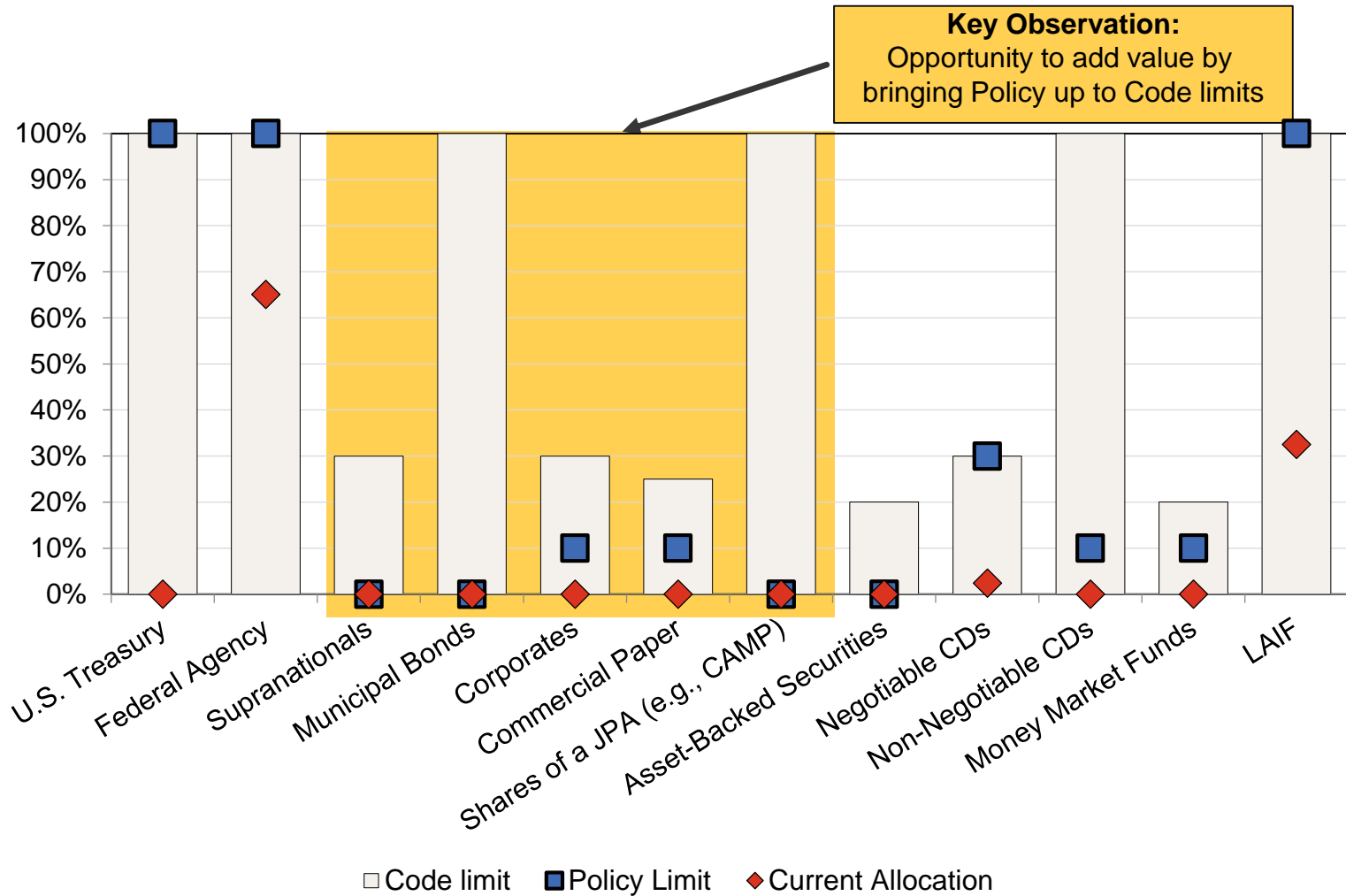
Comparison of Unannualized Quarterly Total Returns
10 Years Ended March 31, 2018



Source: Bloomberg.
Indices shown are ICE Bank of America Merrill Lynch indices.



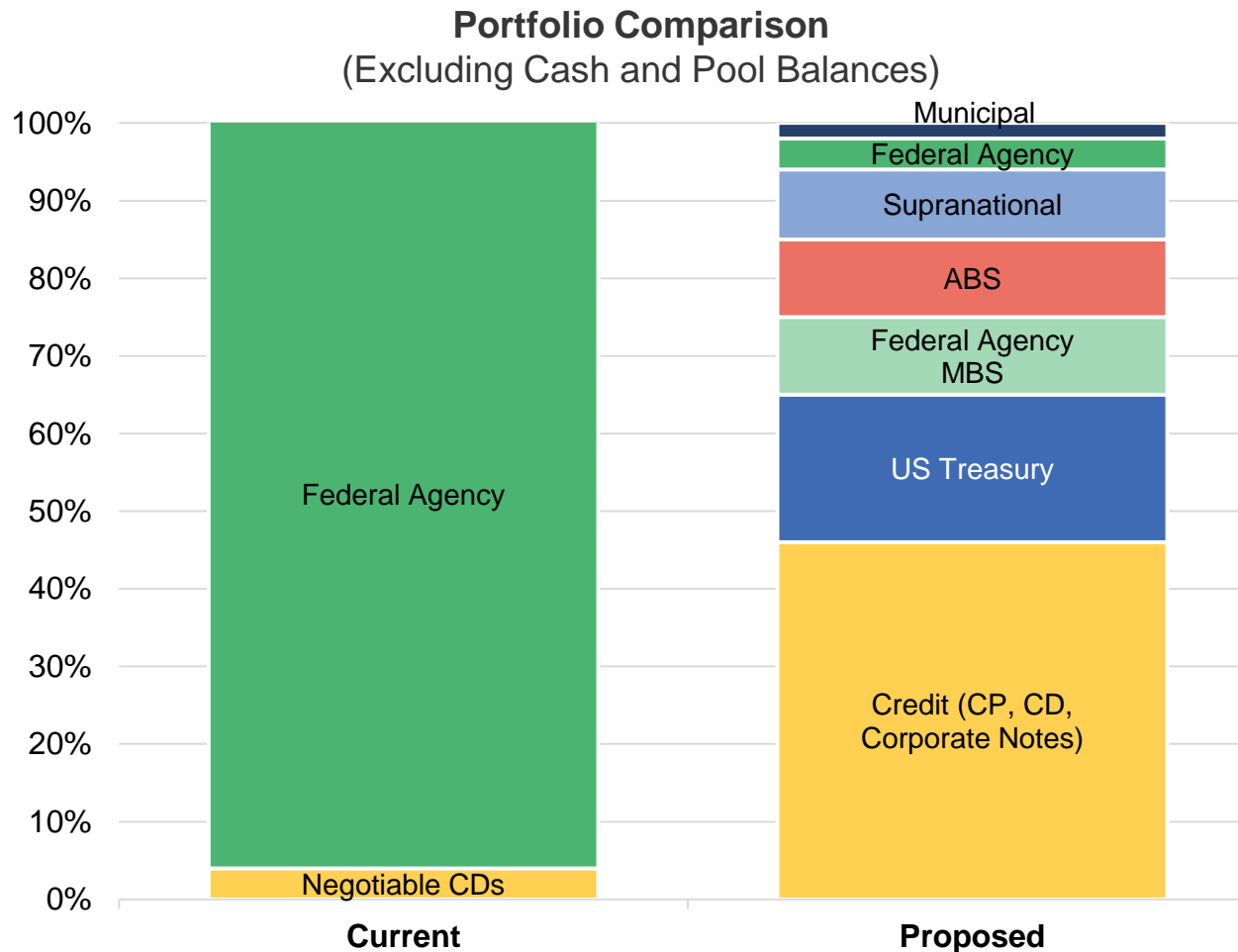
Selecting the Appropriate Asset Class Mix



Source: PLAN Investment Policy and California Government Code Section 53601.



PLAN Portfolio Composition: Current vs. Proposed



Source: PLAN's January 31, 2018, Bank of the West custody statement. Note: Sample sector distributions are for illustrative purposes only, subject to changes in the market environment, and may vary based on PLAN's particular circumstances.



Capturing Value Through Broader Diversification

Index	Yield as of May 31, 2018	Annual Additional Earnings over Federal Agencies on \$10 million
1-5 Year Federal Agency Index	2.49%	-
0-5 Year Asset-Backed Securities Index	2.79%	\$30,000
1-5 Year Supranational Index	2.80%	\$31,000
1-5 Year Corporate Index	3.11%	\$62,000
2-Year Federal Agency	2.51%	-
2-Year Negotiable Certificate of Deposit	2.90%	\$39,000
9-Month Federal Agency	2.24%	-
9-Month Commercial Paper	2.47%	\$23,000

Sources: PFM Trading Desk, Bloomberg. ICE Bank of America Merrill Lynch (BofA ML) 1-5 Year Federal Agency Index, ICE BofA ML 0-5 Year AAA ABS Index, ICE BofA ML 1-5 Year A-AAA Supra Index, ICE BofA ML 1-5 Year Corporate A-AAA Index.

For illustrative purposes only; not an investment recommendation.



The Value of Diversification Over Time

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
8.73%	12.59%	5.76%	3.66%	5.85%	1.24%	2.12%	1.52%	2.19%	2.24%
7.66%	11.66%	4.17%	3.36%	3.60%	1.14%	1.52%	1.20%	1.70%	1.46%
6.81%	5.56%	3.61%	2.89%	1.97%	0.47%	1.30%	0.98%	1.15%	1.40%
5.65%	5.00%	3.27%	2.55%	1.63%	0.45%	1.30%	0.97%	1.12%	1.39%
-1.94%	2.47%	3.02%	2.44%	1.38%	0.03%	1.24%	0.93%	1.09%	0.86%
-3.16%	0.23%	1.85%	1.92%	0.91%	-0.19%	0.95%	0.92%	0.16%	0.65%

1-5 Treasury	1-5 Agency	1-5 Supranational	1-5 Municipal	1-5 Corporate	0-5 ABS
--------------	------------	-------------------	---------------	---------------	---------

Sources: Bloomberg. ICE Bank of America Merrill Lynch (BoFA ML) 1-5 Year Treasury Index, ICE BoFA ML 1-5 Year Federal Agency Index, ICE BoFA ML 1-5 Year A-AAA Supra Index, ICE BoFA ML 1-5 Year Municipal Index, ICE BoFA ML 1-5 Year Corporate A-AAA Index, ICE BoFA ML 0-5 Year AAA ABS Index.



Ongoing Services

- Monitor cash flow needs and structure investments to provide liquidity
- Actively manage the portfolio within the framework of the strategy and in compliance with the Investment Policy
- Competitively shop from approved list of 50+ broker/dealers
- Perform annual Investment Policy review
- Provide comprehensive monthly and quarterly reporting
- Provide education on relevant topics and factors affecting the fixed-income markets
- Serve as a general investment resource to Staff and Board



Disclaimer

This material is based on information obtained from sources generally believed to be reliable and available to the public, however PFM Asset Management LLC cannot guarantee its accuracy, completeness or suitability. This material is for general information purposes only and is not intended to provide specific advice or a specific recommendation. All statements as to what will or may happen under certain circumstances are based on assumptions, some but not all of which are noted in the presentation. Assumptions may or may not be proven correct as actual events occur, and results may depend on events outside of your or our control. Changes in assumptions may have a material effect on results. Past performance does not necessarily reflect and is not a guaranty of future results. The information contained in this presentation is not an offer to purchase or sell any securities.