

State of Alaska
Self-Insurance Program
Actuarial Review
As of June 30, 2019

Firm: **AMI Risk Consultants, Inc.**
1336 SW 146th Ct.
Miami, Florida 33184
(305) 273-1589

Contact: Aguedo Ingco, FCAS, MAAA, CPCU, ARM

Date: October 13, 2019

October 13, 2019

Mr. Scott Jordan
Director, Risk Management
State of Alaska
Department of Administration, Division of Risk Management
333 Willoughby Avenue, 10th Floor
Juneau, AK 99801

Dear Mr. Jordan:

We are pleased to submit our final report on the Actuarial Review of the State's Self-Insurance Program as of June 30, 2019.

We very much appreciate the cooperation and courtesies extended to us during the course of this engagement. Please do not hesitate to contact us if you have any question about the report.

Thank you for the opportunity to work with you on this project.

Sincerely,



Aguedo M. Ingco, FCAS, MAAA, CPCU, ARM
President

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I. EXECUTIVE SUMMARY

Self-Insurance Programs

Actuarial Review

June 30, 2019

Purpose

The State of Alaska (“the State”) has engaged AMI Risk Consultants, Inc. (“AMI”) to perform the following for its self-insurance programs covering Workers’ Compensation, General Liability, Automobile Liability, Marine, Aviation and Property exposures:

- Estimate the funding requirement for *outstanding claim liabilities* at June 30, 2019 to comply with Government Accounting Standards Board Statement Number 10 (“GASB 10”).
 - Project the funding requirements for *outstanding claim liabilities* for the next three fiscal year-ends.
 - Estimate the funding requirements for *new claims* that will occur during prospective fiscal years 2019/2020, 2020/2021, and 2021/2022.
 - Estimate the funding requirements for *new claims* that will occur during prospective fiscal years 2019/2020, 2020/2021, and 2021/2022 for workers' compensation, general liability, and auto liability, assuming a \$1 million self-insured retention.
 - Estimate *cash flow* requirements for paid losses for future fiscal years.
 - Provide a size of loss distribution analysis.
-

Terminology

The *funding requirement* for an accident period is the liability retained for claims that occur during that period. The funding requirement for *outstanding claim liabilities* includes:

- Case reserves for reported claims and
- Incurred but not reported (“IBNR”) reserves, providing for both unreported claims and any anticipated shortfall in case reserves.

Discounted estimates are reduced by a credit for future investment income that will be earned on the assets backing the claim liabilities before claims actually payout.

Estimates at the *various confidence levels* include a margin to protect against the possibility of adverse results. Estimates at the *expected confidence level* do not contain any such margin.

Specifically **excluded** from our estimates is any provision to meet *other general and administrative expenses* of the program such as claims administration costs, excess insurance premiums or internal risk management expenses.

The term "*losses*" means losses and allocated loss adjustment expense (“ALAE”) unless otherwise indicated.

The term “*reserves*” or “*loss reserves*” is commonly used in the insurance industry to mean outstanding claim liability as of a given date, and may appear in this report with that meaning.

GASB 10 Affirmation

We affirm the estimates contained in this report are consistent with GASB Statement No. 10.

Acknowledgment of Qualifications

Aguedo M. (Bob) Ingco is a consulting actuary and President of AMI Risk Consultants, Inc. He is a Fellow of the Casualty Actuarial Society and a Member of the American Academy of Actuaries. Mr. Ingco meets the qualification standards of the American Academy of Actuaries to provide the estimates in this report.

Distribution and Use

This report is for the internal use of the management of the State and their independent auditors. We suggest that the user of this report review a complete copy as parts considered out of context might be misleading. Please request our written consent prior to distributing this report to other third parties.

Statement on Independence

We are not aware of any relationship between AMI and the State that, in our professional judgment, might reasonably be thought to bear on our independence. No AMI employee has any relationship with the State that could impair our objectivity.

Conclusions

Funding for Outstanding Claim Liabilities (Loss Reserves) at June 30, 2019

To comply with GASB 10, we estimated the following funding for the State's outstanding claim liabilities at June 30, 2019. This is the amount needed to settle unpaid claim liabilities incurred on or before June 30, 2019.

**Estimated Outstanding Claim Liabilities at Retention
As of June 30, 2019
Expected Confidence Level
(\$000's)**

Coverage	Undiscounted	Discounted at 3.0%
Workers' Compensation	\$149,635	\$122,462
General Liability	25,838	23,807
Automobile Liability	449	432
Marine	1,226	1,189
Aviation	522	496
Property	2,383	2,337
Total	\$180,053	\$150,723

Estimates for other confidence levels are shown in the [Summary Exhibit, Page 1A](#) of the Actuarial Exhibits immediately following this written report.

Funding for Outstanding Claim Liabilities for the Next Three Fiscal Year-ends

We also estimated the funding requirements for the State's outstanding claim liabilities at June 30, 2020, at June 30, 2021, and at June 30, 2022.

**Estimated Outstanding Claim Liabilities at Retention
As of June 30, 2020
Expected Confidence Level
(\$000's)**

Coverage	Undiscounted	Discounted at 3.0%
Workers' Compensation	\$138,579	\$112,608
General Liability	26,570	24,469
Automobile Liability	405	390
Marine	899	874
Aviation	494	469
Property	1,002	983
Total	\$167,949	\$139,793

**Conclusions
(continued)**

**Estimated Outstanding Claim Liabilities at Retention
As of June 30, 2021
Expected Confidence Level
(\$000's)**

Coverage	Undiscounted	Discounted at 3.0%
Workers' Compensation	\$137,133	\$111,575
General Liability	27,366	25,203
Automobile Liability	372	358
Marine	726	703
Aviation	588	556
Property	855	838
Total	\$167,039	\$139,234

**Estimated Outstanding Claim Liabilities at Retention
As of June 30, 2022
Expected Confidence Level
(\$000's)**

Coverage	Undiscounted	Discounted at 3.0%
Workers' Compensation	\$136,100	\$110,886
General Liability	28,122	25,903
Automobile Liability	364	351
Marine	940	909
Aviation	608	576
Property	872	856
Total	\$167,006	\$139,480

Estimates for other confidence levels are shown in the [Summary Exhibit, Pages 1B to 1D](#) of the Actuarial Exhibits immediately following this written report.

**Conclusions
(continued)**

Funding for New Claims Occurring During Future Fiscal Years

Our estimated funding for the ultimate cost of new claims occurring during the next three fiscal years is as follows.

**Estimated Ultimate Losses for New Claims
At the Expected Confidence Level
(\$000's)**

For Fiscal Year 2019/2020

Coverage	Undiscounted	Discounted at 3.0%
Workers' Compensation	\$22,637	\$19,489
General Liability	7,098	6,223
Automobile Liability	273	259
Marine	554	527
Aviation	315	296
Property	1,005	968
Total	\$31,882	\$27,762

For Fiscal Year 2020/2021

Coverage	Undiscounted	Discounted at 3.0%
Workers' Compensation	\$22,977	\$19,782
General Liability	7,229	6,338
Automobile Liability	277	263
Marine	588	559
Aviation	319	299
Property	1,066	1,027
Total	\$32,456	\$28,268

For Fiscal Year 2021/2022

Coverage	Undiscounted	Discounted at 3.0%
Workers' Compensation	\$23,323	\$20,080
General Liability	7,361	6,454
Automobile Liability	282	268
Marine	623	593
Aviation	324	304
Property	1,130	1,088
Total	\$33,043	\$28,787

Estimates for other confidence levels are shown in the [Summary Exhibit, Pages 2A to 2C](#) of the Actuarial Exhibits immediately following this written report.

**Conclusions
(continued)**

Funding for New Claims Occurring During Future Fiscal Years - Limited to \$1 Million Retention

Currently, the State retains all claim liabilities for the workers' compensation, general liability, and automobile liability programs. As part of the scope of this report, the State requested an estimate of the ultimate losses for new claims for these programs assuming a \$1 million per occurrence self-insured retention.

**Estimated Ultimate Losses for New Claims
Undiscounted at the Expected Confidence Level
Limited to \$1 Million Retention
(\$000's)**

Coverage	2019/2020	2020/2021	2021/2022
Workers' Compensation	\$18,789	\$19,071	\$19,358
General Liability	5,146	5,241	5,337
Automobile Liability	191	194	197

**Conclusions
(continued)**

Projected Cash Flow from Paid Losses

Our estimated cash flow from paid losses during the next three fiscal years is as follows. These are estimates of the cash required for claim payments that will come due during each of the next three years.

**Projected Paid Loss Cash Flow
At the Expected Confidence Level
(\$000's)**

Coverage	2019/2020	2020/2021	2021/2022
Workers' Compensation	\$27,810	\$25,207	\$25,114
General Liability	6,366	6,433	6,605
Automobile Liability	317	310	290
Marine	881	761	622
Aviation	344	306	304
Property	2,386	1,214	1,112
Total	\$38,103	\$34,231	\$34,047

Reliance and Limitations

In performing the analysis, we relied without audit or verification on the following information furnished by the State. We reviewed the data received for reasonableness and consistency with prior valuations.

- Incurred and paid losses by accident year as of June 30, 2019 for the following coverages:
 1. Workers' Compensation
 2. General Liability
 3. Automobile Liability
 4. Marine
 5. Aviation
 6. Property.
- Full-time employee, population and vehicle counts, and property value by fiscal year.

Our contact at the State Division of Risk Management was Ms. Sheri Gray, Risk Manager.

In performing our calculations for Marine, Aviation and Property, losses were limited to their respective self-insurance retentions. Losses for General Liability and Automobile Liability were not limited. Workers' Compensation losses were not limited except for those from accident years prior to 1994.

Based on the discussions from the prior actuarial study, losses for all coverages were analyzed gross of recoveries and on an occurrence basis.

**Reliance and
Limitations
(continued)**

Risk of Adverse Deviation

Calculations of reserves are subject to potential errors of estimation because the ultimate liability for claims is subject to the outcome of events yet to occur, e.g. jury decisions and attitudes of claimants with respect to settlements. In projecting loss emergence, we assumed that historical loss development patterns are predictive of future patterns for the State. We have not anticipated any extraordinary changes in the legal, social or economic environment that might affect the ultimate cost of claims.

We cannot reasonably estimate the uncertainties that ultimate liabilities are subject to. Therefore, while we believe our assumptions and methods are reasonable, we cannot guarantee that actual results will not differ, perhaps substantially, from our estimates.

II. ACTUARIAL REPORT

Background

The State has self-insured its workers' compensation, general liability, automobile liability, marine, aviation, and property programs for many years. By effectively managing these self-insurance programs through the Division of Risk Management, the State expends less public funds than would be paid to private insurance companies, and at the same time provides streamlined claims services utilizing professional adjusting firms located throughout Alaska.

Currently the State retains full liability for the workers' compensation, general liability, and auto liability programs. The property program has a \$1 million per occurrence self-insurance retention. The marine program has a \$750,000 per occurrence self-insurance retention for marine Hull & Machinery and a \$500,000 per occurrence for Protection & Indemnity as well as Pollution coverage. The aviation program has a \$250,000 per occurrence self-insurance retention (\$10,000 per occurrence for Non-Owned Hull). The current and historical self-insured retentions for each program are summarized in Appendix E.

The programs cover all State Departments except those specifically excluded such as the Alaska Railroad and University of Alaska, who administer their own insurance program.

The State changed their TPA in August 2017 and there were some changes in their Workers' Compensation attorneys in 2018.

Actuarial Approach

Ultimate Losses

To estimate ultimate losses, we used the following actuarial approaches:

- *Incurred Loss Development Approach (ILDA)*
- *Paid Loss Development Approach (PLDA)*
- *Bornhuetter-Ferguson Incurred Loss Approach (BFILA)*
- *Bornhuetter-Ferguson Paid Loss Approach (BFPLA)*
- *Loss Rate Approach (LRA).*

Description of the methods we used to estimate the reserves as of June 30, 2019.

Incurred Loss Development Approach (ILDA)

Under the ILDA, incurred losses to date were multiplied by loss development factors to estimate ultimate losses.

Paid Loss Development Approach (PLDA)

The PLDA is similar to the ILDA. Instead of multiplying incurred losses by loss development factors, paid losses were multiplied by loss development factors to estimate ultimate losses.

Loss Rate Approach (LRA)

To react to the immaturity of the paid and incurred losses for the most recent accident year, the LRA was used in lieu of the ILDA and PLDA. Under the LRA, a loss rate is judgmentally selected for the most recent year. This loss rate is then multiplied by the appropriate exposure to estimate ultimate losses.

Bornhuetter-Ferguson Incurred Loss Approach (BFILA)

Under the BFILA, actual incurred losses and expected unreported losses were summed to estimate ultimate losses.

Bornhuetter-Ferguson Paid Loss Approach (BFPLA)

Under the BFPLA, actual paid losses and expected unpaid losses were summed to estimate ultimate losses.

These approaches were applied to losses net of excess insurance for marine, aviation and property. Loss development factors were based on the State's historical loss development patterns by coverage.

The initial ultimate loss assumptions for the BFILA and BFPLA were determined using a selected loss rate for each coverage. The loss rates were selected from those indicated by the ILDA and PLDA.

**Actuarial
Approach
(continued)**

Funding for Outstanding Claim Liabilities (Loss Reserves) as of June 30, 2019

Ultimate losses were selected from the results of the described approaches. Paid losses were subtracted from the selected ultimate to estimate total undiscounted loss reserves.

Funding for New Claims Occurring in Future Fiscal Years

To estimate the ultimate losses for prospective fiscal years by coverage, we followed these steps:

*The steps we
used to estimate
the ultimate
losses for future
Fiscal Years*

- Estimated the historical loss rates by accident year. Loss rates are selected ultimate losses divided by the appropriate exposures.
- Extrapolated the historical loss rates to future fiscal years.
- Multiplied the extrapolated loss rates by the projected exposures for future years.

For workers' compensation, general liability, and automobile liability, the funding requirements for future fiscal years were also projected assuming a \$1 million self-insurance retention. A retention factor, based on industry increased limits factors for the State, is applied to the unlimited projected losses to estimate the funding amount at the retention limit.

Funding for Outstanding Claim Liabilities (Loss Reserves) for Future Fiscal Year-ends

The estimated future loss reserves were based on the loss reserves from the prior fiscal year-end plus an estimate of the additional losses for new claims incurred in the new fiscal year, reduced by the expected payments during the new year.

**Actuarial
Approach
(continued)**

Future Investment Income and Risk Margins

Because claims are not settled immediately, reserves used to fund future payments earn investment income before they are needed to pay claims. In estimating the *discounted funding for outstanding claim liability* at June 30, 2019 and the *discounted funding for new claims* occurring during next three fiscal years, we reduced the undiscounted estimates by the amount of estimated future investment income.

We assumed an average annual rate of return on invested assets of **3.0%**.

Furthermore, our estimates using the various methods and procedures we have described are based on an expected value. Conceptually, an expected value is an average value. The actual losses of an entity like the State will vary and could be higher or lower than this average value. The more risk margin that is added to this average value in determining the funding level, the higher the likelihood that the State's funding will be sufficient to cover actual losses.

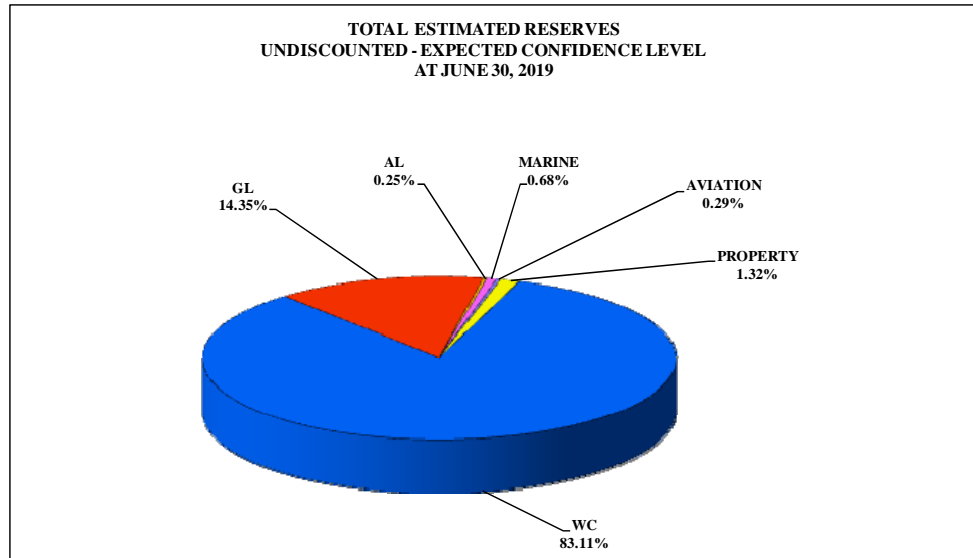
In our calculations we used margins for **75%, 85% and 95% confidence levels**. With the 75% confidence level we are estimating the margin that is necessary so that there is a 75% likelihood that the funding will be sufficient to cover the actual liabilities.

Graphs

Distribution of Undiscounted Loss Reserves by Coverage

For additional perspective, we prepared the pie chart below to show the proportion of the estimated reserves of **\$180.1 million**, associated with each coverage:

The bulk of the \$180.1 million undiscounted reserves as of June 30, 2019 is for Workers' Compensation



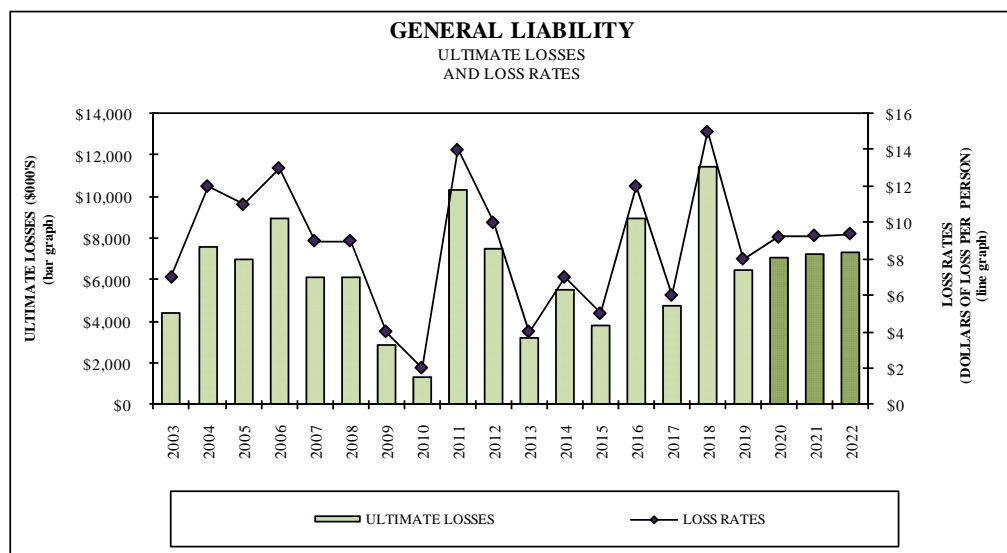
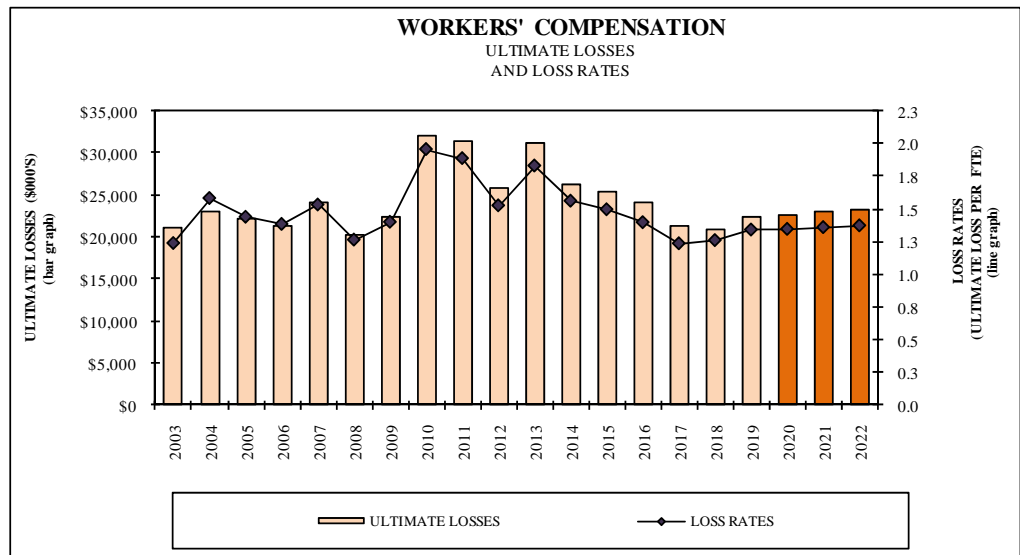
WC = Workers' Compensation
AL = Automobile Liability
GL = General Liability

**Graphs
(continued)**

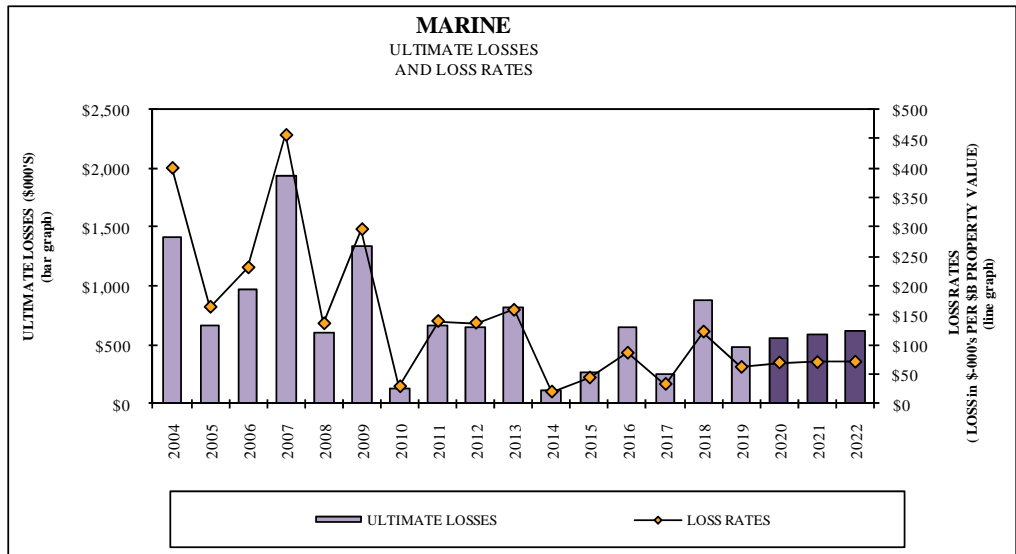
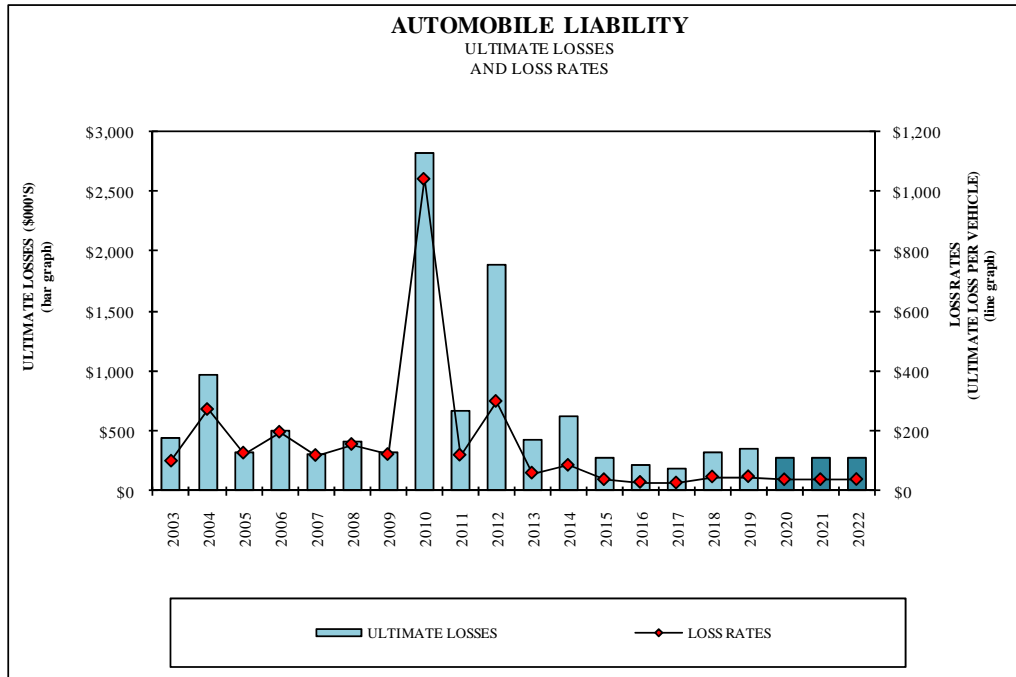
Graphs of Ultimate Losses and Loss Rates

To give perspective on the prospective funding levels relative to the historical trend in ultimate losses and loss rates, we prepared the following graphs by type of coverage.

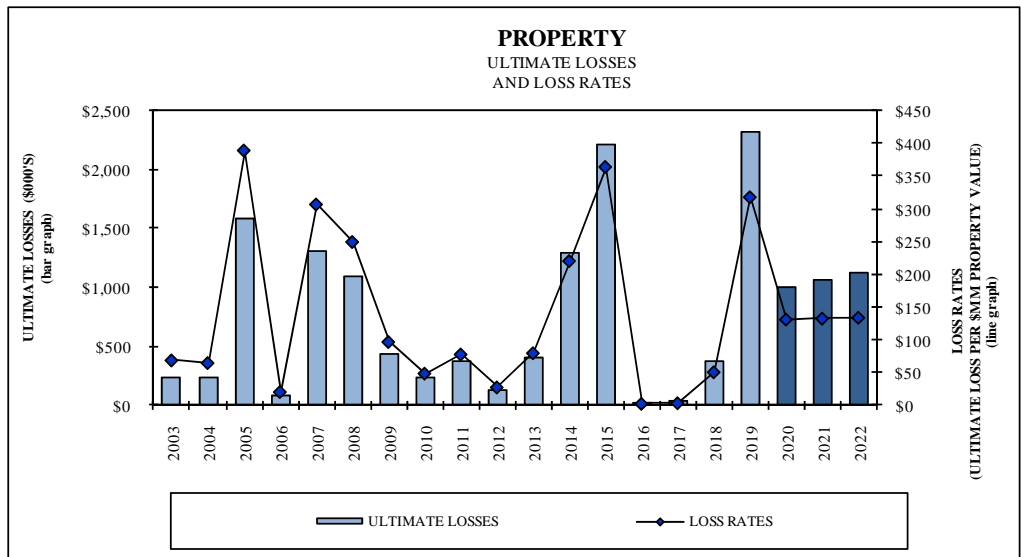
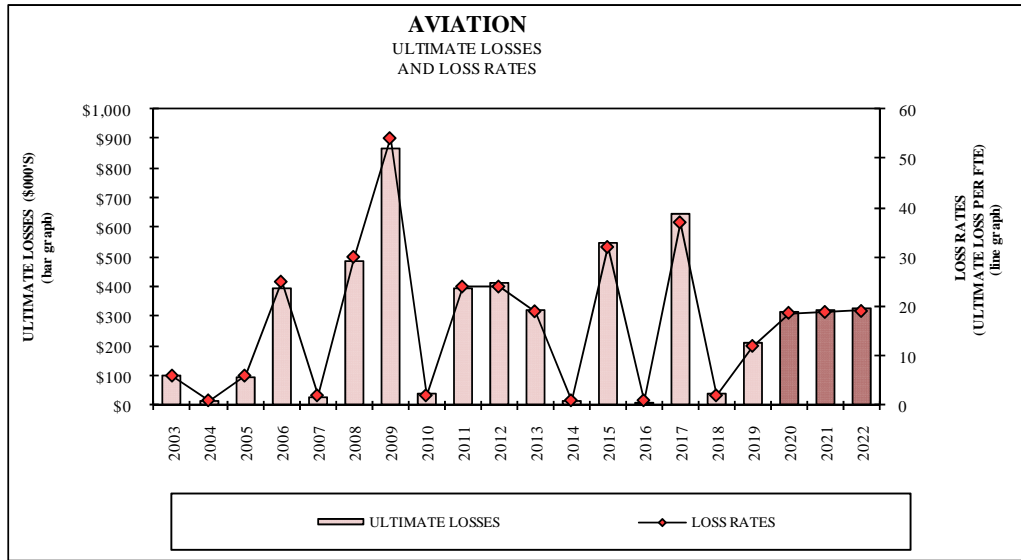
For each graph the **bar graph** shows historical and projected *ultimate losses* by accident year. Values are read from the *left-hand vertical axis*. The **line graph**, on the other hand, indicates the *loss rate* with values and description read from the *right-hand vertical axis*.



**Graphs
(continued)**



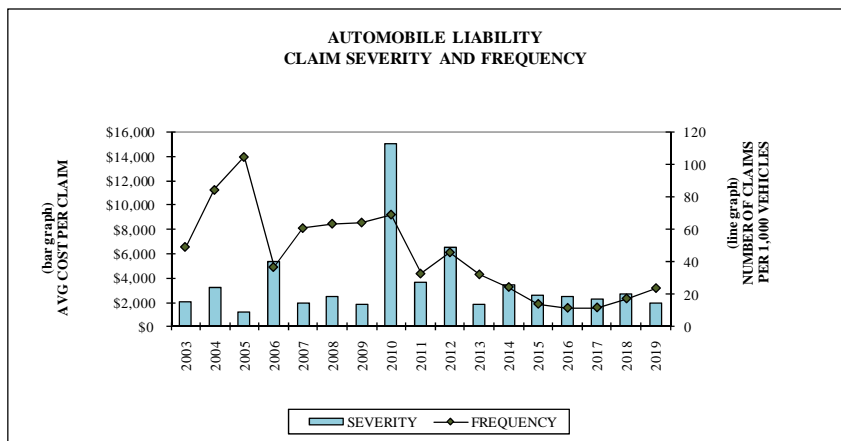
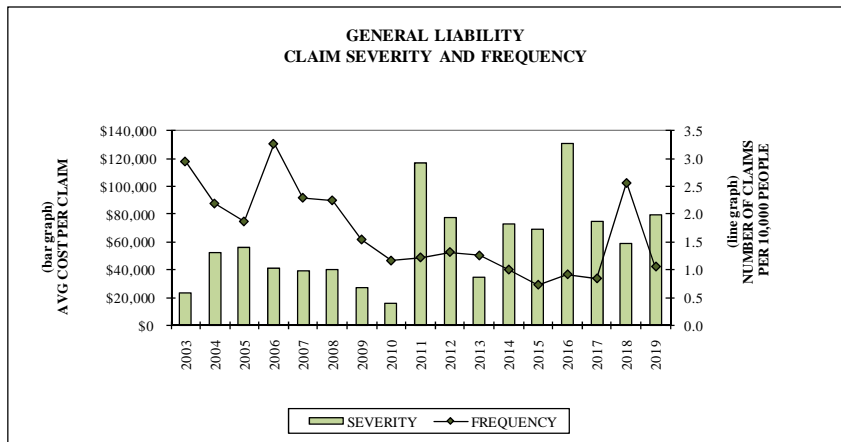
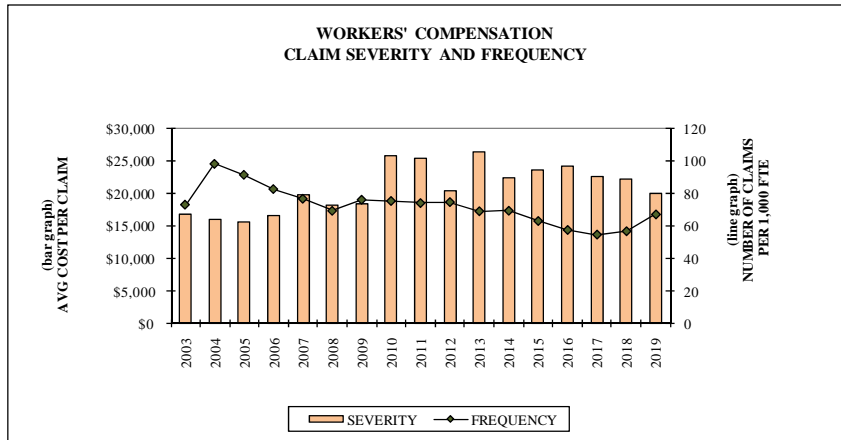
**Graphs
(continued)**



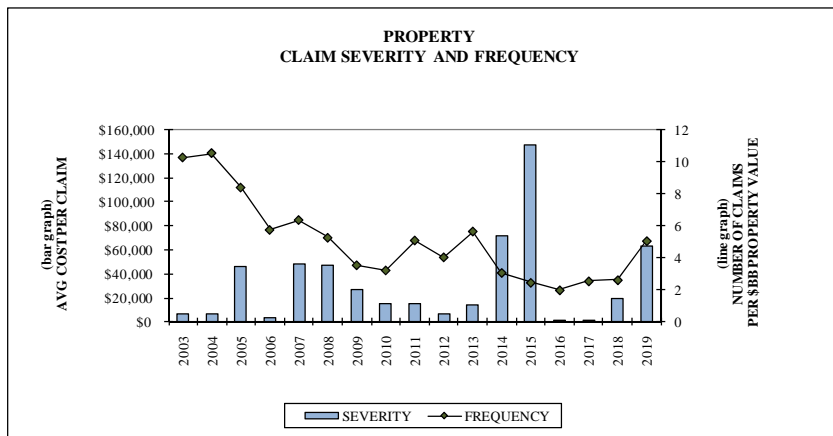
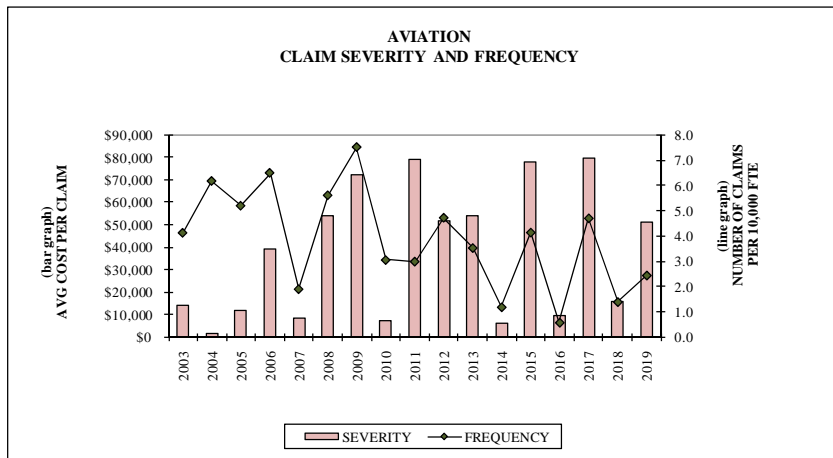
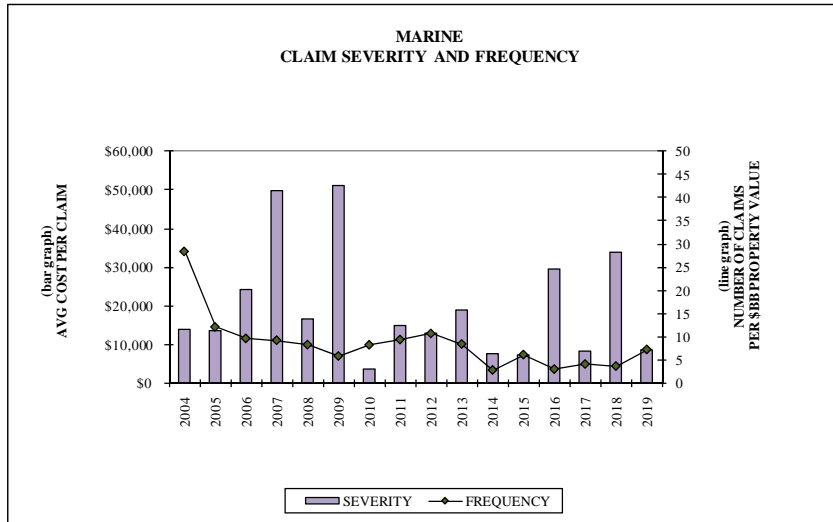
**Graphs
(continued)**

Graphs of Ultimate Claim Frequency and Ultimate Claim Severity

To give perspective on claim frequency and claim severity, we prepared the following graphs by type of coverage.



**Graphs
(continued)**



Attached Exhibits

We prepared the attached Summary Exhibit to summarize the results of our calculations. There are three (3) pages to the Summary Exhibit. Each page relates to the following:

- Pages 1A, 1B, 1C, and 1D show the summary of loss reserves at various confidence levels and on both an undiscounted and discounted basis for the following fiscal year-ends: June 30, 2019; June 30, 2020; June 30, 2021; and June 30, 2022.
- Pages 2A, 2B, and 2C show the projected ultimate losses for the next three fiscal years, at various confidence levels and on both an undiscounted and discounted basis.
- Page 3 shows the estimated paid loss cash flows for the next three fiscal years.

We prepared Exhibits I-VI to perform the calculations previously described. Each exhibit corresponds to the following coverage:

- *Exhibit I - Workers' Compensation*
- *Exhibit II – General Liability*
- *Exhibit III- Automobile Liability*
- *Exhibit IV – Marine*
- *Exhibit V – Aviation*
- *Exhibit VI – Property*

There are nine (9) pages to Exhibits I-VI and each page relates to the following:

- Page 1A shows a summary of ultimate losses based on the various methods, the selected ultimate loss and undiscounted loss reserves at the expected confidence level as of June 30, 2019.

Pages 1B, 1C, and 1D show estimates of the undiscounted loss reserves at the expected confidence level for the next three fiscal year-ends.

- Page 2 shows calculation of ultimate losses using the ILDA, PLDA and LRA.

**Attached
Exhibits
(continued)**

- Page 3 shows the calculation of ultimate losses using the BFILA and BFPLA.
- Pages 4A to 4B show the calculation of historical incurred loss development factors; Pages 4C to 4D show the calculation of historical paid loss development factors; Pages 4E to 4F show the calculation of claim count development factors.
- Pages 5A, 5B, 5C, and 5D shows the calculation of discounted reserves at the expected level and at the 75%, 85% and 95% confidence levels for the following fiscal year-ends: June 30, 2019; June 30, 2020; June 30, 2021; and June 30, 2022.
- Page 6 shows the calculation of projected ultimate losses for new claims occurring during the next three fiscal years at the expected level and at the 75%, 85% and 95% confidence levels.

For Exhibits I, II, and III, Page 6A shows the calculation of projected ultimate losses, assuming a \$1 million self-insurance retention is in place.

- Page 7 shows the calculation of ultimate claim frequency and ultimate claim severity.
- Page 8 shows the calculation of paid cash flows during the fiscal years.
- Page 9 shows the analysis of the size of loss distribution.

Calculation of Discount Factors

We prepared Appendix A to show the calculation of discount factors using the average “risk-free” rate of return for investments maturing during the expected claim payout period. There are six pages to this Appendix:

- *Page 1 - Workers’ Compensation*
 - *Page 2 – General Liability*
 - *Page 3 - Automobile Liability*
 - *Page 4 – Marine*
 - *Page 5 – Aviation*
 - *Page 6 – Property*
-

**Attached
Exhibits
(continued)**

Comparison of Loss Reserves at June 30, 2019 to Loss Reserves at June 30, 2018

Appendix B reconciles the undiscounted reserves as of June 30, 2019 with the undiscounted reserves as of June 30, 2018.

This Appendix has seven pages:

- *Page 1 - All Coverages Combined*
- *Page 2 - Workers' Compensation*
- *Page 3 - General Liability*
- *Page 4 - Automobile Liability*
- *Page 5 - Marine*
- *Page 6 - Aviation*
- *Page 7 - Property*

Comparison of Ultimate Losses at June 30, 2019 to Ultimate Losses at June 30, 2018

Appendix C shows the comparison of ultimate losses between June 30, 2019 and June 30, 2018 by accident year.

- *Page 1 - Workers' Compensation*
- *Page 2 - General Liability*
- *Page 3 - Automobile Liability*
- *Page 4 - Marine*
- *Page 5 - Aviation*
- *Page 6 - Property*

Comparison of Paid Losses at June 30, 2019 to Paid Losses at June 30, 2018

Appendix D shows the comparison of paid losses between June 30, 2019 and June 30, 2018 by accident year.

- *Page 1 - Workers' Compensation*
 - *Page 2 - General Liability*
 - *Page 3 - Automobile Liability*
 - *Page 4 - Marine*
 - *Page 5 - Aviation*
 - *Page 6 - Property*
-

**Attached
Exhibits
(continued)**

List of Self-insured Retentions by Fiscal Year

Appendix E shows the list of self-insurance retentions by fiscal year and by sub-line.

- *Page 1 - Workers' Compensation*
- *Page 2 – General Liability*
- *Page 3 - Automobile Liability*
- *Page 4 – Marine*
- *Page 5 – Aviation*
- *Page 6 – Property*

List of Large Losses

Appendix F shows a list of unlimited large losses as of June 30, 2019.

- *Page 1 - Workers' Compensation*
 - *Page 2 – General Liability*
 - *Page 3 - Automobile Liability*
 - *Page 4 – Marine*
 - *Page 5 – Aviation*
 - *Page 6 – Property*
-

III. ACTUARIAL EXHIBITS

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
SUMMARY OF LOSS RESERVES
AS OF JUNE 30, 2019
ALL COVERAGES COMBINED
(AMTS IN THOUSANDS)

LOSS RESERVES AT JUNE 30, 2019

COVERAGE	UNDISCOUNTED	DISCOUNTED AT 3%			
	EXPECTED LEVEL	EXPECTED LEVEL	75% CONFIDENCE LEVEL	85% CONFIDENCE LEVEL	95% CONFIDENCE LEVEL
	(1)	(2)	(3)	(4)	(5)
WORKERS' COMPENSATION	\$149,635	\$122,462	\$128,437	\$132,707	\$138,977
GENERAL LIABILITY	25,838	23,807	30,192	36,777	49,188
AUTOMOBILE LIABILITY	449	432	716	981	1,555
MARINE	1,226	1,189	1,580	1,889	2,547
AVIATION	522	496	659	788	1,063
PROPERTY	2,383	2,337	3,107	3,713	5,008
TOTAL	\$180,053	\$150,723	\$164,691	\$176,855	\$198,338

Notes:

- (1) - Per Page 1A, total of Column (7) of each exhibit.
(2), (3), (4) & (5) - Per Page 5A, Column (5) of each exhibit.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
SUMMARY OF LOSS RESERVES
AS OF JUNE 30, 2020
ALL COVERAGES COMBINED
(AMTS IN THOUSANDS)

LOSS RESERVES AT JUNE 30, 2020

COVERAGE	UNDISCOUNTED	DISCOUNTED AT 3%			
	EXPECTED LEVEL	EXPECTED LEVEL	75% CONFIDENCE LEVEL	85% CONFIDENCE LEVEL	95% CONFIDENCE LEVEL
	(1)	(2)	(3)	(4)	(5)
WORKERS' COMPENSATION	\$138,579	\$112,608	\$118,102	\$122,029	\$127,794
GENERAL LIABILITY	26,570	24,469	31,031	37,800	50,556
AUTOMOBILE LIABILITY	405	390	647	887	1,405
MARINE	899	874	1,161	1,388	1,872
AVIATION	494	469	623	744	1,004
PROPERTY	1,002	983	1,307	1,562	2,107
TOTAL	\$167,949	\$139,793	\$152,871	\$164,409	\$184,737

Notes:

- (1) - Per Page 1B, total of Column (7) of each exhibit.
(2), (3), (4) & (5) - Per Page 5B, Column (5) of each exhibit.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
SUMMARY OF LOSS RESERVES
AS OF JUNE 30, 2021
ALL COVERAGES COMBINED
(AMTS IN THOUSANDS)

LOSS RESERVES AT JUNE 30, 2021

COVERAGE	UNDISCOUNTED	DISCOUNTED AT 3%			
	EXPECTED LEVEL	EXPECTED LEVEL	75% CONFIDENCE LEVEL	85% CONFIDENCE LEVEL	95% CONFIDENCE LEVEL
	(1)	(2)	(3)	(4)	(5)
WORKERS' COMPENSATION	\$137,133	\$111,575	\$117,019	\$120,909	\$126,621
GENERAL LIABILITY	27,366	25,203	31,962	38,933	52,072
AUTOMOBILE LIABILITY	372	358	593	813	1,289
MARINE	726	703	935	1,117	1,507
AVIATION	588	556	739	883	1,191
PROPERTY	855	838	1,114	1,332	1,796
TOTAL	\$167,039	\$139,234	\$152,363	\$163,989	\$184,477

Notes:

- (1) - Per Page 1C, total of Column (7) of each exhibit.
(2), (3), (4) & (5) - Per Page 5C, Column (5) of each exhibit.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
SUMMARY OF LOSS RESERVES
AS OF JUNE 30, 2022
ALL COVERAGES COMBINED
(AMTS IN THOUSANDS)

LOSS RESERVES AT JUNE 30, 2022

COVERAGE	UNDISCOUNTED	DISCOUNTED AT 3%			
	EXPECTED LEVEL	EXPECTED LEVEL	75% CONFIDENCE LEVEL	85% CONFIDENCE LEVEL	95% CONFIDENCE LEVEL
	(1)	(2)	(3)	(4)	(5)
WORKERS' COMPENSATION	\$136,100	\$110,886	\$116,296	\$120,163	\$125,840
GENERAL LIABILITY	28,122	25,903	32,849	40,014	53,518
AUTOMOBILE LIABILITY	364	351	581	797	1,262
MARINE	940	909	1,208	1,443	1,947
AVIATION	608	576	765	915	1,234
PROPERTY	872	856	1,138	1,359	1,834
TOTAL	\$167,006	\$139,480	\$152,837	\$164,691	\$185,634

Notes:

- (1) - Per Page 1D, total of Column (7) of each exhibit.
- (2), (3), (4) & (5) - Per Page 5D, Column (5) of each exhibit.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
RECOMMENDED FUNDING FOR FUTURE ACCIDENTS OCCURRING IN FY 2019/2020
AS OF JUNE 30, 2019
ALL COVERAGES COMBINED
(AMTS IN THOUSANDS)

PROJECTED ULTIMATE LOSSES FOR FY 2019/2020

COVERAGE	UNDISCOUNTED	DISCOUNTED AT 3%			
	EXPECTED LEVEL	EXPECTED LEVEL	75% CONFIDENCE LEVEL	85% CONFIDENCE LEVEL	95% CONFIDENCE LEVEL
	(1)	(2)	(3)	(4)	(5)
WORKERS' COMPENSATION	\$22,637	\$19,489	\$23,252	\$25,680	\$30,185
GENERAL LIABILITY	7,098	6,223	8,826	11,277	16,139
AUTOMOBILE LIABILITY	273	259	263	379	847
MARINE	554	527	726	876	1,175
AVIATION	315	296	408	492	660
PROPERTY	1,005	968	1,333	1,610	2,158
TOTAL	\$31,882	\$27,762	\$34,808	\$40,314	\$51,164

Notes:

- (1) - Per Page 6A, Column (4) of Exhibit I, II & III and Page 6, Column (4) of Exhibits IV, V & VI.
- (2) - Per Page 6A, Column (8) of Exhibit I, II & III and Page 6, Column (8) of Exhibits IV, V & VI.
- (3) - Per Page 6A, Column (9) of Exhibit I, II & III and Page 6, Column (9) of Exhibits IV, V & VI.
- (4) - Per Page 6A, Column (10) of Exhibit I, II & III and Page 6, Column (10) of Exhibits IV, V & VI.
- (5) - Per Page 6A, Column (11) of Exhibit I, II & III and Page 6, Column (11) of Exhibits IV, V & VI.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
RECOMMENDED FUNDING FOR FUTURE ACCIDENTS OCCURRING IN FY 2020/2021
AS OF JUNE 30, 2019
ALL COVERAGES COMBINED
(AMTS IN THOUSANDS)

PROJECTED ULTIMATE LOSSES FOR FY 2020/2021

COVERAGE	UNDISCOUNTED	DISCOUNTED AT 3%			
	EXPECTED LEVEL	EXPECTED LEVEL	75% CONFIDENCE LEVEL	85% CONFIDENCE LEVEL	95% CONFIDENCE LEVEL
	(1)	(2)	(3)	(4)	(5)
WORKERS' COMPENSATION	\$22,977	\$19,782	\$23,601	\$26,067	\$30,639
GENERAL LIABILITY	7,229	6,338	8,990	11,486	16,437
AUTOMOBILE LIABILITY	277	263	267	385	860
MARINE	588	559	770	930	1,246
AVIATION	319	299	412	497	667
PROPERTY	1,066	1,027	1,414	1,708	2,290
TOTAL	\$32,456	\$28,268	\$35,454	\$41,073	\$52,139

Notes:

- (1) - Per Page 6A, Column (4) of Exhibit I, II & III and Page 6, Column (4) of Exhibits IV, V & VI.
- (2) - Per Page 6A, Column (8) of Exhibit I, II & III and Page 6, Column (8) of Exhibits IV, V & VI.
- (3) - Per Page 6A, Column (9) of Exhibit I, II & III and Page 6, Column (9) of Exhibits IV, V & VI.
- (4) - Per Page 6A, Column (10) of Exhibit I, II & III and Page 6, Column (10) of Exhibits IV, V & VI.
- (5) - Per Page 6A, Column (11) of Exhibit I, II & III and Page 6, Column (11) of Exhibits IV, V & VI.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
RECOMMENDED FUNDING FOR FUTURE ACCIDENTS OCCURRING IN FY 2021/2022
AS OF JUNE 30, 2019
ALL COVERAGES COMBINED
(AMTS IN THOUSANDS)

PROJECTED ULTIMATE LOSSES FOR FY 2021/2022

COVERAGE	UNDISCOUNTED	DISCOUNTED AT 3%			
	EXPECTED LEVEL	EXPECTED LEVEL	75% CONFIDENCE LEVEL	85% CONFIDENCE LEVEL	95% CONFIDENCE LEVEL
	(1)	(2)	(3)	(4)	(5)
WORKERS' COMPENSATION	\$23,323	\$20,080	\$23,957	\$26,459	\$31,101
GENERAL LIABILITY	7,361	6,454	9,154	11,696	16,738
AUTOMOBILE LIABILITY	282	268	273	392	876
MARINE	623	593	816	986	1,322
AVIATION	324	304	419	506	678
PROPERTY	1,130	1,088	1,498	1,809	2,426
TOTAL	\$33,043	\$28,787	\$36,117	\$41,848	\$53,141

Notes:

- (1) - Per Page 6A, Column (4) of Exhibit I, II & III and Page 6, Column (4) of Exhibits IV, V & VI.
- (2) - Per Page 6A, Column (8) of Exhibit I, II & III and Page 6, Column (8) of Exhibits IV, V & VI.
- (3) - Per Page 6A, Column (9) of Exhibit I, II & III and Page 6, Column (9) of Exhibits IV, V & VI.
- (4) - Per Page 6A, Column (10) of Exhibit I, II & III and Page 6, Column (10) of Exhibits IV, V & VI.
- (5) - Per Page 6A, Column (11) of Exhibit I, II & III and Page 6, Column (11) of Exhibits IV, V & VI.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
 PROJECTED CASHFLOW
 AS OF JUNE 30, 2019
 ALL COVERAGES COMBINED
 (AMTS IN THOUSANDS)

PROJECTED CASH FLOW FOR FUTURE FISCAL YEARS

COVERAGE	FISCAL YEAR		
	2019/2020	2020/2021	2021/2022
	(1)	(2)	(3)
WORKERS' COMPENSATION	\$27,810	\$25,207	\$25,114
GENERAL LIABILITY	6,366	6,433	6,605
AUTOMOBILE LIABILITY	317	310	290
MARINE	881	761	622
AVIATION	344	306	304
PROPERTY	2,386	1,214	1,112
TOTAL	\$38,103	\$34,231	\$34,047

Notes:

(1) - (3) - Per Page 8 of Exhibits I - VI.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2019
WORKERS' COMPENSATION
(\$AMOUNTS IN '000s)
UNLIMITED

ALL APPROACHES COMBINED

ACCIDENT YEAR*	ESTIMATED ULTIMATE LOSSES BY METHOD				SELECTED ULTIMATE LOSSES	PAID LOSSES @ 6/30/2019	TOTAL LOSS RESERVES @ 6/30/2019
	ILDA	PLDA	BFILA	BFPLA			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Prior**							\$6,764
1994	\$8,140	\$8,099	\$8,139	\$8,099	\$8,119	\$7,849	270
1995	15,346	15,282	15,358	15,282	15,317	13,433	1,885
1996	12,537	12,474	12,536	12,474	12,505	11,594	912
1997	12,687	12,605	12,688	12,605	12,646	11,497	1,149
1998	10,541	10,456	10,541	10,456	10,498	9,875	623
1999	14,062	13,914	14,062	13,914	13,988	12,494	1,494
2000	17,637	17,454	17,682	17,454	17,556	14,697	2,860
2001	20,960	20,649	20,991	20,649	20,812	17,746	3,066
2002	21,611	21,745	21,701	21,259	21,579	18,234	3,345
2003	21,238	20,705	21,347	20,705	20,999	17,868	3,131
2004	23,111	23,519	23,076	22,353	23,015	19,813	3,202
2005	21,688	23,080	21,867	21,899	22,133	19,173	2,960
2006	21,579	21,346	21,673	20,568	21,292	17,485	3,806
2007	24,701	24,025	24,725	23,100	24,138	19,191	4,947
2008	20,578	19,736	20,699	20,127	20,285	16,190	4,095
2009	22,004	23,227	22,251	21,954	22,359	17,661	4,698
2010	32,973	32,583	32,542	29,761	31,965	21,836	10,129
2011	32,051	33,369	31,375	29,104	31,475	23,795	7,680
2012	25,060	27,299	24,746	26,246	25,838	20,382	5,456
2013	32,938	31,902	31,564	27,953	31,089	21,491	9,599
2014	27,807	25,644	26,754	24,838	26,261	17,826	8,435
2015	25,207	26,227	24,691	25,194	25,330	17,412	7,917
2016	24,130	24,528	25,464	22,312	24,108	13,527	10,582
2017	20,375	19,413	21,448	21,168	21,308	11,160	10,148
2018	20,728	17,894	21,545	20,355	20,950	8,726	12,224
2019	23,316	22,407	22,745	21,277	22,436	4,176	18,260
TOTAL	\$553,005	\$549,582	\$552,210	\$531,108	\$548,003	\$405,132	\$149,635

Notes:

(1), (2), (3), & (4) - Ultimate losses calculated from Exhibit I, Pages 2 & 3.

(5) = Average of (1), (2), (3) & (4).

(6) - Per STATE OF ALASKA

(7) = (5) - (6).

* All Accident Years are 12-month periods ending 6/30 of the stated year.

**Losses Prior to 1994 are limited to retention.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2020
WORKERS' COMPENSATION
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	LOSS RESERVES AS OF @6/30/2019	ESTIMATED PAID LOSSES FOR FY2020	PAID LOSSES AS OF @6/30/2019	ESTIMATED PAID LOSSES AS OF @6/30/2020	ESTIMATED LOSS RESERVES AS OF @6/30/2020
	(1)	(2)	(3)	(4)	(5)	(6)
Prior		\$6,764	\$881			\$0
1994	\$8,119	270	270	\$7,849	\$8,119	0
1995	15,317	1,885	1,885	13,433	15,317	0
1996	12,505	912	95	11,594	11,689	816
1997	12,646	1,149	108	11,497	11,605	1,041
1998	10,498	623	77	9,875	9,952	546
1999	13,988	1,494	215	12,494	12,710	1,278
2000	17,556	2,860	369	14,697	15,066	2,490
2001	20,812	3,066	456	17,746	18,202	2,610
2002	21,579	3,345	446	18,234	18,680	2,899
2003	20,999	3,131	408	17,868	18,276	2,723
2004	23,015	3,202	456	19,813	20,269	2,746
2005	22,133	2,960	377	19,173	19,551	2,583
2006	21,292	3,806	441	17,485	17,926	3,365
2007	24,138	4,947	510	19,191	19,701	4,437
2008	20,285	4,095	368	16,190	16,558	3,727
2009	22,359	4,698	409	17,661	18,070	4,289
2010	31,965	10,129	835	21,836	22,671	9,294
2011	31,475	7,680	597	23,795	24,393	7,082
2012	25,838	5,456	448	20,382	20,830	5,008
2013	31,089	9,599	850	21,491	22,341	8,748
2014	26,261	8,435	743	17,826	18,569	7,692
2015	25,330	7,917	736	17,412	18,148	7,181
2016	24,108	10,582	1,035	13,527	14,562	9,547
2017	21,308	10,148	1,256	11,160	12,416	8,892
2018	20,950	12,224	2,081	8,726	10,807	10,143
2019	22,436	18,260	5,753	4,176	9,930	12,507
2020	22,637		5,704		5,704	16,933
TOTAL	\$570,640	\$149,635	\$27,810	\$405,132	\$432,061	\$138,579

Notes:

(1) - For 2019 and prior, ultimate losses based from Exhibit I, Page 1A, Column (5). For 2020, ultimate loss is the projected loss in Exhibit I, Page 6A.

(2) - For 2019 and prior, loss reserves based from Exhibit I, Page 1A, Column (7).

(3) - From Exhibit I, Page 8.

(4) - From Exhibit I, Page 1A, Column (6).

(5) = (3) + (4)

(6) = (1) - (5)

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2021
WORKERS' COMPENSATION
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	LOSS RESERVES AS OF @6/30/2020	ESTIMATED PAID LOSSES FOR FY2021	ESTIMATED PAID LOSSES AS OF @6/30/2020	ESTIMATED PAID LOSSES AS OF @6/30/2021	ESTIMATED LOSS RESERVES AS OF @6/30/2021
	(1)	(2)	(3)	(4)	(5)	(6)
Prior		\$0	\$784			\$0
1994	\$8,119	0	0	\$8,119	\$8,119	0
1995	15,317	0	0	15,317	15,317	0
1996	12,505	816	96	11,689	11,785	721
1997	12,646	1,041	109	11,605	11,714	932
1998	10,498	546	52	9,952	10,004	495
1999	13,988	1,278	158	12,710	12,867	1,121
2000	17,556	2,490	359	15,066	15,425	2,132
2001	20,812	2,610	337	18,202	18,539	2,273
2002	21,579	2,899	431	18,680	19,111	2,468
2003	20,999	2,723	363	18,276	18,639	2,360
2004	23,015	2,746	358	20,269	20,627	2,388
2005	22,133	2,583	368	19,551	19,918	2,215
2006	21,292	3,365	429	17,926	18,356	2,936
2007	24,138	4,437	514	19,701	20,215	3,923
2008	20,285	3,727	384	16,558	16,942	3,343
2009	22,359	4,289	385	18,070	18,455	3,904
2010	31,965	9,294	810	22,671	23,480	8,485
2011	31,475	7,082	583	24,393	24,976	6,499
2012	25,838	5,008	390	20,830	21,220	4,618
2013	31,089	8,748	719	22,341	23,059	8,030
2014	26,261	7,692	681	18,569	19,250	7,011
2015	25,330	7,181	632	18,148	18,781	6,549
2016	24,108	9,547	887	14,562	15,449	8,659
2017	21,308	8,892	870	12,416	13,286	8,022
2018	20,950	10,143	1,255	10,807	12,062	8,888
2019	22,436	12,507	2,129	9,930	12,059	10,378
2020	22,637	16,933	5,335	5,704	11,039	11,598
2021	22,977		5,790		5,790	17,187
TOTAL	\$593,617	\$138,579	\$25,207	\$432,061	\$456,484	\$137,133

Notes:

- (1) - For 2020 and prior, ultimate losses based from Exhibit I, Page 1B, Column (1). For 2021, ultimate loss is the projected loss in Exhibit I, Page 6A.
- (2) - For 2020 and prior, loss reserves based from Exhibit I, Page 1B, Column (6).
- (3) - From Exhibit I, Page 8.
- (4) - From Exhibit I, Page 1B, Column (5).
- (5) = (3) + (4)
- (6) = (1) - (5)
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2022
WORKERS' COMPENSATION
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	LOSS RESERVES AS OF @6/30/2021	ESTIMATED PAID LOSSES FOR FY2022	ESTIMATED PAID LOSSES AS OF @6/30/2021	ESTIMATED PAID LOSSES AS OF @6/30/2022	ESTIMATED LOSS RESERVES AS OF @6/30/2022
	(1)	(2)	(3)	(4)	(5)	(6)
Prior		\$0	\$758			\$0
1994	\$8,119	0	0	\$8,119	\$8,119	0
1995	15,317	0	0	15,317	15,317	0
1996	12,505	721	97	11,785	11,882	624
1997	12,646	932	109	11,714	11,823	823
1998	10,498	495	52	10,004	10,055	443
1999	13,988	1,121	106	12,867	12,973	1,015
2000	17,556	2,132	263	15,425	15,688	1,869
2001	20,812	2,273	327	18,539	18,867	1,945
2002	21,579	2,468	319	19,111	19,430	2,149
2003	20,999	2,360	351	18,639	18,990	2,009
2004	23,015	2,388	318	20,627	20,945	2,070
2005	22,133	2,215	289	19,918	20,207	1,926
2006	21,292	2,936	418	18,356	18,774	2,518
2007	24,138	3,923	500	20,215	20,715	3,422
2008	20,285	3,343	387	16,942	17,329	2,956
2009	22,359	3,904	402	18,455	18,858	3,501
2010	31,965	8,485	762	23,480	24,242	7,723
2011	31,475	6,499	566	24,976	25,542	5,933
2012	25,838	4,618	380	21,220	21,600	4,238
2013	31,089	8,030	625	23,059	23,684	7,405
2014	26,261	7,011	576	19,250	19,826	6,435
2015	25,330	6,549	580	18,781	19,361	5,969
2016	24,108	8,659	763	15,449	16,212	7,897
2017	21,308	8,022	746	13,286	14,031	7,277
2018	20,950	8,888	869	12,062	12,932	8,019
2019	22,436	10,378	1,284	12,059	13,343	9,094
2020	22,637	11,598	1,974	11,039	13,013	9,624
2021	22,977	17,187	5,415	5,790	11,205	11,772
2022	23,323		5,877		5,877	17,446
TOTAL	\$616,940	\$137,133	\$25,114	\$456,484	\$480,840	\$136,100

Notes:

- (1) - For 2021 and prior, ultimate losses based from Exhibit I, Page 1C, Column (1). For 2022, ultimate loss is the projected loss in Exhibit I, Page 6A.
 - (2) - For 2021 and prior, loss reserves based from Exhibit I, Page 1C, Column (6).
 - (3) - From Exhibit I, Page 8.
 - (4) - From Exhibit I, Page 1C, Column (5).
 - (5) = (3) + (4)
 - (6) = (1) - (5)
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF ULTIMATE LOSSES - LOSS DEVELOPMENT APPROACH
AS OF JUNE 30, 2019
WORKERS' COMPENSATION
(SAMOUNTS IN '000s)
UNLIMITED

INCURRED LOSS DEVELOPMENT APPROACH

ACCIDENT YEAR*	UNLIMITED INCURRED LOSSES @6/30/2019	INCURRED LARGE LOSSES AS OF @6/30/2019	LOSS DEVLPMT FACTORS	ULTIMATE INCURRED LOSSES	FTE	ESTIMATED LOSS RATE
	(1)	(1A)	(2)	(3)	(4)	(5)
Prior						
1994	\$8,099		1.005	\$8,140	N/A	
1995	15,282	\$2,520	1.005	15,346	N/A	
1996	12,474		1.005	12,537	N/A	
1997	12,605		1.007	12,687	N/A	
1998	10,456		1.008	10,541	N/A	
1999	13,914		1.011	14,062	N/A	
2000	17,454	3,500	1.013	17,637	N/A	
2001	20,649	2,035	1.017	20,960	N/A	
2002	21,259	4,320	1.021	21,611	N/A	
2003	20,705	2,016	1.029	21,238	16,960	1.252
2004	22,353	2,239	1.038	23,111	14,579	1.585
2005	20,868	4,424	1.050	21,688	15,398	1.408
2006	20,379	2,096	1.066	21,579	15,397	1.402
2007	23,100	3,476	1.082	24,701	15,773	1.566
2008	18,721		1.099	20,578	16,050	1.282
2009	19,931	2,519	1.119	22,004	15,977	1.377
2010	29,761	7,130	1.142	32,973	16,386	2.012
2011	28,079	4,536	1.169	32,051	16,721	1.917
2012	20,947		1.196	25,060	16,951	1.478
2013	27,121	2,508	1.236	32,938	17,025	1.935
2014	21,712		1.281	27,807	16,848	1.650
2015	18,861		1.337	25,207	16,959	1.486
2016	18,600	5,129	1.411	24,130	17,272	1.397
2017	13,469		1.513	20,375	17,242	1.182
2018	12,126		1.709	20,728	16,625	1.247
2019	10,535			23,316	16,744	1.392
TOTAL	\$479,460	\$48,450		\$553,005		

PAID LOSS DEVELOPMENT APPROACH

ACCIDENT YEAR*	UNLIMITED PAID LOSSES @6/30/2019	PAID LARGE LOSSES AS OF @6/30/2019	LOSS DEVLPMT FACTORS	ULTIMATE INCURRED LOSSES	FTE	ESTIMATED LOSS RATE
	(6)	(6A)	(7)	(8)	(9)	(10)
Prior						
1994	\$7,849		1.030	\$8,099	N/A	
1995	13,433	\$1,368	1.034	15,282	N/A	
1996	11,594		1.038	12,474	N/A	
1997	11,497		1.042	12,605	N/A	
1998	9,875		1.049	10,456	N/A	
1999	12,494		1.057	13,914	N/A	
2000	14,697	2,577	1.066	17,454	N/A	
2001	17,746	1,143	1.079	20,649	N/A	
2002	18,234	2,279	1.092	21,745	N/A	
2003	17,868	1,128	1.107	20,705	16,960	1.221
2004	19,813	941	1.128	23,519	14,579	1.613
2005	19,173	2,936	1.149	23,080	15,398	1.499
2006	17,485	1,060	1.172	21,346	15,397	1.386
2007	19,191	\$2,003	1.195	24,025	15,773	1.523
2008	16,190		1.219	19,736	16,050	1.230
2009	17,661	1,028	1.245	23,227	15,977	1.454
2010	21,836	1,842	1.273	32,583	16,386	1.988
2011	23,795	1,668	1.303	33,369	16,721	1.996
2012	20,382		1.339	27,299	16,951	1.610
2013	21,491	269	1.385	31,902	17,025	1.874
2014	17,826		1.439	25,644	16,848	1.522
2015	17,412		1.506	26,227	16,959	1.546
2016	13,527	1,354	1.594	24,528	17,272	1.420
2017	11,160		1.740	19,413	17,242	1.126
2018	8,726		2.051	17,894	16,625	1.076
2019	4,176			22,407	16,744	1.338
TOTAL	\$405,132	\$21,595		\$549,582		

Notes:

- (1), (4), (6) & (9) - Per STATE OF ALASKA.
- (1A) & (6A) - Incurred and paid losses excluded in the development.
- (2) & (7) - Per State's historical loss pattern, supplemented by AM Best insurance industry historical loss patterns.
- (3) = (1) x (2); (8) = (6) x (7). If ultimate incurred losses in (8) are less than the incurred losses in (1), we used the incurred losses in (1). For the most recent year, we used the Loss Rate Approach.
- (5) = (3) / (4); (10) = (8) / (9). For the most recent year, it is the average of prior years.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF ULTIMATE LOSSES - BORNHUETTER-FERGUSON APPROACH
AS OF JUNE 30, 2019
WORKERS' COMPENSATION
(\$AMOUNTS IN '000s)
UNLIMITED

BORNHUETTER-FERGUSON INCURRED LOSS APPROACH

ACCIDENT YEAR*	ESTIMATED LOSS RATE		EXPECTED ULTIMATE LOSSES	EXPECTED % OF LOSSES UNREPORTED	IBNR RESERVES	UNLIMITED INCURRED LOSSES @6/30/2019	ULTIMATE INCURRED LOSSES
	(1)	FTE (2)					
Prior							
1994	1.365	N/A	\$8,120	0.5%	\$40	\$8,099	\$8,139
1995	1.365	N/A	15,314	0.5%	76	15,282	15,358
1996	1.365	N/A	12,506	0.5%	62	12,474	12,536
1997	1.365	N/A	12,646	0.7%	83	12,605	12,688
1998	1.365	N/A	10,498	0.8%	85	10,456	10,541
1999	1.365	N/A	13,988	1.1%	148	13,914	14,062
2000	1.365	N/A	17,545	1.3%	228	17,454	17,682
2001	1.365	N/A	20,804	1.6%	342	20,649	20,991
2002	1.365	N/A	21,678	2.0%	442	21,259	21,701
2003	1.365	16,960	23,156	2.8%	642	20,705	21,347
2004	1.365	14,579	19,905	3.6%	723	22,353	23,076
2005	1.365	15,398	21,023	4.7%	999	20,868	21,867
2006	1.365	15,397	21,022	6.2%	1,294	20,379	21,673
2007	1.365	15,773	21,535	7.5%	1,625	23,100	24,725
2008	1.365	16,050	21,914	9.0%	1,978	18,721	20,699
2009	1.365	15,977	21,814	10.6%	2,320	19,931	22,251
2010	1.365	16,386	22,372	12.4%	2,781	29,761	32,542
2011	1.365	16,721	22,830	14.4%	3,296	28,079	31,375
2012	1.365	16,951	23,144	16.4%	3,799	20,947	24,746
2013	1.365	17,025	23,245	19.1%	4,443	27,121	31,564
2014	1.365	16,848	23,003	21.9%	5,042	21,712	26,754
2015	1.365	16,959	23,155	25.2%	5,830	18,861	24,691
2016	1.365	17,272	23,582	29.1%	6,864	18,600	25,464
2017	1.365	17,242	23,541	33.9%	7,979	13,469	21,448
2018	1.365	16,625	22,699	41.5%	9,419	12,126	21,545
2019	1.365	16,744	22,861	53.4%	12,210	10,535	22,745
TOTAL			\$513,899		\$72,750	\$479,460	\$552,210

BORNHUETTER-FERGUSON PAID LOSS APPROACH

ACCIDENT YEAR*	ESTIMATED LOSS RATE		EXPECTED ULTIMATE LOSSES	EXPECTED % OF LOSSES UNPAID	LOSS RESERVES	UNLIMITED PAID LOSSES @6/30/2019	ULTIMATE INCURRED LOSSES
	(8)	FTE (9)					
Prior							
1994	1.365	N/A	\$8,120	2.9%	\$236	\$7,849	\$8,099
1995	1.365	N/A	15,314	3.3%	505	13,433	15,282
1996	1.365	N/A	12,506	3.7%	461	11,594	12,474
1997	1.365	N/A	12,646	4.1%	514	11,497	12,605
1998	1.365	N/A	10,498	4.6%	487	9,875	10,456
1999	1.365	N/A	13,988	5.4%	758	12,494	13,914
2000	1.365	N/A	17,545	6.2%	1,092	14,697	17,454
2001	1.365	N/A	20,804	7.3%	1,522	17,746	20,649
2002	1.365	N/A	21,678	8.4%	1,829	18,234	21,259
2003	1.365	16,960	23,156	9.7%	2,247	17,868	20,705
2004	1.365	14,579	19,905	11.3%	2,252	19,813	22,353
2005	1.365	15,398	21,023	13.0%	2,726	19,173	21,899
2006	1.365	15,397	21,022	14.7%	3,083	17,485	20,568
2007	1.365	15,773	21,535	16.4%	3,522	19,191	23,100
2008	1.365	16,050	21,914	18.0%	3,937	16,190	20,127
2009	1.365	15,977	21,814	19.7%	4,293	17,661	21,954
2010	1.365	16,386	22,372	21.4%	4,798	21,836	29,761
2011	1.365	16,721	22,830	23.3%	5,309	23,795	29,104
2012	1.365	16,951	23,144	25.3%	5,864	20,382	26,246
2013	1.365	17,025	23,245	27.8%	6,462	21,491	27,953
2014	1.365	16,848	23,003	30.5%	7,012	17,826	24,838
2015	1.365	16,959	23,155	33.6%	7,782	17,412	25,194
2016	1.365	17,272	23,582	37.3%	8,785	13,527	22,312
2017	1.365	17,242	23,541	42.5%	10,008	11,160	21,168
2018	1.365	16,625	22,699	51.2%	11,629	8,726	20,355
2019	1.365	16,744	22,861	74.8%	17,101	4,176	21,277
TOTAL			\$513,899		\$114,214	\$405,132	\$531,108

Notes:
(1) & (8) - The average of the loss rates of prior years as shown in Columns (5) and (10) of Exhibit I, Page 2.
(2) & (9) - Per STATE OF ALASKA.
(3) = (1) x (2); (10) = (8) x (9). For 2002 & prior, average of Exhibit I, Columns (5) & (10).
(4) = (1 - (1/LDF)); (11) = (1 - (1/PLDF)).
(5) = (3) x (4); (12) = (10) x (11).
(6) & (13) - Per STATE OF ALASKA.
(7) = (5) + (6); (14) = (12) + (13). If ultimate incurred losses in (14) are less than the incurred losses in (6), we used the incurred losses in (6).
* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
 AS OF JUNE 30, 2019
CALCULATION OF THE INCURRED LOSS DEVELOPMENT FACTORS
WORKERS' COMPENSATION
 (\$AMOUNTS IN '000s)
 UNLIMITED

INCURRED LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS											
	12	24	36	48	60	72	84	96	108	120	132	144
1994	5,250	6,756	7,152	7,643	7,564	7,544	7,589	7,301	7,707	7,906	7,683	7,655
1995	6,934	9,295	9,612	9,538	10,831	12,311	12,165	12,638	12,816	12,944	13,084	13,690
1996	6,081	7,455	7,563	8,214	8,209	9,744	10,341	10,457	10,667	10,766	11,090	11,682
1997	5,870	7,173	8,028	8,061	8,367	8,776	9,480	9,700	9,648	10,033	10,124	10,218
1998	4,650	5,727	6,428	6,973	7,302	7,349	7,560	7,794	8,096	8,299	8,318	8,592
1999	4,066	5,683	7,121	7,574	8,293	8,566	9,493	9,530	9,561	9,862	10,117	10,431
2000	6,511	8,170	9,646	10,400	10,761	11,066	11,701	11,673	11,978	12,415	13,459	14,089
2001	5,597	10,518	12,522	13,575	13,644	14,211	14,637	15,194	16,616	16,903	17,376	17,437
2002	8,290	10,906	12,333	12,885	13,527	14,209	14,535	15,199	16,037	16,429	17,078	17,170
2003	7,573	10,859	11,474	12,895	13,172	13,579	14,917	15,303	15,822	16,346	16,794	20,280
2004	8,974	11,215	13,530	14,901	15,439	16,146	17,573	18,696	19,346	20,300	20,517	20,919
2005	8,105	11,398	13,772	14,334	15,615	16,502	17,070	18,607	18,580	21,553	21,609	22,093
2006	6,831	10,232	11,614	12,828	14,165	14,953	15,708	16,901	17,055	17,494	17,413	19,516
2007	9,106	11,884	14,159	16,292	16,474	16,996	17,397	19,649	20,101	20,804	22,055	23,071
2008	8,166	12,016	13,938	14,761	15,590	14,933	15,315	17,971	18,591	18,508	18,840	18,721
2009	9,934	13,895	15,191	15,342	15,731	16,511	18,489	17,916	18,102	19,933	19,931	
2010	12,627	16,734	19,814	20,226	23,101	28,601	28,511	28,757	29,905	29,761		
2011	13,325	18,976	21,502	25,622	26,014	26,364	26,687	27,013	28,079			
2012	12,430	16,218	18,954	19,646	20,194	21,313	21,133	20,947				
2013	14,430	20,860	23,768	23,985	26,311	25,926	27,121					
2014	16,705	18,755	20,452	22,104	21,868	21,712						
2015	12,567	15,341	16,834	18,016	18,861							
2016	12,855	15,898	18,816	18,600								
2017	11,815	13,756	13,469									
2018	12,958	12,126										
2019	10,535											

INCURRED LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	12	24	36	48	60	72	84	96	108	120	132	144
	TO 24	TO 36	TO 48	TO 60	TO 72	TO 84	TO 96	TO 108	TO 120	TO 132	TO 144	TO 156
1994	1.287	1.059	1.069	0.990	0.997	1.006	0.962	1.056	1.026	0.972	0.996	1.003
1995	1.340	1.034	0.992	1.136	1.137	0.988	1.039	1.014	1.010	1.011	1.046	1.009
1996	1.226	1.014	1.086	0.999	1.187	1.061	1.011	1.020	1.009	1.030	1.053	0.922
1997	1.222	1.119	1.004	1.038	1.049	1.080	1.023	0.995	1.040	1.009	1.009	1.054
1998	1.232	1.122	1.085	1.047	1.006	1.029	1.031	1.039	1.025	1.002	1.033	1.032
1999	1.398	1.253	1.064	1.095	1.033	1.108	1.004	1.003	1.031	1.026	1.031	1.032
2000	1.255	1.181	1.078	1.035	1.028	1.057	0.998	1.026	1.036	1.084	1.047	1.023
2001	1.879	1.191	1.084	1.005	1.042	1.030	1.038	1.094	1.017	1.028	1.004	1.071
2002	1.316	1.131	1.045	1.050	1.050	1.023	1.046	1.055	1.024	1.040	1.005	1.109
2003	1.434	1.057	1.124	1.021	1.031	1.099	1.026	1.034	1.033	1.027	1.208	0.957
2004	1.250	1.206	1.101	1.036	1.046	1.088	1.064	1.035	1.049	1.011	1.020	0.972
2005	1.406	1.208	1.041	1.089	1.057	1.034	1.090	0.999	1.160	1.003	1.022	1.005
2006	1.498	1.135	1.105	1.104	1.056	1.050	1.076	1.009	1.026	0.995	1.121	1.047
2007	1.305	1.191	1.151	1.011	1.032	1.024	1.129	1.023	1.035	1.060	1.046	1.001
2008	1.471	1.160	1.059	1.056	0.958	1.026	1.173	1.035	0.996	1.018	0.994	
2009	1.399	1.093	1.010	1.025	1.050	1.120	0.969	1.010	1.101	1.000		
2010	1.325	1.184	1.021	1.142	1.238	0.997	1.009	1.040	0.995			
2011	1.424	1.133	1.192	1.015	1.013	1.012	1.012	1.039				
2012	1.305	1.169	1.037	1.028	1.055	0.992	0.991					
2013	1.446	1.139	1.009	1.097	0.985	1.046						
2014	1.123	1.090	1.081	0.989	0.993							
2015	1.221	1.097	1.070	1.047								
2016	1.237	1.184	0.988									
2017	1.164	0.979										
2018	0.936											
10 YR AVG.	1.312	1.144	1.074	1.056	1.049	1.044	1.059	1.033	1.048	1.029	1.054	1.030
3 YR AVG.	1.112	1.087	1.046	1.044	1.011	1.017	1.004	1.030	1.031	1.026	1.054	1.018
10 YR AVG EXCL HI LO	1.275	1.133	1.055	1.048	1.030	1.035	1.050	1.028	1.035	1.023	1.037	1.023
5 YR AVG EXCL HI LO	1.169	1.109	1.039	1.030	1.020	1.018	1.004	1.032	1.019	1.007	1.029	0.993
PRIOR SELECTED	1.260	1.131	1.075	1.057	1.045	1.037	1.034	1.023	1.023	1.020	1.018	1.016
SELECTED	1.256	1.130	1.072	1.055	1.044	1.036	1.033	1.024	1.023	1.020	1.018	1.016
CUMULATIVE	2.146	1.709	1.513	1.411	1.337	1.281	1.236	1.196	1.169	1.142	1.119	1.099

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
 AS OF JUNE 30, 2019
CALCULATION OF THE INCURRED LOSS DEVELOPMENT FACTORS
WORKERS' COMPENSATION
 (\$AMOUNTS IN '000s)
 UNLIMITED

INCURRED LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS													
	156	168	180	192	204	216	228	240	252	264	276	288	300	312
1994	7,680	7,707	7,663	7,836	7,709	7,670	7,697	9,576	8,010	7,905	7,930	7,917	7,979	8,099
1995	13,820	13,793	13,835	14,151	14,432	14,435	14,274	14,967	14,915	14,989	15,053	15,478	15,282	
1996	10,766	11,050	11,023	11,092	11,103	11,367	11,728	11,814	11,706	12,348	12,544	12,474		
1997	10,772	11,200	11,449	11,525	11,868	13,623	13,267	13,492	12,359	12,596	12,605			
1998	8,868	8,945	9,199	9,254	9,970	10,491	10,561	10,499	10,531	10,456				
1999	10,770	11,469	11,982	13,588	13,590	13,533	13,736	13,863	13,914					
2000	14,413	14,494	16,577	16,433	16,794	16,930	17,251	17,454						
2001	18,670	18,903	19,201	18,993	19,877	20,724	20,649							
2002	19,037	19,679	20,268	20,986	21,106	21,259								
2003	19,414	19,387	19,539	20,098	20,705									
2004	20,324	20,417	22,497	22,353										
2005	22,205	22,299	20,868											
2006	20,432	20,379												
2007	23,100													
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														

INCURRED LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	156	168	180	192	204	216	228	240	252	264	276	288	300	312
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
	168	180	192	204	216	228	240	252	264	276	288	300	312	ULT
1994	1.004	0.994	1.023	0.984	0.995	1.004	1.244	0.836	0.987	1.003	0.998	1.008	1.015	
1995	0.998	1.003	1.023	1.020	1.000	0.989	1.049	0.997	1.005	1.004	1.028	0.987		
1996	1.026	0.998	1.006	1.001	1.024	1.032	1.007	0.991	1.055	1.016	0.994			
1997	1.040	1.022	1.007	1.030	1.148	0.974	1.017	0.916	1.019	1.001				
1998	1.009	1.028	1.006	1.077	1.052	1.007	0.994	1.003	0.993					
1999	1.065	1.045	1.134	1.000	0.996	1.015	1.009	1.004						
2000	1.006	1.144	0.991	1.022	1.008	1.019	1.012							
2001	1.012	1.016	0.989	1.047	1.043	0.996								
2002	1.034	1.030	1.035	1.006	1.007									
2003	0.999	1.008	1.029	1.030										
2004	1.005	1.102	0.994											
2005	1.004	0.936												
2006	0.997													
2007														
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
10 YR AVG.	1.017	1.033	1.021	1.022										
3 YR AVG.	1.002	1.015	1.019	1.028	1.019	1.010	1.005	0.974	1.022	1.007	1.007			
10 YR AVG EXCL HI LO	1.014	1.031	1.011	1.020										
5 YR AVG EXCL HI LO	1.003	1.018	1.005	1.019	1.019	1.006	1.009	0.997	1.006					
PRIOR SELECTED	1.015	1.015	1.011	1.007	1.006	1.004	1.003	1.002	1.002	1.001	1.001	1.001		
SELECTED	1.015	1.015	1.012	1.009	1.008	1.004	1.004	1.002	1.002	1.002	1.002	1.000	1.000	
CUMULATIVE	1.082	1.066	1.050	1.038	1.029	1.021	1.017	1.013	1.011	1.008	1.007	1.005	1.005	1.005

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
 AS OF JUNE 30, 2019
CALCULATION OF THE PAID LOSS DEVELOPMENT FACTORS
WORKERS' COMPENSATION
 (\$AMOUNTS IN '000s)
 UNLIMITED

PAID LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS											
	12	24	36	48	60	72	84	96	108	120	132	144
1994	1,958	4,264	5,509	6,284	6,620	6,807	6,941	6,974	7,003	7,115	7,302	7,421
1995	2,113	5,682	7,068	7,821	8,281	8,545	8,749	9,145	9,469	9,757	10,016	10,277
1996	2,258	4,925	6,460	7,332	7,965	8,373	8,935	9,119	9,431	9,591	9,755	10,145
1997	2,498	4,728	5,927	6,527	6,960	7,408	7,675	8,003	8,445	8,649	8,852	8,980
1998	2,367	4,961	6,077	6,583	6,862	7,071	7,313	7,535	7,725	7,985	8,083	8,377
1999	2,250	4,346	5,728	6,822	7,410	7,833	8,300	8,570	8,819	9,304	9,548	9,881
2000	2,782	5,226	6,794	7,778	8,534	8,981	9,523	9,896	10,385	10,768	11,145	11,489
2001	3,101	7,538	9,740	11,391	12,383	13,113	13,692	14,066	14,929	15,080	15,407	15,747
2002	3,961	7,113	9,739	11,209	12,177	13,106	13,558	14,280	14,676	15,276	15,839	16,221
2003	3,522	7,945	10,254	11,582	12,269	12,916	13,773	14,365	14,955	15,614	16,062	16,575
2004	4,254	9,144	11,649	13,517	14,581	15,474	16,280	16,894	17,345	17,817	18,284	18,651
2005	4,608	9,097	11,690	13,408	14,693	15,313	15,714	16,949	17,485	17,893	18,103	18,341
2006	3,873	7,906	10,103	11,629	12,476	13,346	14,345	15,309	15,835	16,210	16,695	17,153
2007	4,488	9,766	12,577	14,505	15,382	16,199	16,687	17,167	17,582	18,006	18,503	18,729
2008	4,302	8,566	10,932	12,378	13,357	14,142	14,627	15,105	15,473	15,690	15,863	16,190
2009	5,152	10,357	12,693	14,069	14,750	15,406	16,110	16,551	17,107	17,366	17,661	
2010	7,496	13,394	16,438	18,040	19,414	20,262	21,046	21,474	21,642	21,836		
2011	7,486	14,837	18,395	20,295	21,404	22,338	22,770	23,502	23,795			
2012	7,401	13,361	16,550	18,036	18,877	19,729	20,143	20,382				
2013	7,772	14,972	17,973	19,522	20,163	20,802	21,491					
2014	6,814	12,284	14,870	16,370	17,199	17,826						
2015	6,005	12,374	14,754	16,241	17,412							
2016	5,452	10,864	12,647	13,527								
2017	5,019	9,609	11,160									
2018	4,598	8,726										
2019	4,176											

PAID LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	12	24	36	48	60	72	84	96	108	120	132	144
	TO 24	TO 36	TO 48	TO 60	TO 72	TO 84	TO 96	TO 108	TO 120	TO 132	TO 144	TO 156
1994	2.178	1.292	1.141	1.053	1.028	1.020	1.005	1.004	1.016	1.026	1.016	1.006
1995	2.689	1.244	1.107	1.059	1.032	1.024	1.045	1.035	1.030	1.027	1.026	1.030
1996	2.181	1.312	1.135	1.086	1.051	1.067	1.021	1.034	1.017	1.017	1.040	1.023
1997	1.893	1.254	1.101	1.066	1.064	1.036	1.043	1.055	1.024	1.023	1.014	1.045
1998	2.096	1.225	1.083	1.042	1.030	1.034	1.030	1.025	1.034	1.012	1.036	1.029
1999	1.932	1.318	1.191	1.086	1.057	1.060	1.033	1.029	1.055	1.026	1.035	1.029
2000	1.879	1.300	1.145	1.097	1.052	1.060	1.039	1.049	1.037	1.035	1.031	1.025
2001	2.431	1.292	1.170	1.087	1.059	1.044	1.027	1.061	1.010	1.022	1.022	1.026
2002	1.796	1.369	1.151	1.086	1.076	1.034	1.053	1.028	1.041	1.037	1.024	1.023
2003	2.256	1.291	1.130	1.059	1.053	1.066	1.043	1.041	1.044	1.029	1.032	1.010
2004	2.150	1.274	1.160	1.079	1.061	1.052	1.038	1.027	1.027	1.026	1.020	1.028
2005	1.974	1.285	1.147	1.096	1.042	1.026	1.079	1.032	1.023	1.012	1.013	1.015
2006	2.041	1.278	1.151	1.073	1.070	1.075	1.067	1.034	1.024	1.030	1.027	1.019
2007	2.176	1.288	1.153	1.060	1.053	1.030	1.029	1.024	1.024	1.028	1.012	1.025
2008	1.991	1.276	1.132	1.079	1.059	1.034	1.033	1.024	1.014	1.011	1.021	
2009	2.010	1.226	1.108	1.048	1.044	1.046	1.027	1.034	1.015	1.017		
2010	1.787	1.227	1.097	1.076	1.044	1.039	1.020	1.008	1.009			
2011	1.982	1.240	1.103	1.055	1.044	1.019	1.032	1.012				
2012	1.805	1.239	1.090	1.047	1.045	1.021	1.012					
2013	1.926	1.200	1.086	1.033	1.032	1.033						
2014	1.803	1.211	1.101	1.051	1.036							
2015	2.061	1.192	1.101	1.072								
2016	1.993	1.164	1.070									
2017	1.915	1.161										
2018	1.898											
10 YR AVG.	1.927	1.226	1.112	1.062	1.049	1.041	1.042	1.031	1.026	1.026	1.025	1.025
3 YR AVG.	1.935	1.172	1.091	1.052	1.038	1.024	1.021	1.018	1.013	1.019	1.020	1.020
10 YR AVG EXCL HI LO	1.917	1.212	1.102	1.060	1.046	1.035	1.036	1.027	1.022	1.025	1.024	1.024
5 YR AVG EXCL HI LO	1.935	1.185	1.092	1.051	1.041	1.031	1.026	1.020	1.018	1.019	1.018	1.020
PRIOR SELECTED	1.929	1.216	1.095	1.058	1.047	1.039	1.034	1.028	1.024	1.023	1.021	1.021
SELECTED	1.935	1.179	1.092	1.058	1.047	1.039	1.034	1.028	1.024	1.022	1.021	1.020
CUMULATIVE	3.969	2.051	1.740	1.594	1.506	1.439	1.385	1.339	1.303	1.273	1.245	1.219

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF THE PAID LOSS DEVELOPMENT FACTORS
WORKERS' COMPENSATION
(SAMOUNTS IN '000s)
UNLIMITED

PAID LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS													
	156	168	180	192	204	216	228	240	252	264	276	288	300	312
1994	7,463	7,514	7,456	7,639	7,551	7,572	7,630	7,693	7,752	7,787	7,841	7,834	7,879	7,849
1995	10,589	10,881	11,142	11,464	11,751	12,033	12,243	12,438	12,658	12,894	13,092	13,433	13,433	
1996	10,378	10,746	10,623	10,700	10,808	10,887	11,088	11,232	11,316	11,463	11,594	11,594		
1997	9,385	9,438	9,605	9,822	10,047	10,356	10,674	10,870	11,106	11,497	11,497			
1998	8,618	8,771	8,944	9,033	9,248	9,490	9,586	9,758	9,875	9,875				
1999	10,168	10,748	11,234	11,577	11,774	11,947	12,105	12,494	12,494					
2000	11,775	12,266	12,611	13,005	13,385	13,928	14,697	14,697						
2001	16,160	16,553	16,836	17,097	17,337	17,746	17,746							
2002	16,596	16,911	17,285	17,614	18,234	18,234								
2003	16,738	16,990	17,351	17,868	17,868									
2004	19,170	19,432	19,813	19,813										
2005	18,616	19,173	19,173											
2006	17,485	17,485												
2007	19,191													
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														

PAID LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	156	168	180	192	204	216	228	240	252	264	276	288	300	312
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
	168	180	192	204	216	228	240	252	264	276	288	300	312	ULT
1994	1.007	0.992	1.025	0.988	1.003	1.008	1.008	1.008	1.005	1.007	0.999	1.006	0.996	
1995	1.028	1.024	1.029	1.025	1.024	1.017	1.016	1.018	1.019	1.015	1.026	1.000		
1996	1.035	0.989	1.007	1.010	1.007	1.018	1.013	1.007	1.013	1.011	1.000			
1997	1.006	1.018	1.023	1.023	1.031	1.031	1.018	1.022	1.035	1.000				
1998	1.018	1.020	1.010	1.024	1.026	1.010	1.018	1.012	1.000					
1999	1.057	1.045	1.031	1.017	1.015	1.013	1.032	1.000						
2000	1.042	1.028	1.031	1.029	1.041	1.055	1.000							
2001	1.024	1.017	1.016	1.014	1.024	1.000								
2002	1.019	1.022	1.019	1.035	1.000									
2003	1.015	1.021	1.030	1.000										
2004	1.014	1.020	1.000											
2005	1.030	1.000												
2006	1.000													
2007														
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
10 YR AVG.	1.023	1.018	1.020	1.017										
3 YR AVG.	1.015	1.014	1.016	1.016	1.022	1.023	1.017	1.011	1.016	1.009	1.008			
10 YR AVG EXCL HI LO	1.021	1.018	1.021	1.018										
5 YR AVG EXCL HI LO	1.016	1.019	1.022	1.020	1.022	1.018	1.016	1.012	1.012					
PRIOR SELECTED	1.020	1.020	1.020	1.016	1.014	1.011	1.011	1.008	1.008	1.006	1.004	1.004		
SELECTED	1.020	1.020	1.019	1.018	1.014	1.012	1.012	1.009	1.008	1.006	1.004	1.004	1.004	1.004
CUMULATIVE	1.195	1.172	1.149	1.128	1.107	1.092	1.079	1.066	1.057	1.049	1.042	1.038	1.034	1.030

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF CLAIM COUNT DEVELOPMENT FACTORS
WORKERS' COMPENSATION

REPORTED CLAIM COUNT DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS											
	12	24	36	48	60	72	84	96	108	120	132	144
1994	1,021	1,166	1,177	1,177	1,177	1,178	1,178	1,178	1,178	1,178	1,178	1,178
1995	1,042	1,328	1,335	1,338	1,341	1,341	1,341	1,341	1,343	1,343	1,343	1,343
1996	1,059	1,246	1,252	1,253	1,252	1,253	1,253	1,252	1,252	1,252	1,252	1,252
1997	1,097	1,247	1,255	1,255	1,256	1,259	1,257	1,257	1,257	1,257	1,257	1,256
1998	1,086	1,195	1,197	1,198	1,199	1,198	1,198	1,198	1,198	1,198	1,198	1,198
1999	1,063	1,095	1,105	1,108	1,103	1,103	1,104	1,105	1,105	1,105	1,105	1,105
2000	983	1,069	1,081	1,075	1,075	1,076	1,076	1,076	1,076	1,076	1,076	1,076
2001	1,270	1,418	1,134	1,137	1,139	1,139	1,141	1,141	1,141	1,141	1,141	1,141
2002	1,513	1,141	1,147	1,149	1,149	1,149	1,149	1,149	1,149	1,149	1,150	1,149
2003	1,160	1,235	1,237	1,238	1,241	1,242	1,243	1,242	1,242	1,242	1,242	1,243
2004	1,323	1,427	1,429	1,432	1,432	1,432	1,430	1,430	1,431	1,432	1,434	1,434
2005	1,358	1,402	1,408	1,411	1,411	1,411	1,411	1,411	1,409	1,411	1,411	1,411
2006	1,167	1,264	1,272	1,273	1,273	1,273	1,274	1,274	1,276	1,276	1,276	1,276
2007	1,116	1,201	1,208	1,208	1,211	1,212	1,212	1,212	1,212	1,213	1,213	1,213
2008	1,032	1,109	1,111	1,114	1,114	1,114	1,114	1,114	1,114	1,115	1,115	1,115
2009	1,108	1,208	1,215	1,218	1,218	1,218	1,218	1,219	1,219	1,219	1,219	1,219
2010	1,157	1,230	1,236	1,236	1,238	1,238	1,238	1,238	1,238	1,238	1,238	1,238
2011	1,145	1,235	1,241	1,241	1,241	1,241	1,241	1,241	1,241	1,241	1,241	1,241
2012	1,180	1,260	1,264	1,264	1,265	1,268	1,268	1,269				
2013	1,127	1,170	1,173	1,176	1,177	1,178	1,178					
2014	1,109	1,164	1,170	1,170	1,170	1,171						
2015	1,022	1,066	1,070	1,070	1,071							
2016	914	988	994	995								
2017	881	942	944									
2018	907	942										
2019	997											

CLAIM COUNT DEVELOPMENT FACTORS

ACCIDENT YEAR*	12	24	36	48	60	72	84	96	108	120	132	144
	TO 24	TO 36	TO 48	TO 60	TO 72	TO 84	TO 96	TO 108	TO 120	TO 132	TO 144	TO 156
1994	1.142	1.009	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.274	1.005	1.002	1.002	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000
1996	1.177	1.005	1.001	0.999	1.001	1.000	0.999	1.000	1.000	1.000	1.000	1.001
1997	1.137	1.006	1.000	1.001	1.002	0.998	1.000	1.000	1.000	1.000	0.999	1.001
1998	1.100	1.002	1.001	1.001	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.030	1.009	1.003	0.995	1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000
2000	1.087	1.011	0.994	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.001
2001	1.117	0.800	1.003	1.002	1.000	1.002	1.000	1.000	1.000	1.000	1.000	1.000
2002	0.754	1.005	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.001	0.999	1.001
2003	1.065	1.002	1.001	1.002	1.001	1.001	0.999	1.000	1.000	1.000	1.001	1.001
2004	1.079	1.001	1.002	1.000	1.000	0.999	1.000	1.001	1.001	1.001	1.000	1.000
2005	1.032	1.004	1.002	1.000	1.000	1.000	1.000	0.999	1.001	1.000	1.000	1.000
2006	1.083	1.006	1.001	1.000	1.000	1.001	1.000	1.002	1.000	1.000	1.000	1.000
2007	1.076	1.006	1.000	1.002	1.001	1.000	1.000	1.000	1.001	1.000	1.000	1.000
2008	1.075	1.002	1.003	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000
2009	1.090	1.006	1.002	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000
2010	1.063	1.005	1.000	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2011	1.079	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2012	1.068	1.003	1.000	1.001	1.002	1.000	1.001					
2013	1.038	1.003	1.003	1.001	1.001	1.000						
2014	1.050	1.005	1.000	1.000	1.001							
2015	1.043	1.004	1.000	1.001								
2016	1.081	1.006	1.001									
2017	1.069	1.002										
2018	1.039											
AVERAGE	1.074	0.996	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 YR AVG.	1.063	1.004	1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
EXCL HI LO	1.079	1.005	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	1.054	1.004	1.000	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.069	1.002	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
SELECTED	1.069	1.002	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	1.073	1.004	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF CLAIM COUNT DEVELOPMENT FACTORS
WORKERS' COMPENSATION

REPORTED CLAIM COUNT DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS													
	156	168	180	192	204	216	228	240	252	264	276	288	300	312
1994	1,178	1,178	1,178	1,178	1,178	1,178	1,179	1,179	1,179	1,179	1,179	1,179	1,179	1,179
1995	1,343	1,343	1,343	1,343	1,343	1,344	1,344	1,344	1,344	1,344	1,344	1,346	1,346	1,346
1996	1,253	1,253	1,253	1,253	1,253	1,255	1,255	1,255	1,255	1,255	1,255	1,256	1,256	
1997	1,257	1,257	1,257	1,257	1,257	1,258	1,258	1,258	1,258	1,258	1,258	1,258	1,258	
1998	1,198	1,198	1,199	1,199	1,199	1,199	1,199	1,199	1,199	1,199	1,199	1,199	1,199	
1999	1,105	1,105	1,105	1,105	1,105	1,105	1,105	1,105	1,105	1,105	1,105	1,105	1,105	
2000	1,077	1,077	1,077	1,077	1,077	1,077	1,077	1,077	1,077	1,077	1,077	1,077	1,077	
2001	1,141	1,141	1,141	1,141	1,141	1,141	1,141	1,141	1,141	1,141	1,141	1,141	1,141	
2002	1,150	1,150	1,150	1,150	1,150	1,151	1,151	1,151	1,151	1,151	1,151	1,151	1,151	
2003	1,243	1,243	1,243	1,243	1,243	1,243	1,243	1,243	1,243	1,243	1,243	1,243	1,243	
2004	1,434	1,434	1,434	1,434	1,434	1,434	1,434	1,434	1,434	1,434	1,434	1,434	1,434	
2005	1,411	1,411	1,411	1,411	1,411	1,411	1,411	1,411	1,411	1,411	1,411	1,411	1,411	
2006	1,276	1,276	1,276	1,276	1,276	1,276	1,276	1,276	1,276	1,276	1,276	1,276	1,276	
2007	1,213	1,213	1,213	1,213	1,213	1,213	1,213	1,213	1,213	1,213	1,213	1,213	1,213	
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														

CLAIM COUNT DEVELOPMENT FACTORS

ACCIDENT YEAR*	156	168	180	192	204	216	228	240	252	264	276	288	300	312
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
	168	180	192	204	216	228	240	252	264	276	288	300	312	ULT
1994	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.001	1.000	1.000	
1996	1.000	1.000	1.000	1.000	1.002	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	
1997	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1998	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2002	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														
AVERAGE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000
3 YR AVG.	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000
EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF DISCOUNTED RESERVES
WORKERS' COMPENSATION
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
(1)	(2)	(3)	(4)	(5)
Prior	\$6,764	0.928	\$6,275	\$489
1994	270	0.912	247	24
1995	1,885	0.897	1,691	194
1996	912	0.883	805	107
1997	1,149	0.869	999	150
1998	623	0.861	537	86
1999	1,494	0.858	1,281	212
2000	2,860	0.853	2,438	422
2001	3,066	0.851	2,610	456
2002	3,345	0.848	2,835	510
2003	3,131	0.844	2,643	488
2004	3,202	0.843	2,699	502
2005	2,960	0.840	2,486	474
2006	3,806	0.835	3,178	628
2007	4,947	0.829	4,099	847
2008	4,095	0.821	3,361	734
2009	4,698	0.813	3,821	877
2010	10,129	0.806	8,161	1,968
2011	7,680	0.798	6,129	1,551
2012	5,456	0.792	4,322	1,134
2013	9,599	0.788	7,566	2,033
2014	8,435	0.785	6,618	1,817
2015	7,917	0.783	6,196	1,722
2016	10,582	0.782	8,273	2,309
2017	10,148	0.787	7,987	2,161
2018	12,224	0.802	9,801	2,423
2019	18,260	0.844	15,404	2,856
TOTAL	\$149,635		\$122,462	\$27,173

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$122,462
75%	128,437
85%	132,707
95%	138,977

Notes:

- (1) - Per Exhibit I, Page 1A, Column (7).
 - (2) - Per AMI calculations, see Appendix A, Page 1.
 - (3) = (1) x (2).
 - (4) = (1) - (3). Excludes investment income on the margin.
 - (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2020
CALCULATION OF DISCOUNTED RESERVES
WORKERS' COMPENSATION
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
	(1)	(2)	(3)	(4)
Prior	\$0	0.945	\$0	\$0
1994	0	0.928	0	0
1995	0	0.912	0	0
1996	816	0.897	732	84
1997	1,041	0.883	919	122
1998	546	0.869	475	71
1999	1,278	0.861	1,101	177
2000	2,490	0.858	2,136	354
2001	2,610	0.853	2,225	385
2002	2,899	0.851	2,468	432
2003	2,723	0.848	2,308	415
2004	2,746	0.844	2,318	428
2005	2,583	0.843	2,178	405
2006	3,365	0.840	2,826	539
2007	4,437	0.835	3,705	732
2008	3,727	0.829	3,089	638
2009	4,289	0.821	3,520	769
2010	9,294	0.813	7,559	1,735
2011	7,082	0.806	5,706	1,376
2012	5,008	0.798	3,996	1,011
2013	8,748	0.792	6,930	1,819
2014	7,692	0.788	6,063	1,629
2015	7,181	0.785	5,635	1,547
2016	9,547	0.783	7,471	2,076
2017	8,892	0.782	6,952	1,940
2018	10,143	0.787	7,983	2,160
2019	12,507	0.802	10,028	2,479
2020	16,933	0.844	14,285	2,648
TOTAL	\$138,579		\$112,608	\$25,971

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$112,608
75%	118,102
85%	122,029
95%	127,794

Notes:

- (1) - Per Exhibit I, Page 1B, Column (6).
- (2) - Per AMI calculations, see Appendix A, Page 1.
- (3) = (1) x (2).
- (4) = (1) - (3). Excludes investment income on the margin.
- (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2021
CALCULATION OF DISCOUNTED RESERVES
WORKERS' COMPENSATION
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
	(1)	(2)	(3)	(4)
Prior	\$0	0.963	\$0	\$0
1994	0	0.945	0	0
1995	0	0.928	0	0
1996	721	0.912	657	63
1997	932	0.897	836	96
1998	495	0.883	437	58
1999	1,121	0.869	974	146
2000	2,132	0.861	1,836	295
2001	2,273	0.858	1,950	323
2002	2,468	0.853	2,104	364
2003	2,360	0.851	2,009	351
2004	2,388	0.848	2,024	364
2005	2,215	0.844	1,870	345
2006	2,936	0.843	2,475	461
2007	3,923	0.840	3,294	628
2008	3,343	0.835	2,792	552
2009	3,904	0.829	3,235	669
2010	8,485	0.821	6,964	1,520
2011	6,499	0.813	5,285	1,213
2012	4,618	0.806	3,721	897
2013	8,030	0.798	6,408	1,621
2014	7,011	0.792	5,553	1,457
2015	6,549	0.788	5,162	1,387
2016	8,659	0.785	6,794	1,865
2017	8,022	0.783	6,278	1,744
2018	8,888	0.782	6,949	1,939
2019	10,378	0.787	8,168	2,210
2020	11,598	0.802	9,299	2,299
2021	17,187	0.844	14,499	2,688
TOTAL	\$137,133		\$111,575	\$25,558

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$111,575
75%	117,019
85%	120,909
95%	126,621

Notes:

- (1) - Per Exhibit I, Page 1C, Column (6).
 - (2) - Per AMI calculations, see Appendix A, Page 1.
 - (3) = (1) x (2).
 - (4) = (1) - (3). Excludes investment income on the margin.
 - (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2022
CALCULATION OF DISCOUNTED RESERVES
WORKERS' COMPENSATION
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
	(1)	(2)	(3)	(4)
Prior	\$0	1.000	\$0	\$0
1994	0	0.963	0	0
1995	0	0.945	0	0
1996	624	0.928	579	45
1997	823	0.912	750	72
1998	443	0.897	397	46
1999	1,015	0.883	896	119
2000	1,869	0.869	1,625	244
2001	1,945	0.861	1,676	270
2002	2,149	0.858	1,844	306
2003	2,009	0.853	1,713	296
2004	2,070	0.851	1,762	308
2005	1,926	0.848	1,633	294
2006	2,518	0.844	2,125	393
2007	3,422	0.843	2,885	537
2008	2,956	0.840	2,482	474
2009	3,501	0.835	2,924	578
2010	7,723	0.829	6,400	1,323
2011	5,933	0.821	4,869	1,063
2012	4,238	0.813	3,446	791
2013	7,405	0.806	5,967	1,439
2014	6,435	0.798	5,135	1,299
2015	5,969	0.792	4,728	1,241
2016	7,897	0.788	6,224	1,672
2017	7,277	0.785	5,710	1,567
2018	8,019	0.783	6,275	1,744
2019	9,094	0.782	7,110	1,984
2020	9,624	0.787	7,574	2,049
2021	11,772	0.802	9,439	2,333
2022	17,446	0.844	14,718	2,728
TOTAL	\$136,100		\$110,886	\$25,214

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$110,886
75%	116,296
85%	120,163
95%	125,840

Notes:

- (1) - Per Exhibit I, Page 1D, Column (6).
 - (2) - Per AMI calculations, see Appendix A, Page 1.
 - (3) = (1) x (2).
 - (4) = (1) - (3). Excludes investment income on the margin.
 - (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF PROJECTED LOSSES
WORKERS' COMPENSATION
(\$AMOUNTS IN '000s)
UNLIMITED

PROJECTED ULTIMATE LOSSES

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	FTE	LOSS RATE
	(1)	(2)	(3)
Prior**			
1994	\$8,119	N/A	
1995	15,317	N/A	
1996	12,505	N/A	
1997	12,646	N/A	
1998	10,498	N/A	
1999	13,988	N/A	
2000	17,556	N/A	
2001	20,812	N/A	
2002	21,579	N/A	
2003	20,999	16,960	1.238
2004	23,015	14,579	1.579
2005	22,133	15,398	1.437
2006	21,292	15,397	1.383
2007	24,138	15,773	1.530
2008	20,285	16,050	1.264
2009	22,359	15,977	1.399
2010	31,965	16,386	1.951
2011	31,475	16,721	1.882
2012	25,838	16,951	1.524
2013	31,089	17,025	1.826
2014	26,261	16,848	1.559
2015	25,330	16,959	1.494
2016	24,108	17,272	1.396
2017	21,308	17,242	1.236
2018	20,950	16,625	1.260
2019	22,436	16,744	1.340
(PROJ.) 2019/2020	\$22,637	16,828	1.345
(PROJ.) 2020/2021	22,977	16,912	1.359
(PROJ.) 2021/2022	23,323	16,996	1.372

DISCOUNTED FUNDING REQUIREMENTS FOR PROSPECTIVE YEARS

ACCIDENT YEAR*	PROJECTED LOSSES	DISCOUNT FACTORS	DISCOUNTED PROJECTED LOSSES	FUTURE INVESTMENT INCOME
	(4)	(5)	(6)	(7)
2020	\$22,637	0.861	\$19,489	\$3,148
2021	22,977	0.861	19,782	3,195
2022	23,323	0.861	20,080	3,243

DISCOUNTED FUNDING REQUIREMENTS AT VARIOUS CONFIDENCE LEVELS

ACCIDENT YEAR*	EXPECTED LEVEL	75% LEVEL	85% LEVEL	95% LEVEL
	(8)	(9)	(10)	(11)
2020	\$19,489	\$23,252	\$25,680	\$30,185
2021	19,782	23,601	26,067	30,639
2022	20,080	23,957	26,459	31,101

Notes:

- (1) - Per Exhibit I, Page 1A, Column (5). For projected years, (1) = (2) x (3).
- (2) - Per STATE OF ALASKA.
- (3) = (1) / (2). For the projected years, it is the trended average of prior years
- (4) = (1); (5) - Per Appendix A, Page 1, Column (7).
- (6) = (4) x (5); (7) = (4) - (6).
- (8) = (6).
- (9) to (11) - Based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF PROJECTED LOSSES
WORKERS' COMPENSATION
(\$AMOUNTS IN '000s)
LOSSES LIMITED TO \$1MM RETENTION

FUNDING REQUIREMENTS FOR PROSPECTIVE YEARS LIMITED TO \$1MM RETENTION

ACCIDENT YEAR*	PROJECTED UNLIMITED LOSSES	RETENTION FACTORS	EXPECTED FUNDING AMOUNT AT RETENTION LIMIT
	(1)	(2)	(3)
2020	\$22,637	0.830	\$18,789
2021	22,977	0.830	19,071
2022	23,323	0.830	19,358

Notes:

- (1) - Per Exhibit I, Page 6A, Column (4).
(2) - Based on industry increased limits factors for the STATE OF ALASKA.
(3) = (1) * (2)
* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF ULTIMATE CLAIM FREQUENCY AND ULTIMATE CLAIM SEVERITY
AS OF JUNE 30, 2019
WORKERS' COMPENSATION
UNLIMITED

ACCIDENT YEAR*	CLAIMS REPORTED @6/30/2019	DEVELOPMENT FACTORS	ULTIMATE CLAIM COUNT	ULTIMATE LOSSES	FTE	NUMBER OF CLAIMS PER 1,000 FTE (FREQUENCY)	AVERAGE CLAIM (SEVERITY) (WHOLE DOLLARS)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
1994	1,179	1.000	1,179	\$8,119	N/A		\$6,887
1995	1,346	1.000	1,346	15,317	N/A		11,380
1996	1,256	1.000	1,256	12,505	N/A		9,957
1997	1,258	1.000	1,258	12,646	N/A		10,052
1998	1,199	1.000	1,199	10,498	N/A		8,756
1999	1,105	1.000	1,105	13,988	N/A		12,659
2000	1,077	1.000	1,077	17,556	N/A		16,301
2001	1,141	1.000	1,141	20,812	N/A		18,240
2002	1,151	1.000	1,151	21,579	N/A		18,748
2003	1,243	1.000	1,243	20,999	16,960	73	16,894
2004	1,434	1.000	1,434	23,015	14,579	98	16,049
2005	1,411	1.000	1,411	22,133	15,398	92	15,686
2006	1,276	1.000	1,276	21,292	15,397	83	16,686
2007	1,213	1.000	1,213	24,138	15,773	77	19,899
2008	1,115	1.000	1,115	20,285	16,050	69	18,192
2009	1,219	1.000	1,219	22,359	15,977	76	18,342
2010	1,238	1.000	1,238	31,965	16,386	76	25,819
2011	1,241	1.000	1,241	31,475	16,721	74	25,361
2012	1,269	1.000	1,269	25,838	16,951	75	20,360
2013	1,178	1.000	1,178	31,089	17,025	69	26,390
2014	1,171	1.000	1,171	26,261	16,848	70	22,424
2015	1,071	1.000	1,071	25,330	16,959	63	23,645
2016	995	1.001	996	24,108	17,272	58	24,210
2017	944	1.002	945	21,308	17,242	55	22,537
2018	942	1.004	946	20,950	16,625	57	22,152
2019	997	1.073	1,126	22,436	16,744	67	19,934
TOTAL	30,669		30,804	\$548,003			

Notes:

- (1) & (5) - Per STATE OF ALASKA.
- (2) - Per STATE OF ALASKA's historical loss patterns.
- (3) = (1) x (2). For the latest year, it is (6) x (5)/1000.
- (4) = Exhibit I, Page 1A, Column (5).
- (6) = [(3) / [(5) / 1000]] ; (7) = [(3) / (4)] x 1000. For the latest year, it is the average of prior years.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF PAID LOSS CASH FLOW
AS OF JUNE 30, 2019
WORKERS' COMPENSATION
(\$AMOUNTS IN '000s)
UNLIMITED

YEAR	1	2	3	4	5	6	7	8	9	10
CUMULATIVE LOSS PAYOUT PATTERN	25.2%	48.8%	57.5%	62.7%	66.4%	69.5%	72.2%	74.7%	76.7%	78.6%
INCREMENTAL LOSS PAYOUT PATTERN	25.2%	23.6%	8.7%	5.3%	3.6%	3.1%	2.7%	2.5%	2.1%	1.8%
PAYOUT AS PERCENTAGE OF UNPAID AT 6/30/2019		31.5%	11.7%	7.0%	4.9%	4.2%	3.6%	3.3%	2.8%	2.4%
PAYOUT AS PERCENTAGE OF ULTIMATE LOSS	25.2%	23.6%	8.7%	5.3%	3.6%	3.1%	2.7%	2.5%	2.1%	1.8%

ACCIDENT YEAR*	ESTIMATED ULTIMATE LOSS	ESTIMATED UNPAID 6/30/2019	ESTIMATED FUTURE PAYMENTS FOR FISCAL YEAR ENDING									
			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029 & SUBSEQUENT
Prior		\$6,764	\$881	\$784	\$758	\$561	\$545	\$399	\$268	\$269	\$270	\$2,030
1994	\$8,119	270	270	0	0	0	0	0	0	0	0	0
1995	15,317	1,885	1,885	0	0	0	0	0	0	0	0	0
1996	12,505	912	95	96	97	97	98	99	329	0	0	0
1997	12,646	1,149	108	109	109	110	111	112	113	376	0	0
1998	10,498	623	77	52	52	52	52	53	54	54	179	0
1999	13,988	1,494	215	158	106	106	107	108	108	109	110	367
2000	17,556	2,860	369	359	263	176	177	178	180	181	182	795
2001	20,812	3,066	456	337	327	240	161	162	162	164	165	892
2002	21,579	3,345	446	431	319	310	227	152	153	153	155	1,000
2003	20,999	3,131	408	363	351	260	252	185	124	124	125	940
2004	23,015	3,202	456	358	318	308	228	221	162	109	109	934
2005	22,133	2,960	377	368	289	257	248	184	178	131	88	841
2006	21,292	3,806	441	429	418	328	292	282	209	203	148	1,056
2007	24,138	4,947	510	514	500	487	382	340	329	243	236	1,404
2008	20,285	4,095	368	384	387	377	367	288	256	248	183	1,236
2009	22,359	4,698	409	385	402	406	395	385	302	269	260	1,486
2010	31,965	10,129	835	810	762	796	803	781	761	597	531	3,454
2011	31,475	7,680	597	583	566	533	556	561	546	532	417	2,787
2012	25,838	5,456	448	390	380	369	347	363	366	356	347	2,089
2013	31,089	9,599	850	719	625	610	592	557	582	587	571	3,906
2014	26,261	8,435	743	681	576	501	489	474	446	466	470	3,588
2015	25,330	7,917	736	632	580	490	426	416	404	380	397	3,455
2016	24,108	10,582	1,035	887	763	699	591	514	502	487	458	4,645
2017	21,308	10,148	1,256	870	746	641	588	497	432	422	409	4,289
2018	20,950	12,224	2,081	1,255	869	745	641	588	497	432	422	4,696
2019	22,436	18,260	5,753	2,129	1,284	890	763	655	601	508	442	5,235
2020	22,637		5,704	5,335	1,974	1,191	825	707	608	557	471	5,265
2021	22,977			5,790	5,415	2,004	1,209	837	718	617	566	5,822
2022	23,323				5,877	5,497	2,034	1,227	850	729	626	6,484
TOTAL	\$616,940	\$149,635	\$27,810	\$25,207	\$25,114	\$19,040	\$13,505	\$11,324	\$10,238	\$9,301	\$8,338	\$68,695

Notes:
* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
SIZE OF LOSS DISTRIBUTION
AS OF JUNE 30, 2019
WORKERS' COMPENSATION
(\$AMOUNTS IN '000s)
UNLIMITED

REPORTED CLAIM COUNTS

ACCIDENT YEAR*	\$0	\$0.01 TO \$5,000	\$5,000 TO \$10,000	\$10,000 TO \$25,000	\$25,000 TO \$50,000	\$50,000 TO \$100,000	\$100,000 TO \$250,000	\$250,000 TO \$500,000	\$500,000 TO \$750,000	\$750,000 TO \$1,000,000	OVER \$1,000,000	TOTAL
	Prior	7,004	23,952	1,563	1,516	962	639	462	126	45	26	44
2010	120	776	79	88	85	42	33	8	4	0	3	1,238
2011	135	743	87	104	63	52	39	15	0	0	3	1,241
2012	164	719	108	103	67	64	30	11	2	1	0	1,269
2013	114	697	99	105	54	52	39	9	6	0	3	1,178
2014	103	719	89	106	60	48	34	6	2	1	3	1,171
2015	107	640	97	77	53	55	29	8	3	2	0	1,071
2016	68	612	97	102	56	29	22	5	2	0	2	995
2017	72	590	86	73	48	46	24	4	1	0	0	944
2018	84	570	91	86	43	36	30	2	0	0	0	942
2019	114	436	198	144	58	32	15	0	0	0	0	997
TOTAL	8,085	30,454	2,594	2,504	1,549	1,095	757	194	65	30	58	47,385

REPORTED LOSSES

ACCIDENT YEAR*	\$0	\$0.01 TO \$5,000	\$5,000 TO \$10,000	\$10,000 TO \$25,000	\$25,000 TO \$50,000	\$50,000 TO \$100,000	\$100,000 TO \$250,000	\$250,000 TO \$500,000	\$500,000 TO \$750,000	\$750,000 TO \$1,000,000	OVER \$1,000,000	TOTAL
	Prior	(157)	18,598	11,061	24,598	34,292	44,788	70,511	44,486	27,094	22,489	75,824
2010	(0)	922	559	1453	3052	2928	5054	2996	2580	0	10,217	29,761
2011	0	967	606	1718	2202	3635	6290	4839	0	0	7,823	28,079
2012	0	934	752	1620	2390	4553	4942	3751	1136	869	0	20,947
2013	0	932	737	1695	1943	3649	5817	2976	3580	0	5,792	27,121
2014	(1)	1030	649	1681	2117	3210	4844	2000	1312	752	4,119	21,712
2015	0	903	686	1346	1913	3896	3997	2571	1778	1769	0	18,861
2016	0	883	694	1659	1983	2028	3306	1781	1137	0	5,129	18,600
2017	0	805	606	1182	1679	3194	3783	1608	611	0	0	13,469
2018	0	749	627	1355	1608	2496	4709	583	0	0	0	12,126
2019	0	605	1410	2354	2016	2168	1982	0	0	0	0	10,535
TOTAL	(\$158)	\$27,329	\$18,386	\$40,663	\$55,194	\$76,544	\$115,235	\$67,592	\$39,227	\$25,879	\$108,905	\$574,796

Notes:

Per STATE OF ALASKA.

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2019
GENERAL LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ALL APPROACHES COMBINED

ACCIDENT YEAR*	ESTIMATED ULTIMATE LOSSES BY METHOD				SELECTED ULTIMATE LOSSES	PAID LOSSES @ 6/30/2019	TOTAL LOSS RESERVES @ 6/30/2019
	ILDA	PLDA	BFILA	BFPLA			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Prior							\$0
1994	\$4,976	\$4,976	\$4,976	\$4,976	\$4,976	\$4,976	0
1995	5,410	5,410	5,410	5,410	5,410	5,410	0
1996	5,965	5,965	5,965	5,965	5,965	5,965	0
1997	2,841	2,841	2,841	2,841	2,841	2,841	0
1998	4,724	4,724	4,724	4,724	4,724	4,724	0
1999	5,327	5,327	5,327	5,327	5,327	5,327	0
2000	7,453	7,453	7,453	7,453	7,453	7,453	0
2001	4,494	4,494	4,494	4,494	4,494	4,494	0
2002	3,114	3,071	3,114	3,114	3,103	3,071	33
2003	4,439	4,380	4,439	4,439	4,424	4,380	44
2004	7,603	7,612	7,603	7,614	7,603	7,603	0
2005	6,975	6,984	6,976	6,987	6,965	6,965	0
2006	8,939	8,972	8,934	8,962	8,952	8,912	40
2007	6,184	6,234	6,182	6,227	6,148	6,148	0
2008	6,193	6,261	6,189	6,250	6,140	6,140	0
2009	2,909	2,771	2,953	2,867	2,875	2,690	185
2010	1,391	1,421	1,488	1,610	1,362	1,362	0
2011	10,641	9,587	10,648	10,456	10,333	9,306	1,027
2012	7,362	7,384	7,532	7,765	7,511	7,179	332
2013	3,026	3,125	3,234	3,607	3,248	2,641	607
2014	5,536	5,306	5,604	5,531	5,494	4,099	1,395
2015	3,283	3,817	3,637	4,608	3,836	2,629	1,207
2016	10,202	7,616	9,750	8,162	8,932	4,950	3,982
2017	5,828	1,869	6,088	5,118	4,726	507	4,219
2018	18,156	9,749	12,470	10,403	11,436	4,656	6,780
2019	6,568	6,312	8,329	6,742	6,440	453	5,987
TOTAL	\$159,539	\$143,661	\$156,360	\$151,653	\$150,720	\$124,882	\$25,838

Notes:

(1), (2), (3), & (4) - Ultimate losses calculated from Exhibit II, Pages 2 & 3.

(5) = Selected based on (1), (2), (3) & (4).

(6) - Per STATE OF ALASKA

(7) = (5) - (6).

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2020
GENERAL LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	LOSS RESERVES AS OF @6/30/2019	ESTIMATED PAID LOSSES FOR FY2020	PAID LOSSES AS OF @6/30/2019	ESTIMATED PAID LOSSES AS OF @6/30/2020	ESTIMATED LOSS RESERVES AS OF @6/30/2020
	(1)	(2)	(3)	(4)	(5)	(6)
Prior		\$0	\$0			\$0
1994	\$4,976	0	0	\$4,976	\$4,976	0
1995	5,410	0	0	5,410	5,410	0
1996	5,965	0	0	5,965	5,965	0
1997	2,841	0	0	2,841	2,841	0
1998	4,724	0	0	4,724	4,724	0
1999	5,327	0	0	5,327	5,327	0
2000	7,453	0	0	7,453	7,453	0
2001	4,494	0	0	4,494	4,494	0
2002	3,103	33	33	3,071	3,103	0
2003	4,424	44	44	4,380	4,424	0
2004	7,603	0	0	7,603	7,603	0
2005	6,965	0	0	6,965	6,965	0
2006	8,952	40	22	8,912	8,934	18
2007	6,148	0	0	6,148	6,148	0
2008	6,140	0	0	6,140	6,140	0
2009	2,875	185	64	2,690	2,753	121
2010	1,362	0	0	1,362	1,362	0
2011	10,333	1,027	303	9,306	9,609	724
2012	7,511	332	127	7,179	7,306	204
2013	3,248	607	235	2,641	2,876	372
2014	5,494	1,395	444	4,099	4,543	951
2015	3,836	1,207	325	2,629	2,954	882
2016	8,932	3,982	1,365	4,950	6,315	2,618
2017	4,726	4,219	1,479	507	1,986	2,740
2018	11,436	6,780	1,291	4,656	5,947	5,489
2019	6,440	5,987	467	453	921	5,519
2020	7,098		167		167	6,931
TOTAL	\$157,818	\$25,838	\$6,366	\$124,882	\$131,248	\$26,570

Notes:

(1) - For 2019 and prior, ultimate losses based from Exhibit II, Page 1A, Column (5). For 2020, ultimate loss is the projected loss in Exhibit II, Page 6A.

(2) - For 2019 and prior, loss reserves based from Exhibit II, Page 1A, Column (7).

(3) - From Exhibit II, Page 8.

(4) - From Exhibit II, Page 1A. Column (6).

(5) = (3) + (4)

(6) = (1) - (5)

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2021
GENERAL LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	LOSS RESERVES AS OF @6/30/2020	ESTIMATED PAID LOSSES FOR FY2021	ESTIMATED PAID LOSSES AS OF @6/30/2020	ESTIMATED PAID LOSSES AS OF @6/30/2021	ESTIMATED LOSS RESERVES AS OF @6/30/2021
	(1)	(2)	(3)	(4)	(5)	(6)
Prior		\$0	\$0			\$0
1994	\$4,976	0	0	\$4,976	\$4,976	0
1995	5,410	0	0	5,410	5,410	0
1996	5,965	0	0	5,965	5,965	0
1997	2,841	0	0	2,841	2,841	0
1998	4,724	0	0	4,724	4,724	0
1999	5,327	0	0	5,327	5,327	0
2000	7,453	0	0	7,453	7,453	0
2001	4,494	0	0	4,494	4,494	0
2002	3,103	0	0	3,103	3,103	0
2003	4,424	0	0	4,424	4,424	0
2004	7,603	0	0	7,603	7,603	0
2005	6,965	0	0	6,965	6,965	0
2006	8,952	18	9	8,934	8,943	9
2007	6,148	0	0	6,148	6,148	0
2008	6,140	0	0	6,140	6,140	0
2009	2,875	121	34	2,753	2,787	87
2010	1,362	0	0	1,362	1,362	0
2011	10,333	724	208	9,609	9,818	515
2012	7,511	204	60	7,306	7,367	144
2013	3,248	372	143	2,876	3,019	229
2014	5,494	951	368	4,543	4,911	583
2015	3,836	882	281	2,954	3,235	601
2016	8,932	2,618	704	6,315	7,019	1,913
2017	4,726	2,740	939	1,986	2,925	1,801
2018	11,436	5,489	1,924	5,947	7,871	3,565
2019	6,440	5,519	1,051	921	1,972	4,468
2020	7,098	6,931	541	167	708	6,390
2021	7,229		170		170	7,059
TOTAL	\$165,047	\$26,570	\$6,433	\$131,248	\$137,680	\$27,366

Notes:

- (1) - For 2020 and prior, ultimate losses based from Exhibit II, Page 1B, Column (1). For 2021, ultimate loss is the projected loss in Exhibit II, Page 6A.
 - (2) - For 2020 and prior, loss reserves based from Exhibit II, Page 1B, Column (6).
 - (3) - From Exhibit II, Page 8.
 - (4) - From Exhibit II, Page 1B, Column (5).
 - (5) = (3) + (4)
 - (6) = (1) - (5)
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2022
GENERAL LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	LOSS RESERVES AS OF @6/30/2021	ESTIMATED PAID LOSSES FOR FY2022	ESTIMATED PAID LOSSES AS OF @6/30/2021	ESTIMATED PAID LOSSES AS OF @6/30/2022	ESTIMATED LOSS RESERVES AS OF @6/30/2022
	(1)	(2)	(3)	(4)	(5)	(6)
Prior		\$0	\$0			\$0
1994	\$4,976	0	0	\$4,976	\$4,976	0
1995	5,410	0	0	5,410	5,410	0
1996	5,965	0	0	5,965	5,965	0
1997	2,841	0	0	2,841	2,841	0
1998	4,724	0	0	4,724	4,724	0
1999	5,327	0	0	5,327	5,327	0
2000	7,453	0	0	7,453	7,453	0
2001	4,494	0	0	4,494	4,494	0
2002	3,103	0	0	3,103	3,103	0
2003	4,424	0	0	4,424	4,424	0
2004	7,603	0	0	7,603	7,603	0
2005	6,965	0	0	6,965	6,965	0
2006	8,952	9	9	8,943	8,952	0
2007	6,148	0	0	6,148	6,148	0
2008	6,140	0	0	6,140	6,140	0
2009	2,875	87	31	2,787	2,818	56
2010	1,362	0	0	1,362	1,362	0
2011	10,333	515	177	9,818	9,995	338
2012	7,511	144	41	7,367	7,408	103
2013	3,248	229	68	3,019	3,086	162
2014	5,494	583	224	4,911	5,135	359
2015	3,836	601	233	3,235	3,468	369
2016	8,932	1,913	609	7,019	7,628	1,304
2017	4,726	1,801	485	2,925	3,409	1,317
2018	11,436	3,565	1,222	7,871	9,093	2,343
2019	6,440	4,468	1,566	1,972	3,538	2,902
2020	7,098	6,390	1,217	708	1,925	5,173
2021	7,229	7,059	551	170	721	6,508
2022	7,361		173		173	7,188
TOTAL	\$172,408	\$27,366	\$6,605	\$137,680	\$144,285	\$28,122

Notes:

- (1) - For 2021 and prior, ultimate losses based from Exhibit II, Page 1C, Column (1). For 2022, ultimate loss is the projected loss in Exhibit II, Page 6A.
 - (2) - For 2021 and prior, loss reserves based from Exhibit II, Page 1C, Column (6).
 - (3) - From Exhibit II, Page 8.
 - (4) - From Exhibit II, Page 1C, Column (5).
 - (5) = (3) + (4)
 - (6) = (1) - (5)
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF ULTIMATE LOSSES - LOSS DEVELOPMENT APPROACH
AS OF JUNE 30, 2019
GENERAL LIABILITY
(SAMOUNTS IN '000s)
UNLIMITED

INCURRED LOSS DEVELOPMENT APPROACH

ACCIDENT YEAR*	UNLIMITED INCURRED LOSSES @6/30/2019	INCURRED LARGE LOSSES AS OF @6/30/2019	LOSS DEVLPMT FACTORS	ULTIMATE INCURRED LOSSES	POPULATION	ESTIMATED LOSS RATE
	(1)	(1A)	(2)	(3)	(4)	(5)
Prior						
1994	\$4,976		1.000	\$4,976	N/A	
1995	5,410	\$2,416	1.000	5,410	N/A	
1996	5,965	2,610	1.000	5,965	N/A	
1997	2,841		1.000	2,841	N/A	
1998	4,724		1.000	4,724	N/A	
1999	5,327		1.000	5,327	N/A	
2000	7,453	2,465	1.000	7,453	N/A	
2001	4,494		1.000	4,494	N/A	
2002	3,114		1.000	3,114	N/A	
2003	4,439		1.000	4,439	647,188	0.007
2004	7,603	2,934	1.000	7,603	656,569	0.012
2005	6,965	2,193	1.002	6,975	663,085	0.011
2006	8,912	2,355	1.004	8,939	669,716	0.013
2007	6,148		1.006	6,184	674,510	0.009
2008	6,140		1.009	6,193	679,720	0.009
2009	2,867		1.015	2,909	692,314	0.004
2010	1,362		1.021	1,391	714,142	0.002
2011	10,456	4,791	1.033	10,641	723,147	0.015
2012	7,272	5,226	1.044	7,362	732,298	0.010
2013	2,830		1.069	3,026	739,998	0.004
2014	5,042		1.098	5,536	747,668	0.007
2015	2,904		1.130	3,283	755,310	0.004
2016	8,162	2,150	1.339	10,202	744,623	0.014
2017	2,795		2.086	5,828	751,471	0.008
2018	7,697	4,168	3.964	18,156	758,259	0.024
2019	2,439			6,568	764,949	0.009
TOTAL	\$138,337	\$31,308		\$159,539		

PAID LOSS DEVELOPMENT APPROACH

ACCIDENT YEAR*	UNLIMITED PAID LOSSES @6/30/2019	PAID LARGE LOSSES AS OF @6/30/2019	LOSS DEVLPMT FACTORS	ULTIMATE INCURRED LOSSES	POPULATION	ESTIMATED LOSS RATE
	(6)	(6A)	(7)	(8)	(9)	(10)
Prior						
1994	\$4,976		1.000	\$4,976	N/A	
1995	5,410	\$2,416	1.000	5,410	N/A	
1996	5,965	2,610	1.000	5,965	N/A	
1997	2,841		1.000	2,841	N/A	
1998	4,724		1.000	4,724	N/A	
1999	5,327		1.000	5,327	N/A	
2000	7,453	2,465	1.000	7,453	N/A	
2001	4,494		1.000	4,494	N/A	
2002	3,071		1.000	3,071	N/A	
2003	4,380		1.000	4,380	647,188	0.007
2004	7,603	2,934	1.002	7,612	656,569	0.012
2005	6,965	2,193	1.004	6,984	663,085	0.011
2006	8,912	2,355	1.009	8,972	669,716	0.013
2007	6,148		1.014	6,234	674,510	0.009
2008	6,140		1.020	6,261	679,720	0.009
2009	2,690		1.030	2,771	692,314	0.004
2010	1,362		1.043	1,421	714,142	0.002
2011	9,306	4,791	1.062	9,587	723,147	0.013
2012	7,179	5,226	1.105	7,384	732,298	0.010
2013	2,641		1.183	3,125	739,998	0.004
2014	4,099		1.294	5,306	747,668	0.007
2015	2,629		1.452	3,817	755,310	0.005
2016	4,950	2,072	1.899	7,616	744,623	0.010
2017	507		3.688	1,869	751,471	0.002
2018	4,656	4,099	10.029	9,749	758,259	0.013
2019	453			6,312	764,949	0.008
TOTAL	\$124,882	\$31,161		\$143,661		

Notes:

- (1), (4), (6) & (9) - Per STATE OF ALASKA.
- (1A) & (6A) - Incurred and paid losses excluded in the development.
- (2) & (7) - Per State's historical loss pattern, supplemented by AM Best insurance industry historical loss patterns.
- (3) = (1) x (2); (8) = (6) x (7). If ultimate incurred losses in (8) are less than the incurred losses in (1), we used the incurred losses in (1). For the most recent year, we used the Loss Rate Approach.
- (5) = (3) / (4); (10) = (8) / (9). For the most recent year, it is the average of prior years.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF ULTIMATE LOSSES - BORNHUETT-FERGUSON APPROACH
AS OF JUNE 30, 2019
GENERAL LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

BORNHUETT-FERGUSON INCURRED LOSS APPROACH

ACCIDENT YEAR*	ESTIMATED LOSS		EXPECTED ULTIMATE LOSSES	EXPECTED % OF LOSSES UNREPORTED	IBNR RESERVES	UNLIMITED INCURRED LOSSES @6/30/2019	ULTIMATE INCURRED LOSSES
	RATE	POPULATION					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Prior							
1994	0.008	N/A	\$4,976	0.0%	\$0	\$4,976	\$4,976
1995	0.008	N/A	5,410	0.0%	0	5,410	5,410
1996	0.008	N/A	5,965	0.0%	0	5,965	5,965
1997	0.008	N/A	2,841	0.0%	0	2,841	2,841
1998	0.008	N/A	4,724	0.0%	0	4,724	4,724
1999	0.008	N/A	5,327	0.0%	0	5,327	5,327
2000	0.008	N/A	7,453	0.0%	0	7,453	7,453
2001	0.008	N/A	4,494	0.0%	0	4,494	4,494
2002	0.008	N/A	3,093	0.0%	0	3,114	3,114
2003	0.008	647,188	5,449	0.0%	0	4,439	4,439
2004	0.008	656,569	5,528	0.0%	0	7,603	7,603
2005	0.008	663,085	5,582	0.2%	11	6,965	6,976
2006	0.008	669,716	5,638	0.4%	22	8,912	8,934
2007	0.008	674,510	5,679	0.6%	34	6,148	6,182
2008	0.008	679,720	5,723	0.9%	49	6,140	6,189
2009	0.008	692,314	5,829	1.5%	86	2,867	2,953
2010	0.008	714,142	6,012	2.1%	126	1,362	1,488
2011	0.008	723,147	6,088	3.2%	192	10,456	10,648
2012	0.008	732,298	6,165	4.2%	260	7,272	7,532
2013	0.008	739,998	6,230	6.5%	404	2,830	3,234
2014	0.008	747,668	6,295	8.9%	562	5,042	5,604
2015	0.008	755,310	6,359	11.5%	733	2,904	3,637
2016	0.008	744,623	6,269	25.3%	1,588	8,162	9,750
2017	0.008	751,471	6,327	52.1%	3,293	2,795	6,088
2018	0.008	758,259	6,384	74.8%	4,773	7,697	12,470
2019	0.008	764,949	6,440	91.5%	5,890	2,439	8,329
TOTAL			\$146,278		\$18,023	\$138,337	\$156,360

BORNHUETT-FERGUSON PAID LOSS APPROACH

ACCIDENT YEAR*	ESTIMATED LOSS		EXPECTED ULTIMATE LOSSES	EXPECTED % OF LOSSES UNPAID	LOSS RESERVES	UNLIMITED PAID LOSSES @6/30/2019	ULTIMATE INCURRED LOSSES
	RATE	POPULATION					
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Prior							
1994	0.008	N/A	\$4,976	0.0%	\$0	\$4,976	\$4,976
1995	0.008	N/A	5,410	0.0%	0	5,410	5,410
1996	0.008	N/A	5,965	0.0%	0	5,965	5,965
1997	0.008	N/A	2,841	0.0%	0	2,841	2,841
1998	0.008	N/A	4,724	0.0%	0	4,724	4,724
1999	0.008	N/A	5,327	0.0%	0	5,327	5,327
2000	0.008	N/A	7,453	0.0%	0	7,453	7,453
2001	0.008	N/A	4,494	0.0%	0	4,494	4,494
2002	0.008	N/A	3,093	0.0%	0	3,071	3,114
2003	0.008	647,188	5,449	0.0%	0	4,380	4,439
2004	0.008	656,569	5,528	0.2%	11	7,603	7,614
2005	0.008	663,085	5,582	0.4%	22	6,965	6,987
2006	0.008	669,716	5,638	0.9%	50	8,912	8,962
2007	0.008	674,510	5,679	1.4%	79	6,148	6,227
2008	0.008	679,720	5,723	1.9%	110	6,140	6,250
2009	0.008	692,314	5,829	2.9%	171	2,690	2,867
2010	0.008	714,142	6,012	4.1%	248	1,362	1,610
2011	0.008	723,147	6,088	5.9%	357	9,306	10,456
2012	0.008	732,298	6,165	9.5%	586	7,179	7,765
2013	0.008	739,998	6,230	15.5%	966	2,641	3,607
2014	0.008	747,668	6,295	22.7%	1,432	4,099	5,531
2015	0.008	755,310	6,359	31.1%	1,979	2,629	4,608
2016	0.008	744,623	6,269	47.3%	2,967	4,950	8,162
2017	0.008	751,471	6,327	72.9%	4,611	507	5,118
2018	0.008	758,259	6,384	90.0%	5,747	4,656	10,403
2019	0.008	764,949	6,440	97.6%	6,289	453	6,742
TOTAL			\$146,278		\$25,625	\$124,882	\$151,653

Notes:

- (1) & (8) - The average of the loss rates of prior years as shown in Columns (5) and (10) of Exhibit II, Page 2.
- (2) & (9) - Per STATE OF ALASKA.
- (3) = (1) x (2); (10) = (8) x (9). For 2002 & prior, average of Exhibit I, Columns (5) & (10).
- (4) = (1 - (1/LDF)); (11) = (1 - (1/PLDF)).
- (5) = (3) x (4); (12) = (10) x (11).
- (6) & (13) - Per STATE OF ALASKA.
- (7) = (5) + (6); (14) = (12) + (13). If ultimate incurred losses in (14) are less than the incurred losses in (6), we used the incurred losses in (6).
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
 AS OF JUNE 30, 2019
CALCULATION OF THE INCURRED LOSS DEVELOPMENT FACTORS
GENERAL LIABILITY
 (\$AMOUNTS IN '000s)
 UNLIMITED

INCURRED LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS											
	12	24	36	48	60	72	84	96	108	120	132	144
1994												4,621
1995												3,645
1996										6,349	6,355	6,375
1997									2,776	2,820	2,815	2,815
1998								3,872	3,778	3,916	3,916	5,864
1999							3,908	3,951	3,968	3,961	3,962	3,988
2000						7,158	7,212	7,558	7,539	7,551	7,443	7,443
2001					3,267	3,218	3,259	3,262	3,347	3,391	3,315	3,279
2002				1,689	2,031	2,360	2,465	2,571	2,713	2,713	2,851	2,862
2003			2,811	3,534	3,793	3,954	3,965	4,086	4,272	4,364	4,372	4,380
2004		2,216	2,907	5,479	7,642	7,642	7,652	7,652	7,602	7,603	7,603	7,603
2005	1,451	5,002	5,708	6,187	6,655	6,715	6,702	6,660	6,675	6,676	6,701	6,782
2006	675	1,418	3,026	5,737	7,114	7,453	7,615	8,249	8,258	8,238	8,238	8,238
2007	822	1,593	3,275	4,213	4,431	4,199	4,301	4,826	5,134	5,425	5,829	6,148
2008	561	1,021	2,078	2,680	3,547	4,124	4,824	6,519	6,227	6,145	6,144	6,140
2009	827	1,336	1,073	1,796	2,062	2,362	2,459	2,452	2,507	2,847	2,867	
2010	166	288	928	1,155	1,448	1,338	1,389	1,367	1,367	1,362		
2011	144	924	1,797	3,346	4,561	4,550	4,648	10,543	10,456			
2012	132	462	2,366	6,800	7,070	7,178	7,222	7,272				
2013	100	338	1,562	1,757	2,570	2,658	2,830					
2014	346	1,260	2,515	3,125	4,549	5,042						
2015	294	1,300	1,698	3,183	2,904							
2016	2,315	3,498	5,152	8,162								
2017	200	556	2,795									
2018	5,949	7,697										
2019	2,439											

INCURRED LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	12	24	36	48	60	72	84	96	108	120	132	144
	TO 24	TO 36	TO 48	TO 60	TO 72	TO 84	TO 96	TO 108	TO 120	TO 132	TO 144	TO 156
1994												1.000
1995												1.150
1996										1.001	1.003	1.002
1997									1.016	0.998	1.000	1.000
1998								0.976	1.037	1.000	1.497	1.012
1999							1.011	1.004	0.998	1.000	1.007	1.011
2000						1.008	1.048	0.997	1.002	0.986	1.000	0.999
2001					0.985	1.013	1.001	1.026	1.013	0.978	0.989	1.012
2002				1.202	1.162	1.044	1.043	1.055	1.000	1.051	1.004	1.001
2003			1.257	1.073	1.042	1.003	1.031	1.046	1.022	1.002	1.002	0.999
2004		1.312	1.885	1.395	1.000	1.001	1.000	0.993	1.000	1.000	1.000	1.000
2005	3.447	1.141	1.084	1.076	1.009	0.998	0.994	1.002	1.000	1.004	1.012	1.021
2006	2.101	2.134	1.896	1.240	1.048	1.022	1.083	1.001	0.998	1.000	1.000	1.000
2007	1.938	2.056	1.286	1.052	0.948	1.024	1.122	1.064	1.057	1.074	1.055	1.000
2008	1.820	2.035	1.290	1.324	1.163	1.170	1.351	0.955	0.987	1.000	0.999	
2009	1.615	0.803	1.674	1.148	1.145	1.041	0.997	1.023	1.135	1.007		
2010	1.735	3.222	1.245	1.254	0.924	1.038	0.984	1.000	0.996			
2011	6.417	1.945	1.862	1.363	0.998	1.022	2.268	0.992				
2012	3.500	5.121	2.874	1.040	1.015	1.006	1.007					
2013	3.380	4.621	1.125	1.462	1.035	1.065						
2014	3.642	1.996	1.243	1.456	1.108							
2015	4.422	1.306	1.875	0.912								
2016	1.511	1.473	1.584									
2017	2.782	5.030										
2018	1.294											
AVERAGE	2.829	2.443	1.584	1.214	1.042	1.033	1.139	1.010	1.019	1.007	1.051	1.004
3 YR AVG.	1.862	2.603	1.567	1.277	1.053	1.031	1.420	1.005	1.039	1.027	1.018	1.007
EXCL HI LO	2.658	2.356	1.519	1.219	1.041	1.024	1.057	1.010	1.012	1.004	1.019	1.003
5 YR AVG EXCL HI LO	2.645	2.697	1.567	1.286	1.016	1.034	1.118	1.005	1.017	1.004	1.004	1.000
PRIOR SELECTED	3.006	1.831	1.557	1.178	1.028	1.026	1.024	1.011	1.011	1.006	1.006	1.002
AM BEST	1.366	1.145	1.072	1.029	1.011	1.004	1.002	1.000	1.000	1.000	1.000	1.000
SELECTED	2.956	1.901	1.557	1.185	1.029	1.027	1.024	1.011	1.011	1.006	1.006	1.003
CUMULATIVE	11.716	3.964	2.086	1.339	1.130	1.098	1.069	1.044	1.033	1.021	1.015	1.009

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
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CALCULATION OF THE INCURRED LOSS DEVELOPMENT FACTORS
GENERAL LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

INCURRED LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS													
	156	168	180	192	204	216	228	240	252	264	276	288	300	312
1994	4,621	4,621	4,621	4,621	4,621	4,621	4,621	4,621	4,621	4,654	4,789	5,021	4,976	4,976
1995	3,654	5,404	5,418	5,418	5,410	5,410	5,410	5,410	5,410	5,410	5,410	5,410	5,410	5,410
1996	6,387	6,387	6,395	5,965	5,965	5,965	5,965	5,965	5,965	5,965	5,965	5,965	5,965	5,965
1997	2,815	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841
1998	5,932	5,175	5,182	5,221	5,237	5,237	4,724	4,724	4,724	4,724	4,724	4,724	4,724	4,724
1999	4,033	4,383	4,411	6,474	5,327	5,327	5,327	5,327	5,327	5,327	5,327	5,327	5,327	5,327
2000	7,438	7,453	7,453	7,453	7,453	7,453	7,453	7,453	7,453	7,453	7,453	7,453	7,453	7,453
2001	3,319	4,491	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494
2002	2,864	2,864	2,967	3,064	3,064	3,114	3,114	3,114	3,114	3,114	3,114	3,114	3,114	3,114
2003	4,376	4,369	4,369	4,369	4,439	4,439	4,439	4,439	4,439	4,439	4,439	4,439	4,439	4,439
2004	7,603	7,603	7,603	7,603	7,603	7,603	7,603	7,603	7,603	7,603	7,603	7,603	7,603	7,603
2005	6,926	6,976	6,965	6,965	6,965	6,965	6,965	6,965	6,965	6,965	6,965	6,965	6,965	6,965
2006	8,238	8,912	8,912	8,912	8,912	8,912	8,912	8,912	8,912	8,912	8,912	8,912	8,912	8,912
2007	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														

INCURRED LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	156	168	180	192	204	216	228	240	252	264	276	288	300	312
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
YEAR*	168	180	192	204	216	228	240	252	264	276	288	300	312	ULT
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.007	1.029	1.048	0.991	1.000	
1995	1.479	1.003	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1996	1.000	1.001	0.933	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1997	1.009	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1998	0.872	1.001	1.008	1.003	0.902	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1999	1.087	1.006	1.468	0.823	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2000	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2001	1.353	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2002	1.000	1.036	1.033	1.000	1.016	1.016	1.016	1.016	1.016	1.016	1.016	1.016	1.016	
2003	0.998	1.000	1.000	1.016	1.016	1.016	1.016	1.016	1.016	1.016	1.016	1.016	1.016	
2004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2005	1.007	0.998	0.998	0.998	0.998	0.998	0.998	0.998	0.998	0.998	0.998	0.998	0.998	
2006	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	
2007														
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														
AVERAGE	1.068	1.004	1.040	0.984	0.991	1.000	1.000	1.000	1.001	1.007	1.016	0.996	1.000	
3 YR AVG.	1.030	0.999	1.011	1.005	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.016	1.000	
EXCL HI LO	1.049	1.001	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
5 YR AVG EXCL HI LO	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
PRIOR SELECTED	1.002	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
AM BEST	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
SELECTED	1.002	1.002	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
CUMULATIVE	1.006	1.004	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
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CALCULATION OF THE PAID LOSS DEVELOPMENT FACTORS
GENERAL LIABILITY
 (\$AMOUNTS IN '000s)
 UNLIMITED

PAID LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS											
	12	24	36	48	60	72	84	96	108	120	132	144
1994												4,621
1995											2,803	2,847
1996										5,919	5,921	5,945
1997									2,758	2,805	2,815	2,815
1998								3,641	3,641	3,646	3,914	4,363
1999							3,873	3,920	3,934	3,958	3,959	3,967
2000						6,759	6,842	7,322	7,415	7,436	7,433	7,436
2001					3,023	3,082	3,124	3,146	3,197	3,268	3,291	3,279
2002				1,325	1,627	2,270	2,385	2,487	2,577	2,645	2,851	2,862
2003			1,128	2,188	3,146	3,856	3,895	3,990	4,205	4,241	4,308	4,352
2004		1,286	1,819	4,629	7,532	7,642	7,652	7,652	7,602	7,603	7,603	7,603
2005	310	1,752	5,129	5,771	6,365	6,609	6,636	6,660	6,675	6,676	6,694	6,782
2006	256	666	1,940	4,615	6,749	7,147	7,486	8,228	8,238	8,238	8,238	8,238
2007	273	958	2,747	3,435	3,660	4,192	4,281	4,529	5,007	5,291	5,795	6,148
2008	240	506	1,363	1,994	2,969	3,616	4,370	6,053	6,127	6,140	6,140	6,140
2009	493	707	844	1,385	1,899	2,178	2,419	2,449	2,507	2,662	2,690	
2010	38	176	566	941	1,139	1,321	1,357	1,358	1,362	1,362		
2011	28	449	1,495	2,938	4,480	4,538	4,621	6,094	9,306			
2012	40	293	806	6,601	7,045	7,156	7,175	7,179				
2013	61	237	1,120	1,531	2,433	2,606	2,641					
2014	65	503	1,799	2,877	3,345	4,099						
2015	97	378	1,351	2,214	2,629							
2016	96	1,230	1,851	4,950								
2017	50	197	507									
2018	440	4,656										
2019	453											

PAID LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	12	24	36	48	60	72	84	96	108	120	132	144
	TO 24	TO 36	TO 48	TO 60	TO 72	TO 84	TO 96	TO 108	TO 120	TO 132	TO 144	TO 156
1994												1.000
1995												1.016
1996										1.000		1.004
1997									1.017	1.004		1.000
1998								1.000	1.001	1.074		1.115
1999							1.012	1.004	1.006	1.000	1.002	1.015
2000						1.012	1.070	1.013	1.003	1.000	1.000	1.000
2001					1.020	1.014	1.007	1.016	1.022	1.007	0.996	1.011
2002				1.228	1.395	1.051	1.043	1.036	1.026	1.078	1.004	1.001
2003			1.940	1.438	1.226	1.010	1.024	1.054	1.009	1.016	1.010	1.004
2004		1.414	2.545	1.627	1.015	1.001	1.000	0.993	1.000	1.000	1.000	1.000
2005	5.652	2.928	1.125	1.103	1.038	1.004	1.004	1.002	1.000	1.003	1.013	1.020
2006	2.602	2.913	2.379	1.462	1.059	1.047	1.099	1.001	1.000	1.000	1.000	1.000
2007	3.509	2.867	1.250	1.066	1.145	1.021	1.058	1.106	1.057	1.095	1.061	1.000
2008	2.108	2.694	1.463	1.489	1.218	1.209	1.385	1.012	1.002	1.000	1.000	
2009	1.434	1.194	1.641	1.371	1.147	1.111	1.012	1.024	1.062	1.010		
2010	4.632	3.216	1.663	1.210	1.160	1.027	1.001	1.003	1.000			
2011	16.036	3.330	1.965	1.525	1.013	1.018	1.319	1.527				
2012	7.325	2.751	8.190	1.067	1.016	1.003	1.001					
2013	3.885	4.726	1.367	1.589	1.071	1.013						
2014	7.738	3.577	1.599	1.163	1.226							
2015	3.897	3.575	1.638	1.188								
2016	12.810	1.505	2.674									
2017	3.933	2.578										
2018	10.587											
AVERAGE	6.153	2.805	2.246	1.323	1.125	1.039	1.074	1.057	1.015	1.021	1.016	1.011
3 YR AVG.	9.110	2.553	1.970	1.313	1.104	1.011	1.107	1.185	1.021	1.035	1.020	1.007
EXCL HI LO	5.723	2.779	1.844	1.319	1.112	1.028	1.054	1.023	1.012	1.016	1.009	1.005
5 YR AVG EXCL HI LO	7.419	3.243	1.970	1.292	1.082	1.019	1.111	1.047	1.020	1.004	1.004	1.001
PRIOR SELECTED	3.984	2.706	1.935	1.308	1.123	1.101	1.069	1.036	1.019	1.012	1.010	1.005
AM BEST	2.114	1.442	1.234	1.111	1.048	1.021	1.010	1.005	1.002	1.002	1.001	1.001
SELECTED	4.242	2.719	1.942	1.308	1.122	1.094	1.071	1.040	1.018	1.012	1.010	1.006
CUMULATIVE	42.546	10.029	3.688	1.899	1.452	1.294	1.183	1.105	1.062	1.043	1.030	1.020

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF THE PAID LOSS DEVELOPMENT FACTORS
GENERAL LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

PAID LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS													
	156	168	180	192	204	216	228	240	252	264	276	288	300	312
1994	4,621	4,621	4,621	4,621	4,621	4,621	4,621	4,621	4,621	4,654	4,789	4,973	4,976	4,976
1995	3,104	3,236	5,410	5,410	5,410	5,410	5,410	5,410	5,410	5,410	5,410	5,410	5,410	5,410
1996	5,957	5,957	5,965	5,965	5,965	5,965	5,965	5,965	5,965	5,965	5,965	5,965	5,965	5,965
1997	2,815	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841	2,841
1998	4,414	4,653	4,670	4,718	4,724	4,724	4,724	4,724	4,724	4,724	4,724	4,724	4,724	4,724
1999	4,027	4,310	4,399	4,473	5,327	5,327	5,327	5,327	5,327	5,327	5,327	5,327	5,327	5,327
2000	7,438	7,453	7,453	7,453	7,453	7,453	7,453	7,453	7,453	7,453	7,453	7,453	7,453	7,453
2001	3,315	3,490	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494	4,494
2002	2,864	2,864	2,967	3,024	3,049	3,071	3,071	3,071	3,071	3,071	3,071	3,071	3,071	3,071
2003	4,369	4,369	4,369	4,369	4,380	4,380	4,380	4,380	4,380	4,380	4,380	4,380	4,380	4,380
2004	7,603	7,603	7,603	7,603	7,603	7,603	7,603	7,603	7,603	7,603	7,603	7,603	7,603	7,603
2005	6,917	6,964	6,965	6,965	6,965	6,965	6,965	6,965	6,965	6,965	6,965	6,965	6,965	6,965
2006	8,238	8,912	8,912	8,912	8,912	8,912	8,912	8,912	8,912	8,912	8,912	8,912	8,912	8,912
2007	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148	6,148
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														

PAID LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	156	168	180	192	204	216	228	240	252	264	276	288	300	312
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
YEAR*	168	180	192	204	216	228	240	252	264	276	288	300	312	ULT
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.007	1.029	1.038	1.000	1.000	
1995	1.043	1.672	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1996	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1997	1.009	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1998	1.054	1.004	1.010	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1999	1.070	1.021	1.017	1.191	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2000	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2001	1.053	1.288	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2002	1.000	1.036	1.019	1.008	1.007	1.007	1.007	1.007	1.007	1.007	1.007	1.007	1.007	
2003	1.000	1.000	1.000	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	1.002	
2004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2005	1.007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2006	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	1.082	
2007														
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														
AVERAGE	1.025	1.085	1.004	1.020	1.001	1.000	1.000	1.000	1.001	1.007	1.013	1.000	1.000	
3 YR AVG.	1.030	1.000	1.006	1.003	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
EXCL HI LO	1.022	1.035	1.003	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
5 YR AVG EXCL HI LO	1.002	1.012	1.000	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
PRIOR SELECTED	1.005	1.005	1.002	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
AM BEST	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
SELECTED	1.005	1.005	1.002	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
CUMULATIVE	1.014	1.009	1.004	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF CLAIM COUNT DEVELOPMENT FACTORS
GENERAL LIABILITY

REPORTED CLAIM COUNT DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS											
	12	24	36	48	60	72	84	96	108	120	132	144
1994												291
1995											305	305
1996										279	279	279
1997									542	542	542	542
1998								183	184	184	185	185
1999							214	214	215	215	215	215
2000						198	198	198	198	198	191	192
2001					214	214	215	215	215	211	211	211
2002				188	189	190	190	190	185	185	185	185
2003			188	189	190	190	190	185	185	185	185	185
2004		127	142	144	144	144	142	142	142	142	142	142
2005	89	111	123	120	119	116	116	116	116	117	118	118
2006	180	198	215	217	218	218	218	218	217	217	217	218
2007	118	130	143	146	146	147	148	150	150	153	155	155
2008	104	124	139	141	144	148	148	150	150	153	153	153
2009	64	89	98	102	105	105	105	106	107	107	107	107
2010	37	51	65	72	74	74	74	83	83	83		
2011	31	54	79	81	81	82	87	87	88			
2012	60	74	90	91	91	96	96	96				
2013	54	66	81	85	91	92	92					
2014	31	44	63	73	73	74						
2015	23	33	48	52	54							
2016	35	56	63	66								
2017	40	48	58									
2018	104	141										
2019	31											

CLAIM COUNT DEVELOPMENT FACTORS

ACCIDENT YEAR*	12	24	36	48	60	72	84	96	108	120	132	144
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
	24	36	48	60	72	84	96	108	120	132	144	156
1994												1.000
1995											1.000	1.000
1996										1.000	1.000	1.000
1997									1.000	1.000	1.000	1.000
1998								1.005	1.000	1.005	1.000	1.005
1999							1.000	1.005	1.000	1.000	1.000	0.995
2000						1.000	1.000	1.000	1.000	0.965	1.005	1.000
2001					1.000	1.005	1.000	1.000	0.981	1.000	1.000	1.005
2002				1.005	1.005	1.000	1.000	0.974	1.000	1.000	1.000	0.995
2003			1.005	1.005	1.000	1.000	0.974	1.000	1.000	1.000	1.000	1.000
2004		1.118	1.014	1.000	1.000	0.986	1.000	1.000	1.000	1.000	1.000	1.000
2005	1.247	1.108	0.976	0.992	0.975	1.000	1.000	1.000	1.009	1.009	1.000	1.051
2006	1.100	1.086	1.009	1.005	1.000	1.000	1.000	0.995	1.000	1.000	1.005	1.000
2007	1.102	1.100	1.021	1.000	1.007	1.007	1.014	1.000	1.020	1.013	1.000	1.000
2008	1.192	1.121	1.014	1.021	1.028	1.000	1.014	1.000	1.020	1.000	1.000	
2009	1.391	1.101	1.041	1.029	1.000	1.000	1.010	1.009	1.000	1.000		
2010	1.378	1.275	1.108	1.028	1.000	1.000	1.122	1.000	1.000			
2011	1.742	1.463	1.025	1.000	1.012	1.061	1.000	1.011				
2012	1.233	1.216	1.011	1.000	1.055	1.000	1.000					
2013	1.222	1.227	1.049	1.071	1.011	1.000						
2014	1.419	1.432	1.159	1.000	1.014							
2015	1.435	1.455	1.083	1.038								
2016	1.600	1.125	1.048									
2017	1.200	1.208										
2018	1.356											
AVERAGE	1.330	1.217	1.040	1.014	1.008	1.004	1.010	1.000	1.002	0.999	1.001	1.004
3 YR AVG.	1.385	1.263	1.097	1.036	1.027	1.020	1.041	1.007	1.007	1.004	1.002	1.017
EXCL HI LO	1.315	1.207	1.036	1.011	1.006	1.001	1.003	1.001	1.002	1.001	1.000	1.000
5 YR AVG EXCL HI LO	1.403	1.289	1.060	1.013	1.012	1.000	1.008	1.003	1.007	1.003	1.000	1.000
PRIOR SELECTED	1.352	1.263	1.056	1.013	1.006	1.003	1.003	1.002	1.002	1.001	1.000	1.000
SELECTED	1.353	1.261	1.056	1.014	1.007	1.003	1.004	1.002	1.002	1.001	1.000	1.000
CUMULATIVE	1.865	1.379	1.093	1.035	1.021	1.014	1.010	1.006	1.004	1.002	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF CLAIM COUNT DEVELOPMENT FACTORS
GENERAL LIABILITY

REPORTED CLAIM COUNT DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS													
	156	168	180	192	204	216	228	240	252	264	276	288	300	312
1994	291	291	291	291	291	291	291	291	291	292	292	292	278	278
1995	305	305	305	305	305	305	305	305	305	306	306	302	302	
1996	279	279	280	280	280	280	280	280	280	280	280	280		
1997	542	543	543	543	543	543	543	543	543	542	542			
1998	186	186	186	186	186	186	186	186	186	187				
1999	214	214	214	214	214	214	216	171	171					
2000	192	192	192	192	192	199	199							
2001	212	212	212	212	216	216	216							
2002	184	185	186	191	191	191								
2003	185	185	190	190	191									
2004	142	144	144	144										
2005	124	124	124											
2006	218	219												
2007	155													
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														

CLAIM COUNT DEVELOPMENT FACTORS

ACCIDENT YEAR*	156	168	180	192	204	216	228	240	252	264	276	288	300	312
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
	168	180	192	204	216	228	240	252	264	276	288	300	312	ULT
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.003	1.000	1.000	0.952	1.000	
1995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.003	1.000	0.987	1.000		
1996	1.000	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
1997	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.998	1.000				
1998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.005					
1999	1.000	1.000	1.000	1.000	1.000	1.009	0.792	1.000						
2000	1.000	1.000	1.000	1.000	1.036	1.000	1.000							
2001	1.000	1.000	1.000	1.019	1.000	1.000								
2002	1.005	1.005	1.027	1.000	1.000									
2003	1.000	1.027	1.000	1.005										
2004	1.014	1.000	1.000											
2005	1.000	1.000												
2006	1.005													
2007														
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
AVERAGE	1.002	1.003	1.002	1.002	1.004	1.001	0.970	1.000	1.002	1.000	0.996	0.976	1.000	
3 YR AVG.	1.006	1.009	1.009	1.008	1.012	1.003	0.931	1.000	1.001	1.000	0.996			
EXCL HI LO	1.001	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.002					
5 YR AVG EXCL HI LO	1.003	1.002	1.000	1.002	1.000	1.000	1.000	1.000	1.002					
PRIOR SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF DISCOUNTED RESERVES
GENERAL LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
	(1)	(2)	(3)	(4)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	33	1.000	33	0
2003	44	1.000	44	0
2004	0	1.000	0	0
2005	0	0.971	0	0
2006	40	0.966	38	1
2007	0	0.955	0	0
2008	0	0.943	0	0
2009	185	0.940	174	11
2010	0	0.933	0	0
2011	1,027	0.930	955	72
2012	332	0.934	310	22
2013	607	0.937	569	38
2014	1,395	0.934	1,303	92
2015	1,207	0.928	1,120	87
2016	3,982	0.930	3,703	279
2017	4,219	0.932	3,931	288
2018	6,780	0.920	6,238	543
2019	5,987	0.900	5,390	597
TOTAL	\$25,838		\$23,807	\$2,031

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$23,807
75%	30,192
85%	36,777
95%	49,188

Notes:

- (1) - Per Exhibit II, Page 1A, Column (7).
- (2) - Per AMI calculations, see Appendix A, Page 2.
- (3) = (1) x (2).
- (4) = (1) - (3). Excludes investment income on the margin.
- (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2020
CALCULATION OF DISCOUNTED RESERVES
GENERAL LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
(1)	(2)	(3)	(4)	(5)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	18	0.971	17	1
2007	0	0.966	0	0
2008	0	0.955	0	0
2009	121	0.943	114	7
2010	0	0.940	0	0
2011	724	0.933	676	48
2012	204	0.930	190	14
2013	372	0.934	348	24
2014	951	0.937	891	60
2015	882	0.934	824	58
2016	2,618	0.928	2,429	189
2017	2,740	0.930	2,548	192
2018	5,489	0.932	5,114	375
2019	5,519	0.920	5,078	442
2020	6,931	0.900	6,240	691
TOTAL	\$26,570		\$24,469	\$2,101

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$24,469
75%	31,031
85%	37,800
95%	50,556

Notes:

- (1) - Per Exhibit II, Page 1B, Column (6).
- (2) - Per AMI calculations, see Appendix A, Page 2.
- (3) = (1) x (2).
- (4) = (1) - (3). Excludes investment income on the margin.
- (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2021
CALCULATION OF DISCOUNTED RESERVES
GENERAL LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
	(1)	(2)	(3)	(4)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	9	1.000	9	0
2007	0	0.971	0	0
2008	0	0.966	0	0
2009	87	0.955	83	4
2010	0	0.943	0	0
2011	515	0.940	484	31
2012	144	0.933	134	10
2013	229	0.930	213	16
2014	583	0.934	545	38
2015	601	0.937	564	38
2016	1,913	0.934	1,787	126
2017	1,801	0.928	1,671	130
2018	3,565	0.930	3,315	250
2019	4,468	0.932	4,163	305
2020	6,390	0.920	5,879	512
2021	7,059	0.900	6,356	703
TOTAL	\$27,366		\$25,203	\$2,163

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$25,203
75%	31,962
85%	38,933
95%	52,072

Notes:

- (1) - Per Exhibit II, Page 1C, Column (6).
- (2) - Per AMI calculations, see Appendix A, Page 2.
- (3) = (1) x (2).
- (4) = (1) - (3). Excludes investment income on the margin.
- (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2022
CALCULATION OF DISCOUNTED RESERVES
GENERAL LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
	(1)	(2)	(3)	(4)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	0	1.000	0	0
2007	0	1.000	0	0
2008	0	0.971	0	0
2009	56	0.966	54	2
2010	0	0.955	0	0
2011	338	0.943	319	19
2012	103	0.940	96	6
2013	162	0.933	151	11
2014	359	0.930	334	25
2015	369	0.934	344	24
2016	1,304	0.937	1,222	82
2017	1,317	0.934	1,230	87
2018	2,343	0.928	2,174	169
2019	2,902	0.930	2,698	204
2020	5,173	0.932	4,820	353
2021	6,508	0.920	5,987	521
2022	7,188	0.900	6,472	716
TOTAL	\$28,122		\$25,903	\$2,219

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$25,903
75%	32,849
85%	40,014
95%	53,518

Notes:

- (1) - Per Exhibit II, Page 1D, Column (6).
- (2) - Per AMI calculations, see Appendix A, Page 2.
- (3) = (1) x (2).
- (4) = (1) - (3). Excludes investment income on the margin.
- (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF PROJECTED LOSSES
GENERAL LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

PROJECTED ULTIMATE LOSSES

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	POPULATION	LOSS RATE
	(1)	(2)	(3)
Prior			
1994	\$4,976	N/A	
1995	5,410	N/A	
1996	5,965	N/A	
1997	2,841	N/A	
1998	4,724	N/A	
1999	5,327	N/A	
2000	7,453	N/A	
2001	4,494	N/A	
2002	3,103	N/A	
2003	4,424	647,188	0.007
2004	7,603	656,569	0.012
2005	6,965	663,085	0.011
2006	8,952	669,716	0.013
2007	6,148	674,510	0.009
2008	6,140	679,720	0.009
2009	2,875	692,314	0.004
2010	1,362	714,142	0.002
2011	10,333	723,147	0.014
2012	7,511	732,298	0.010
2013	3,248	739,998	0.004
2014	5,494	747,668	0.007
2015	3,836	755,310	0.005
2016	8,932	744,623	0.012
2017	4,726	751,471	0.006
2018	11,436	758,259	0.015
2019	6,440	764,949	0.008
(PROJ.) 2019/2020	\$7,098	771,529	0.009
(PROJ.) 2020/2021	7,229	777,985	0.009
(PROJ.) 2021/2022	7,361	784,301	0.009

DISCOUNTED FUNDING REQUIREMENTS FOR PROSPECTIVE YEARS

ACCIDENT YEAR*	PROJECTED LOSSES	DISCOUNT FACTORS	DISCOUNTED PROJECTED LOSSES	FUTURE INVESTMENT INCOME
	(4)	(5)	(6)	(7)
2020	\$7,098	0.877	\$6,223	\$875
2021	7,229	0.877	6,338	891
2022	7,361	0.877	6,454	907

DISCOUNTED FUNDING REQUIREMENTS AT VARIOUS CONFIDENCE LEVELS

ACCIDENT YEAR*	EXPECTED LEVEL	75% LEVEL	85% LEVEL	95% LEVEL
	(8)	(9)	(10)	(11)
2020	\$6,223	\$8,826	\$11,277	\$16,139
2021	6,338	8,990	11,486	16,437
2022	6,454	9,154	11,696	16,738

Notes:

- (1) - Per Exhibit II, Page 1A, Column (5). For projected years, (1) = (2) x (3).
- (2) - Per STATE OF ALASKA.
- (3) = (1) / (2). For the projected years, it is the trended average of prior years
- (4) = (1); (5) - Per Appendix A, Page 3, Column (7).
- (6) = (4) x (5); (7) = (4) - (6).
- (8) = (6).
- (9) to (11) - Based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF PROJECTED LOSSES
GENERAL LIABILITY
(\$AMOUNTS IN '000s)
LOSSES LIMITED TO \$1MM RETENTION

FUNDING REQUIREMENTS FOR PROSPECTIVE YEARS LIMITED TO \$1MM RETENTION

ACCIDENT YEAR*	PROJECTED UNLIMITED LOSSES	RETENTION FACTORS	EXPECTED FUNDING AMOUNT AT RETENTION LIMIT
	(1)	(2)	(3)
2020	\$7,098	0.725	\$5,146
2021	7,229	0.725	5,241
2022	7,361	0.725	5,337

Notes:

(1) - Per Exhibit II, Page 6A, Column (4).

(2) - Based on industry increased limits factors for the STATE OF ALASKA.

(3) = (1) * (2)

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF ULTIMATE CLAIM FREQUENCY AND ULTIMATE CLAIM SEVERITY
AS OF JUNE 30, 2019
GENERAL LIABILITY
UNLIMITED

ACCIDENT YEAR*	CLAIMS REPORTED @6/30/2019	DEVELOPMENT FACTORS	ULTIMATE CLAIM COUNT	ULTIMATE LOSSES	POPULATION	NUMBER OF CLAIMS PER 10,000 PEOPLE (FREQUENCY)	AVERAGE CLAIM (SEVERITY) (WHOLE DOLLARS)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1994	278	1.000	278	\$4,976	N/A		\$17,900
1995	302	1.000	302	5,410	N/A		17,914
1996	280	1.000	280	5,965	N/A		21,305
1997	542	1.000	542	2,841	N/A		5,242
1998	187	1.000	187	4,724	N/A		25,261
1999	171	1.000	171	5,327	N/A		31,152
2000	199	1.000	199	7,453	N/A		37,452
2001	216	1.000	216	4,494	N/A		20,807
2002	191	1.000	191	3,103	N/A		16,249
2003	191	1.000	191	4,424	647,188	3.0	23,164
2004	144	1.000	144	7,603	656,569	2.2	52,797
2005	124	1.000	124	6,965	663,085	1.9	56,171
2006	219	1.000	219	8,952	669,716	3.3	40,877
2007	155	1.000	155	6,148	674,510	2.3	39,661
2008	153	1.000	153	6,140	679,720	2.3	40,130
2009	107	1.000	107	2,875	692,314	1.5	26,862
2010	83	1.002	83	1,362	714,142	1.2	16,387
2011	88	1.004	88	10,333	723,147	1.2	116,963
2012	96	1.006	97	7,511	732,298	1.3	77,761
2013	92	1.010	93	3,248	739,998	1.3	34,941
2014	74	1.014	75	5,494	747,668	1.0	73,245
2015	54	1.021	55	3,836	755,310	0.7	69,598
2016	66	1.035	68	8,932	744,623	0.9	130,773
2017	58	1.093	63	4,726	751,471	0.8	74,545
2018	141	1.379	194	11,436	758,259	2.6	58,828
2019	31	1.865	81	6,440	764,949	1.1	79,660
TOTAL	4,242		4,357	\$150,720			

Notes:

- (1) & (5) - Per STATE OF ALASKA.
- (2) - Per STATE OF ALASKA's historical loss patterns.
- (3) = (1) x (2). For the latest year, it is (6) x (5)/10000.
- (4) = Exhibit II, Page 1A, Column (5).
- (6) = [(3) / [(5) / 10000]] ; (7) = [(3) / (4)] x 1000. For the latest year, it is the average of prior years.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF PAID LOSS CASH FLOW
AS OF JUNE 30, 2019
GENERAL LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

YEAR	1	2	3	4	5	6	7	8	9	10
CUMULATIVE LOSS PAYOUT PATTERN	2.4%	10.0%	27.1%	52.7%	68.9%	77.3%	84.5%	90.5%	94.1%	95.9%
INCREMENTAL LOSS PAYOUT PATTERN	2.4%	7.6%	17.1%	25.5%	16.2%	8.4%	7.2%	6.0%	3.6%	1.7%
PAYOUT AS PERCENTAGE OF UNPAID AT 6/30/2019	2.4%	7.8%	17.6%	26.2%	16.6%	8.6%	7.4%	6.1%	3.7%	1.8%
PAYOUT AS PERCENTAGE OF ULTIMATE LOSS	2.4%	7.6%	17.1%	25.5%	16.2%	8.4%	7.2%	6.0%	3.6%	1.7%

ACCIDENT YEAR*	ESTIMATED ULTIMATE LOSS	ESTIMATED UNPAID 6/30/2019	ESTIMATED FUTURE PAYMENTS FOR FISCAL YEAR ENDING										
			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029 & SUBSEQUENT	
Prior		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1994	\$4,976	0	0	0	0	0	0	0	0	0	0	0	0
1995	5,410	0	0	0	0	0	0	0	0	0	0	0	0
1996	5,965	0	0	0	0	0	0	0	0	0	0	0	0
1997	2,841	0	0	0	0	0	0	0	0	0	0	0	0
1998	4,724	0	0	0	0	0	0	0	0	0	0	0	0
1999	5,327	0	0	0	0	0	0	0	0	0	0	0	0
2000	7,453	0	0	0	0	0	0	0	0	0	0	0	0
2001	4,494	0	0	0	0	0	0	0	0	0	0	0	0
2002	3,103	33	33	0	0	0	0	0	0	0	0	0	0
2003	4,424	44	44	0	0	0	0	0	0	0	0	0	0
2004	7,603	0	0	0	0	0	0	0	0	0	0	0	0
2005	6,965	0	0	0	0	0	0	0	0	0	0	0	0
2006	8,952	40	22	9	9	0	0	0	0	0	0	0	0
2007	6,148	0	0	0	0	0	0	0	0	0	0	0	0
2008	6,140	0	0	0	0	0	0	0	0	0	0	0	0
2009	2,875	185	64	34	31	31	13	13	0	0	0	0	0
2010	1,362	0	0	0	0	0	0	0	0	0	0	0	0
2011	10,333	1,027	303	208	177	95	86	87	35	35	0	0	0
2012	7,511	332	127	60	41	35	19	17	17	7	7	0	0
2013	3,248	607	235	143	68	47	40	21	19	19	8	8	8
2014	5,494	1,395	444	368	224	106	73	62	33	30	30	25	25
2015	3,836	1,207	325	281	233	141	67	46	39	21	19	35	35
2016	8,932	3,982	1,365	704	609	505	307	145	100	85	45	117	117
2017	4,726	4,219	1,479	939	485	419	347	211	100	69	59	112	112
2018	11,436	6,780	1,291	1,924	1,222	630	545	452	275	130	90	221	221
2019	6,440	5,987	467	1,051	1,566	994	513	444	368	224	106	253	253
2020	7,098		167	541	1,217	1,813	1,151	594	514	426	259	416	416
2021	7,229			170	551	1,239	551	1,847	605	523	434	687	687
2022	7,361				173	561	1,262	1,881	1,194	616	533	1,141	1,141
TOTAL	\$172,408	\$25,838	\$6,366	\$6,433	\$6,605	\$6,618	\$6,270	\$5,146	\$3,300	\$2,186	\$1,589	\$3,014	\$3,014

Notes:
* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
SIZE OF LOSS DISTRIBUTION
AS OF JUNE 30, 2019
GENERAL LIABILITY
UNLIMITED

REPORTED CLAIM COUNTS

ACCIDENT YEAR*	\$0.01 TO	\$5,000 TO	\$10,000 TO	\$25,000 TO	\$50,000 TO	\$100,000 TO	\$250,000 TO	\$500,000 TO	\$750,000 TO	OVER	TOTAL	
	\$0	\$5,000	\$10,000	\$25,000	\$50,000	\$100,000	\$250,000	\$500,000	\$750,000	\$1,000,000		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Prior	3,536	3,737	309	388	252	186	169	67	31	8	23	8706
2010	10	42	9	5	6	9	2	0	0	0	0	83
2011	16	25	7	11	10	9	5	1	0	1	3	88
2012	45	22	4	8	6	4	4	2	0	0	1	96
2013	37	27	5	7	5	4	4	1	2	0	0	92
2014	18	23	3	7	7	3	8	1	3	1	0	74
2015	13	10	6	9	3	7	4	0	2	0	0	54
2016	22	11	7	5	0	5	10	1	2	1	2	66
2017	18	19	4	4	3	3	3	3	0	1	0	58
2018	32	69	4	20	3	3	5	2	2	0	1	141
2019	11	4	9	0	0	6	0	0	0	1	0	31
TOTAL	3,758	3,989	367	464	295	239	214	78	42	13	30	9,489

REPORTED LOSSES

ACCIDENT YEAR*	\$0.01 TO	\$5,000 TO	\$10,000 TO	\$25,000 TO	\$50,000 TO	\$100,000 TO	\$250,000 TO	\$500,000 TO	\$750,000 TO	OVER	TOTAL	
	\$0	\$5,000	\$10,000	\$25,000	\$50,000	\$100,000	\$250,000	\$500,000	\$750,000	\$1,000,000		
Prior	(\$4,853)	\$3,179	\$2,242	\$6,434	\$8,946	\$13,616	\$26,237	\$23,643	\$18,038	\$7,914	\$42,019	\$147,414
2010	0	45	72	82	199	635	330	0	0	0	0	1,362
2011	0	40	47	166	341	692	653	286	0	999	7,232	10,456
2012	0	34	32	138	185	271	745	642	0	0	5,226	7,272
2013	0	51	35	103	187	312	580	350	1,213	0	0	2,830
2014	0	34	25	119	287	202	1,447	259	1,916	753	0	5,042
2015	0	10	50	171	132	496	944	0	1,102	0	0	2,904
2016	0	15	52	93	0	305	1,695	350	1,350	752	3,550	8,162
2017	0	25	26	79	125	215	480	1,070	0	775	0	2,795
2018	0	199	31	400	93	260	795	650	1,100	0	4,168	7,697
2019	0	12	110	25	0	522	270	500	0	1,000	0	2,439
TOTAL	(\$4,853)	\$3,645	\$2,721	\$7,809	\$10,494	\$17,524	\$34,176	\$27,751	\$24,719	\$12,192	\$62,194	\$198,372

Notes:

Per STATE OF ALASKA.

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2019
AUTO LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ALL APPROACHES COMBINED

ACCIDENT YEAR*	ESTIMATED ULTIMATE LOSSES BY METHOD				SELECTED ULTIMATE LOSSES	PAID LOSSES @ 6/30/2019	TOTAL LOSS RESERVES @ 6/30/2019
	ILDA	PLDA	BFILA	BFPLA			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Prior							\$0
1994	\$614	\$614	\$614	\$614	\$614	\$614	0
1995	1,078	1,078	1,078	1,078	1,078	1,078	0
1996	245	245	245	245	245	245	0
1997	657	657	657	657	657	657	0
1998	1,630	1,630	1,630	1,630	1,630	1,630	0
1999	1,594	1,594	1,594	1,594	1,594	1,594	0
2000	857	857	857	857	857	857	0
2001	2,363	2,363	2,363	2,363	2,363	2,363	0
2002	1,737	1,737	1,737	1,737	1,737	1,737	0
2003	445	445	445	445	445	445	0
2004	965	965	965	965	965	965	0
2005	329	329	329	329	329	329	0
2006	510	510	510	510	510	510	0
2007	309	309	309	309	309	309	0
2008	418	418	418	418	418	418	0
2009	322	322	322	322	322	322	0
2010	2,813	2,813	2,813	2,813	2,813	2,813	0
2011	666	666	666	666	666	666	0
2012	1,891	1,892	1,891	1,891	1,891	1,891	0
2013	425	425	425	425	425	425	0
2014	620	623	619	621	621	618	3
2015	280	287	281	288	284	278	6
2016	212	222	214	231	220	210	10
2017	174	185	181	206	186	158	28
2018	321	334	323	333	328	207	121
2019	342	349	412	295	350	69	280
TOTAL	\$21,817	\$21,869	\$21,900	\$21,844	\$21,859	\$21,410	\$449

Notes:

(1), (2), (3), & (4) - Ultimate losses calculated from Exhibit III, Pages 2 & 3.

(5) = Average of (1), (2), (3) & (4).

(6) - Per STATE OF ALASKA

(7) = (5) - (6).

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2020
AUTO LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	LOSS RESERVES AS OF @6/30/2019	ESTIMATED PAID LOSSES FOR FY2020	PAID LOSSES AS OF @6/30/2019	ESTIMATED PAID LOSSES AS OF @6/30/2020	ESTIMATED LOSS RESERVES AS OF @6/30/2020
(1)	(2)	(3)	(4)	(5)	(6)	
Prior		\$0	\$0			\$0
1994	\$614	0	0	\$614	\$614	0
1995	1,078	0	0	1,078	1,078	0
1996	245	0	0	245	245	0
1997	657	0	0	657	657	0
1998	1,630	0	0	1,630	1,630	0
1999	1,594	0	0	1,594	1,594	0
2000	857	0	0	857	857	0
2001	2,363	0	0	2,363	2,363	0
2002	1,737	0	0	1,737	1,737	0
2003	445	0	0	445	445	0
2004	965	0	0	965	965	0
2005	329	0	0	329	329	0
2006	510	0	0	510	510	0
2007	309	0	0	309	309	0
2008	418	0	0	418	418	0
2009	322	0	0	322	322	0
2010	2,813	0	0	2,813	2,813	0
2011	666	0	0	666	666	0
2012	1,891	0	0	1,891	1,891	0
2013	425	0	0	425	425	0
2014	621	3	3	618	621	0
2015	284	6	4	278	283	1
2016	220	10	5	210	215	5
2017	186	28	17	158	175	11
2018	328	121	75	207	282	46
2019	350	280	117	69	187	163
2020	273		95		95	178
TOTAL	\$22,132	\$449	\$317	\$21,410	\$21,727	\$405

Notes:

(1) - For 2019 and prior, ultimate losses based from Exhibit III, Page 1A, Column (5). For 2020, ultimate loss is the projected loss in Exhibit III, Page 6A.
(2) - For 2019 and prior, loss reserves based from Exhibit III, Page 1A, Column (7).

(3) - From Exhibit III, Page 9.

(4) - From Exhibit III, Page 1A, Column (6).

(5) = (3) + (4)

(6) = (1) - (5)

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2021
AUTO LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	LOSS RESERVES AS OF @6/30/2020	ESTIMATED PAID LOSSES FOR FY2021	ESTIMATED PAID LOSSES AS OF @6/30/2020	ESTIMATED PAID LOSSES AS OF @6/30/2021	ESTIMATED LOSS RESERVES AS OF @6/30/2021
(1)	(2)	(3)	(4)	(5)	(6)	(6)
Prior		\$0	\$0			\$0
1994	\$614	0	0	\$614	\$614	0
1995	1,078	0	0	1,078	1,078	0
1996	245	0	0	245	245	0
1997	657	0	0	657	657	0
1998	1,630	0	0	1,630	1,630	0
1999	1,594	0	0	1,594	1,594	0
2000	857	0	0	857	857	0
2001	2,363	0	0	2,363	2,363	0
2002	1,737	0	0	1,737	1,737	0
2003	445	0	0	445	445	0
2004	965	0	0	965	965	0
2005	329	0	0	329	329	0
2006	510	0	0	510	510	0
2007	309	0	0	309	309	0
2008	418	0	0	418	418	0
2009	322	0	0	322	322	0
2010	2,813	0	0	2,813	2,813	0
2011	666	0	0	666	666	0
2012	1,891	0	0	1,891	1,891	0
2013	425	0	0	425	425	0
2014	621	0	0	621	621	0
2015	284	1	1	283	284	0
2016	220	5	4	215	218	1
2017	186	11	6	175	181	6
2018	328	46	27	282	309	18
2019	350	163	101	187	288	62
2020	273	178	75	95	169	104
2021	277		96		96	181
TOTAL	\$22,409	\$405	\$310	\$21,727	\$22,037	\$372

Notes:

- (1) - For 2020 and prior, ultimate losses based from Exhibit III, Page 1B, Column (1). For 2021, ultimate loss is the projected loss in Exhibit III, Page 6A.
- (2) - For 2020 and prior, loss reserves based from Exhibit III, Page 1B, Column (6).
- (3) - From Exhibit III, Page 9.
- (4) - From Exhibit III, Page 1B, Column (5).
- (5) = (3) + (4)
- (6) = (1) - (5)
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2022
AUTO LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	LOSS RESERVES AS OF @6/30/2021	ESTIMATED PAID LOSSES FOR FY2022	ESTIMATED PAID LOSSES AS OF @6/30/2021	ESTIMATED PAID LOSSES AS OF @6/30/2022	ESTIMATED LOSS RESERVES AS OF @6/30/2022
	(1)	(2)	(3)	(4)	(5)	(6)
Prior		\$0	\$0			\$0
1994	\$614	0	0	\$614	\$614	0
1995	1,078	0	0	1,078	1,078	0
1996	245	0	0	245	245	0
1997	657	0	0	657	657	0
1998	1,630	0	0	1,630	1,630	0
1999	1,594	0	0	1,594	1,594	0
2000	857	0	0	857	857	0
2001	2,363	0	0	2,363	2,363	0
2002	1,737	0	0	1,737	1,737	0
2003	445	0	0	445	445	0
2004	965	0	0	965	965	0
2005	329	0	0	329	329	0
2006	510	0	0	510	510	0
2007	309	0	0	309	309	0
2008	418	0	0	418	418	0
2009	322	0	0	322	322	0
2010	2,813	0	0	2,813	2,813	0
2011	666	0	0	666	666	0
2012	1,891	0	0	1,891	1,891	0
2013	425	0	0	425	425	0
2014	621	0	0	621	621	0
2015	284	0	0	284	284	0
2016	220	1	1	218	220	0
2017	186	6	4	181	185	1
2018	328	18	9	309	319	9
2019	350	62	37	288	325	25
2020	273	104	64	169	234	39
2021	277	181	76	96	172	105
2022	282		98		98	184
TOTAL	\$22,691	\$372	\$290	\$22,037	\$22,327	\$364

Notes:

- (1) - For 2021 and prior, ultimate losses based from Exhibit III, Page 1C, Column (1). For 2022, ultimate loss is the projected loss in Exhibit III, Page 6A.
 - (2) - For 2021 and prior, loss reserves based from Exhibit III, Page 1C, Column (6).
 - (3) - From Exhibit III, Page 9.
 - (4) - From Exhibit III, Page 1C, Column (5).
 - (5) = (3) + (4)
 - (6) = (1) - (5)
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF ULTIMATE LOSSES - LOSS DEVELOPMENT APPROACH
AS OF JUNE 30, 2019
AUTO LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

INCURRED LOSS DEVELOPMENT APPROACH

ACCIDENT YEAR*	UNLIMITED INCURRED LOSSES @6/30/2019	LOSS DEVLPMT FACTORS	ULTIMATE INCURRED LOSSES	NUMBER OF VEHICLES	ESTIMATED LOSS RATE
	(1)	(2)	(3)	(4)	(5)
Prior					
1994	\$614	1.000	\$614	N/A	
1995	1,078	1.000	1,078	N/A	
1996	245	1.000	245	N/A	
1997	657	1.000	657	N/A	
1998	1,630	1.000	1,630	N/A	
1999	1,594	1.000	1,594	N/A	
2000	857	1.000	857	N/A	
2001	2,363	1.000	2,363	N/A	
2002	1,737	1.000	1,737	N/A	
2003	445	1.000	445	4,481	0.099
2004	965	1.000	965	3,545	0.272
2005	329	1.000	329	2,608	0.126
2006	510	1.000	510	2,608	0.196
2007	309	1.000	309	2,608	0.118
2008	418	1.000	418	2,700	0.155
2009	322	1.000	322	2,669	0.121
2010	2,813	1.000	2,813	2,696	1.043
2011	666	1.000	666	5,587	0.119
2012	1,891	1.000	1,891	6,334	0.299
2013	425	1.000	425	7,220	0.059
2014	618	1.003	620	7,275	0.085
2015	278	1.007	280	7,717	0.036
2016	210	1.012	212	7,717	0.027
2017	167	1.044	174	7,054	0.025
2018	258	1.243	321	7,089	0.045
2019	252		342	7,388	0.046
TOTAL	\$21,653		\$21,817		

PAID LOSS DEVELOPMENT APPROACH

ACCIDENT YEAR*	UNLIMITED PAID LOSSES @6/30/2019	LOSS DEVLPMT FACTORS	ULTIMATE INCURRED LOSSES	NUMBER OF VEHICLES	ESTIMATED LOSS RATE
	(6)	(7)	(8)	(9)	(10)
Prior					
1994	\$614	1.000	\$614	N/A	
1995	1,078	1.000	1,078	N/A	
1996	245	1.000	245	N/A	
1997	657	1.000	657	N/A	
1998	1,630	1.000	1,630	N/A	
1999	1,594	1.000	1,594	N/A	
2000	857	1.000	857	N/A	
2001	2,363	1.000	2,363	N/A	
2002	1,737	1.000	1,737	N/A	
2003	445	1.000	445	4,481	0.099
2004	965	1.000	965	3,545	0.272
2005	329	1.000	329	2,608	0.126
2006	510	1.000	510	2,608	0.196
2007	309	1.000	309	2,608	0.118
2008	418	1.000	418	2,700	0.155
2009	322	1.000	322	2,669	0.121
2010	2,813	1.000	2,813	2,696	1.043
2011	666	1.000	666	5,587	0.119
2012	1,891	1.000	1,892	6,334	0.299
2013	425	1.000	425	7,220	0.059
2014	618	1.008	623	7,275	0.086
2015	278	1.030	287	7,717	0.037
2016	210	1.061	222	7,717	0.029
2017	158	1.168	185	7,054	0.026
2018	207	1.612	334	7,089	0.047
2019	69		349	7,388	0.047
TOTAL	\$21,410		\$21,869		

Notes:

- (1), (4), (6) & (9) - Per STATE OF ALASKA.
- (2) & (7) - Per State's historical loss pattern, supplemented by AM Best insurance industry historical loss patterns.
- (3) = (1) x (2); (8) = (6) x (7). If ultimate incurred losses in (8) are less than the incurred losses in (1), we used the incurred losses in (1). For the most recent year, we used the Loss Rate Approach.
- (5) = (3) / (4); (10) = (8) / (9). For the most recent year, it is the average of prior years.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF ULTIMATE LOSSES - BORNHUETT-FERGUSON APPROACH
AS OF JUNE 30, 2019
AUTO LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

BORNHUETT-FERGUSON INCURRED LOSS APPROACH

ACCIDENT YEAR*	ESTIMATED LOSS RATE	NUMBER OF VEHICLES	EXPECTED ULTIMATE LOSSES	EXPECTED % OF LOSSES UNREPORTED	IBNR RESERVES	UNLIMITED INCURRED LOSSES @6/30/2019	ULTIMATE INCURRED LOSSES
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Prior							
1994	0.047	N/A	\$614	0.0%	\$0	\$614	\$614
1995	0.047	N/A	1,078	0.0%	0	1,078	1,078
1996	0.047	N/A	245	0.0%	0	245	245
1997	0.047	N/A	657	0.0%	0	657	657
1998	0.047	N/A	1,630	0.0%	0	1,630	1,630
1999	0.047	N/A	1,594	0.0%	0	1,594	1,594
2000	0.047	N/A	857	0.0%	0	857	857
2001	0.047	N/A	2,363	0.0%	0	2,363	2,363
2002	0.047	N/A	1,737	0.0%	0	1,737	1,737
2003	0.047	4,481	210	0.0%	0	445	445
2004	0.047	3,545	166	0.0%	0	965	965
2005	0.047	2,608	122	0.0%	0	329	329
2006	0.047	2,608	122	0.0%	0	510	510
2007	0.047	2,608	122	0.0%	0	309	309
2008	0.047	2,700	126	0.0%	0	418	418
2009	0.047	2,669	125	0.0%	0	322	322
2010	0.047	2,696	126	0.0%	0	2,813	2,813
2011	0.047	5,587	261	0.0%	0	666	666
2012	0.047	6,334	296	0.0%	0	1,891	1,891
2013	0.047	7,220	338	0.0%	0	425	425
2014	0.047	7,275	340	0.3%	1	618	619
2015	0.047	7,717	361	0.7%	3	278	281
2016	0.047	7,717	361	1.2%	4	210	214
2017	0.047	7,054	330	4.2%	14	167	181
2018	0.047	7,089	332	19.6%	65	258	323
2019	0.047	7,388	346	46.4%	160	252	412
TOTAL			\$14,860		\$247	\$21,653	\$21,900

BORNHUETT-FERGUSON PAID LOSS APPROACH

ACCIDENT YEAR*	ESTIMATED LOSS RATE	NUMBER OF VEHICLES	EXPECTED ULTIMATE LOSSES	EXPECTED % OF LOSSES UNPAID	LOSS RESERVES	UNLIMITED PAID LOSSES @6/30/2019	ULTIMATE INCURRED LOSSES
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Prior							
1994	0.047	N/A	\$614	0.0%	\$0	\$614	\$614
1995	0.047	N/A	1,078	0.0%	0	1,078	1,078
1996	0.047	N/A	245	0.0%	0	245	245
1997	0.047	N/A	657	0.0%	0	657	657
1998	0.047	N/A	1,630	0.0%	0	1,630	1,630
1999	0.047	N/A	1,594	0.0%	0	1,594	1,594
2000	0.047	N/A	857	0.0%	0	857	857
2001	0.047	N/A	2,363	0.0%	0	2,363	2,363
2002	0.047	N/A	1,737	0.0%	0	1,737	1,737
2003	0.047	4,481	210	0.0%	0	445	445
2004	0.047	3,545	166	0.0%	0	965	965
2005	0.047	2,608	122	0.0%	0	329	329
2006	0.047	2,608	122	0.0%	0	510	510
2007	0.047	2,608	122	0.0%	0	309	309
2008	0.047	2,700	126	0.0%	0	418	418
2009	0.047	2,669	125	0.0%	0	322	322
2010	0.047	2,696	126	0.0%	0	2,813	2,813
2011	0.047	5,587	261	0.0%	0	666	666
2012	0.047	6,334	296	0.0%	0	1,891	1,891
2013	0.047	7,220	338	0.0%	0	425	425
2014	0.047	7,275	340	0.8%	3	618	621
2015	0.047	7,717	361	2.9%	10	278	288
2016	0.047	7,717	361	5.7%	21	210	231
2017	0.047	7,054	330	14.4%	48	158	206
2018	0.047	7,089	332	38.0%	126	207	333
2019	0.047	7,388	346	65.3%	226	69	295
TOTAL			\$14,860		\$434	\$21,410	\$21,844

Notes:

- (1) & (8) - The average of the loss rates of prior years as shown in Columns (5) and (10) of Exhibit III, Page 2.
- (2) & (9) - Per STATE OF ALASKA.
- (3) = (1) x (2); (10) = (8) x (9). For 2002 & prior, average of Exhibit III, Columns (5) & (10).
- (4) = (1 - (1/LDF)); (11) = (1 - (1/PLDF)).
- (5) = (3) x (4); (12) = (10) x (11).
- (6) & (13) - Per STATE OF ALASKA.
- (7) = (5) + (6); (14) = (12) + (13). If ultimate incurred losses in (14) are less than the incurred losses in (6), we used the incurred losses in (6).
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF THE INCURRED LOSS DEVELOPMENT FACTORS
AUTO LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

INCURRED LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS											
	12	24	36	48	60	72	84	96	108	120	132	144
1994												614
1995											1,096	1,096
1996										245	245	245
1997									657	657	657	657
1998								1,630	1,630	1,630	1,630	1,630
1999							1,595	1,595	1,595	1,594	1,595	1,595
2000						852	857	857	857	857	857	857
2001					2,363	2,363	2,363	2,363	2,363	2,363	2,363	2,363
2002				1,078	1,827	1,737	1,737	1,737	1,737	1,737	1,737	1,737
2003			485	480	445	445	445	445	445	445	445	445
2004		549	648	954	969	970	964	964	965	965	965	965
2005	389	322	335	330	329	329	329	329	329	329	329	329
2006	403	183	286	419	454	554	512	512	512	512	512	510
2007	338	360	363	352	309	309	309	309	309	309	309	309
2008	299	487	449	420	418	418	418	418	418	418	418	418
2009	342	413	333	322	322	322	322	322	322	322	322	322
2010	1,197	2,807	2,875	2,935	2,935	2,813	2,813	2,813	2,813	2,813		
2011	334	522	663	663	664	667	666	666	666			
2012	321	1,127	1,452	1,471	1,471	1,483	1,971	1,891				
2013	380	437	423	443	425	425	425					
2014	264	316	361	496	493	618						
2015	181	208	283	278								
2016	172	157	224	210								
2017	148	148	167									
2018	265	258										
2019	252											

INCURRED LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	12	24	36	48	60	72	84	96	108	120	132	144
	TO 24	TO 36	TO 48	TO 60	TO 72	TO 84	TO 96	TO 108	TO 120	TO 132	TO 144	TO 156
1994												1.000
1995											1.000	1.000
1996										1.000	1.000	1.000
1997									1.000	1.000	1.000	1.000
1998								1.000	1.000	1.000	1.000	1.000
1999							1.000	1.000	0.999	1.001	1.000	1.000
2000						1.006	1.000	1.000	1.000	1.000	1.000	1.000
2001					1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002				1.695	0.951	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003			0.990	0.927	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2004		1.180	1.472	1.016	1.001	0.994	1.000	1.001	1.000	1.000	1.000	1.000
2005	0.828	1.040	0.985	0.997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001
2006	0.454	1.563	1.465	1.084	1.220	0.924	1.000	1.000	1.000	1.000	0.997	1.000
2007	1.065	1.008	0.970	0.878	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	1.629	0.922	0.935	0.995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2009	1.208	0.806	0.967	1.000	1.000	1.000	1.000	1.001	1.000	1.000		
2010	2.345	1.024	1.021	1.000	0.958	1.000	1.000	1.000	1.000			
2011	1.563	1.270	1.000	1.002	1.005	0.999	1.000	1.000				
2012	3.511	1.288	1.013	1.000	1.008	1.329	0.960					
2013	1.150	0.968	1.047	0.959	1.000	1.000						
2014	1.197	1.142	1.373	0.994	1.254							
2015	1.149	1.359	0.985	1.000								
2016	0.913	1.425	0.937									
2017	0.995	1.128										
2018	0.972											
AVERAGE	1.356	1.152	1.083	1.039	1.028	1.018	0.997	1.000	1.000	1.000	1.000	1.000
3 YR AVG.	0.960	1.304	1.098	0.984	1.087	1.109	0.987	1.000	1.000	1.000	0.999	1.000
EXCL HI LO	1.251	1.146	1.063	0.998	1.016	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	1.039	1.210	1.015	0.998	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.540	1.189	1.028	1.004	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000
AM BEST	1.366	1.145	1.072	1.029	1.011	1.004	1.002	1.000	1.000	1.000	1.000	1.000
SELECTED	1.501	1.191	1.032	1.005	1.004	1.003	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	1.866	1.243	1.044	1.012	1.007	1.003	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF THE INCURRED LOSS DEVELOPMENT FACTORS
AUTO LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

INCURRED LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS													
	156	168	180	192	204	216	228	240	252	264	276	288	300	312
1994	614	614	614	614	614	614	614	614	614	614	614	614	614	614
1995	1,096	1,078	1,096	1,096	1,096	1,078	1,078	1,078	1,078	1,078	1,078	1,078	1,078	1,078
1996	245	245	245	245	245	245	245	245	245	245	245	245	245	245
1997	657	657	657	657	657	657	657	657	657	657	657	657	657	657
1998	1,630	1,630	1,630	1,630	1,630	1,630	1,630	1,630	1,630	1,630	1,630	1,630	1,630	1,630
1999	1,595	1,594	1,594	1,594	1,594	1,594	1,594	1,594	1,594	1,594	1,594	1,594	1,594	1,594
2000	857	857	857	857	857	857	857	857	857	857	857	857	857	857
2001	2,363	2,363	2,363	2,363	2,363	2,363	2,363	2,363	2,363	2,363	2,363	2,363	2,363	2,363
2002	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737
2003	445	445	445	445	445	445	445	445	445	445	445	445	445	445
2004	965	965	965	965	965	965	965	965	965	965	965	965	965	965
2005	329	329	329	329	329	329	329	329	329	329	329	329	329	329
2006	510	510	510	510	510	510	510	510	510	510	510	510	510	510
2007	309	309	309	309	309	309	309	309	309	309	309	309	309	309
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														

INCURRED LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	156	168	180	192	204	216	228	240	252	264	276	288	300	312
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
	168	180	192	204	216	228	240	252	264	276	288	300	312	ULT
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	0.984	1.017	1.000	1.000	0.984	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
AVERAGE	0.999	1.002	1.000	1.000	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 YR AVG.	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
AM BEST	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
 AS OF JUNE 30, 2019
CALCULATION OF THE PAID LOSS DEVELOPMENT FACTORS
AUTO LIABILITY
 (\$AMOUNTS IN '000s)
 UNLIMITED

PAID LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS												
	12	24	36	48	60	72	84	96	108	120	132	144	
1994													614
1995												1,078	1,078
1996										245	245	245	245
1997									657	657	657	657	657
1998								1,630	1,630	1,630	1,630	1,630	1,630
1999							1,594	1,594	1,594	1,594	1,594	1,594	1,595
2000						852	852	857	857	857	857	857	857
2001					2,363	2,363	2,363	2,363	2,363	2,363	2,363	2,363	2,363
2002				411	535	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737
2003			445	445	445	445	445	445	445	445	445	445	445
2004		525	567	949	964	965	964	964	965	965	965	965	965
2005	183	255	329	329	329	329	329	329	329	329	329	329	329
2006	97	114	195	268	377	489	512	512	512	512	512	512	510
2007	258	303	309	309	309	309	309	309	309	309	309	309	309
2008	227	364	418	418	418	418	418	418	418	418	418	418	418
2009	259	297	322	322	322	322	322	322	322	322	322	322	322
2010	340	2,279	2,446	2,813	2,813	2,813	2,813	2,813	2,813	2,813	2,813	2,813	2,813
2011	130	260	663	663	664	666	666	666	666	666	666	666	666
2012	310	352	1,343	1,349	1,363	1,383	1,883	1,891					
2013	355	362	423	425	425	425	425						
2014	209	266	336	426	464	618							
2015	100	192	278	278	278								
2016	95	154	207	210									
2017	95	144	158										
2018	162	207											
2019	69												

PAID LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	12	24	36	48	60	72	84	96	108	120	132	144	144
	TO 24	TO 36	TO 48	TO 60	TO 72	TO 84	TO 96	TO 108	TO 120	TO 132	TO 144	TO 144	TO 156
1994													1.000
1995												1.000	1.000
1996										1.000	1.000	1.000	1.000
1997									1.000	1.000	1.000	1.000	1.000
1998								1.000	1.000	1.000	1.000	1.000	1.000
1999							1.000	1.000	1.000	1.000	1.000	1.001	1.000
2000						1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001					1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002				1.302	3.247	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003			1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2004		1.080	1.674	1.016	1.001	0.999	1.000	1.001	1.000	1.000	1.000	1.000	1.000
2005	1.393	1.290	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001
2006	1.175	1.711	1.374	1.407	1.297	1.047	1.000	1.000	1.000	1.000	1.000	0.997	1.000
2007	1.174	1.020	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	1.604	1.148	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2009	1.147	1.084	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000
2010	6.703	1.073	1.150	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2011	2.000	2.550	1.000	1.002	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2012	1.135	3.815	1.004	1.010	1.014	1.362	1.004						
2013	1.020	1.169	1.005	1.000	1.000	1.000							
2014	1.273	1.263	1.267	1.089	1.333								
2015	1.920	1.450	1.000	1.000									
2016	1.620	1.348	1.010										
2017	1.525	1.094											
2018	1.279												
AVERAGE	1.783	1.507	1.106	1.059	1.207	1.030	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 YR AVG.	1.475	1.297	1.092	1.033	1.116	1.121	1.001	1.000	1.000	1.000	1.000	0.999	1.000
EXCL HI LO	1.437	1.355	1.068	1.035	1.054	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	1.475	1.260	1.006	1.004	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.814	1.383	1.105	1.030	1.014	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000
AM BEST	2.114	1.442	1.234	1.111	1.048	1.021	1.010	1.005	1.002	1.002	1.002	1.001	1.001
SELECTED	1.787	1.380	1.101	1.030	1.022	1.008	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	2.881	1.612	1.168	1.061	1.030	1.008	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF THE PAID LOSS DEVELOPMENT FACTORS
AUTO LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

PAID LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS													
	156	168	180	192	204	216	228	240	252	264	276	288	300	312
1994	614	614	614	614	614	614	614	614	614	614	614	614	614	614
1995	1,078	1,078	1,078	1,096	1,096	1,078	1,078	1,078	1,078	1,078	1,078	1,078	1,078	1,078
1996	245	245	245	245	245	245	245	245	245	245	245	245	245	
1997	657	657	657	657	657	657	657	657	657	657	657	657	657	
1998	1,630	1,630	1,630	1,630	1,630	1,630	1,630	1,630	1,630	1,630	1,630	1,630	1,630	
1999	1,595	1,594	1,594	1,594	1,594	1,594	1,594	1,594	1,594	1,594	1,594	1,594	1,594	
2000	857	857	857	857	857	857	857	857	857	857	857	857	857	
2001	2,363	2,363	2,363	2,363	2,363	2,363	2,363	2,363	2,363	2,363	2,363	2,363	2,363	
2002	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737	
2003	445	445	445	445	445	445	445	445	445	445	445	445	445	
2004	965	965	965	965	965	965	965	965	965	965	965	965	965	
2005	329	329	329	329	329	329	329	329	329	329	329	329	329	
2006	510	510	510	510	510	510	510	510	510	510	510	510	510	
2007	309	309	309	309	309	309	309	309	309	309	309	309	309	
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														

PAID LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	156	168	180	192	204	216	228	240	252	264	276	288	300	300
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
	168	180	192	204	216	228	240	252	264	276	288	300	312	ULT
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.000	1.000	1.017	1.000	0.984	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2007														
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
AVERAGE	1.000	1.000	1.002	1.000	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 YR AVG.	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
AM BEST	1.001	1.001	1.001	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	1.000	1.000	1.000
CUMULATIVE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF CLAIM COUNT DEVELOPMENT FACTORS
AUTO LIABILITY

REPORTED CLAIM COUNT DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS											
	12	24	36	48	60	72	84	96	108	120	132	144
1994												348
1995											416	416
1996										308	308	308
1997									330	330	330	330
1998								343	343	343	343	343
1999							404	404	404	404	404	404
2000						314	314	314	314	314	314	314
2001					298	298	298	298	298	298	298	298
2002				313	313	313	313	313	313	313	313	313
2003			223	223	223	223	223	223	223	223	223	223
2004		302	302	302	302	302	302	302	302	300	300	300
2005	263	275	276	276	276	276	276	276	274	274	274	274
2006	84	95	96	96	96	96	96	96	96	96	96	96
2007	147	159	159	159	159	159	159	159	159	159	159	159
2008	160	171	172	172	172	172	172	172	172	172	172	172
2009	147	175	175	175	172	172	173	173	172	172	172	172
2010	181	187	187	187	187	187	187	187	187	187	187	187
2011	170	183	183	183	183	183	183	183	183	183	183	183
2012	271	291	291	294	294	291	291	291	291	291	291	291
2013	218	231	233	234	233	233	233	233	233	233	233	233
2014	169	176	178	178	178	178	178	178	178	178	178	178
2015	102	108	109	109	108	108	108	108	108	108	108	108
2016	85	88	89	89	89	89	89	89	89	89	89	89
2017	72	83	83	83	83	83	83	83	83	83	83	83
2018	107	122	122	122	122	122	122	122	122	122	122	122
2019	45	45	45	45	45	45	45	45	45	45	45	45

CLAIM COUNT DEVELOPMENT FACTORS

ACCIDENT YEAR*	12	24	36	48	60	72	84	96	108	120	132	144
	TO 24	TO 36	TO 48	TO 60	TO 72	TO 84	TO 96	TO 108	TO 120	TO 132	TO 144	TO 156
1994												1.000
1995											1.000	1.000
1996										1.000	1.000	1.000
1997									1.000	1.000	1.000	1.000
1998								1.000	1.000	1.000	1.000	1.000
1999							1.000	1.000	1.000	1.000	1.000	1.000
2000						1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001					1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.003
2002				1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003			1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.013
2004		1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.993	1.000	1.000	1.000
2005	1.046	1.004	1.000	1.000	1.000	1.000	1.000	0.993	1.000	1.000	1.000	1.000
2006	1.131	1.011	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2007	1.082	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	1.069	1.006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2009	1.190	1.000	1.000	0.983	1.000	1.006	1.000	0.994	1.000	1.000	1.000	1.000
2010	1.033	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2011	1.076	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2012	1.074	1.000	1.010	1.000	0.990	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2013	1.060	1.009	1.004	0.996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2014	1.041	1.011	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2015	1.059	1.009	1.000	0.991	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2016	1.035	1.011	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2017	1.153	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2018	1.140	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
AVERAGE	1.085	1.004	1.001	0.998	0.999	1.000	1.000	0.999	1.000	1.000	1.000	1.001
3 YR AVG.	1.109	1.007	1.000	0.999	0.997	1.000	1.000	0.998	1.000	1.000	1.000	1.000
EXCL HI LO	1.081	1.004	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	1.080	1.010	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.073	1.007	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
SELECTED	1.074	1.007	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	1.082	1.007	1.000	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999	0.999

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF CLAIM COUNT DEVELOPMENT FACTORS
AUTO LIABILITY

REPORTED CLAIM COUNT DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS													
	156	168	180	192	204	216	228	240	252	264	276	288	300	312
1994	348	348	348	348	348	348	348	348	348	348	348	348	348	348
1995	416	416	416	416	416	416	416	416	416	416	416	416	416	416
1996	308	308	308	308	308	308	308	308	308	308	307	307	307	
1997	330	330	330	330	330	330	330	330	330	330	328	328		
1998	343	343	343	343	343	343	343	343	343	343	343			
1999	404	404	404	404	404	404	404	404	404					
2000	314	313	313	313	313	313	313	313	313					
2001	299	299	299	299	299	284	284							
2002	313	313	313	313	313	313								
2003	226	226	221	221	221									
2004	300	300	300	300										
2005	274	274	274											
2006	96	96												
2007	159													
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														

CLAIM COUNT DEVELOPMENT FACTORS

ACCIDENT YEAR*	156	168	180	192	204	216	228	240	252	264	276	288	300	312
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
	168	180	192	204	216	228	240	252	264	276	288	300	312	ULT
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.997	1.000	1.000		
1997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.994	1.000			
1998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
1999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000						
2000	0.997	1.000	1.000	1.000	1.000	1.000	1.000							
2001	1.000	1.000	1.000	1.000	0.950	1.000								
2002	1.000	1.000	1.000	1.000	1.000									
2003	1.000	0.978	1.000	1.000										
2004	1.000	1.000	1.000											
2005	1.000	1.000												
2006	1.000													
2007														
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
AVERAGE	1.000	0.998	1.000	1.000	0.994	1.000	1.000	1.000	0.998	1.000	1.000	1.000	1.000	
3 YR AVG.	1.000	0.993	1.000	1.000	0.983	1.000	1.000	1.000	0.997	1.000	1.000			
EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999	1.000	1.000			
5 YR AVG EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999					
PRIOR SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
SELECTED	1.000	1.000	1.000	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
CUMULATIVE	0.999	0.999	0.999	0.999	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF DISCOUNTED RESERVES
AUTO LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
(1)	(2)	(3)	(4)	(4)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	0	1.000	0	0
2007	0	1.000	0	0
2008	0	1.000	0	0
2009	0	1.000	0	0
2010	0	1.000	0	0
2011	0	1.000	0	0
2012	0	1.000	0	0
2013	0	1.000	0	0
2014	3	1.000	3	0
2015	6	0.978	6	0
2016	10	0.967	10	0
2017	28	0.967	28	1
2018	121	0.968	117	4
2019	280	0.959	269	12
TOTAL	\$449		\$432	\$17

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$432
75%	716
85%	981
95%	1,555

Notes:

- (1) - Per Exhibit III, Page 1A, Column (7).
- (2) - Per AMI calculations, see Appendix A, Page 3.
- (3) = (1) x (2).
- (4) = (1) - (3). Excludes investment income on the margin.
- (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2020
CALCULATION OF DISCOUNTED RESERVES
AUTO LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
(1)	(2)	(3)	(4)	(5)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	0	1.000	0	0
2007	0	1.000	0	0
2008	0	1.000	0	0
2009	0	1.000	0	0
2010	0	1.000	0	0
2011	0	1.000	0	0
2012	0	1.000	0	0
2013	0	1.000	0	0
2014	0	1.000	0	0
2015	1	1.000	1	0
2016	5	0.978	5	0
2017	11	0.967	11	0
2018	46	0.967	44	2
2019	163	0.968	158	5
2020	178	0.959	171	7
TOTAL	\$405		\$390	\$15

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$390
75%	647
85%	887
95%	1,405

Notes:

- (1) - Per Exhibit III, Page 1B, Column (6).
- (2) - Per AMI calculations, see Appendix A, Page 3.
- (3) = (1) x (2).
- (4) = (1) - (3). Excludes investment income on the margin.
- (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2021
CALCULATION OF DISCOUNTED RESERVES
AUTO LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
(1)	(2)	(3)	(4)	(5)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	0	1.000	0	0
2007	0	1.000	0	0
2008	0	1.000	0	0
2009	0	1.000	0	0
2010	0	1.000	0	0
2011	0	1.000	0	0
2012	0	1.000	0	0
2013	0	1.000	0	0
2014	0	1.000	0	0
2015	0	1.000	0	0
2016	1	1.000	1	0
2017	6	0.978	6	0
2018	18	0.967	18	1
2019	62	0.967	60	2
2020	104	0.968	100	3
2021	181	0.959	173	7
TOTAL	\$372		\$358	\$14

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$358
75%	593
85%	813
95%	1,289

Notes:

- (1) - Per Exhibit III, Page 1C, Column (6).
- (2) - Per AMI calculations, see Appendix A, Page 3.
- (3) = (1) x (2).
- (4) = (1) - (3). Excludes investment income on the margin.
- (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2022
CALCULATION OF DISCOUNTED RESERVES
AUTO LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
	(1)	(2)	(3)	(4)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	0	1.000	0	0
2007	0	1.000	0	0
2008	0	1.000	0	0
2009	0	1.000	0	0
2010	0	1.000	0	0
2011	0	1.000	0	0
2012	0	1.000	0	0
2013	0	1.000	0	0
2014	0	1.000	0	0
2015	0	1.000	0	0
2016	0	1.000	0	0
2017	1	1.000	1	0
2018	9	0.978	9	0
2019	25	0.967	24	1
2020	39	0.967	38	1
2021	105	0.968	102	3
2022	184	0.959	176	8
TOTAL	\$364		\$351	\$13

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$351
75%	581
85%	797
95%	1,262

Notes:

- (1) - Per Exhibit III, Page 1D, Column (6).
- (2) - Per AMI calculations, see Appendix A, Page 3.
- (3) = (1) x (2).
- (4) = (1) - (3). Excludes investment income on the margin.
- (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF PROJECTED LOSSES
AUTO LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

PROJECTED ULTIMATE LOSSES

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	NUMBER OF VEHICLES	LOSS RATE
	(1)	(2)	(3)
Prior			
1994	\$614	N/A	
1995	1,078	N/A	
1996	245	N/A	
1997	657	N/A	
1998	1,630	N/A	
1999	1,594	N/A	
2000	857	N/A	
2001	2,363	N/A	
2002	1,737	N/A	
2003	445	4,481	0.10
2004	965	3,545	0.27
2005	329	2,608	0.13
2006	510	2,608	0.20
2007	309	2,608	0.12
2008	418	2,700	0.16
2009	322	2,669	0.12
2010	2,813	2,696	1.04
2011	666	5,587	0.12
2012	1,891	6,334	0.30
2013	425	7,220	0.06
2014	621	7,275	0.09
2015	284	7,717	0.04
2016	220	7,717	0.03
2017	186	7,054	0.03
2018	328	7,089	0.05
2019	350	7,388	0.05
(PROJ.) 2019/2020	\$273	7,425	0.04
(PROJ.) 2020/2021	277	7,462	0.04
(PROJ.) 2021/2022	282	7,499	0.04

DISCOUNTED FUNDING REQUIREMENTS FOR PROSPECTIVE YEARS

ACCIDENT YEAR*	PROJECTED LOSSES	DISCOUNT FACTORS	DISCOUNTED PROJECTED LOSSES	FUTURE INVESTMENT INCOME
	(4)	(5)	(6)	(7)
2020	\$273	0.950	\$259	\$14
2021	277	0.950	263	14
2022	282	0.950	268	14

DISCOUNTED FUNDING REQUIREMENTS AT VARIOUS CONFIDENCE LEVELS

ACCIDENT YEAR*	EXPECTED LEVEL	75% LEVEL	85% LEVEL	95% LEVEL
	(8)	(9)	(10)	(11)
2020	\$259	\$263	\$379	\$847
2021	263	267	385	860
2022	268	273	392	876

Notes:

- (1) - Per Exhibit III, Page 1A, Column (5). For projected years, (1) = (2) x (3).
- (2) - Per STATE OF ALASKA.
- (3) = (1) / (2). For the projected years, it is the trended average of prior years
- (4) = (1); (5) - Per Appendix A, Page 3, Column (7).
- (6) = (4) x (5); (7) = (4) - (6).
- (8) = (6).
- (9) to (11) - Based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF PROJECTED LOSSES
AUTO LIABILITY
(\$AMOUNTS IN '000s)
LOSSES LIMITED TO \$1MM RETENTION

FUNDING REQUIREMENTS FOR PROSPECTIVE YEARS LIMITED TO \$1MM RETENTION

ACCIDENT YEAR*	PROJECTED UNLIMITED LOSSES	RETENTION FACTORS	EXPECTED FUNDING AMOUNT AT RETENTION LIMIT
	(1)	(2)	(3)
2020	\$273	0.700	\$191
2021	277	0.700	194
2022	282	0.700	197

Notes:

- (1) - Per Exhibit III, Page 6A, Column (4).
(2) - Based on industry increased limits factors for the STATE OF ALASKA.
(3) = (1) * (2)
* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF ULTIMATE CLAIM FREQUENCY AND ULTIMATE CLAIM SEVERITY
AS OF JUNE 30, 2019
AUTO LIABILITY
UNLIMITED

ACCIDENT YEAR*	CLAIMS REPORTED @6/30/2019	DEVELOPMENT FACTORS	ULTIMATE CLAIM COUNT	ULTIMATE LOSSES	NUMBER OF VEHICLES	NUMBER OF CLAIMS PER 1,000 VEHICLES (FREQUENCY)	AVERAGE CLAIM (SEVERITY) (WHOLE DOLLARS)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
1994	348	1.000	348	\$614	N/A		\$1765
1995	416	1.000	416	1,078	N/A		2,591
1996	307	1.000	307	245	N/A		798
1997	328	1.000	328	657	N/A		2,004
1998	343	1.000	343	1,630	N/A		4,752
1999	404	1.000	404	1,594	N/A		3,947
2000	313	1.000	313	857	N/A		2,738
2001	284	1.000	284	2,363	N/A		8,323
2002	313	1.000	313	1,737	N/A		5,550
2003	221	0.999	221	445	4,481	49	2,016
2004	300	0.999	300	965	3,545	85	3,219
2005	274	0.999	274	329	2,608	105	1,203
2006	96	0.999	96	510	2,608	37	5,321
2007	159	0.999	159	309	2,608	61	1,945
2008	172	0.999	172	418	2,700	64	2,434
2009	172	0.999	172	322	2,669	64	1,876
2010	187	0.999	187	2,813	2,696	69	15,056
2011	183	0.999	183	666	5,587	33	3,644
2012	291	0.999	291	1,891	6,334	46	6,506
2013	233	0.999	233	425	7,220	32	1,826
2014	178	0.999	178	621	7,275	24	3,490
2015	108	0.999	108	284	7,717	14	2,634
2016	89	0.999	89	220	7,717	12	2,469
2017	83	1.000	83	186	7,054	12	2,246
2018	122	1.007	123	328	7,089	17	2,667
2019	45	1.082	175	350	7,388	24	1,993
TOTAL	5,969		6,098	\$21,859			

Notes:

- (1) & (5) - Per STATE OF ALASKA.
- (2) - Per STATE OF ALASKA's historical loss patterns.
- (3) = (1) x (2). For the latest year, it is (6) x (5)/1000.
- (4) = Exhibit III, Page 1A, Column (5).
- (6) = [(3) / [(5) / 1000]] ; (7) = [(3) / (4)] x 1000. For the latest year, it is the average of prior years.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF PAID LOSS CASH FLOW
AS OF JUNE 30, 2019
AUTO LIABILITY
UNLIMITED

YEAR	1	2	3	4	5	6	7	8	9	10
CUMULATIVE LOSS PAYOUT PATTERN	34.7%	62.0%	85.6%	94.3%	97.1%	99.2%	100.0%	100.0%	100.0%	100.0%
INCREMENTAL LOSS PAYOUT PATTERN	34.7%	27.3%	23.6%	8.7%	2.9%	2.1%	0.7%	0.0%	0.0%	0.0%
PAYOUT AS PERCENTAGE OF UNPAID AT 6/30/2019	34.7%	41.9%	36.1%	13.3%	4.4%	3.3%	1.1%	0.0%	0.0%	0.0%
PAYOUT AS PERCENTAGE OF ULTIMATE LOSS	34.7%	27.3%	23.6%	8.7%	2.9%	2.1%	0.7%	0.0%	0.0%	0.0%

ACCIDENT YEAR*	ESTIMATED ULTIMATE LOSS	ESTIMATED UNPAID 6/30/2019	ESTIMATED FUTURE PAYMENTS FOR FISCAL YEAR ENDING										
			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029 & SUBSEQUENT	
Prior		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1994	\$614	0	0	0	0	0	0	0	0	0	0	0	0
1995	1,078	0	0	0	0	0	0	0	0	0	0	0	0
1996	245	0	0	0	0	0	0	0	0	0	0	0	0
1997	657	0	0	0	0	0	0	0	0	0	0	0	0
1998	1,630	0	0	0	0	0	0	0	0	0	0	0	0
1999	1,594	0	0	0	0	0	0	0	0	0	0	0	0
2000	857	0	0	0	0	0	0	0	0	0	0	0	0
2001	2,363	0	0	0	0	0	0	0	0	0	0	0	0
2002	1,737	0	0	0	0	0	0	0	0	0	0	0	0
2003	445	0	0	0	0	0	0	0	0	0	0	0	0
2004	965	0	0	0	0	0	0	0	0	0	0	0	0
2005	329	0	0	0	0	0	0	0	0	0	0	0	0
2006	510	0	0	0	0	0	0	0	0	0	0	0	0
2007	309	0	0	0	0	0	0	0	0	0	0	0	0
2008	418	0	0	0	0	0	0	0	0	0	0	0	0
2009	322	0	0	0	0	0	0	0	0	0	0	0	0
2010	2,813	0	0	0	0	0	0	0	0	0	0	0	0
2011	666	0	0	0	0	0	0	0	0	0	0	0	0
2012	1,891	0	0	0	0	0	0	0	0	0	0	0	0
2013	425	0	0	0	0	0	0	0	0	0	0	0	0
2014	621	3	3	0	0	0	0	0	0	0	0	0	0
2015	284	6	4	1	0	0	0	0	0	0	0	0	0
2016	220	10	5	4	1	0	0	0	0	0	0	0	0
2017	186	28	17	6	4	1	0	0	0	0	0	0	0
2018	328	121	75	27	9	7	2	0	0	0	0	0	0
2019	350	280	117	101	37	12	9	3	0	0	0	0	0
2020	273		95	75	64	24	8	6	2	0	0	0	0
2021	277			96	76	65	24	8	6	2	0	0	0
2022	282				98	77	66	24	8	6	2	0	0
TOTAL	\$22,691	\$449	\$317	\$310	\$290	\$186	\$110	\$41	\$16	\$8	\$2	\$0	\$0

Notes:
* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
SIZE OF LOSS DISTRIBUTION
AS OF JUNE 30, 2019
AUTO LIABILITY
UNLIMITED

REPORTED CLAIM COUNTS

ACCIDENT YEAR*	\$0.01 TO	\$5,000 TO	\$10,000 TO	\$25,000 TO	\$50,000 TO	\$100,000 TO	\$250,000 TO	\$500,000 TO	\$750,000 TO	OVER	TOTAL	
	\$0	\$5,000	\$10,000	\$25,000	\$50,000	\$100,000	\$250,000	\$500,000	\$750,000	\$1,000,000		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Prior	2,026	7,312	168	112	55	26	8	10	3	1	2	9723
2010	15	158	7	1	3	2	0	0	0	0	1	187
2011	38	137	3	4	0	0	0	1	0	0	0	183
2012	130	145	11	3	0	0	0	0	1	0	1	291
2013	113	101	9	8	1	1	0	0	0	0	0	233
2014	36	131	4	3	2	0	2	0	0	0	0	178
2015	25	77	1	2	2	0	1	0	0	0	0	108
2016	32	47	7	2	0	1	0	0	0	0	0	89
2017	27	45	5	6	0	0	0	0	0	0	0	83
2018	43	65	9	4	1	0	0	0	0	0	0	122
2019	6	32	2	2	2	0	0	0	0	0	1	45
TOTAL	2,491	8,250	226	147	66	30	11	11	4	1	5	11,242

REPORTED LOSSES

ACCIDENT YEAR*	\$0.01 TO	\$5,000 TO	\$10,000 TO	\$25,000 TO	\$50,000 TO	\$100,000 TO	\$250,000 TO	\$500,000 TO	\$750,000 TO	OVER	TOTAL	
	\$0	\$5,000	\$10,000	\$25,000	\$50,000	\$100,000	\$250,000	\$500,000	\$750,000	\$1,000,000		
Prior	(\$1)	\$5,150	\$1,167	\$1,766	\$1,888	\$1,912	\$1,254	\$3,442	\$1,932	\$975	\$3,373	\$22,856
2010	0	157	48	11	113	161	0	0	0	0	2,323	2,813
2011	0	122	18	60	0	0	0	466	0	0	0	666
2012	0	150	78	41	0	0	0	0	571	0	1,053	1,891
2013	0	124	63	133	48	57	0	0	0	0	0	425
2014	0	140	26	45	96	0	311	0	0	0	0	618
2015	0	83	5	31	57	0	102	0	0	0	0	278
2016	0	67	49	29	0	65	0	0	0	0	0	210
2017	0	51	34	82	0	0	0	0	0	0	0	167
2018	0	97	69	52	40	0	0	0	0	0	0	258
2019	0	89	12	71	80	0	0	0	0	0	0	252
TOTAL	(\$1)	\$6,230	\$1,568	\$2,322	\$2,321	\$2,195	\$1,667	\$3,907	\$2,503	\$975	\$6,748	\$30,435

Notes:

Per STATE OF ALASKA.

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2019
MARINE
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ALL APPROACHES COMBINED

ACCIDENT YEAR*	ESTIMATED ULTIMATE LOSSES BY METHOD				SELECTED ULTIMATE LOSSES	PAID LOSSES @ 6/30/2019	TOTAL LOSS RESERVES @ 6/30/2019
	ILDA	PLDA	BFILA	BFPLA			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Prior							
1994	\$961	\$961	\$961	\$961	\$961	\$961	\$0
1995	2,768	2,768	2,768	2,768	2,768	2,768	0
1996	1,185	1,185	1,185	1,185	1,185	1,185	0
1997	3,264	3,264	3,264	3,264	3,264	3,264	0
1998	1,711	1,711	1,711	1,711	1,711	1,711	0
1999	1,982	1,982	1,982	1,982	1,982	1,982	0
2000	3,044	3,044	3,044	3,044	3,044	3,044	0
2001	3,531	3,531	3,531	3,531	3,531	3,531	0
2002	3,514	3,514	3,514	3,514	3,514	3,514	0
2003	2,943	2,943	2,943	2,943	2,943	2,943	0
2004	1,408	1,408	1,408	1,408	1,408	1,408	0
2005	667	667	667	667	667	667	0
2006	965	965	965	965	965	965	0
2007	1,936	1,936	1,936	1,936	1,936	1,936	0
2008	596	596	596	596	596	596	0
2009	1,332	1,332	1,332	1,332	1,332	1,332	0
2010	133	133	133	133	133	133	0
2011	660	660	660	660	660	660	0
2012	642	642	642	642	642	642	0
2013	814	814	814	814	814	814	0
2014	120	120	120	120	120	120	0
2015	265	266	265	266	266	265	0
2016	649	645	647	645	647	539	108
2017	245	235	253	260	248	195	53
2018	990	824	899	824	884	274	610
2019	487	449	556	400	473	20	453
TOTAL	\$36,812	\$36,595	\$36,798	\$36,573	\$36,696	\$35,470	\$1,226

Notes:

(1), (2), (3), & (4) - Ultimate losses calculated from Exhibit IV, Pages 2 & 3.

(5) = Average of (1), (2), (3) & (4).

(6) - Per STATE OF ALASKA

(7) = (5) - (6).

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2020
MARINE
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	LOSS RESERVES AS OF @6/30/2019	ESTIMATED PAID LOSSES FOR FY2020	PAID LOSSES AS OF @6/30/2019	ESTIMATED PAID LOSSES AS OF @6/30/2020	ESTIMATED LOSS RESERVES AS OF @6/30/2020
	(1)	(2)	(3)	(4)	(5)	(6)
Prior		\$0	\$0			\$0
1994	\$961	0	0	\$961	\$961	0
1995	2,768	0	0	2,768	2,768	0
1996	1,185	0	0	1,185	1,185	0
1997	3,264	0	0	3,264	3,264	0
1998	1,711	0	0	1,711	1,711	0
1999	1,982	0	0	1,982	1,982	0
2000	3,044	0	0	3,044	3,044	0
2001	3,531	0	0	3,531	3,531	0
2002	3,514	0	0	3,514	3,514	0
2003	2,943	0	0	2,943	2,943	0
2004	1,408	0	0	1,408	1,408	0
2005	667	0	0	667	667	0
2006	965	0	0	965	965	0
2007	1,936	0	0	1,936	1,936	0
2008	596	0	0	596	596	0
2009	1,332	0	0	1,332	1,332	0
2010	133	0	0	133	133	0
2011	660	0	0	660	660	0
2012	642	0	0	642	642	0
2013	814	0	0	814	814	0
2014	120	0	0	120	120	0
2015	266	0	0	265	265	0
2016	647	108	68	539	606	41
2017	248	53	50	195	245	3
2018	884	610	385	274	659	225
2019	473	453	188	20	208	265
2020	554		189		189	365
TOTAL	\$37,250	\$1,226	\$881	\$35,470	\$36,351	\$899

Notes:

- (1) - For 2019 and prior, ultimate losses based from Exhibit IV, Page 1A, Column (5). For 2020, ultimate loss is the projected loss in Exhibit IV, Page 6.
- (2) - For 2019 and prior, loss reserves based from Exhibit IV, Page 1A, Column (7).
- (3) - From Exhibit IV, Page 9.
- (4) - From Exhibit IV, Page 1A, Column (6).
- (5) = (3) + (4)
- (6) = (1) - (5)

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2021
MARINE
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	LOSS RESERVES AS OF @6/30/2020	ESTIMATED PAID LOSSES FOR FY2021	ESTIMATED PAID LOSSES AS OF @6/30/2020	ESTIMATED PAID LOSSES AS OF @6/30/2021	ESTIMATED LOSS RESERVES AS OF @6/30/2021
	(1)	(2)	(3)	(4)	(5)	(6)
Prior		\$0	\$0			\$0
1994	\$961	0	0	\$961	\$961	0
1995	2,768	0	0	2,768	2,768	0
1996	1,185	0	0	1,185	1,185	0
1997	3,264	0	0	3,264	3,264	0
1998	1,711	0	0	1,711	1,711	0
1999	1,982	0	0	1,982	1,982	0
2000	3,044	0	0	3,044	3,044	0
2001	3,531	0	0	3,531	3,531	0
2002	3,514	0	0	3,514	3,514	0
2003	2,943	0	0	2,943	2,943	0
2004	1,408	0	0	1,408	1,408	0
2005	667	0	0	667	667	0
2006	965	0	0	965	965	0
2007	1,936	0	0	1,936	1,936	0
2008	596	0	0	596	596	0
2009	1,332	0	0	1,332	1,332	0
2010	133	0	0	133	133	0
2011	660	0	0	660	660	0
2012	642	0	0	642	642	0
2013	814	0	0	814	814	0
2014	120	0	0	120	120	0
2015	266	0	0	265	266	0
2016	647	41	28	606	634	13
2017	248	3	2	245	247	1
2018	884	225	212	659	871	13
2019	473	265	167	208	375	98
2020	554	365	151	189	340	214
2021	588		201		201	387
TOTAL	\$37,838	\$899	\$761	\$36,351	\$37,112	\$726

Notes:

- (1) - For 2020 and prior, ultimate losses based from Exhibit IV, Page 1B, Column (1). For 2021, ultimate loss is the projected loss in Exhibit IV, Page 6.
- (2) - For 2020 and prior, loss reserves based from Exhibit IV, Page 1B, Column (6).
- (3) - From Exhibit IV, Page 9.
- (4) - From Exhibit IV, Page 1B, Column (5).
- (5) = (3) + (4)
- (6) = (1) - (5)

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2022
MARINE
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	LOSS RESERVES AS OF @6/30/2021	ESTIMATED PAID LOSSES FOR FY2022	ESTIMATED PAID LOSSES AS OF @6/30/2021	ESTIMATED PAID LOSSES AS OF @6/30/2022	ESTIMATED LOSS RESERVES AS OF @6/30/2022
	(1)	(2)	(3)	(4)	(5)	(6)
Prior		\$0	\$0			\$0
1994	\$961	0	0	\$961	\$961	0
1995	2,768	0	0	2,768	2,768	0
1996	1,185	0	0	1,185	1,185	0
1997	3,264	0	0	3,264	3,264	0
1998	1,711	0	0	1,711	1,711	0
1999	1,982	0	0	1,982	1,982	0
2000	3,044	0	0	3,044	3,044	0
2001	3,531	0	0	3,531	3,531	0
2002	3,514	0	0	3,514	3,514	0
2003	2,943	0	0	2,943	2,943	0
2004	1,408	0	0	1,408	1,408	0
2005	667	0	0	667	667	0
2006	965	0	0	965	965	0
2007	1,936	0	0	1,936	1,936	0
2008	596	0	0	596	596	0
2009	1,332	0	0	1,332	1,332	0
2010	133	0	0	133	133	0
2011	660	0	0	660	660	0
2012	642	0	0	642	642	0
2013	814	0	0	814	814	0
2014	120	0	0	120	120	0
2015	266	0	0	266	266	0
2016	647	13	13	634	647	0
2017	248	1	1	247	248	0
2018	884	13	8	871	879	5
2019	473	98	92	375	467	6
2020	554	214	135	340	475	79
2021	588	387	160	201	361	227
2022	623		0		0	623
TOTAL	\$38,461	\$726	\$409	\$37,112	\$37,521	\$940

Notes:

- (1) - For 2021 and prior, ultimate losses based from Exhibit IV, Page 1C, Column (1). For 2022, ultimate loss is the projected loss in Exhibit IV, Page 6.
- (2) - For 2021 and prior, loss reserves based from Exhibit IV, Page 1C, Column (6).
- (3) - From Exhibit IV, Page 9.
- (4) - From Exhibit IV, Page 1C, Column (5).
- (5) = (3) + (4)
- (6) = (1) - (5)

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF ULTIMATE LOSSES - LOSS DEVELOPMENT APPROACH
AS OF JUNE 30, 2019
MARINE
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

INCURRED LOSS DEVELOPMENT APPROACH

ACCIDENT YEAR*	LIMITED INCURRED LOSSES @6/30/2019 (1)	LOSS DEVLPMT FACTORS (2)	ULTIMATE INCURRED LOSSES (3)	PROPERTY VALUE (\$MM) (4)	ESTIMATED LOSS RATE (5)
Prior					
1994	\$961	1.000	\$961	N/A	
1995	2,768	1.000	2,768	N/A	
1996	1,185	1.000	1,185	N/A	
1997	3,264	1.000	3,264	N/A	
1998	1,711	1.000	1,711	N/A	
1999	1,982	1.000	1,982	N/A	
2000	3,044	1.000	3,044	N/A	
2001	3,531	1.000	3,531	N/A	
2002	3,514	1.000	3,514	N/A	
2003	2,943	1.000	2,943	3,319	887
2004	1,408	1.000	1,408	3,518	400
2005	667	1.000	667	4,059	164
2006	965	1.000	965	4,177	231
2007	1,936	1.000	1,936	4,245	456
2008	596	1.000	596	4,372	136
2009	1,332	1.000	1,332	4,503	296
2010	133	1.000	133	4,638	29
2011	660	1.000	660	4,713	140
2012	642	1.000	642	4,695	137
2013	814	1.000	814	5,132	159
2014	120	1.000	120	5,849	21
2015	265	1.000	265	6,090	44
2016	645	1.005	649	7,507	86
2017	235	1.042	245	7,436	33
2018	824	1.201	990	7,241	137
2019	400		487	7,603	64
TOTAL	\$36,547		\$36,812		

PAID LOSS DEVELOPMENT APPROACH

ACCIDENT YEAR*	LIMITED PAID LOSSES @6/30/2019 (6)	LOSS DEVLPMT FACTORS (7)	ULTIMATE INCURRED LOSSES (8)	PROPERTY VALUE (\$MM) (9)	ESTIMATED LOSS RATE (10)
Prior					
1994	\$961	1.000	\$961	N/A	
1995	2,768	1.000	2,768	N/A	
1996	1,185	1.000	1,185	N/A	
1997	3,264	1.000	3,264	N/A	
1998	1,711	1.000	1,711	N/A	
1999	1,982	1.000	1,982	N/A	
2000	3,044	1.000	3,044	N/A	
2001	3,531	1.000	3,531	N/A	
2002	3,514	1.000	3,514	N/A	
2003	2,943	1.000	2,943	3,319	887
2004	1,408	1.000	1,408	3,518	400
2005	667	1.000	667	4,059	164
2006	965	1.000	965	4,177	231
2007	1,936	1.000	1,936	4,245	456
2008	596	1.000	596	4,372	136
2009	1,332	1.000	1,332	4,503	296
2010	133	1.000	133	4,638	29
2011	660	1.000	660	4,713	140
2012	642	1.000	642	4,695	137
2013	814	1.000	814	5,132	159
2014	120	1.001	120	5,849	21
2015	265	1.003	266	6,090	44
2016	539	1.009	645	7,507	86
2017	195	1.166	235	7,436	32
2018	274	1.628	824	7,241	114
2019	20		449	7,603	59
TOTAL	\$35,470		\$36,595		

Notes:

- (1), (4), (6) & (9) - Per STATE OF ALASKA.
- (2) & (7) - Per State's historical loss pattern, supplemented by AM Best insurance industry historical loss patterns.
- (3) = (1) x (2); (8) = (6) x (7). If ultimate incurred losses in (8) are less than the incurred losses in (1), we used the incurred losses in (1). For the most recent year, we used the Loss Rate Approach.
- (5) = (3) / (4); (10) = (8) / (9). For the most recent year, it is the average of prior years.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF ULTIMATE LOSSES - BORNHUETT-FERGUSON APPROACH
AS OF JUNE 30, 2019
MARINE
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

BORNHUETT-FERGUSON INCURRED LOSS APPROACH

ACCIDENT YEAR*	ESTIMATED LOSS RATE	PROPERTY VALUE (\$MM)	EXPECTED ULTIMATE LOSSES	EXPECTED % OF LOSSES UNREPORTED	IBNR RESERVES	UNLIMITED INCURRED LOSSES @6/30/2019	ULTIMATE INCURRED LOSSES
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Prior							
1994	61.566	N/A	\$961	0.0%	\$0	\$961	\$961
1995	61.566	N/A	2,768	0.0%	0	2,768	2,768
1996	61.566	N/A	1,185	0.0%	0	1,185	1,185
1997	61.566	N/A	3,264	0.0%	0	3,264	3,264
1998	61.566	N/A	1,711	0.0%	0	1,711	1,711
1999	61.566	N/A	1,982	0.0%	0	1,982	1,982
2000	61.566	N/A	3,044	0.0%	0	3,044	3,044
2001	61.566	N/A	3,531	0.0%	0	3,531	3,531
2002	61.566	N/A	3,514	0.0%	0	3,514	3,514
2003	61.566	3,319	204	0.0%	0	2,943	2,943
2004	61.566	3,518	217	0.0%	0	1,408	1,408
2005	61.566	4,059	250	0.0%	0	667	667
2006	61.566	4,177	257	0.0%	0	965	965
2007	61.566	4,245	261	0.0%	0	1,936	1,936
2008	61.566	4,372	269	0.0%	0	596	596
2009	61.566	4,503	277	0.0%	0	1,332	1,332
2010	61.566	4,638	286	0.0%	0	133	133
2011	61.566	4,713	290	0.0%	0	660	660
2012	61.566	4,695	289	0.0%	0	642	642
2013	61.566	5,132	316	0.0%	0	814	814
2014	61.566	5,849	360	0.0%	0	120	120
2015	61.566	6,090	375	0.0%	0	265	265
2016	61.566	7,507	462	0.5%	2	645	647
2017	61.566	7,436	458	4.0%	18	235	253
2018	61.566	7,241	446	16.7%	75	824	899
2019	61.566	7,603	468	33.4%	156	400	556
TOTAL			\$27,445		\$251	\$36,547	\$36,798

BORNHUETT-FERGUSON PAID LOSS APPROACH

ACCIDENT YEAR*	ESTIMATED LOSS RATE	PROPERTY VALUE (\$MM)	EXPECTED ULTIMATE LOSSES	EXPECTED % OF LOSSES UNPAID	LOSS RESERVES	UNLIMITED PAID LOSSES @6/30/2019	ULTIMATE INCURRED LOSSES
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Prior							
1994	61.566	N/A	\$961	0.0%	\$0	\$961	\$961
1995	61.566	N/A	2,768	0.0%	0	2,768	2,768
1996	61.566	N/A	1,185	0.0%	0	1,185	1,185
1997	61.566	N/A	3,264	0.0%	0	3,264	3,264
1998	61.566	N/A	1,711	0.0%	0	1,711	1,711
1999	61.566	N/A	1,982	0.0%	0	1,982	1,982
2000	61.566	N/A	3,044	0.0%	0	3,044	3,044
2001	61.566	N/A	3,531	0.0%	0	3,531	3,531
2002	61.566	N/A	3,514	0.0%	0	3,514	3,514
2003	61.566	3,319	204	0.0%	0	2,943	2,943
2004	61.566	3,518	217	0.0%	0	1,408	1,408
2005	61.566	4,059	250	0.0%	0	667	667
2006	61.566	4,177	257	0.0%	0	965	965
2007	61.566	4,245	261	0.0%	0	1,936	1,936
2008	61.566	4,372	269	0.0%	0	596	596
2009	61.566	4,503	277	0.0%	0	1,332	1,332
2010	61.566	4,638	286	0.0%	0	133	133
2011	61.566	4,713	290	0.0%	0	660	660
2012	61.566	4,695	289	0.0%	0	642	642
2013	61.566	5,132	316	0.0%	0	814	814
2014	61.566	5,849	360	0.1%	0	120	120
2015	61.566	6,090	375	0.3%	1	265	266
2016	61.566	7,507	462	0.8%	4	539	645
2017	61.566	7,436	458	14.2%	65	195	260
2018	61.566	7,241	446	38.6%	172	274	824
2019	61.566	7,603	468	65.9%	308	20	400
TOTAL			\$27,445		\$550	\$35,470	\$36,573

Notes:

- (1) & (8) - The average of the loss rates of prior years as shown in Columns (5) and (10) of Exhibit IV, Page 2.
- (2) & (9) - Per STATE OF ALASKA.
- (3) = (1) x (2); (10) = (8) x (9). For 2002 & prior, average of Exhibit IV, Columns (5) & (10).
- (4) = (1 - (1/LDF)); (11) = (1 - (1/PLDF)).
- (5) = (3) x (4); (12) = (10) x (11).
- (6) & (13) - Per STATE OF ALASKA.
- (7) = (5) + (6); (14) = (12) + (13). If ultimate incurred losses in (14) are less than the incurred losses in (6), we used the incurred losses in (6).
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
 AS OF JUNE 30, 2019
CALCULATION OF THE INCURRED LOSS DEVELOPMENT FACTORS
MARINE
 (\$AMOUNTS IN '000s)
 LIMITED TO RETENTION

INCURRED LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS												
	12	24	36	48	60	72	84	96	108	120	132	144	
1994													961
1995												2,768	2,768
1996											1,185	1,185	1,185
1997										3,264	3,264	3,264	3,264
1998									1,711	1,711	1,711	1,711	1,711
1999							1,981	1,982	1,982	1,982	1,982	1,982	1,939
2000						3,068	3,048	3,044	3,044	3,044	3,044	2,977	2,977
2001					3,503	3,532	3,532	3,531	3,532	3,532	3,204	3,204	3,531
2002				3,013	3,184	3,511	3,512	3,514	3,355	3,355	3,514	3,514	3,514
2003			2,606	2,610	2,791	2,942	2,946	2,911	2,912	2,944	2,943	2,943	2,943
2004		1,408	1,477	1,479	1,492	1,413	1,408	1,408	1,408	1,408	1,408	1,408	1,408
2005	737	962	687	667	682	682	682	667	667	667	667	667	667
2006	685	749	749	938	1,158	1,058	965	965	965	965	965	965	965
2007	1,670	1,977	1,966	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936
2008	132	669	690	596	596	596	596	596	596	596	596	596	596
2009	884	1,104	1,336	1,332	1,332	1,332	1,332	1,332	1,332	1,332	1,332	1,332	1,332
2010	155	159	133	133	133	133	133	133	133	133	133	133	133
2011	1,018	565	660	660	660	660	660	660	660	660	660	660	660
2012	1,192	629	866	652	642	642	642	642	642	642	642	642	642
2013	417	654	789	880	880	814	814	814	814	814	814	814	814
2014	192	120	120	120	120	120	120	120	120	120	120	120	120
2015	45	43	66	196	265	265	265	265	265	265	265	265	265
2016	446	1,181	1,150	645	645	645	645	645	645	645	645	645	645
2017	387	224	235	235	235	235	235	235	235	235	235	235	235
2018	805	824	824	824	824	824	824	824	824	824	824	824	824
2019	400	400	400	400	400	400	400	400	400	400	400	400	400

INCURRED LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	12	24	36	48	60	72	84	96	108	120	132	144	144
	TO 24	TO 36	TO 48	TO 60	TO 72	TO 84	TO 96	TO 108	TO 120	TO 132	TO 144	TO 144	TO 156
1994													1.000
1995												1.000	1.000
1996										1.000	1.000	1.000	1.000
1997									1.000	1.000	1.000	1.000	1.000
1998									1.000	1.000	1.000	1.000	0.977
1999							1.001	1.000	1.000	1.000	1.000	0.978	0.999
2000						0.993	0.999	1.000	1.000	1.000	0.978	1.000	1.023
2001					1.008	1.000	1.000	1.000	1.000	0.907	1.000	1.102	1.000
2002				1.057	1.103	1.000	1.001	0.955	1.000	1.047	1.000	1.000	1.000
2003			1.002	1.069	1.054	1.001	0.988	1.000	1.011	1.000	1.000	1.000	1.000
2004		1.049	1.001	1.009	0.947	0.996	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005	1.305	0.714	0.971	1.022	1.000	1.000	0.978	1.000	1.000	1.000	1.000	1.000	1.000
2006	1.093	1.000	1.252	1.235	0.914	0.912	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2007	1.184	0.994	0.985	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	5.068	1.031	0.864	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000
2009	1.249	1.210	0.997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2010	1.026	0.836	1.000	1.000	1.000	1.000	1.004	1.000	1.000	1.000	1.000	1.000	1.000
2011	0.555	1.168	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2012	0.528	1.377	0.753	0.985	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2013	1.568	1.206	1.115	1.000	0.926	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2014	0.625	1.000	0.997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2015	0.956	1.527	2.979	1.355	1.355	1.355	1.355	1.355	1.355	1.355	1.355	1.355	1.355
2016	2.648	0.974	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561	0.561
2017	0.578	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051
2018	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024	1.024
AVERAGE	1.386	1.081	1.106	1.052	0.997	0.993	0.998	0.997	0.994	1.002	1.006	1.000	1.000
3 YR AVG.	1.417	1.184	1.512	1.118	0.976	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000
EXCL HI LO	1.151	1.075	0.995	1.033	0.995	0.999	0.999	1.000	1.000	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	0.868	1.086	0.955	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.254	1.158	1.025	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
AM BEST	1.366	1.145	1.072	1.029	1.011	1.004	1.002	1.000	1.000	1.000	1.000	1.000	1.000
SELECTED	1.249	1.152	1.037	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	1.500	1.201	1.042	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
 AS OF JUNE 30, 2019
CALCULATION OF THE INCURRED LOSS DEVELOPMENT FACTORS
MARINE
 (\$AMOUNTS IN '000s)
 LIMITED TO RETENTION

INCURRED LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS													
	156	168	180	192	204	216	228	240	252	264	276	288	300	312
1994	961	961	961	961	957	957	961	961	961	961	961	961	961	961
1995	2,768	2,768	2,768	2,755	2,755	2,768	2,768	2,768	2,768	2,768	2,768	2,768	2,768	2,768
1996	1,185	1,185	1,172	1,172	1,185	1,185	1,185	1,185	1,185	1,185	1,185	1,185	1,185	1,185
1997	3,264	3,186	3,186	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264
1998	1,671	1,671	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711
1999	1,938	1,982	1,982	1,982	1,982	1,982	1,982	1,982	1,982	1,982	1,982	1,982	1,982	1,982
2000	3,044	3,044	3,044	3,044	3,044	3,044	3,044	3,044	3,044	3,044	3,044	3,044	3,044	3,044
2001	3,531	3,531	3,531	3,531	3,531	3,531	3,531	3,531	3,531	3,531	3,531	3,531	3,531	3,531
2002	3,514	3,514	3,514	3,514	3,514	3,514	3,514	3,514	3,514	3,514	3,514	3,514	3,514	3,514
2003	2,943	2,943	2,943	2,943	2,943	2,943	2,943	2,943	2,943	2,943	2,943	2,943	2,943	2,943
2004	1,408	1,408	1,408	1,408	1,408	1,408	1,408	1,408	1,408	1,408	1,408	1,408	1,408	1,408
2005	667	667	667	667	667	667	667	667	667	667	667	667	667	667
2006	965	965	965	965	965	965	965	965	965	965	965	965	965	965
2007	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														

INCURRED LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	156	168	180	192	204	216	228	240	252	264	276	288	300	312
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
	168	180	192	204	216	228	240	252	264	276	288	300	312	ULT
1994	1.000	1.000	1.000	0.996	1.000	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.000	1.000	0.995	1.000	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.000	0.989	1.000	1.011	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	0.976	1.000	1.024	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.000	1.024	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.023	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														
AVERAGE	1.000	1.001	1.002	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 YR AVG.	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
AM BEST	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
 AS OF JUNE 30, 2019
CALCULATION OF THE PAID LOSS DEVELOPMENT FACTORS
MARINE
 (\$AMOUNTS IN '000s)
 LIMITED TO RETENTION

PAID LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS												
	12	24	36	48	60	72	84	96	108	120	132	144	
1994													961
1995												2,768	2,768
1996											1,185	1,185	1,185
1997										3,264	3,264	3,264	3,264
1998								1,711	1,711	1,711	1,711	1,711	1,711
1999							1,981	1,982	1,982	1,982	1,982	1,982	1,938
2000						3,044	3,044	3,044	3,044	3,044	2,977	2,977	2,977
2001					3,322	3,436	3,531	3,531	3,531	3,204	3,204	3,531	3,531
2002				2,601	2,795	3,119	3,512	3,514	3,355	3,355	3,514	3,514	3,514
2003			2,560	2,598	2,774	2,941	2,942	2,911	2,912	2,944	2,943	2,943	2,943
2004		1,328	1,336	1,345	1,377	1,406	1,408	1,408	1,408	1,408	1,408	1,408	1,408
2005	522	557	667	667	667	682	682	667	667	667	667	667	667
2006	173	607	737	833	965	965	965	965	965	965	965	965	965
2007	1,026	1,931	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936
2008	74	575	580	596	596	596	596	596	596	596	596	596	596
2009	718	1,101	1,332	1,332	1,332	1,332	1,332	1,332	1,332	1,332	1,332	1,332	1,332
2010	102	133	133	133	133	133	133	133	133	133	133	133	133
2011	167	495	660	660	660	660	660	660	660	660	660	660	660
2012	373	416	608	642	642	642	642	642	642	642	642	642	642
2013	203	369	580	796	814	814	814	814	814	814	814	814	814
2014	79	120	120	120	120	120	120	120	120	120	120	120	120
2015	30	43	64	185	265	265	265	265	265	265	265	265	265
2016	314	1,075	1,150	539	539	539	539	539	539	539	539	539	539
2017	109	195	195	195	195	195	195	195	195	195	195	195	195
2018	199	274	274	274	274	274	274	274	274	274	274	274	274
2019	20	20	20	20	20	20	20	20	20	20	20	20	20

PAID LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	12	24	36	48	60	72	84	96	108	120	132	144	
	TO 24	TO 36	TO 48	TO 60	TO 72	TO 84	TO 96	TO 108	TO 120	TO 132	TO 144	TO 156	
1994													1.000
1995												1.000	1.000
1996										1.000	1.000	1.000	1.000
1997									1.000	1.000	1.000	1.000	1.000
1998								1.000	1.000	1.000	1.000	1.000	0.977
1999							1.001	1.000	1.000	1.000	1.000	0.978	1.000
2000						1.000	1.000	1.000	1.000	1.000	0.978	1.000	1.023
2001					1.034	1.028	1.000	1.000	1.000	0.907	1.000	1.102	1.000
2002				1.075	1.116	1.126	1.001	0.955	1.000	1.047	1.000	1.000	1.000
2003			1.015	1.068	1.060	1.000	0.989	1.000	1.011	1.000	1.000	1.000	1.000
2004		1.006	1.007	1.024	1.021	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005	1.067	1.197	1.000	1.000	1.022	1.000	0.978	1.000	1.000	1.000	1.000	1.000	1.000
2006	3.509	1.214	1.130	1.158	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2007	1.882	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	7.770	1.009	1.028	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000
2009	1.533	1.210	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2010	1.304	1.000	1.000	1.000	1.000	1.000	1.004	1.000	1.000	1.000	1.000	1.000	1.000
2011	2.964	1.333	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2012	1.115	1.462	1.056	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2013	1.818	1.572	1.372	1.023	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2014	1.519	1.000	0.997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2015	1.433	1.484	2.898	1.434	1.434	1.434	1.434	1.434	1.434	1.434	1.434	1.434	1.434
2016	3.425	1.070	0.468	0.468	0.468	0.468	0.468	0.468	0.468	0.468	0.468	0.468	0.468
2017	1.784	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2018	1.375	1.375	1.375	1.375	1.375	1.375	1.375	1.375	1.375	1.375	1.375	1.375	1.375
AVERAGE	2.321	1.183	1.141	1.056	1.018	1.011	0.998	0.997	0.994	1.002	1.006	1.000	1.000
3 YR AVG.	2.214	1.185	1.156	1.008	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000
EXCL HI LO	1.972	1.166	1.050	1.029	1.012	1.002	0.999	1.000	1.000	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	1.707	1.339	1.143	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.771	1.416	1.143	1.003	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
AM BEST	2.114	1.442	1.234	1.111	1.048	1.021	1.010	1.005	1.002	1.002	1.001	1.001	1.001
SELECTED	1.799	1.396	1.156	1.005	1.002	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	2.929	1.628	1.166	1.009	1.003	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
 AS OF JUNE 30, 2019
CALCULATION OF THE PAID LOSS DEVELOPMENT FACTORS
MARINE
 (\$AMOUNTS IN '000s)
 LIMITED TO RETENTION

PAID LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS													
	156	168	180	192	204	216	228	240	252	264	276	288	300	312
1994	961	961	961	961	957	957	961	961	961	961	961	961	961	961
1995	2,768	2,768	2,768	2,755	2,755	2,768	2,768	2,768	2,768	2,768	2,768	2,768	2,768	2,768
1996	1,185	1,185	1,172	1,172	1,185	1,185	1,185	1,185	1,185	1,185	1,185	1,185	1,185	1,185
1997	3,264	3,186	3,186	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264	3,264
1998	1,671	1,671	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711	1,711
1999	1,938	1,982	1,982	1,982	1,982	1,982	1,982	1,982	1,982	1,982	1,982	1,982	1,982	1,982
2000	3,044	3,044	3,044	3,044	3,044	3,044	3,044	3,044	3,044	3,044	3,044	3,044	3,044	3,044
2001	3,531	3,531	3,531	3,531	3,531	3,531	3,531	3,531	3,531	3,531	3,531	3,531	3,531	3,531
2002	3,514	3,514	3,514	3,514	3,514	3,514	3,514	3,514	3,514	3,514	3,514	3,514	3,514	3,514
2003	2,943	2,943	2,943	2,943	2,943	2,943	2,943	2,943	2,943	2,943	2,943	2,943	2,943	2,943
2004	1,408	1,408	1,408	1,408	1,408	1,408	1,408	1,408	1,408	1,408	1,408	1,408	1,408	1,408
2005	667	667	667	667	667	667	667	667	667	667	667	667	667	667
2006	965	965	965	965	965	965	965	965	965	965	965	965	965	965
2007	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936	1,936
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														

PAID LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	156	168	180	192	204	216	228	240	252	264	276	288	300	312
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
	168	180	192	204	216	228	240	252	264	276	288	300	312	ULT
1994	1.000	1.000	1.000	0.996	1.000	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.000	1.000	0.995	1.000	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.000	0.989	1.000	1.011	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	0.976	1.000	1.024	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.000	1.024	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.023	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														
AVERAGE	1.000	1.001	1.002	1.001	1.001	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 YR AVG.	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
AM BEST	1.001	1.001	1.001	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	1.000	1.000	1.000
CUMULATIVE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF CLAIM COUNT DEVELOPMENT FACTORS
MARINE

REPORTED CLAIM COUNT DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS												
	12	24	36	48	60	72	84	96	108	120	132	144	
1994													221
1995													251
1996											250		250
1997										274			274
1998									240	240			240
1999							278		278	278			278
2000						313			313	313			313
2001					490				490	490			490
2002				654					654	654			654
2003			740						741	741			737
2004		84							100	100			100
2005	40								49	49			49
2006	33	40							40	40			40
2007	34	39							39	39			39
2008	33	36							36	36			36
2009	24	26							26	26			26
2010	30	38							38	38			38
2011	38	44							44	44			44
2012	47	50							50	50			50
2013	39	43							43	43			43
2014	14	16							16	16			16
2015	31	37							37	37			37
2016	16	22							22	22			22
2017	27	30							30	30			30
2018	25	26							26	26			26
2019	20												20

CLAIM COUNT DEVELOPMENT FACTORS

ACCIDENT YEAR*	12	24	36	48	60	72	84	96	108	120	132	144	
	TO 24	TO 36	TO 48	TO 60	TO 72	TO 84	TO 96	TO 108	TO 120	TO 132	TO 144	TO 156	
1994													1.000
1995													1.000
1996											1.000		1.000
1997										1.000			1.000
1998									1.000	1.000			1.000
1999							1.000		1.000	1.000			1.000
2000						1.000			1.000	1.000			1.000
2001					1.000				1.000	1.000			1.000
2002				1.000					1.000	1.000			0.998
2003			1.001						1.000	1.000		0.995	1.000
2004		1.000							1.000	1.000			1.000
2005	1.225								1.000	1.000			1.000
2006	1.212	1.000							1.000	1.000			1.000
2007	1.147	1.000							1.000	1.000			1.000
2008	1.091	1.000							1.000	1.000			1.000
2009	1.083	1.000							1.000	1.000			1.000
2010	1.267	1.000							1.000	1.000			1.000
2011	1.158	1.000							1.000	1.000			1.000
2012	1.064	1.020				0.980			1.000	1.000			1.000
2013	1.103	1.000				1.000			1.000	1.000			1.000
2014	1.143	1.000				1.000			1.000	1.000			1.000
2015	1.194	1.000				1.000			1.000	1.000			1.000
2016	1.375	1.000				1.000			1.000	1.000			1.000
2017	1.111	1.000				1.000			1.000	1.000			1.000
2018	1.040					1.000			1.000	1.000			1.000
AVERAGE	1.158	1.001	1.014	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 YR AVG.	1.175	1.000	1.000	1.000	0.993	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
EXCL HI LO	1.150	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	1.149	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.175	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
SELECTED	1.173	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	1.174	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF CLAIM COUNT DEVELOPMENT FACTORS
MARINE

REPORTED CLAIM COUNT DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS													
	156	168	180	192	204	216	228	240	252	264	276	288	300	312
1994	221	221	221	221	221	221	221	221	221	221	221	221	221	221
1995	251	251	251	251	251	251	251	251	251	251	251	251	251	251
1996	250	250	250	250	250	250	250	250	250	250	250	250	250	251
1997	274	274	274	274	274	274	274	274	274	274	274	274	274	274
1998	240	240	240	240	240	240	240	240	240	240	240	240	240	240
1999	278	278	278	278	278	278	278	278	278	278	278	278	278	278
2000	313	313	313	313	313	313	313	313	313	313	313	313	313	313
2001	490	490	490	490	490	490	490	490	490	490	490	490	490	490
2002	653	653	653	653	653	653	653	653	653	653	653	653	653	653
2003	737	737	737	737	737	737	737	737	737	737	737	737	737	737
2004	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2005	49	49	49	49	49	49	49	49	49	49	49	49	49	49
2006	40	40	40	40	40	40	40	40	40	40	40	40	40	40
2007	39	39	39	39	39	39	39	39	39	39	39	39	39	39
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														

CLAIM COUNT DEVELOPMENT FACTORS

ACCIDENT YEAR*	156	168	180	192	204	216	228	240	252	264	276	288	300	312
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
	168	180	192	204	216	228	240	252	264	276	288	300	312	ULT
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
AVERAGE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 YR AVG.	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF DISCOUNTED RESERVES
MARINE
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
(1)	(2)	(3)	(4)	(5)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	0	1.000	0	0
2007	0	1.000	0	0
2008	0	1.000	0	0
2009	0	1.000	0	0
2010	0	1.000	0	0
2011	0	1.000	0	0
2012	0	1.000	0	0
2013	0	1.000	0	0
2014	0	1.000	0	0
2015	0	0.976	0	0
2016	108	0.971	105	3
2017	53	0.983	52	1
2018	610	0.974	594	16
2019	453	0.962	436	17
TOTAL	\$1,226		\$1,189	\$37

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$1,189
75%	1,580
85%	1,889
95%	2,547

Notes:

- (1) - Per Exhibit IV, Page 1A, Column (7).
- (2) - Per AMI calculations, see Appendix A, Page 4.
- (3) = (1) x (2).
- (4) = (1) - (3). Excludes investment income on the margin.
- (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2020
CALCULATION OF DISCOUNTED RESERVES
MARINE
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
(1)	(2)	(3)	(4)	(5)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	0	1.000	0	0
2007	0	1.000	0	0
2008	0	1.000	0	0
2009	0	1.000	0	0
2010	0	1.000	0	0
2011	0	1.000	0	0
2012	0	1.000	0	0
2013	0	1.000	0	0
2014	0	1.000	0	0
2015	0	1.000	0	0
2016	41	0.976	40	1
2017	3	0.971	3	0
2018	225	0.983	221	4
2019	265	0.974	258	7
2020	365	0.962	351	14
TOTAL	\$899		\$874	\$26

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$874
75%	1,161
85%	1,388
95%	1,872

Notes:

- (1) - Per Exhibit IV, Page 1B, Column (6).
- (2) - Per AMI calculations, see Appendix A, Page 4.
- (3) = (1) x (2).
- (4) = (1) - (3). Excludes investment income on the margin.
- (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2021
CALCULATION OF DISCOUNTED RESERVES
MARINE
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
(1)	(2)	(3)	(4)	
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	0	1.000	0	0
2007	0	1.000	0	0
2008	0	1.000	0	0
2009	0	1.000	0	0
2010	0	1.000	0	0
2011	0	1.000	0	0
2012	0	1.000	0	0
2013	0	1.000	0	0
2014	0	1.000	0	0
2015	0	1.000	0	0
2016	13	1.000	13	0
2017	1	0.976	1	0
2018	13	0.971	13	0
2019	98	0.983	96	2
2020	214	0.974	208	6
2021	387	0.962	372	15
TOTAL	\$726		\$703	\$22

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$703
75%	935
85%	1,117
95%	1,507

Notes:

- (1) - Per Exhibit IV, Page 1C, Column (6).
(2) - Per AMI calculations, see Appendix A, Page 4.
(3) = (1) x (2).
(4) = (1) - (3). Excludes investment income on the margin.
(5) = (3) + margin based on Monte Carlo Simulation.
* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2022
CALCULATION OF DISCOUNTED RESERVES
MARINE
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
	(1)	(2)	(3)	(4)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	0	1.000	0	0
2007	0	1.000	0	0
2008	0	1.000	0	0
2009	0	1.000	0	0
2010	0	1.000	0	0
2011	0	1.000	0	0
2012	0	1.000	0	0
2013	0	1.000	0	0
2014	0	1.000	0	0
2015	0	1.000	0	0
2016	0	1.000	0	0
2017	0	1.000	0	0
2018	5	0.976	5	0
2019	6	0.971	6	0
2020	79	0.983	78	1
2021	227	0.974	221	6
2022	623	0.962	599	24
TOTAL	\$940		\$909	\$31

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$909
75%	1,208
85%	1,443
95%	1,947

Notes:

- (1) - Per Exhibit IV, Page 1D, Column (6).
- (2) - Per AMI calculations, see Appendix A, Page 4.
- (3) = (1) x (2).
- (4) = (1) - (3). Excludes investment income on the margin.
- (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF PROJECTED LOSSES
MARINE
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

PROJECTED ULTIMATE LOSSES

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	PROPERTY VALUE (\$MM)	LOSS RATE
	(1)	(2)	(3)
Prior			
1994	\$961	N/A	
1995	2,768	N/A	
1996	1,185	N/A	
1997	3,264	N/A	
1998	1,711	N/A	
1999	1,982	N/A	
2000	3,044	N/A	
2001	3,531	N/A	
2002	3,514	N/A	
2003	2,943	3,319	887
2004	1,408	3,518	400
2005	667	4,059	164
2006	965	4,177	231
2007	1,936	4,245	456
2008	596	4,372	136
2009	1,332	4,503	296
2010	133	4,638	29
2011	660	4,713	140
2012	642	4,695	137
2013	814	5,132	159
2014	120	5,849	20
2015	266	6,090	44
2016	647	7,507	86
2017	248	7,436	33
2018	884	7,241	122
2019	473	7,603	62
(PROJ.) 2019/2020	\$554	7,984	69.40
(PROJ.) 2020/2021	588	8,383	70.09
(PROJ.) 2021/2022	623	8,802	70.79

DISCOUNTED FUNDING REQUIREMENTS FOR PROSPECTIVE YEARS

ACCIDENT YEAR*	PROJECTED LOSSES	DISCOUNT FACTORS	DISCOUNTED PROJECTED LOSSES	FUTURE INVESTMENT INCOME
	(4)	(5)	(6)	(7)
2020	\$554	0.951	\$527	\$27
2021	588	0.951	559	29
2022	623	0.951	593	30

DISCOUNTED FUNDING REQUIREMENTS AT VARIOUS CONFIDENCE LEVELS

ACCIDENT YEAR*	EXPECTED LEVEL	75% LEVEL	85% LEVEL	95% LEVEL
	(8)	(9)	(10)	(11)
2020	\$527	\$726	\$876	\$1,175
2021	559	770	930	1,246
2022	593	816	986	1,322

Notes:

- (1) - Per Exhibit IV, Page 1A, Column (5). For projected years, (1) = (2) x (3).
- (2) - Per STATE OF ALASKA.
- (3) = (1) / (2). For the projected years, it is the trended average of prior years
- (4) = (1); (5) - Per Appendix A, Page 4, Column (7).
- (6) = (4) x (5); (7) = (4) - (6).
- (8) = (6).
- (9) to (11) - Based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF ULTIMATE CLAIM FREQUENCY AND ULTIMATE CLAIM SEVERITY
AS OF JUNE 30, 2019
MARINE
LIMITED TO RETENTION

ACCIDENT YEAR*	CLAIMS REPORTED @6/30/2019	DEVELOPMENT FACTORS	ULTIMATE CLAIM COUNT	ULTIMATE LOSSES	PROPERTY VALUE (\$MM)	NUMBER OF CLAIMS PER \$BB PROPERTY VALUE (FREQUENCY)	AVERAGE CLAIM SEVERITY (WHOLE DOLLARS)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1994	221	1.000	221	\$961	N/A		\$4,348
1995	251	1.000	251	2,768	N/A		11,027
1996	250	1.000	250	1,185	N/A		4,741
1997	274	1.000	274	3,264	N/A		11,912
1998	240	1.000	240	1,711	N/A		7,129
1999	278	1.000	278	1,982	N/A		7,130
2000	313	1.000	313	3,044	N/A		9,725
2001	490	1.000	490	3,531	N/A		7,206
2002	653	1.000	653	3,514	N/A		5,381
2003	737	1.000	737	2,943	3,319	222	3,993
2004	100	1.000	100	1,408	3,518	28	14,079
2005	49	1.000	49	667	4,059	12	13,609
2006	40	1.000	40	965	4,177	10	24,129
2007	39	1.000	39	1,936	4,245	9	49,653
2008	36	1.000	36	596	4,372	8	16,568
2009	26	1.000	26	1,332	4,503	6	51,250
2010	38	1.000	38	133	4,638	8	3,513
2011	44	1.000	44	660	4,713	9	15,003
2012	50	1.000	50	642	4,695	11	12,850
2013	43	1.000	43	814	5,132	8	18,940
2014	16	1.000	16	120	5,849	3	7,491
2015	37	1.000	37	266	6,090	6	7,178
2016	22	1.000	22	647	7,507	3	29,396
2017	30	1.000	30	248	7,436	4	8,277
2018	26	1.001	26	884	7,241	4	33,993
2019	20	1.174	55	473	7,603	7	8,645
TOTAL	4,323		4,358	\$36,696			

Notes:

- (1) & (5) - Per STATE OF ALASKA.
- (2) - Per STATE OF ALASKA's historical loss patterns.
- (3) = (1) x (2). For the latest year, it is (6) x (5)/1000.
- (4) = Exhibit IV, Page 1A, Column (5).
- (6) = [(3) / [(5) / 1000]] ; (7) = [(3) / (4)] x 1000. For the latest year, it is the average of prior years.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF PAID LOSS CASH FLOW
AS OF JUNE 30, 2019
MARINE
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

YEAR	1	2	3	4	5	6	7	8	9	10
CUMULATIVE LOSS PAYOUT PATTERN	34.1%	61.4%	85.8%	99.2%	99.7%	99.9%	100.0%	100.0%	100.0%	100.0%
INCREMENTAL LOSS PAYOUT PATTERN	34.1%	27.3%	24.3%	13.4%	0.5%	0.2%	0.1%	0.0%	0.0%	0.0%
PAYOUT AS PERCENTAGE OF UNPAID AT 6/30/2019		41.4%	37.0%	20.3%	0.8%	0.3%	0.1%	0.0%	0.0%	0.0%
PAYOUT AS PERCENTAGE OF ULTIMATE LOSS	34.1%	27.3%	24.3%	13.4%	0.5%	0.2%	0.1%	0.0%	0.0%	0.0%

ACCIDENT YEAR*	ESTIMATED ULTIMATE LOSS	ESTIMATED UNPAID 6/30/2019	ESTIMATED FUTURE PAYMENTS FOR FISCAL YEAR ENDING									
			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029 & SUBSEQUENT
Prior		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1994	\$961	0	0	0	0	0	0	0	0	0	0	0
1995	2,768	0	0	0	0	0	0	0	0	0	0	0
1996	1,185	0	0	0	0	0	0	0	0	0	0	0
1997	3,264	0	0	0	0	0	0	0	0	0	0	0
1998	1,711	0	0	0	0	0	0	0	0	0	0	0
1999	1,982	0	0	0	0	0	0	0	0	0	0	0
2000	3,044	0	0	0	0	0	0	0	0	0	0	0
2001	3,531	0	0	0	0	0	0	0	0	0	0	0
2002	3,514	0	0	0	0	0	0	0	0	0	0	0
2003	2,943	0	0	0	0	0	0	0	0	0	0	0
2004	1,408	0	0	0	0	0	0	0	0	0	0	0
2005	667	0	0	0	0	0	0	0	0	0	0	0
2006	965	0	0	0	0	0	0	0	0	0	0	0
2007	1,936	0	0	0	0	0	0	0	0	0	0	0
2008	596	0	0	0	0	0	0	0	0	0	0	0
2009	1,332	0	0	0	0	0	0	0	0	0	0	0
2010	133	0	0	0	0	0	0	0	0	0	0	0
2011	660	0	0	0	0	0	0	0	0	0	0	0
2012	642	0	0	0	0	0	0	0	0	0	0	0
2013	814	0	0	0	0	0	0	0	0	0	0	0
2014	120	0	0	0	0	0	0	0	0	0	0	0
2015	266	0	0	0	0	0	0	0	0	0	0	0
2016	647	108	68	28	13	0	0	0	0	0	0	0
2017	248	53	50	2	1	0	0	0	0	0	0	0
2018	884	610	385	212	8	3	2	0	0	0	0	0
2019	473	453	188	167	92	4	2	1	0	0	0	0
2020	554		189	151	135	74	3	1	1	0	0	0
2021	588			201	160	143	79	3	1	1	0	0
2022	623				213	160	143	79	3	1	1	23
TOTAL	\$38,461	\$1,226	\$881	\$761	\$622	\$385	\$228	\$84	\$5	\$2	\$1	\$23

Notes:

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
SIZE OF LOSS DISTRIBUTION
AS OF JUNE 30, 2019
MARINE

REPORTED CLAIM COUNTS

ACCIDENT YEAR*	\$0	\$0.01 TO \$5,000	\$5,000 TO \$10,000	\$10,000 TO \$25,000	\$25,000 TO \$50,000	\$50,000 TO \$100,000	\$100,000 TO \$250,000	\$250,000 TO \$500,000	\$500,000 TO \$750,000	\$750,000 TO \$1,000,000	OVER \$1,000,000	TOTAL
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Prior	1,940	5,287	249	209	110	82	64	26	9	3	2	7,981
2010	14	27	3	2	1	0	0	0	0	0	0	47
2011	28	23	4	2	5	0	2	0	0	0	0	64
2012	27	17	0	3	2	5	1	0	0	0	0	55
2013	5	13	2	0	1	3	1	1	0	0	0	26
2014	14	7	0	2	1	1	0	0	0	0	0	25
2015	9	21	1	0	0	0	1	0	0	0	0	32
2016	12	7	1	0	2	1	2	0	0	0	0	25
2017	11	15	0	0	1	1	1	0	0	0	0	29
2018	8	6	1	2	2	0	4	0	0	0	0	23
2019	0	9	1	2	1	3	0	0	0	0	0	16
TOTAL	2,068	5,432	262	222	126	96	76	27	9	3	2	8,323

REPORTED LOSSES

ACCIDENT YEAR*	\$0	\$0.01 TO \$5,000	\$5,000 TO \$10,000	\$10,000 TO \$25,000	\$25,000 TO \$50,000	\$50,000 TO \$100,000	\$100,000 TO \$250,000	\$250,000 TO \$500,000	\$500,000 TO \$750,000	\$750,000 TO \$1,000,000	OVER \$1,000,000	TOTAL
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Prior	(\$2,808)	\$4,031	\$1,720	\$3,404	\$3,850	\$5,798	\$10,301	\$9,207	\$5,199	\$2,553	\$2,321	\$45,576
2010	0	29	18	43	43	0	0	0	0	0	0	133
2011	0	23	32	44	172	0	388	0	0	0	0	660
2012	0	24	0	44	74	379	121	0	0	0	0	642
2013	0	12	16	0	42	239	114	391	0	0	0	814
2014	0	13	0	25	30	52	0	0	0	0	0	120
2015	0	38	8	0	0	0	220	0	0	0	0	265
2016	0	15	5	0	73	77	474	0	0	0	0	645
2017	0	17	0	0	40	64	115	0	0	0	0	235
2018	0	11	7	41	79	0	686	0	0	0	0	824
2019	0	15	6	50	50	280	0	0	0	0	0	400
TOTAL	(\$2,808)	\$4,228	\$1,812	\$3,651	\$4,453	\$6,890	\$12,419	\$9,599	\$5,199	\$2,553	\$2,321	\$50,317

Notes:

Per STATE OF ALASKA.

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2019
AVIATION
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ALL APPROACHES COMBINED

ACCIDENT YEAR*	ESTIMATED ULTIMATE LOSSES BY METHOD				SELECTED ULTIMATE LOSSES	PAID LOSSES @ 6/30/2019	TOTAL LOSS RESERVES @ 6/30/2019
	ILDA	PLDA	BFILA	BFPLA			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Prior							
1994	\$239	\$239	\$239	\$239	\$239	\$239	\$0
1995	370	370	370	370	370	370	0
1996	61	61	61	61	61	61	0
1997	130	130	130	130	130	130	0
1998	461	461	461	461	461	461	0
1999	165	165	165	165	165	165	0
2000	109	109	109	109	109	109	0
2001	795	795	795	795	795	795	0
2002	251	251	251	251	251	251	0
2003	100	100	100	100	100	100	0
2004	15	15	15	15	15	15	0
2005	96	96	96	96	96	96	0
2006	392	392	392	392	392	392	0
2007	26	26	26	26	26	26	0
2008	486	486	486	486	486	486	0
2009	864	864	864	864	864	864	0
2010	37	37	37	37	37	37	0
2011	395	395	395	395	395	395	0
2012	412	412	412	412	412	412	0
2013	324	324	324	324	324	324	0
2014	12	12	12	12	12	12	0
2015	544	555	544	549	548	544	4
2016	2	2	5	30	10	2	8
2017	666	635	648	635	646	382	264
2018	27	25	47	145	37	0	37
2019	279	278	68	207	208	0	208
TOTAL	\$7,258	\$7,235	\$7,051	\$7,305	\$7,190	\$6,668	\$522

Notes:

(1), (2), (3), & (4) - Ultimate losses calculated from Exhibit V, Pages 2 & 3.

(5) = Average of (1), (2), (3) & (4).

(6) - Per STATE OF ALASKA

(7) = (5) - (6).

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2020
AVIATION
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	LOSS RESERVES AS OF @6/30/2019	ESTIMATED PAID LOSSES FOR FY2020	PAID LOSSES AS OF @6/30/2019	ESTIMATED PAID LOSSES AS OF @6/30/2020	ESTIMATED LOSS RESERVES AS OF @6/30/2020
	(1)	(2)	(3)	(4)	(5)	(6)
Prior		\$0	\$0			\$0
1994	\$239	0	0	\$239	\$239	0
1995	370	0	0	370	370	0
1996	61	0	0	61	61	0
1997	130	0	0	130	130	0
1998	461	0	0	461	461	0
1999	165	0	0	165	165	0
2000	109	0	0	109	109	0
2001	795	0	0	795	795	0
2002	251	0	0	251	251	0
2003	100	0	0	100	100	0
2004	15	0	0	15	15	0
2005	96	0	0	96	96	0
2006	392	0	0	392	392	0
2007	26	0	0	26	26	0
2008	486	0	0	486	486	0
2009	864	0	0	864	864	0
2010	37	0	0	37	37	0
2011	395	0	0	395	395	0
2012	412	0	0	412	412	0
2013	324	0	0	324	324	0
2014	12	0	0	12	12	0
2015	548	4	4	544	548	0
2016	10	8	6	2	8	2
2017	646	264	172	382	555	91
2018	37	37	17	0	17	20
2019	208	208	62	0	62	146
2020	315		81		81	234
TOTAL	\$7,505	\$522	\$344	\$6,668	\$7,011	\$494

Notes:

- (1) - For 2019 and prior, ultimate losses based from Exhibit V, Page 1A, Column (5). For 2020, ultimate loss is the projected loss in Exhibit V, Page 6.
- (2) - For 2019 and prior, loss reserves based from Exhibit V, Page 1A, Column (7).
- (3) - From Exhibit V, Page 9.
- (4) - From Exhibit V, Page 1A, Column (6).
- (5) = (3) + (4)
- (6) = (1) - (5)

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2021
AVIATION
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	LOSS RESERVES AS OF @6/30/2020	ESTIMATED PAID LOSSES FOR FY2021	ESTIMATED PAID LOSSES AS OF @6/30/2020	ESTIMATED PAID LOSSES AS OF @6/30/2021	ESTIMATED LOSS RESERVES AS OF @6/30/2021
	(1)	(2)	(3)	(4)	(5)	(6)
Prior		\$0	\$0			\$0
1994	\$239	0	0	\$239	\$239	0
1995	370	0	0	370	370	0
1996	61	0	0	61	61	0
1997	130	0	0	130	130	0
1998	461	0	0	461	461	0
1999	165	0	0	165	165	0
2000	109	0	0	109	109	0
2001	795	0	0	795	795	0
2002	251	0	0	251	251	0
2003	100	0	0	100	100	0
2004	15	0	0	15	15	0
2005	96	0	0	96	96	0
2006	392	0	0	392	392	0
2007	26	0	0	26	26	0
2008	486	0	0	486	486	0
2009	864	0	0	864	864	0
2010	37	0	0	37	37	0
2011	395	0	0	395	395	0
2012	412	0	0	412	412	0
2013	324	0	0	324	324	0
2014	12	0	0	12	12	0
2015	548	0	0	548	548	0
2016	10	2	2	8	10	0
2017	646	91	73	555	628	18
2018	37	20	13	17	30	7
2019	208	146	66	62	128	80
2020	315	234	69		69	246
2021	319		82		82	237
TOTAL	\$7,824	\$494	\$306	\$6,930	\$7,236	\$588

Notes:

- (1) - For 2020 and prior, ultimate losses based from Exhibit V, Page 1B, Column (1). For 2021, ultimate loss is the projected loss in Exhibit V, Page 6.
- (2) - For 2020 and prior, loss reserves based from Exhibit V, Page 1B, Column (6).
- (3) - From Exhibit V, Page 9.
- (4) - From Exhibit V, Page 1B, Column (5).
- (5) = (3) + (4)
- (6) = (1) - (5)

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2022
AVIATION
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	LOSS RESERVES AS OF @6/30/2021	ESTIMATED PAID LOSSES FOR FY2022	ESTIMATED PAID LOSSES AS OF @6/30/2021	ESTIMATED PAID LOSSES AS OF @6/30/2022	ESTIMATED LOSS RESERVES AS OF @6/30/2022
	(1)	(2)	(3)	(4)	(5)	(6)
Prior		\$0	\$0			\$0
1994	\$239	0	0	\$239	\$239	0
1995	370	0	0	370	370	0
1996	61	0	0	61	61	0
1997	130	0	0	130	130	0
1998	461	0	0	461	461	0
1999	165	0	0	165	165	0
2000	109	0	0	109	109	0
2001	795	0	0	795	795	0
2002	251	0	0	251	251	0
2003	100	0	0	100	100	0
2004	15	0	0	15	15	0
2005	96	0	0	96	96	0
2006	392	0	0	392	392	0
2007	26	0	0	26	26	0
2008	486	0	0	486	486	0
2009	864	0	0	864	864	0
2010	37	0	0	37	37	0
2011	395	0	0	395	395	0
2012	412	0	0	412	412	0
2013	324	0	0	324	324	0
2014	12	0	0	12	12	0
2015	548	0	0	548	548	0
2016	10	0	0	10	10	0
2017	646	18	18	628	646	0
2018	37	7	6	30	36	1
2019	208	80	52	128	180	28
2020	315	246	75	69	144	171
2021	319		70	82	152	167
2022	324		83		83	241
TOTAL	\$8,148	\$350	\$304	\$7,236	\$7,540	\$608

Notes:

- (1) - For 2021 and prior, ultimate losses based from Exhibit V, Page 1C, Column (1). For 2022, ultimate loss is the projected loss in Exhibit V, Page 6.
- (2) - For 2021 and prior, loss reserves based from Exhibit V, Page 1C, Column (6).
- (3) - From Exhibit V, Page 9.
- (4) - From Exhibit V, Page 1C, Column (5).
- (5) = (3) + (4)
- (6) = (1) - (5)

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF ULTIMATE LOSSES - LOSS DEVELOPMENT APPROACH
AS OF JUNE 30, 2019
AVIATION
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

INCURRED LOSS DEVELOPMENT APPROACH

ACCIDENT YEAR*	LIMITED INCURRED LOSSES @ 6/30/2019	LOSS DEVLPMT FACTORS	ULTIMATE INCURRED LOSSES	FTE	ESTIMATED LOSS RATE
	(1)	(2)	(3)	(4)	(5)
Prior					
1994	\$239	1.000	\$239	N/A	
1995	370	1.000	370	N/A	
1996	61	1.000	61	N/A	
1997	130	1.000	130	N/A	
1998	461	1.000	461	N/A	
1999	165	1.000	165	N/A	
2000	109	1.000	109	N/A	
2001	795	1.000	795	N/A	
2002	251	1.000	251	N/A	
2003	100	1.000	100	16,960	0.006
2004	15	1.000	15	14,579	0.001
2005	96	1.000	96	15,398	0.006
2006	392	1.000	392	15,397	0.025
2007	26	1.000	26	15,773	0.002
2008	486	1.000	486	16,050	0.030
2009	864	1.000	864	15,977	0.054
2010	37	1.000	37	16,386	0.002
2011	395	1.000	395	16,721	0.024
2012	412	1.000	412	16,951	0.024
2013	324	1.000	324	17,025	0.019
2014	12	1.000	12	16,848	0.001
2015	544	1.000	544	16,959	0.032
2016	2	1.010	2	17,272	0.000
2017	635	1.049	666	17,242	0.039
2018	25	1.086	27	16,625	0.002
2019	0		279	16,744	0.017
TOTAL	\$6,945		\$7,258		

PAID LOSS DEVELOPMENT APPROACH

ACCIDENT YEAR*	LIMITED PAID LOSSES @ 6/30/2019	LOSS DEVLPMT FACTORS	ULTIMATE INCURRED LOSSES	FTE	ESTIMATED LOSS RATE
	(6)	(7)	(8)	(9)	(10)
Prior					
1994	\$239	1.000	\$239	N/A	
1995	370	1.000	370	N/A	
1996	61	1.000	61	N/A	
1997	130	1.000	130	N/A	
1998	461	1.000	461	N/A	
1999	165	1.000	165	N/A	
2000	109	1.000	109	N/A	
2001	795	1.000	795	N/A	
2002	251	1.000	251	N/A	
2003	100	1.000	100	16,960	0.006
2004	15	1.000	15	14,579	0.001
2005	96	1.000	96	15,398	0.006
2006	392	1.000	392	15,397	0.025
2007	26	1.000	26	15,773	0.002
2008	486	1.000	486	16,050	0.030
2009	864	1.000	864	15,977	0.054
2010	37	1.000	37	16,386	0.002
2011	395	1.000	395	16,721	0.024
2012	412	1.000	412	16,951	0.024
2013	324	1.000	324	17,025	0.019
2014	12	1.000	12	16,848	0.001
2015	544	1.020	555	16,959	0.033
2016	2	1.110	2	17,272	0.000
2017	382	1.399	635	17,242	0.037
2018	0	2.095	25	16,625	0.002
2019	0		278	16,744	0.017
TOTAL	\$6,668		\$7,235		

Notes:

- (1), (4), (6) & (9) - Per STATE OF ALASKA.
- (2) & (7) - Per State's historical loss pattern, supplemented by AM Best insurance industry historical loss patterns.
- (3) = (1) x (2); (8) = (6) x (7). If ultimate incurred losses in (8) are less than the incurred losses in (1), we used the incurred losses in (1). For the most recent year, we used the Loss Rate Approach.
- (5) = (3) / (4); (10) = (8) / (9). For the most recent year, it is the average of prior years.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF ULTIMATE LOSSES - BORNHUETTER-FERGUSON APPROACH
AS OF JUNE 30, 2019
AVIATION
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

BORNHUETTER-FERGUSON INCURRED LOSS APPROACH

ACCIDENT YEAR*	ESTIMATED LOSS		EXPECTED ULTIMATE LOSSES	EXPECTED % OF LOSSES UNREPORTED	IBNR RESERVES	UNLIMITED INCURRED LOSSES @6/30/2019	ULTIMATE INCURRED LOSSES
	RATE	FTE					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Prior							
1994	0.017	N/A	\$239	0.0%	\$0	\$239	\$239
1995	0.017	N/A	370	0.0%	0	370	370
1996	0.017	N/A	61	0.0%	0	61	61
1997	0.017	N/A	130	0.0%	0	130	130
1998	0.017	N/A	461	0.0%	0	461	461
1999	0.017	N/A	165	0.0%	0	165	165
2000	0.017	N/A	109	0.0%	0	109	109
2001	0.017	N/A	795	0.0%	0	795	795
2002	0.017	N/A	251	0.0%	0	251	251
2003	0.017	16,960	282	0.0%	0	100	100
2004	0.017	14,579	243	0.0%	0	15	15
2005	0.017	15,398	256	0.0%	0	96	96
2006	0.017	15,397	256	0.0%	0	392	392
2007	0.017	15,773	263	0.0%	0	26	26
2008	0.017	16,050	267	0.0%	0	486	486
2009	0.017	15,977	266	0.0%	0	864	864
2010	0.017	16,386	273	0.0%	0	37	37
2011	0.017	16,721	278	0.0%	0	395	395
2012	0.017	16,951	282	0.0%	0	412	412
2013	0.017	17,025	283	0.0%	0	324	324
2014	0.017	16,848	280	0.0%	0	12	12
2015	0.017	16,959	282	0.0%	0	544	544
2016	0.017	17,272	288	1.0%	3	2	5
2017	0.017	17,242	287	4.7%	13	635	648
2018	0.017	16,625	277	8.0%	22	25	47
2019	0.017	16,744	279	24.4%	68	0	68
TOTAL			\$7,224		\$106	\$6,945	\$7,051

BORNHUETTER-FERGUSON PAID LOSS APPROACH

ACCIDENT YEAR*	ESTIMATED LOSS		EXPECTED ULTIMATE LOSSES	EXPECTED % OF LOSSES UNPAID	LOSS RESERVES	UNLIMITED PAID LOSSES @6/30/2019	ULTIMATE INCURRED LOSSES
	RATE	FTE					
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Prior							
1994	0.017	N/A	\$239	0.0%	\$0	\$239	\$239
1995	0.017	N/A	370	0.0%	0	370	370
1996	0.017	N/A	61	0.0%	0	61	61
1997	0.017	N/A	130	0.0%	0	130	130
1998	0.017	N/A	461	0.0%	0	461	461
1999	0.017	N/A	165	0.0%	0	165	165
2000	0.017	N/A	109	0.0%	0	109	109
2001	0.017	N/A	795	0.0%	0	795	795
2002	0.017	N/A	251	0.0%	0	251	251
2003	0.017	16,960	282	0.0%	0	100	100
2004	0.017	14,579	243	0.0%	0	15	15
2005	0.017	15,398	256	0.0%	0	96	96
2006	0.017	15,397	256	0.0%	0	392	392
2007	0.017	15,773	263	0.0%	0	26	26
2008	0.017	16,050	267	0.0%	0	486	486
2009	0.017	15,977	266	0.0%	0	864	864
2010	0.017	16,386	273	0.0%	0	37	37
2011	0.017	16,721	278	0.0%	0	395	395
2012	0.017	16,951	282	0.0%	0	412	412
2013	0.017	17,025	283	0.0%	0	324	324
2014	0.017	16,848	280	0.0%	0	12	12
2015	0.017	16,959	282	1.9%	5	544	549
2016	0.017	17,272	288	9.9%	28	2	30
2017	0.017	17,242	287	28.5%	82	382	635
2018	0.017	16,625	277	52.3%	145	0	145
2019	0.017	16,744	279	74.3%	207	0	207
TOTAL			\$7,224		\$467	\$6,668	\$7,305

Notes:

- (1) & (8) - The average of the loss rates of prior years as shown in Columns (5) and (10) of Exhibit V, Page 2.
- (2) & (9) - Per STATE OF ALASKA.
- (3) = (1) x (2); (10) = (8) x (9). For 2002 & prior, average of Exhibit V, Columns (5) & (10).
- (4) = (1 - (1/LDF)); (11) = (1 - (1/PLDF)).
- (5) = (3) x (4); (12) = (10) x (11).
- (6) & (13) - Per STATE OF ALASKA.
- (7) = (5) + (6); (14) = (12) + (13). If ultimate incurred losses in (14) are less than the incurred losses in (6), we used the incurred losses in (6).
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
 AS OF JUNE 30, 2019
CALCULATION OF THE INCURRED LOSS DEVELOPMENT FACTORS
AVIATION
 (\$AMOUNTS IN '000s)
 LIMITED TO RETENTION

INCURRED LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS											
	12	24	36	48	60	72	84	96	108	120	132	144
1994												239
1995												370
1996											61	61
1997										130	130	130
1998									461	461	461	461
1999								165	165	165	165	165
2000						109	109	109	109	109	109	109
2001					795	795	795	795	795	784	784	795
2002				251	251	251	251	251	251	251	251	251
2003			333	333	333	333	333	333	333	100	100	100
2004		268	263	15	15	15	15	15	15	15	15	15
2005	96	121	121	96	96	96	96	96	96	96	96	96
2006	306	318	326	326	348	392	392	392	392	392	392	392
2007	36	36	26	26	26	26	26	26	26	26	26	26
2008	260	241	241	336	486	486	486	486	486	486	486	486
2009	793	881	869	864	864	864	864	864	864	864	864	864
2010	10	42	37	37	37	37	37	37	37	37		
2011	242	224	249	399	395	395	395	395	395			
2012	200	303	331	445	438	412	412	412				
2013	254	326	324	324	324	324	324					
2014	0	66	15	12	12	12						
2015	281	300	300	544	544							
2016	0	0	0	2								
2017	205	285	635									
2018	0	25										
2019	0											

INCURRED LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	12	24	36	48	60	72	84	96	108	120	132	144
	TO 24	TO 36	TO 48	TO 60	TO 72	TO 84	TO 96	TO 108	TO 120	TO 132	TO 144	TO 156
1994												1.000
1995												1.000
1996										1.000	1.000	1.000
1997									1.000	1.000	1.000	1.000
1998								1.000	1.000	1.000	1.000	1.000
1999							1.000	1.000	1.000	1.000	1.000	1.000
2000						1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001					1.000	1.000	1.000	1.000	0.986	1.000	1.014	1.000
2002				1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003			1.000	1.000	1.000	1.000	1.000	1.000	0.300	1.000	1.000	1.000
2004		0.981	0.057	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005	1.260	1.000	0.793	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.996
2006	1.039	1.025	1.000	1.067	1.126	1.000	1.000	1.000	1.000	1.000	1.001	1.000
2007	1.000	0.722	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.992	1.000	1.000
2008	0.927	1.000	1.394	1.446	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2009	1.111	0.986	0.994	1.000	1.000	1.000	1.000	1.000	1.000	1.000		
2010	4.200	0.881	1.000	1.000	1.000	1.000	1.006	1.000	1.000			
2011	0.926	1.112	1.602	0.990	1.000	0.999	1.000	1.000				
2012	1.515	1.092	1.344	0.984	0.941	1.000	1.000					
2013	1.283	0.994	1.000	0.999	1.000	1.000						
2014		0.227	0.827	1.000	1.000							
2015	1.068	1.001	1.812	1.000								
2016												
2017	1.391	2.230										
2018												
AVERAGE	1.429	1.019	1.063	1.035	1.005	1.000	1.000	1.000	0.949	0.999	1.001	1.000
3 YR AVG.	1.247	1.153	1.213	1.000	0.980	1.000	1.002	1.000	1.000	0.997	1.000	0.999
EXCL HI LO	1.177	0.981	1.087	1.005	1.000	1.000	1.000	1.000	0.999	1.000	1.000	1.000
5 YR AVG EXCL HI LO	1.247	1.029	1.315	0.996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.211	1.036	1.035	1.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
AM BEST	1.366	1.145	1.072	1.029	1.011	1.004	1.002	1.000	1.000	1.000	1.000	1.000
SELECTED	1.217	1.036	1.039	1.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	1.322	1.086	1.049	1.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
 AS OF JUNE 30, 2019
CALCULATION OF THE INCURRED LOSS DEVELOPMENT FACTORS
AVIATION
 (\$AMOUNTS IN '000s)
 LIMITED TO RETENTION

INCURRED LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS													
	156	168	180	192	204	216	228	240	252	264	276	288	300	312
1994	239	239	239	239	239	239	239	239	239	239	239	239	239	239
1995	370	370	370	370	370	370	370	370	370	370	370	370	370	370
1996	61	61	61	61	61	61	61	61	61	61	61	61	61	61
1997	130	130	130	130	130	130	130	130	130	130	130	130	130	130
1998	461	461	461	461	461	461	461	461	461	461	461	461	461	461
1999	165	165	165	165	165	165	165	165	165	165	165	165	165	165
2000	109	109	109	109	109	109	109	109	109	109	109	109	109	109
2001	795	795	795	795	795	795	795	795	795	795	795	795	795	795
2002	251	251	251	251	251	251	251	251	251	251	251	251	251	251
2003	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2004	15	15	15	15	15	15	15	15	15	15	15	15	15	15
2005	96	96	96	96	96	96	96	96	96	96	96	96	96	96
2006	392	392	392	392	392	392	392	392	392	392	392	392	392	392
2007	26	26	26	26	26	26	26	26	26	26	26	26	26	26
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														

INCURRED LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	156	168	180	192	204	216	228	240	252	264	276	288	300	312
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
	168	180	192	204	216	228	240	252	264	276	288	300	312	ULT
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.998	1.000	1.000	
1995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.007	1.000	1.000	1.000	
1997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	
1999	1.000	1.000	1.000	1.000	1.000	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2000	1.000	1.000	1.000	1.000	1.000	0.997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2003	1.000	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2004	0.983	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2007														
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														
AVERAGE	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	0.999	1.000	1.000	
3 YR AVG.	0.994	1.001	1.000	1.000	0.999	0.999	1.000	1.000	1.002	1.000	0.999	1.000	1.000	
EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
5 YR AVG EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
PRIOR SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
AM BEST	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
CUMULATIVE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
 AS OF JUNE 30, 2019
CALCULATION OF THE PAID LOSS DEVELOPMENT FACTORS
AVIATION
 (\$AMOUNTS IN '000s)
 LIMITED TO RETENTION

PAID LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS												
	12	24	36	48	60	72	84	96	108	120	132	144	
1994													239
1995												370	370
1996										61	61	61	61
1997									130	130	130	130	130
1998								461	461	461	461	461	461
1999							165	165	165	165	165	165	165
2000						109	109	109	109	109	109	109	109
2001					739	795	795	795	795	784	784	795	795
2002				251	251	251	251	251	251	251	251	251	251
2003			268	333	333	100	100	333	333	100	100	100	100
2004		15	15	15	15	15	15	15	15	15	15	15	15
2005	96	96	96	96	96	96	96	96	96	96	96	96	96
2006	149	318	321	326	348	392	392	392	392	392	392	392	392
2007	26	26	26	26	26	26	26	26	26	26	26	26	26
2008	164	235	237	298	486	486	486	486	486	486	486	486	486
2009	398	828	853	864	864	864	864	864	864	864	864	864	864
2010	6	7	37	37	37	37	37	37	37	37	37	37	37
2011	63	224	235	243	395	395	395	395	395	395	395	395	395
2012	47	63	216	419	412	412	412	412	412	412	412	412	412
2013	254	322	324	324	324	324	324	324	324	324	324	324	324
2014	0	0	1	12	12	12	12	12	12	12	12	12	12
2015	0	5	292	544	544	544	544	544	544	544	544	544	544
2016	0	0	0	2	2	2	2	2	2	2	2	2	2
2017	129	169	382	382	382	382	382	382	382	382	382	382	382
2018	0	0	0	0	0	0	0	0	0	0	0	0	0
2019	0	0	0	0	0	0	0	0	0	0	0	0	0

PAID LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	12	24	36	48	60	72	84	96	108	120	132	144	144
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
	24	36	48	60	72	84	96	108	120	132	144	144	156
1994													1.000
1995												1.000	1.000
1996										1.000	1.000	1.000	1.000
1997									1.000	1.000	1.000	1.000	1.000
1998								1.000	1.000	1.000	1.000	1.000	1.000
1999							1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000						1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001					1.076	1.000	1.000	1.000	0.986	1.000	1.014	1.000	1.000
2002				1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003			1.243	1.000	0.300	1.000	3.330	1.000	0.300	1.000	1.000	1.000	1.000
2004		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.996
2006	2.134	1.009	1.016	1.067	1.126	1.000	1.000	1.000	1.000	1.000	1.001	1.001	1.000
2007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.992	1.000	1.000	1.000
2008	1.433	1.009	1.257	1.631	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2009	2.080	1.030	1.013	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2010	1.167	5.286	1.000	1.000	1.000	1.000	1.006	1.000	1.000	1.000	1.000	1.000	1.000
2011	3.556	1.049	1.034	1.626	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2012	1.340	3.429	1.940	0.983	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2013	1.268	1.006	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2014			12.409	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2015		58.372	1.864	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2016													
2017	1.312	2.266											
2018													
AVERAGE	1.629	6.455	2.060	1.100	0.965	1.000	1.167	1.000	0.949	0.999	1.001	1.000	1.000
3 YR AVG.	1.307	20.936	5.091	0.994	1.000	1.000	1.002	1.000	1.000	0.997	1.000	1.000	0.999
EXCL HI LO	1.467	1.808	1.215	1.063	1.006	1.000	1.001	1.000	0.999	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	1.307	3.255	1.460	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.911	1.463	1.226	1.093	1.023	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
AM BEST	2.114	1.442	1.234	1.111	1.048	1.021	1.010	1.005	1.002	1.002	1.001	1.001	1.001
SELECTED	1.859	1.497	1.261	1.088	1.020	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	3.894	2.095	1.399	1.110	1.020	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF THE PAID LOSS DEVELOPMENT FACTORS
AVIATION
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

PAID LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS													
	156	168	180	192	204	216	228	240	252	264	276	288	300	312
1994	239	239	239	239	239	239	239	239	239	239	239	239	239	239
1995	370	370	370	370	370	370	370	370	370	370	370	370	370	370
1996	61	61	61	61	61	61	61	61	61	61	61	61	61	61
1997	130	130	130	130	130	130	130	130	130	130	130	130	130	130
1998	461	461	461	461	461	461	461	461	461	461	461	461	461	461
1999	165	165	165	165	165	165	165	165	165	165	165	165	165	165
2000	109	109	109	109	109	109	109	109	109	109	109	109	109	109
2001	795	795	795	795	795	795	795	795	795	795	795	795	795	795
2002	251	251	251	251	251	251	251	251	251	251	251	251	251	251
2003	100	100	100	100	100	100	100	100	100	100	100	100	100	100
2004	15	15	15	15	15	15	15	15	15	15	15	15	15	15
2005	96	96	96	96	96	96	96	96	96	96	96	96	96	96
2006	392	392	392	392	392	392	392	392	392	392	392	392	392	392
2007	26	26	26	26	26	26	26	26	26	26	26	26	26	26
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														

PAID LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	156	168	180	192	204	216	228	240	252	264	276	288	300	312
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
	168	180	192	204	216	228	240	252	264	276	288	300	312	ULT
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.998	1.000	1.000	
1995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.007	1.000	1.000	1.000	
1997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	
1999	1.000	1.000	1.000	1.000	1.000	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2000	1.000	1.000	1.000	1.000	1.000	0.997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2003	1.000	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2004	0.983	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2007														
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
AVERAGE	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.001	1.000	0.999	1.000	1.000	
3 YR AVG.	0.994	1.001	1.000	1.000	0.999	0.999	1.000	1.000	1.002	1.000	0.999	1.000	1.000	
EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
5 YR AVG EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
PRIOR SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
AM BEST	1.001	1.001	1.001	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	1.000	1.000	
CUMULATIVE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

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CALCULATION OF CLAIM COUNT DEVELOPMENT FACTORS
AVIATION

REPORTED CLAIM COUNT DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS											
	12	24	36	48	60	72	84	96	108	120	132	144
1994												8
1995												12
1996										19		19
1997									26		26	26
1998									30	30	30	30
1999							39	39	39	39	39	39
2000						16	16	16	16	16	16	16
2001					26	26	26	26	26	26	26	26
2002				13	13	13	13	13	13	13	13	13
2003			7	7	7	7	7	7	7	7	7	7
2004		9	9	9	9	9	9	9	9	9	9	9
2005	7	8	8	8	8	8	8	8	8	8	8	8
2006	7	7	8	8	8	9	9	9	10	10	10	10
2007	2	3	3	3	3	3	3	3	3	3	3	3
2008	6	7	7	8	8	8	9	9	9	9	9	9
2009	7	9	11	12	12	12	12	12	12	12	12	12
2010	1	4	5	5	5	5	5	5	5	5		
2011	4	4	5	5	5	5	5	5	5			
2012	7	7	8	8	8	8	8	8				
2013	6	5	6	6	6	6	6					
2014	0	1	2	2	2	2						
2015	5	6	6	7	7							
2016	0	0	0	1								
2017	5	6	8									
2018	0	2										
2019	1											

CLAIM COUNT DEVELOPMENT FACTORS

ACCIDENT YEAR*	12	24	36	48	60	72	84	96	108	120	132	144	
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	
	24	36	48	60	72	84	96	108	120	132	144	156	
1994													1.000
1995													1.000
1996													1.000
1997													1.000
1998													1.000
1999													1.000
2000													1.000
2001													1.000
2002													1.000
2003													1.000
2004													1.000
2005	1.143	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2006	1.000	1.143	1.000	1.000	1.125	1.000	1.000	1.111	1.000	1.000	1.000	1.000	1.000
2007	1.500	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	1.167	1.000	1.143	1.000	1.000	1.125	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2009	1.286	1.222	1.091	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2010	4.000	1.250	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2011	1.000	1.250	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2012	1.000	1.143	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2013	0.833	1.200	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2014		2.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2015	1.200	1.000	1.167	1.000									
2016													
2017	1.200	1.333											
2018													
AVERAGE	1.394	1.195	1.031	1.000	1.009	1.009	1.000	1.008	1.000	1.000	1.000	1.000	1.000
3 YR AVG.	1.078	1.444	1.056	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
EXCL HI LO	1.166	1.140	1.021	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	1.067	1.232	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.207	1.131	1.009	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
SELECTED	1.204	1.143	1.011	1.000	1.001	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	1.394	1.158	1.013	1.002	1.002	1.001	1.000	1.001	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF CLAIM COUNT DEVELOPMENT FACTORS
AVIATION

REPORTED CLAIM COUNT DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS													
	156	168	180	192	204	216	228	240	252	264	276	288	300	312
1994	8	8	8	8	8	8	8	8	8	8	8	8	8	8
1995	12	12	12	12	12	12	12	12	12	12	12	12	12	12
1996	19	19	19	19	19	19	19	19	19	19	19	19	19	19
1997	26	26	26	26	26	26	26	26	26	26	26	26	26	26
1998	30	30	30	30	30	30	30	30	30	30	30	30	30	30
1999	39	39	39	39	39	39	39	39	39	39	39	39	39	39
2000	16	16	16	16	16	16	16	16	16	16	16	16	16	16
2001	26	26	26	26	26	26	26	26	26	26	26	26	26	26
2002	13	13	13	13	13	13	13	13	13	13	13	13	13	13
2003	7	7	7	7	7	7	7	7	7	7	7	7	7	7
2004	9	9	9	9	9	9	9	9	9	9	9	9	9	9
2005	8	8	8	8	8	8	8	8	8	8	8	8	8	8
2006	10	10	10	10	10	10	10	10	10	10	10	10	10	10
2007	3	3	3	3	3	3	3	3	3	3	3	3	3	3
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														

CLAIM COUNT DEVELOPMENT FACTORS

ACCIDENT YEAR*	156	168	180	192	204	216	228	240	252	264	276	288	300	312
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
	168	180	192	204	216	228	240	252	264	276	288	300	312	ULT
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2007														
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
AVERAGE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 YR AVG.	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF DISCOUNTED RESERVES
AVIATION
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
(1)	(2)	(3)	(4)	(5)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	0	1.000	0	0
2007	0	1.000	0	0
2008	0	1.000	0	0
2009	0	1.000	0	0
2010	0	1.000	0	0
2011	0	1.000	0	0
2012	0	1.000	0	0
2013	0	0.985	0	0
2014	0	0.980	0	0
2015	4	0.974	4	0
2016	8	0.963	8	0
2017	264	0.950	250	13
2018	37	0.939	35	2
2019	208	0.950	198	10
TOTAL	\$522		\$496	\$26

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$496
75%	659
85%	788
95%	1,063

Notes:

- (1) - Per Exhibit V, Page 1A, Column (7).
- (2) - Per AMI calculations, see Appendix A, Page 5.
- (3) = (1) x (2).
- (4) = (1) - (3). Excludes investment income on the margin.
- (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
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CALCULATION OF DISCOUNTED RESERVES
AVIATION
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
(1)	(2)	(3)	(4)	(5)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	0	1.000	0	0
2007	0	1.000	0	0
2008	0	1.000	0	0
2009	0	1.000	0	0
2010	0	1.000	0	0
2011	0	1.000	0	0
2012	0	1.000	0	0
2013	0	1.000	0	0
2014	0	0.985	0	0
2015	0	0.980	0	0
2016	2	0.974	2	0
2017	91	0.963	88	3
2018	20	0.950	19	1
2019	146	0.939	137	9
2020	234	0.950	222	12
TOTAL	\$494		\$469	\$25

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$469
75%	623
85%	744
95%	1,004

Notes:

- (1) - Per Exhibit V, Page 1B, Column (6).
- (2) - Per AMI calculations, see Appendix A, Page 5.
- (3) = (1) x (2).
- (4) = (1) - (3). Excludes investment income on the margin.
- (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2021
CALCULATION OF DISCOUNTED RESERVES
AVIATION
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
	(1)	(2)	(3)	(4)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	0	1.000	0	0
2007	0	1.000	0	0
2008	0	1.000	0	0
2009	0	1.000	0	0
2010	0	1.000	0	0
2011	0	1.000	0	0
2012	0	1.000	0	0
2013	0	1.000	0	0
2014	0	1.000	0	0
2015	0	0.985	0	0
2016	0	0.980	0	0
2017	18	0.974	17	0
2018	7	0.963	7	0
2019	80	0.950	76	4
2020	246	0.939	230	15
2021	237	0.950	225	12
TOTAL	\$588		\$556	\$32

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$556
75%	739
85%	883
95%	1,191

Notes:

- (1) - Per Exhibit V, Page 1C, Column (6).
- (2) - Per AMI calculations, see Appendix A, Page 5.
- (3) = (1) x (2).
- (4) = (1) - (3). Excludes investment income on the margin.
- (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2022
CALCULATION OF DISCOUNTED RESERVES
AVIATION
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
	(1)	(2)	(3)	(4)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	0	1.000	0	0
2007	0	1.000	0	0
2008	0	1.000	0	0
2009	0	1.000	0	0
2010	0	1.000	0	0
2011	0	1.000	0	0
2012	0	1.000	0	0
2013	0	1.000	0	0
2014	0	1.000	0	0
2015	0	1.000	0	0
2016	0	0.985	0	0
2017	0	0.980	0	0
2018	1	0.974	1	0
2019	28	0.963	27	1
2020	171	0.950	162	9
2021	167	0.939	157	10
2022	241	0.950	229	12
TOTAL	\$608		\$576	\$32

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$576
75%	765
85%	915
95%	1,234

Notes:

- (1) - Per Exhibit V, Page 1D, Column (6).
- (2) - Per AMI calculations, see Appendix A, Page 5.
- (3) = (1) x (2).
- (4) = (1) - (3). Excludes investment income on the margin.
- (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF PROJECTED LOSSES
AVIATION
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

PROJECTED ULTIMATE LOSSES

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	FTE	LOSS RATE
	(1)	(2)	(3)
Prior			
1994	\$239	N/A	
1995	370	N/A	
1996	61	N/A	
1997	130	N/A	
1998	461	N/A	
1999	165	N/A	
2000	109	N/A	
2001	795	N/A	
2002	251	N/A	
2003	100	16,960	0.006
2004	15	14,579	0.001
2005	96	15,398	0.006
2006	392	15,397	0.025
2007	26	15,773	0.002
2008	486	16,050	0.030
2009	864	15,977	0.054
2010	37	16,386	0.002
2011	395	16,721	0.024
2012	412	16,951	0.024
2013	324	17,025	0.019
2014	12	16,848	0.001
2015	548	16,959	0.032
2016	10	17,272	0.001
2017	646	17,242	0.037
2018	37	16,625	0.002
2019	208	16,744	0.012
(PROJ.) 2019/2020	\$315	16,828	0.019
(PROJ.) 2020/2021	319	16,912	0.019
(PROJ.) 2021/2022	324	16,996	0.019

DISCOUNTED FUNDING REQUIREMENTS FOR PROSPECTIVE YEARS

ACCIDENT YEAR*	PROJECTED LOSSES	DISCOUNT FACTORS	DISCOUNTED PROJECTED LOSSES	FUTURE INVESTMENT INCOME
	(4)	(5)	(6)	(7)
2020	\$315	0.939	\$296	\$19
2021	319	0.939	299	20
2022	324	0.939	304	20

DISCOUNTED FUNDING REQUIREMENTS AT VARIOUS CONFIDENCE LEVELS

ACCIDENT YEAR*	EXPECTED LEVEL	75% LEVEL	85% LEVEL	95% LEVEL
	(8)	(9)	(10)	(11)
2020	\$296	\$408	\$492	\$660
2021	299	412	497	667
2022	304	419	506	678

Notes:

- (1) - Per Exhibit V, Page 1A, Column (5). For projected years, (1) = (2) x (3)
- (2) - Per STATE OF ALASKA.
- (3) = (1) / (2). For the projected years, it is the trended average of prior years
- (4) = (1); (5) - Per Appendix A, Page 5, Column (7).
- (6) = (4) x (5); (7) = (4) - (6).
- (8) = (6).
- (9) to (11) - Based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF ULTIMATE CLAIM FREQUENCY AND ULTIMATE CLAIM SEVERITY
AS OF JUNE 30, 2019
AVIATION
LIMITED TO RETENTION

ACCIDENT YEAR*	CLAIMS REPORTED @6/30/2019	DEVELOPMENT FACTORS	ULTIMATE CLAIM COUNT	ULTIMATE LOSSES	FTE	NUMBER OF CLAIMS PER 10,000 FTE (FREQUENCY)	AVERAGE CLAIM (SEVERITY) (WHOLE DOLLARS)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
1994	8	1.000	8	\$239			\$29,851
1995	12	1.000	12	370			30,826
1996	19	1.000	19	61			3,233
1997	26	1.000	26	130			4,999
1998	30	1.000	30	461			15,381
1999	39	1.000	39	165			4,227
2000	16	1.000	16	109			6,802
2001	26	1.000	26	795			30,571
2002	13	1.000	13	251			19,315
2003	7	1.000	7	100	16,960	4.1	14,348
2004	9	1.000	9	15	14,579	6.2	1,652
2005	8	1.000	8	96	15,398	5.2	11,976
2006	10	1.000	10	392	15,397	6.5	39,232
2007	3	1.000	3	26	15,773	1.9	8,633
2008	9	1.000	9	486	16,050	5.6	53,994
2009	12	1.000	12	864	15,977	7.5	72,035
2010	5	1.000	5	37	16,386	3.1	7,446
2011	5	1.000	5	395	16,721	3.0	78,970
2012	8	1.001	8	412	16,951	4.7	51,503
2013	6	1.000	6	324	17,025	3.5	53,943
2014	2	1.001	2	12	16,848	1.2	6,198
2015	7	1.002	7	548	16,959	4.1	78,154
2016	1	1.002	1	10	17,272	0.6	9,570
2017	8	1.013	8	646	17,242	4.7	79,712
2018	2	1.158	2	37	16,625	1.4	15,977
2019	1	1.394	4	208	16,744	2.4	50,901
TOTAL	292		296	\$7,190			

Notes:

(1) & (5) - Per STATE OF ALASKA.

(2) - Per STATE OF ALASKA's historical loss patterns.

(3) = (1) x (2).

(4) = Exhibit V, Page 1A, Column (5).

(6) = [(3) / [(5) / 1000]]; (7) = [(3) / (4)] x 1000.

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF PAID LOSS CASH FLOW
AS OF JUNE 30, 2019
AVIATION
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

YEAR	1	2	3	4	5	6	7	8	9	10
CUMULATIVE LOSS PAYOUT PATTERN	25.7%	47.7%	71.5%	90.1%	98.1%	100.0%	100.0%	100.0%	100.0%	100.0%
INCREMENTAL LOSS PAYOUT PATTERN	25.7%	22.0%	23.7%	18.7%	7.9%	1.9%	0.0%	0.0%	0.0%	0.0%
PAYOUT AS PERCENTAGE OF UNPAID AT 6/30/2019		29.7%	31.9%	25.1%	10.7%	2.6%	0.0%	0.0%	0.0%	0.0%
PAYOUT AS PERCENTAGE OF ULTIMATE LOSS	25.7%	22.0%	23.7%	18.7%	7.9%	1.9%	0.0%	0.0%	0.0%	0.0%

ACCIDENT YEAR*	ESTIMATED ULTIMATE LOSS	ESTIMATED UNPAID 6/30/2019	ESTIMATED FUTURE PAYMENTS FOR FISCAL YEAR ENDING									
			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029 & SUBSEQUENT
Prior	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1994	\$239	0	0	0	0	0	0	0	0	0	0	0
1995	370	0	0	0	0	0	0	0	0	0	0	0
1996	61	0	0	0	0	0	0	0	0	0	0	0
1997	130	0	0	0	0	0	0	0	0	0	0	0
1998	461	0	0	0	0	0	0	0	0	0	0	0
1999	165	0	0	0	0	0	0	0	0	0	0	0
2000	109	0	0	0	0	0	0	0	0	0	0	0
2001	795	0	0	0	0	0	0	0	0	0	0	0
2002	251	0	0	0	0	0	0	0	0	0	0	0
2003	100	0	0	0	0	0	0	0	0	0	0	0
2004	15	0	0	0	0	0	0	0	0	0	0	0
2005	96	0	0	0	0	0	0	0	0	0	0	0
2006	392	0	0	0	0	0	0	0	0	0	0	0
2007	26	0	0	0	0	0	0	0	0	0	0	0
2008	486	0	0	0	0	0	0	0	0	0	0	0
2009	864	0	0	0	0	0	0	0	0	0	0	0
2010	37	0	0	0	0	0	0	0	0	0	0	0
2011	395	0	0	0	0	0	0	0	0	0	0	0
2012	412	0	0	0	0	0	0	0	0	0	0	0
2013	324	0	0	0	0	0	0	0	0	0	0	0
2014	12	0	0	0	0	0	0	0	0	0	0	0
2015	548	4	4	0	0	0	0	0	0	0	0	0
2016	10	8	6	2	0	0	0	0	0	0	0	0
2017	646	264	172	73	18	0	0	0	0	0	0	0
2018	37	37	17	13	6	1	0	0	0	0	0	0
2019	208	208	62	66	52	22	5	0	0	0	0	0
2020	315		81	69	75	59	25	6	0	0	0	0
2021	319			82	70	76	60	25	6	0	0	0
2022	324				83	71	77	60	26	6	0	0
TOTAL	\$8,148	\$522	\$344	\$306	\$304	\$230	\$167	\$92	\$32	\$6	\$0	\$0

Notes:
* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
SIZE OF LOSS DISTRIBUTION
AS OF JUNE 30, 2019
AVIATION

REPORTED CLAIM COUNTS

ACCIDENT YEAR*	\$0	\$0.01 TO \$5,000	\$5,000 TO \$10,000	\$10,000 TO \$25,000	\$25,000 TO \$50,000	\$50,000 TO \$100,000	\$100,000 TO \$250,000	\$250,000 TO \$500,000	\$500,000 TO \$750,000	\$750,000 TO \$1,000,000	OVER \$1,000,000	TOTAL
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Prior	227	212	21	38	22	17	15	8	1	0	1	562
2010	1	2	1	0	1	0	0	0	0	0	0	5
2011	0	0	0	1	2	0	2	0	0	0	0	5
2012	2	1	0	1	0	2	2	0	0	0	0	8
2013	3	0	0	1	0	1	0	1	0	0	0	6
2014	0	1	0	1	0	0	0	0	0	0	0	2
2015	2	1	0	1	0	1	1	0	0	0	1	7
2016	0	1	0	0	0	0	0	0	0	0	0	1
2017	2	0	1	0	0	3	1	0	1	0	0	8
2018	1	0	0	1	0	0	0	0	0	0	0	2
2019	1	0	0	0	0	0	0	0	0	0	0	1
TOTAL	239	218	23	44	25	24	21	9	2	0	2	607

REPORTED LOSSES

ACCIDENT YEAR*	\$0	\$0.01 TO \$5,000	\$5,000 TO \$10,000	\$10,000 TO \$25,000	\$25,000 TO \$50,000	\$50,000 TO \$100,000	\$100,000 TO \$250,000	\$250,000 TO \$500,000	\$500,000 TO \$750,000	\$750,000 TO \$1,000,000	OVER \$1,000,000	TOTAL
	Prior	(\$379)	\$212	\$157	\$615	\$765	\$1,256	\$2,544	\$2,919	\$622	\$0	\$2,987
2010	0	2	6	0	29	0	0	0	0	0	0	37
2011	0	0	0	14	65	0	316	0	0	0	0	395
2012	0	1	0	14	0	152	245	0	0	0	0	412
2013	0	0	0	17	0	56	0	254	0	0	0	327
2014	0	1	0	11	0	0	0	0	0	0	0	12
2015	0	0	0	14	0	100	180	0	0	0	1,217	1,511
2016	0	2	0	0	0	0	0	0	0	0	0	2
2017	0	0	6	0	0	260	119	0	657	0	0	1,042
2018	0	0	0	25	0	0	0	0	0	0	0	25
2019	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	(\$379)	\$218	\$169	\$710	\$859	\$1,824	\$3,403	\$3,173	\$1,280	\$0	\$4,204	\$15,461

Notes:

Per STATE OF ALASKA.

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2019
PROPERTY
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ALL APPROACHES COMBINED

ACCIDENT YEAR*	ESTIMATED ULTIMATE LOSSES BY METHOD				SELECTED ULTIMATE LOSSES	PAID LOSSES @ 6/30/2019	TOTAL LOSS RESERVES @ 6/30/2019
	ILDA	PLDA	BFILA	BFPLA			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Prior							\$0
1994	\$65	\$65	\$65	\$65	\$65	\$65	0
1995	853	853	853	853	853	853	0
1996	52	52	52	52	52	52	0
1997	823	823	823	823	823	823	0
1998	1,104	1,104	1,104	1,104	1,104	1,104	0
1999	122	122	122	122	122	122	0
2000	388	388	388	388	388	388	0
2001	583	583	583	583	583	583	0
2002	183	183	183	183	183	183	0
2003	229	229	229	229	229	229	0
2004	229	229	229	229	229	229	0
2005	1,577	1,577	1,577	1,577	1,577	1,577	0
2006	89	89	89	89	89	89	0
2007	1,300	1,300	1,300	1,300	1,300	1,300	0
2008	1,090	1,090	1,090	1,090	1,090	1,090	0
2009	438	438	438	438	438	438	0
2010	229	229	229	229	229	229	0
2011	367	367	367	367	367	367	0
2012	132	132	132	132	132	132	0
2013	409	409	409	409	409	409	0
2014	1,286	1,286	1,286	1,286	1,286	1,286	0
2015	2,209	2,209	2,209	2,209	2,209	2,209	0
2016	24	24	24	25	24	24	0
2017	29	29	29	43	32	29	4
2018	359	356	366	400	370	308	62
2019	2,806	945	2,768	2,747	2,316	0	2,316
TOTAL	\$16,975	\$15,111	\$16,946	\$16,974	\$16,503	\$14,120	\$2,383

Notes:

(1), (2), (3), & (4) - Ultimate losses calculated from Exhibit VI, Pages 2 & 3.

(5) = Average of (1), (2), (3) & (4).

(6) - Per STATE OF ALASKA

(7) = (5) - (6).

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2020
PROPERTY
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	LOSS RESERVES AS OF @6/30/2019	ESTIMATED PAID LOSSES FOR FY2020	PAID LOSSES AS OF @6/30/2019	ESTIMATED PAID LOSSES AS OF @6/30/2020	ESTIMATED LOSS RESERVES AS OF @6/30/2020
	(1)	(2)	(3)	(4)	(5)	(6)
Prior		\$0	\$0			\$0
1994	65	0	0	65	65	0
1995	853	0	0	853	853	0
1996	52	0	0	52	52	0
1997	823	0	0	823	823	0
1998	1,104	0	0	1,104	1,104	0
1999	122	0	0	122	122	0
2000	388	0	0	388	388	0
2001	583	0	0	583	583	0
2002	183	0	0	183	183	0
2003	229	0	0	229	229	0
2004	229	0	0	229	229	0
2005	1,577	0	0	1,577	1,577	0
2006	89	0	0	89	89	0
2007	1,300	0	0	1,300	1,300	0
2008	1,090	0	0	1,090	1,090	0
2009	438	0	0	438	438	0
2010	229	0	0	229	229	0
2011	367	0	0	367	367	0
2012	132	0	0	132	132	0
2013	409	0	0	409	409	0
2014	1,286	0	0	1,286	1,286	0
2015	2,209	0	0	2,209	2,209	0
2016	24	0	0	24	24	0
2017	32	4	3	29	32	0
2018	370	62	53	308	361	9
2019	2,316	2,316	1,997	0	1,997	319
2020	1,005		331		331	674
TOTAL	\$17,508	\$2,383	\$2,386	\$14,120	\$16,506	\$1,002

Notes:

- (1) - For 2019 and prior, ultimate losses based from Exhibit VI, Page 1A, Column (5). For 2020, ultimate loss is the projected loss in Exhibit VI, Page 6.
- (2) - For 2019 and prior, loss reserves based from Exhibit VI, Page 1A, Column (7).
- (3) - From Exhibit VI, Page 9.
- (4) - From Exhibit VI, Page 1A, Column (6).
- (5) = (3) + (4)
- (6) = (1) - (5)

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2021
PROPERTY
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	LOSS RESERVES AS OF @6/30/2020	ESTIMATED PAID LOSSES FOR FY2021	ESTIMATED PAID LOSSES AS OF @6/30/2020	ESTIMATED PAID LOSSES AS OF @6/30/2021	ESTIMATED LOSS RESERVES AS OF @6/30/2021
	(1)	(2)	(3)	(4)	(5)	(6)
Prior		\$0	\$0			\$0
1994	65	0	0	65	65	0
1995	853	0	0	853	853	0
1996	52	0	0	52	52	0
1997	823	0	0	823	823	0
1998	1,104	0	0	1,104	1,104	0
1999	122	0	0	122	122	0
2000	388	0	0	388	388	0
2001	583	0	0	583	583	0
2002	183	0	0	183	183	0
2003	229	0	0	229	229	0
2004	229	0	0	229	229	0
2005	1,577	0	0	1,577	1,577	0
2006	89	0	0	89	89	0
2007	1,300	0	0	1,300	1,300	0
2008	1,090	0	0	1,090	1,090	0
2009	438	0	0	438	438	0
2010	229	0	0	229	229	0
2011	367	0	0	367	367	0
2012	132	0	0	132	132	0
2013	409	0	0	409	409	0
2014	1,286	0	0	1,286	1,286	0
2015	2,209	0	0	2,209	2,209	0
2016	24	0	0	24	24	0
2017	32	0	0	32	32	0
2018	370	9	8	361	370	1
2019	2,316	319	273	1,997	2,270	46
2020	1,005	674	581	331	912	93
2021	1,066		351		351	715
TOTAL	\$18,574	\$1,002	\$1,214	\$16,506	\$17,720	\$855

Notes:

- (1) - For 2020 and prior, ultimate losses based from Exhibit VI, Page 1B, Column (1). For 2021, ultimate loss is the projected loss in Exhibit VI, Page 6.
- (2) - For 2020 and prior, loss reserves based from Exhibit VI, Page 1B, Column (6).
- (3) - From Exhibit VI, Page 9.
- (4) - From Exhibit VI, Page 1B, Column (5).
- (5) = (3) + (4)
- (6) = (1) - (5)

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF UNDISCOUNTED LOSS RESERVES
AS OF JUNE 30, 2022
PROPERTY
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	LOSS RESERVES AS OF @6/30/2021	ESTIMATED PAID LOSSES FOR FY2022	ESTIMATED PAID LOSSES AS OF @6/30/2021	ESTIMATED PAID LOSSES AS OF @6/30/2022	ESTIMATED LOSS RESERVES AS OF @6/30/2022
	(1)	(2)	(3)	(4)	(5)	(6)
Prior		\$0	\$0			\$0
1994	65	0	0	65	65	0
1995	853	0	0	853	853	0
1996	52	0	0	52	52	0
1997	823	0	0	823	823	0
1998	1,104	0	0	1,104	1,104	0
1999	122	0	0	122	122	0
2000	388	0	0	388	388	0
2001	583	0	0	583	583	0
2002	183	0	0	183	183	0
2003	229	0	0	229	229	0
2004	229	0	0	229	229	0
2005	1,577	0	0	1,577	1,577	0
2006	89	0	0	89	89	0
2007	1,300	0	0	1,300	1,300	0
2008	1,090	0	0	1,090	1,090	0
2009	438	0	0	438	438	0
2010	229	0	0	229	229	0
2011	367	0	0	367	367	0
2012	132	0	0	132	132	0
2013	409	0	0	409	409	0
2014	1,286	0	0	1,286	1,286	0
2015	2,209	0	0	2,209	2,209	0
2016	24	0	0	24	24	0
2017	32	0	0	32	32	0
2018	370	1	1	370	370	0
2019	2,316	46	44	2,270	2,314	3
2020	1,005	93	79	912	992	13
2021	1,066	715	616	351	967	99
2022	1,130		372		372	758
TOTAL	\$19,704	\$855	\$1,112	\$17,720	\$18,832	\$872

Notes:

- (1) - For 2021 and prior, ultimate losses based from Exhibit VI, Page 1C, Column (1). For 2022, ultimate loss is the projected loss in Exhibit VI, Page 6.
- (2) - For 2021 and prior, loss reserves based from Exhibit VI, Page 1C, Column (6).
- (3) - From Exhibit VI, Page 9.
- (4) - From Exhibit VI, Page 1C, Column (5).
- (5) = (3) + (4)
- (6) = (1) - (5)

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF ULTIMATE LOSSES - LOSS DEVELOPMENT APPROACH
AS OF JUNE 30, 2019
PROPERTY
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

INCURRED LOSS DEVELOPMENT APPROACH

ACCIDENT YEAR*	LIMITED INCURRED LOSSES @6/30/2019	LOSS DEVLPMT FACTORS	ULTIMATE INCURRED LOSSES	PROPERTY VALUE (\$MM)	ESTIMATED LOSS RATE
	(1)	(2)	(3)	(4)	(5)
Prior					
1994	\$65	1.000	\$65	N/A	
1995	853	1.000	853	N/A	
1996	52	1.000	52	N/A	
1997	823	1.000	823	N/A	
1998	1,104	1.000	1,104	N/A	
1999	122	1.000	122	N/A	
2000	388	1.000	388	N/A	
2001	583	1.000	583	N/A	
2002	183	1.000	183	N/A	
2003	229	1.000	229	3,319	0.069
2004	229	1.000	229	3,518	0.065
2005	1,577	1.000	1,577	4,059	0.389
2006	89	1.000	89	4,177	0.021
2007	1,300	1.000	1,300	4,245	0.306
2008	1,090	1.000	1,090	4,372	0.249
2009	438	1.000	438	4,503	0.097
2010	229	1.000	229	4,638	0.049
2011	367	1.000	367	4,713	0.078
2012	132	1.000	132	4,695	0.028
2013	409	1.000	409	5,132	0.080
2014	1,286	1.000	1,286	5,849	0.220
2015	2,209	1.000	2,209	6,090	0.363
2016	24	1.000	24	7,507	0.003
2017	29	1.000	29	7,436	0.004
2018	356	1.010	359	7,241	0.050
2019	2,747	1.022	2,806	7,298	0.384
TOTAL	\$16,915		\$16,975		

PAID LOSS DEVELOPMENT APPROACH

ACCIDENT YEAR*	LIMITED PAID LOSSES @6/30/2019	LOSS DEVLPMT FACTORS	ULTIMATE INCURRED LOSSES	PROPERTY VALUE (\$MM)	ESTIMATED LOSS RATE
	(6)	(7)	(8)	(9)	(10)
Prior					
1994	\$65	1.000	\$65	N/A	
1995	853	1.000	853	N/A	
1996	52	1.000	52	N/A	
1997	823	1.000	823	N/A	
1998	1,104	1.000	1,104	N/A	
1999	122	1.000	122	N/A	
2000	388	1.000	388	N/A	
2001	583	1.000	583	N/A	
2002	183	1.000	183	N/A	
2003	229	1.000	229	3,319	0.069
2004	229	1.000	229	3,518	0.065
2005	1,577	1.000	1,577	4,059	0.389
2006	89	1.000	89	4,177	0.021
2007	1,300	1.000	1,300	4,245	0.306
2008	1,090	1.000	1,090	4,372	0.249
2009	438	1.000	438	4,503	0.097
2010	229	1.000	229	4,638	0.049
2011	367	1.000	367	4,713	0.078
2012	132	1.000	132	4,695	0.028
2013	409	1.000	409	5,132	0.080
2014	1,286	1.000	1,286	5,849	0.220
2015	2,209	1.000	2,209	6,090	0.363
2016	24	1.001	24	7,507	0.003
2017	29	1.014	29	7,436	0.004
2018	308	1.102	356	7,241	0.049
2019	0	3.036	945	7,298	0.129
TOTAL	\$14,120		\$15,111		

Notes:

- (1), (4), (6) & (9) - Per STATE OF ALASKA.
- (2) & (7) - Per State's historical loss pattern, supplemented by AM Best insurance industry historical loss patterns.
- (3) = (1) x (2); (8) = (6) x (7). If ultimate incurred losses in (8) are less than the incurred losses in (1), we used the incurred losses in (1). For the most recent year, we used the Loss Rate Approach.
- (5) = (3) / (4); (10) = (8) / (9). For the most recent year, it is the average of prior years.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF ULTIMATE LOSSES - BORNHUETT-FERGUSON APPROACH
AS OF JUNE 30, 2019
PROPERTY
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

BORNHUETT-FERGUSON INCURRED LOSS APPROACH

ACCIDENT YEAR*	ESTIMATED LOSS RATE	PROPERTY VALUE (\$MM)	EXPECTED ULTIMATE LOSSES	EXPECTED % OF LOSSES UNREPORTED	IBNR RESERVES	UNLIMITED INCURRED LOSSES @6/30/2019	ULTIMATE INCURRED LOSSES
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Prior							
1994	0.137	N/A	\$65	0.0%	\$0	\$65	\$65
1995	0.137	N/A	853	0.0%	0	853	853
1996	0.137	N/A	52	0.0%	0	52	52
1997	0.137	N/A	823	0.0%	0	823	823
1998	0.137	N/A	1,104	0.0%	0	1,104	1,104
1999	0.137	N/A	122	0.0%	0	122	122
2000	0.137	N/A	388	0.0%	0	388	388
2001	0.137	N/A	583	0.0%	0	583	583
2002	0.137	N/A	183	0.0%	0	183	183
2003	0.137	3,319	454	0.0%	0	229	229
2004	0.137	3,518	482	0.0%	0	229	229
2005	0.137	4,059	556	0.0%	0	1,577	1,577
2006	0.137	4,177	572	0.0%	0	89	89
2007	0.137	4,245	581	0.0%	0	1,300	1,300
2008	0.137	4,372	599	0.0%	0	1,090	1,090
2009	0.137	4,503	617	0.0%	0	438	438
2010	0.137	4,638	635	0.0%	0	229	229
2011	0.137	4,713	645	0.0%	0	367	367
2012	0.137	4,695	643	0.0%	0	132	132
2013	0.137	5,132	703	0.0%	0	409	409
2014	0.137	5,849	801	0.0%	0	1,286	1,286
2015	0.137	6,090	834	0.0%	0	2,209	2,209
2016	0.137	7,507	1,028	0.0%	0	24	24
2017	0.137	7,436	1,018	0.0%	0	29	29
2018	0.137	7,241	992	1.0%	10	356	366
2019	0.137	7,298	999	2.1%	21	2,747	2,768
TOTAL			\$16,331		\$31	\$16,915	\$16,946

BORNHUETT-FERGUSON PAID LOSS APPROACH

ACCIDENT YEAR*	ESTIMATED LOSS RATE	PROPERTY VALUE (\$MM)	EXPECTED ULTIMATE LOSSES	EXPECTED % OF LOSSES UNPAID	LOSS RESERVES	UNLIMITED PAID LOSSES @6/30/2019	ULTIMATE INCURRED LOSSES
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Prior							
1994	0.137	N/A	\$65	0.0%	\$0	\$65	\$65
1995	0.137	N/A	853	0.0%	0	853	853
1996	0.137	N/A	52	0.0%	0	52	52
1997	0.137	N/A	823	0.0%	0	823	823
1998	0.137	N/A	1,104	0.0%	0	1,104	1,104
1999	0.137	N/A	122	0.0%	0	122	122
2000	0.137	N/A	388	0.0%	0	388	388
2001	0.137	N/A	583	0.0%	0	583	583
2002	0.137	N/A	183	0.0%	0	183	183
2003	0.137	3,319	454	0.0%	0	229	229
2004	0.137	3,518	482	0.0%	0	229	229
2005	0.137	4,059	556	0.0%	0	1,577	1,577
2006	0.137	4,177	572	0.0%	0	89	89
2007	0.137	4,245	581	0.0%	0	1,300	1,300
2008	0.137	4,372	599	0.0%	0	1,090	1,090
2009	0.137	4,503	617	0.0%	0	438	438
2010	0.137	4,638	635	0.0%	0	229	229
2011	0.137	4,713	645	0.0%	0	367	367
2012	0.137	4,695	643	0.0%	0	132	132
2013	0.137	5,132	703	0.0%	0	409	409
2014	0.137	5,849	801	0.0%	0	1,286	1,286
2015	0.137	6,090	834	0.0%	0	2,209	2,209
2016	0.137	7,507	1,028	0.1%	1	24	25
2017	0.137	7,436	1,018	1.3%	14	29	43
2018	0.137	7,241	992	9.2%	92	308	400
2019	0.137	7,298	999	67.1%	670	0	2,747
TOTAL			\$16,331		\$777	\$14,120	\$16,974

Notes:

- (1) & (8) - The average of the loss rates of prior years as shown in Columns (5) and (10) of Exhibit VI, Page 2.
- (2) & (9) - Per STATE OF ALASKA.
- (3) = (1) x (2); (10) = (8) x (9). For 2002 & prior, average of Exhibit VI, Columns (5) & (10).
- (4) = (1 - (1/LDF)); (11) = (1 - (1/PLDF)).
- (5) = (3) x (4); (12) = (10) x (11).
- (6) & (13) - Per STATE OF ALASKA.
- (7) = (5) + (6); (14) = (12) + (13). If ultimate incurred losses in (14) are less than the incurred losses in (6), we used the incurred losses in (6).
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
 AS OF JUNE 30, 2019
CALCULATION OF THE INCURRED LOSS DEVELOPMENT FACTORS
PROPERTY
 (\$AMOUNTS IN '000s)
 LIMITED TO RETENTION

INCURRED LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS												
	12	24	36	48	60	72	84	96	108	120	132	144	
1994													65
1995												853	853
1996											77	77	77
1997										823	823	823	823
1998									1,104	1,104	1,104	1,104	1,104
1999							138	122	122	122	122	122	122
2000						388	388	388	388	388	388	388	388
2001					599	599	587	587	587	587	587	583	583
2002				186	186	186	186	186	183	183	183	183	183
2003			229	229	229	229	229	229	229	229	229	229	229
2004		232	242	229	229	229	229	229	229	229	229	229	229
2005	2,909	2,269	202	1,582	1,692	1,692	1,692	1,577	1,577	1,577	1,577	1,577	1,577
2006	264	176	91	90	90	90	89	89	89	89	89	89	89
2007	1,510	1,310	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300
2008	827	827	1,065	1,085	1,090	1,090	1,090	1,090	1,090	1,090	1,090	1,090	1,090
2009	127	865	865	438	438	438	438	438	438	438	438	438	438
2010	229	230	230	230	230	229	229	229	229	229	229	229	229
2011	418	409	413	367	367	367	367	367	367	367	367	367	367
2012	142	128	132	136	136	132	132	132	132	132	132	132	132
2013	235	469	409	409	409	409	409	409	409	409	409	409	409
2014	2,438	1,289	1,286	1,286	1,286	1,286	1,286	1,286	1,286	1,286	1,286	1,286	1,286
2015	2,238	2,231	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209
2016	190	76	24	24	24	24	24	24	24	24	24	24	24
2017	106	34	29	29	29	29	29	29	29	29	29	29	29
2018	987	356											
2019	2,747												

INCURRED LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	12	24	36	48	60	72	84	96	108	120	132	144	
	TO 24	TO 36	TO 48	TO 60	TO 72	TO 84	TO 96	TO 108	TO 120	TO 132	TO 144	TO 156	
1994													1.000
1995												1.000	1.000
1996										1.000	1.000	1.000	0.987
1997									1.000	1.000	1.000	1.000	1.000
1998									1.000	1.000	1.000	1.000	1.000
1999							0.884	1.000	1.000	1.000	1.000	1.000	1.000
2000						1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001					1.000	0.980	1.000	1.000	1.000	1.000	0.993	1.000	1.000
2002				1.000	1.000	1.000	1.000	0.984	1.000	1.000	1.000	1.000	1.000
2003			1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2004		1.043	0.946	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005	0.780	0.089	7.832	1.070	1.000	1.000	0.932	1.000	1.000	1.000	1.000	1.000	1.000
2006	0.667	0.517	0.989	1.000	1.000	0.989	1.000	1.000	1.000	1.000	1.000	0.996	1.000
2007	0.868	0.992	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	1.000	1.288	1.019	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2009	6.811	1.000	0.506	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2010	1.004	1.000	1.000	1.000	0.996	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000
2011	0.978	1.010	0.889	1.000	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2012	0.901	1.031	1.030	1.000	0.970	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2013	1.996	0.872	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2014	0.529	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2015	0.997	0.990	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2016	0.402	0.320	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2017	0.323	0.843	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2018	0.361												
AVERAGE	1.258	0.857	1.444	1.005	0.998	0.998	0.987	0.999	1.000	1.000	1.000	1.000	0.999
3 YR AVG.	0.362	0.718	1.000	1.000	0.990	1.000	1.000	1.000	1.000	1.000	1.000	0.999	1.000
EXCL HI LO	0.874	0.885	0.989	1.000	1.000	0.999	0.994	1.000	1.000	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	0.431	0.902	1.000	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.043	1.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
AM BEST	1.361	1.143	1.071	1.029	1.011	1.004	1.002	1.000	1.000	1.000	1.000	1.000	1.000
SELECTED	1.011	1.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	1.022	1.010	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF THE INCURRED LOSS DEVELOPMENT FACTORS
PROPERTY
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

INCURRED LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS													
	156	168	180	192	204	216	228	240	252	264	276	288	300	312
1994	65	65	65	65	65	65	65	65	65	65	65	65	65	65
1995	853	853	853	853	853	853	853	853	853	853	853	853	853	853
1996	76	77	77	77	76	76	76	76	76	76	52	52	52	
1997	823	823	823	823	823	823	823	823	823	823	823	823	823	
1998	1,104	1,104	1,104	1,104	1,104	1,104	1,104	1,104	1,104	1,104	1,104	1,104	1,104	
1999	122	122	122	122	122	122	122	122	122	122	122	122	122	
2000	388	388	388	388	388	388	388	388	388	388	388	388	388	
2001	583	583	583	583	583	583	583	583	583	583	583	583	583	
2002	183	183	183	183	183	183	183	183	183	183	183	183	183	
2003	229	229	229	229	229	229	229	229	229	229	229	229	229	
2004	229	229	229	229	229	229	229	229	229	229	229	229	229	
2005	1,577	1,577	1,577	1,577	1,577	1,577	1,577	1,577	1,577	1,577	1,577	1,577	1,577	
2006	89	89	89	89	89	89	89	89	89	89	89	89	89	
2007	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														

INCURRED LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	156	168	180	192	204	216	228	240	252	264	276	288	300	312
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
	168	180	192	204	216	228	240	252	264	276	288	300	312	ULT
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.998	1.000	1.000	
1995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1996	1.013	1.000	1.000	0.987	1.000	1.000	1.000	1.000	1.000	0.683	1.000	1.000	1.000	
1997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1999	1.000	1.000	1.000	1.000	1.000	1.004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2001	1.000	1.000	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2002	1.000	1.000	1.003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2003	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2004	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2007	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
AVERAGE	1.001	1.000	1.000	0.999	1.000	1.001	1.000	1.000	0.937	1.000	0.999	1.000	1.000	
3 YR AVG.	1.000	1.000	1.001	1.000	1.000	1.001	1.000	1.000	0.894	1.000	0.999	1.000	1.000	
EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
5 YR AVG EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
PRIOR SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
AM BEST	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
CUMULATIVE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF THE PAID LOSS DEVELOPMENT FACTORS
PROPERTY
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

PAID LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS												
	12	24	36	48	60	72	84	96	108	120	132	144	
1994													65
1995												853	853
1996										77	77	77	77
1997									823	823	823	823	823
1998								1,104	1,104	1,104	1,104	1,104	1,104
1999							122	122	122	122	122	122	122
2000						388	388	388	388	388	388	388	388
2001					583	583	583	583	583	583	583	583	583
2002				183	183	183	183	183	183	183	183	183	183
2003			229	229	229	229	229	229	229	229	229	229	229
2004		219	229	229	229	229	229	229	229	229	229	229	229
2005	580	1,562	1,577	1,577	1,577	1,692	1,692	1,577	1,577	1,577	1,577	1,577	1,577
2006	71	89	89	89	89	89	89	89	89	89	89	89	89
2007	826	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300
2008	211	458	1,065	1,085	1,090	1,090	1,090	1,090	1,090	1,090	1,090	1,090	1,090
2009	93	438	438	438	438	438	438	438	438	438	438	438	438
2010	229	230	230	230	230	229	229	229	229	229	229	229	229
2011	246	362	367	367	367	367	367	367	367	367	367	367	367
2012	102	128	132	132	132	132	132	132	132	132	132	132	132
2013	62	373	409	409	409	409	409	409	409	409	409	409	409
2014	211	1,289	1,286	1,286	1,286	1,286	1,286	1,286	1,286	1,286	1,286	1,286	1,286
2015	1,184	1,412	1,509	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209	2,209
2016	20	24	24	24	24	24	24	24	24	24	24	24	24
2017	14	29	29	29	29	29	29	29	29	29	29	29	29
2018	32	308	308	308	308	308	308	308	308	308	308	308	308
2019	0	0	0	0	0	0	0	0	0	0	0	0	0

PAID LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	12	24	36	48	60	72	84	96	108	120	132	144	144
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
1994													1.000
1995												1.000	1.000
1996										1.000	1.000	1.000	0.987
1997									1.000	1.000	1.000	1.000	1.000
1998									1.000	1.000	1.000	1.000	1.000
1999							1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000						1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001					1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002				1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003			1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2004		1.046	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005	2.693	1.010	1.000	1.000	1.073	1.000	0.932	1.000	1.000	1.000	1.000	1.000	1.000
2006	1.254	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.996	1.000
2007	1.574	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2008	2.171	2.325	1.019	1.005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2009	4.710	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2010	1.004	1.000	1.000	1.000	0.996	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000
2011	1.472	1.014	1.000	1.000	1.000	0.999	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2012	1.255	1.031	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2013	6.016	1.097	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2014	6.109	0.998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2015	1.193	1.069	1.464	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2016	1.222	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2017	2.111	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2018	9.645	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
AVERAGE	3.031	1.114	1.035	1.000	1.005	1.000	0.995	1.000	1.000	1.000	1.000	1.000	0.999
3 YR AVG.	4.326	1.023	1.155	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
EXCL HI LO	2.648	1.022	1.002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	3.147	1.023	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	2.696	1.092	1.009	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
AM BEST	2.108	1.441	1.231	1.112	1.048	1.021	1.010	1.005	1.002	1.002	1.001	1.001	1.001
SELECTED	2.756	1.087	1.013	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	3.036	1.102	1.014	1.001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF THE PAID LOSS DEVELOPMENT FACTORS
PROPERTY
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

PAID LOSS DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS													
	156	168	180	192	204	216	228	240	252	264	276	288	300	312
1994	65	65	65	65	65	65	65	65	65	65	65	65	65	65
1995	853	853	853	853	853	853	853	853	853	853	853	853	853	853
1996	76	76	77	77	76	76	76	76	76	52	52	52		
1997	823	823	823	823	823	823	823	823	823	823	823	823		
1998	1,104	1,104	1,104	1,104	1,104	1,104	1,104	1,104	1,104	1,104				
1999	122	122	122	122	122	122	122	122	122					
2000	388	388	388	388	388	388	388	388						
2001	583	583	583	583	583	583	583							
2002	183	183	183	183	183	183								
2003	229	229	229	229	229									
2004	229	229	229	229										
2005	1,577	1,577	1,577											
2006	89	89												
2007	1,300													
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														

PAID LOSS DEVELOPMENT FACTORS

ACCIDENT YEAR*	156	168	180	192	204	216	228	240	252	264	276	288	300	312
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
YEAR*	168	180	192	204	216	228	240	252	264	276	288	300	312	ULT
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.998	1.000	1.000	
1995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
1996	1.000	1.013	1.000	0.987	1.000	1.000	1.000	1.000	0.683	1.000	1.000			
1997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000				
1998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					
1999	1.000	1.000	1.000	1.000	1.000	1.004	1.000	1.000						
2000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000						
2001	1.000	1.000	1.000	0.999	1.000	1.000								
2002	1.000	1.000	1.003	1.000	1.000									
2003	1.000	0.999	1.000	1.000										
2004	1.001	1.000	1.000											
2005	1.000	1.000												
2006	1.000													
2007														
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
AVERAGE	1.000	1.001	1.000	0.999	1.000	1.001	1.000	1.000	0.937	1.000	0.999	1.000	1.000	
3 YR AVG.	1.000	1.000	1.001	1.000	1.000	1.001	1.000	1.000	0.894	1.000	0.999			
EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
5 YR AVG EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000					
PRIOR SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.000	
AM BEST	1.001	1.001	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	1.000	1.000	
CUMULATIVE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF CLAIM COUNT DEVELOPMENT FACTORS
PROPERTY

REPORTED CLAIM COUNT DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS											
	12	24	36	48	60	72	84	96	108	120	132	144
1994												14
1995												31
1996										23		23
1997									33			33
1998								21		21		21
1999							20		20		20	20
2000						24		24		24		24
2001					16		16		16		16	16
2002				14		14		14		14		14
2003			35		35		35		35		35	34
2004		37		37		37		37		37		37
2005	30		34		34		34		34		34	34
2006	22	24		24		24		24		24		24
2007	23	27		27		27		27		27		27
2008	22	23		23		23		23		23		23
2009	13	16		16		16		16		16		16
2010	15	15		15		15		15		15		
2011	21	24		24		24		24		24		
2012	18	19		19		19		19		19		
2013	24	29		29		29		29				
2014	17	18		18		18						
2015	14	15		15		15						
2016	15	15		15								
2017	18	19		19								
2018	19	19										
2019	31											

CLAIM COUNT DEVELOPMENT FACTORS

ACCIDENT YEAR*	12	24	36	48	60	72	84	96	108	120	132	144	
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	
	24	36	48	60	72	84	96	108	120	132	144	156	
1994													1.000
1995												1.000	1.000
1996										1.000		1.000	1.000
1997									1.000		1.000	1.000	1.000
1998									1.000		1.000	1.000	1.000
1999							1.000		1.000		1.000	1.000	1.000
2000						1.000		1.000		1.000		1.000	1.000
2001					1.000		1.000		1.000		1.000	1.000	1.000
2002				1.000		1.000		1.000		1.000		1.000	1.000
2003			1.000		1.000		1.000		1.000		0.971	1.000	1.000
2004		1.000		1.000		1.000		1.000		1.000		1.000	1.000
2005	1.133		1.000		1.000		1.000		1.000		1.000	1.000	1.000
2006	1.091	1.000		1.000		1.000		1.000		1.000		1.000	1.000
2007	1.174	1.000	1.000		1.000		1.000		1.000		1.000	1.000	1.000
2008	1.045	1.000	1.000	1.000		1.000		1.000		1.000		1.000	
2009	1.231	1.000	1.000	1.000	1.000		1.000		1.000		1.000		
2010	1.000	1.000	1.000	1.000	1.000	1.000		1.000		1.000			
2011	1.143	1.000	1.000	1.000	1.000	1.000		1.000					
2012	1.056	1.000	1.000	1.000	1.000	1.000	1.000						
2013	1.208	1.000	1.000	1.000	1.000	1.000							
2014	1.059	1.000	1.000	1.000	1.000								
2015	1.071	1.000	1.000	1.000									
2016	1.000	1.000	1.000										
2017	1.056	1.000											
2018	1.000												
AVERAGE	1.091	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.998	1.000	1.000	
3 YR AVG.	1.042	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
EXCL HI LO	1.086	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
5 YR AVG EXCL HI LO	1.062	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
PRIOR SELECTED	1.074	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
SELECTED	1.070	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
CUMULATIVE	1.070	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF CLAIM COUNT DEVELOPMENT FACTORS
PROPERTY

REPORTED CLAIM COUNT DEVELOPMENT

ACCIDENT YEAR*	DEVELOPMENT MONTHS													
	156	168	180	192	204	216	228	240	252	264	276	288	300	312
1994	14	14	14	14	14	14	14	14	14	14	14	14	14	14
1995	31	31	31	31	31	31	31	31	31	31	31	31	31	31
1996	23	23	23	23	23	23	23	23	23	23	23	23	23	23
1997	33	33	33	33	33	33	33	33	33	33	33	33	33	33
1998	21	21	21	21	21	21	21	21	21	21	21	21	21	21
1999	20	20	20	20	20	20	20	20	20	20	20	20	20	20
2000	24	24	24	24	24	24	24	24	24	24	24	24	24	24
2001	16	16	16	16	16	16	16	16	16	16	16	16	16	16
2002	14	14	14	14	14	14	14	14	14	14	14	14	14	14
2003	34	34	34	34	34	34	34	34	34	34	34	34	34	34
2004	37	37	37	37	37	37	37	37	37	37	37	37	37	37
2005	34	34	34	34	34	34	34	34	34	34	34	34	34	34
2006	24	24	24	24	24	24	24	24	24	24	24	24	24	24
2007	27	27	27	27	27	27	27	27	27	27	27	27	27	27
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
2019														

CLAIM COUNT DEVELOPMENT FACTORS

ACCIDENT YEAR*	156	168	180	192	204	216	228	240	252	264	276	288	300	312
	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
	168	180	192	204	216	228	240	252	264	276	288	300	312	ULT
1994	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1995	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1996	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1997	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1998	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1999	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2001	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2002	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2003	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2004	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2005	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2006	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
2007														
2008														
2009														
2010														
2011														
2012														
2013														
2014														
2015														
2016														
2017														
2018														
AVERAGE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
3 YR AVG.	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
5 YR AVG EXCL HI LO	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
PRIOR SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
SELECTED	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
CUMULATIVE	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF DISCOUNTED RESERVES
PROPERTY
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
	(1)	(2)	(3)	(4)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	0	1.000	0	0
2007	0	1.000	0	0
2008	0	1.000	0	0
2009	0	1.000	0	0
2010	0	1.000	0	0
2011	0	1.000	0	0
2012	0	1.000	0	0
2013	0	1.000	0	0
2014	0	1.000	0	0
2015	0	1.000	0	0
2016	0	1.000	0	0
2017	4	0.984	3	0
2018	62	0.981	61	1
2019	2,316	0.981	2,272	45
TOTAL	\$2,383		\$2,337	\$46

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$2,337
75%	3,107
85%	3,713
95%	5,008

Notes:

- (1) - Per Exhibit VI, Page 1A, Column (7).
 - (2) - Per AMI calculations, see Appendix A, Page 6.
 - (3) = (1) x (2).
 - (4) = (1) - (3). Excludes investment income on the margin.
 - (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2020
CALCULATION OF DISCOUNTED RESERVES
PROPERTY
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
	(1)	(2)	(3)	(4)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	0	1.000	0	0
2007	0	1.000	0	0
2008	0	1.000	0	0
2009	0	1.000	0	0
2010	0	1.000	0	0
2011	0	1.000	0	0
2012	0	1.000	0	0
2013	0	1.000	0	0
2014	0	1.000	0	0
2015	0	1.000	0	0
2016	0	1.000	0	0
2017	0	1.000	0	0
2018	9	0.984	9	0
2019	319	0.981	313	6
2020	674	0.981	661	13
TOTAL	\$1,002		\$983	\$19

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$983
75%	1,307
85%	1,562
95%	2,107

Notes:

- (1) - Per Exhibit VI, Page 1B, Column (6).
- (2) - Per AMI calculations, see Appendix A, Page 6.
- (3) = (1) x (2).
- (4) = (1) - (3). Excludes investment income on the margin.
- (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2021
CALCULATION OF DISCOUNTED RESERVES
PROPERTY
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
	(1)	(2)	(3)	(4)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	0	1.000	0	0
2007	0	1.000	0	0
2008	0	1.000	0	0
2009	0	1.000	0	0
2010	0	1.000	0	0
2011	0	1.000	0	0
2012	0	1.000	0	0
2013	0	1.000	0	0
2014	0	1.000	0	0
2015	0	1.000	0	0
2016	0	1.000	0	0
2017	0	1.000	0	0
2018	1	1.000	1	0
2019	46	0.984	45	1
2020	93	0.981	91	2
2021	715	0.981	701	14
TOTAL	\$855		\$838	\$16

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$838
75%	1,114
85%	1,332
95%	1,796

Notes:

- (1) - Per Exhibit VI, Page 1C, Column (6).
 - (2) - Per AMI calculations, see Appendix A, Page 6.
 - (3) = (1) x (2).
 - (4) = (1) - (3). Excludes investment income on the margin.
 - (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2022
CALCULATION OF DISCOUNTED RESERVES
PROPERTY
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	TOTAL RESERVES	DISCOUNT FACTORS	TOTAL DISCOUNTED RESERVES	FUTURE INVESTMENT INCOME
	(1)	(2)	(3)	(4)
Prior	\$0	1.000	\$0	\$0
1994	0	1.000	0	0
1995	0	1.000	0	0
1996	0	1.000	0	0
1997	0	1.000	0	0
1998	0	1.000	0	0
1999	0	1.000	0	0
2000	0	1.000	0	0
2001	0	1.000	0	0
2002	0	1.000	0	0
2003	0	1.000	0	0
2004	0	1.000	0	0
2005	0	1.000	0	0
2006	0	1.000	0	0
2007	0	1.000	0	0
2008	0	1.000	0	0
2009	0	1.000	0	0
2010	0	1.000	0	0
2011	0	1.000	0	0
2012	0	1.000	0	0
2013	0	1.000	0	0
2014	0	1.000	0	0
2015	0	1.000	0	0
2016	0	1.000	0	0
2017	0	1.000	0	0
2018	0	1.000	0	0
2019	3	1.000	3	0
2020	13	0.984	13	0
2021	99	0.981	97	2
2022	758	0.981	743	15
TOTAL	\$872		\$856	\$17

ESTIMATING DISCOUNTED RESERVES AT VARIOUS CONFIDENCE LEVELS

CONFIDENCE LEVELS	DISCOUNTED RESERVES
	(5)
EXPECTED	\$856
75%	1,138
85%	1,359
95%	1,834

Notes:

- (1) - Per Exhibit VI, Page 1D, Column (6).
 - (2) - Per AMI calculations, see Appendix A, Page 6.
 - (3) = (1) x (2).
 - (4) = (1) - (3). Excludes investment income on the margin.
 - (5) = (3) + margin based on Monte Carlo Simulation.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
CALCULATION OF PROJECTED LOSSES
PROPERTY
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

PROJECTED ULTIMATE LOSSES

ACCIDENT YEAR*	SELECTED ULTIMATE LOSSES	PROPERTY VALUE (\$MM)	LOSS RATE
	(1)	(2)	(3)
Prior			
1994	\$65	N/A	
1995	853	N/A	
1996	52	N/A	
1997	823	N/A	
1998	1,104	N/A	
1999	122	N/A	
2000	388	N/A	
2001	583	N/A	
2002	183	N/A	
2003	229	3,319	0.07
2004	229	3,518	0.07
2005	1,577	4,059	0.39
2006	89	4,177	0.02
2007	1,300	4,245	0.31
2008	1,090	4,372	0.25
2009	438	4,503	0.10
2010	229	4,638	0.05
2011	367	4,713	0.08
2012	132	4,695	0.03
2013	409	5,132	0.08
2014	1,286	5,849	0.22
2015	2,209	6,090	0.36
2016	24	7,507	0.00
2017	32	7,436	0.00
2018	370	7,241	0.05
2019	2,316	7,298	0.32
(PROJ.) 2019/2020	\$1,005	7,663	0.13
(PROJ.) 2020/2021	1,066	8,046	0.13
(PROJ.) 2021/2022	1,130	8,449	0.13

DISCOUNTED FUNDING REQUIREMENTS FOR PROSPECTIVE YEARS

ACCIDENT YEAR*	PROJECTED LOSSES	DISCOUNT FACTORS	DISCOUNTED PROJECTED LOSSES	FUTURE INVESTMENT INCOME
	(4)	(5)	(6)	(7)
2020	\$1,005	0.963	\$968	\$37
2021	1,066	0.963	1,027	39
2022	1,130	0.963	1,088	42

DISCOUNTED FUNDING REQUIREMENTS AT VARIOUS CONFIDENCE LEVELS

ACCIDENT YEAR*	EXPECTED LEVEL	75% LEVEL	85% LEVEL	95% LEVEL
	(8)	(9)	(10)	(11)
2020	\$968	\$1,333	\$1,610	\$2,158
2021	1,027	1,414	1,708	2,290
2022	1,088	1,498	1,809	2,426

Notes:

- (1) - Per Exhibit VI, Page 1A, Column (5). For projected years, (1) = (2) x (3).
- (2) - Per STATE OF ALASKA.
- (3) = (1) / (2). For the projected years, it is the trended average of prior years
- (4) = (1); (5) - Per Appendix A, Page 3, Column (7).
- (6) = (4) x (5); (7) = (4) - (6).
- (8) = (6).
- (9) to (11) - Based on Monte Carlo Simulation.

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF ULTIMATE CLAIM FREQUENCY AND ULTIMATE CLAIM SEVERITY
AS OF JUNE 30, 2019
PROPERTY
LIMITED TO RETENTION

ACCIDENT YEAR*	CLAIMS REPORTED @6/30/2019	DEVELOPMENT FACTORS	ULTIMATE CLAIM COUNT	ULTIMATE LOSSES	PROPERTY VALUE (\$MM)	NUMBER OF CLAIMS PER SB OF PROPERTY VALUE (FREQUENCY)	AVERAGE CLAIM (SEVERITY) (WHOLE DOLLARS)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1994	14	1.000	14	\$65	N/A		\$4,639
1995	31	1.000	31	853	N/A		27,524
1996	23	1.000	23	52	N/A		2,259
1997	33	1.000	33	823	N/A		24,942
1998	21	1.000	21	1,104	N/A		52,585
1999	20	1.000	20	122	N/A		6,122
2000	24	1.000	24	388	N/A		16,173
2001	16	1.000	16	583	N/A		36,426
2002	14	1.000	14	183	N/A		13,104
2003	34	1.000	34	229	3,319	10	6,730
2004	37	1.000	37	229	3,518	11	6,198
2005	34	1.000	34	1,577	4,059	8	46,376
2006	24	1.000	24	89	4,177	6	3,702
2007	27	1.000	27	1,300	4,245	6	48,165
2008	23	1.000	23	1,090	4,372	5	47,412
2009	16	1.000	16	438	4,503	4	27,385
2010	15	1.000	15	229	4,638	3	15,262
2011	24	1.000	24	367	4,713	5	15,290
2012	19	1.000	19	132	4,695	4	6,948
2013	29	1.000	29	409	5,132	6	14,107
2014	18	1.000	18	1,286	5,849	3	71,485
2015	15	1.000	15	2,209	6,090	2	147,329
2016	15	1.000	15	24	7,507	2	1,632
2017	19	1.000	19	32	7,436	3	1,708
2018	19	1.000	19	370	7,241	3	19,489
2019	31	1.070	37	2,316	7,298	5	62,856
TOTAL	595		601	\$16,503			

Notes:

- (1) & (5) - Per STATE OF ALASKA.
- (2) - Per STATE OF ALASKA's historical loss patterns.
- (3) = (1) x (2). For the latest year, it is (6) x (5)/1000.
- (4) = Exhibit VI, Page 1A, Column (5).
- (6) = [(3) / [(5) / 1000]] ; (7) = [(3) / (4)] x 1000. For the latest year, it is the average of prior years.
- * All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF PAID LOSS CASH FLOW
AS OF JUNE 30, 2019
PROPERTY
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

YEAR	1	2	3	4	5	6	7	8	9	10
CUMULATIVE LOSS PAYOUT PATTERN	32.9%	90.8%	98.7%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
INCREMENTAL LOSS PAYOUT PATTERN	32.9%	57.8%	7.9%	1.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
PAYOUT AS PERCENTAGE OF UNPAID AT 6/30/2019		86.2%	11.8%	1.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
PAYOUT AS PERCENTAGE OF ULTIMATE LOSS	32.9%	57.8%	7.9%	1.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%

ACCIDENT YEAR*	ESTIMATED ULTIMATE LOSS	ESTIMATED UNPAID 6/30/2019	ESTIMATED FUTURE PAYMENTS FOR FISCAL YEAR ENDING									
			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029 & SUBSEQUENT
Prior		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1994	\$65	0	0	0	0	0	0	0	0	0	0	0
1995	853	0	0	0	0	0	0	0	0	0	0	0
1996	52	0	0	0	0	0	0	0	0	0	0	0
1997	823	0	0	0	0	0	0	0	0	0	0	0
1998	1,104	0	0	0	0	0	0	0	0	0	0	0
1999	122	0	0	0	0	0	0	0	0	0	0	0
2000	388	0	0	0	0	0	0	0	0	0	0	0
2001	583	0	0	0	0	0	0	0	0	0	0	0
2002	183	0	0	0	0	0	0	0	0	0	0	0
2003	229	0	0	0	0	0	0	0	0	0	0	0
2004	229	0	0	0	0	0	0	0	0	0	0	0
2005	1,577	0	0	0	0	0	0	0	0	0	0	0
2006	89	0	0	0	0	0	0	0	0	0	0	0
2007	1,300	0	0	0	0	0	0	0	0	0	0	0
2008	1,090	0	0	0	0	0	0	0	0	0	0	0
2009	438	0	0	0	0	0	0	0	0	0	0	0
2010	229	0	0	0	0	0	0	0	0	0	0	0
2011	367	0	0	0	0	0	0	0	0	0	0	0
2012	132	0	0	0	0	0	0	0	0	0	0	0
2013	409	0	0	0	0	0	0	0	0	0	0	0
2014	1,286	0	0	0	0	0	0	0	0	0	0	0
2015	2,209	0	0	0	0	0	0	0	0	0	0	0
2016	24	0	0	0	0	0	0	0	0	0	0	0
2017	32	4	3	0	0	0	0	0	0	0	0	0
2018	370	62	53	8	1	0	0	0	0	0	0	0
2019	2,316	2,316	1,997	273	44	3	0	0	0	0	0	0
2020	1,005		331	581	79	13	1	0	0	0	0	0
2021	1,066			351	616	84	13	1	0	0	0	0
2022	1,130				372	653	89	14	1	0	0	0
TOTAL	\$19,704	\$2,383	\$2,386	\$1,214	\$1,112	\$753	\$104	\$15	\$1	\$0	\$0	\$0

Notes:

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
SIZE OF LOSS DISTRIBUTION
AS OF JUNE 30, 2019
PROPERTY
UNLIMITED

REPORTED CLAIM COUNTS

ACCIDENT YEAR*	\$0.01 TO \$0	\$5,000 TO \$5,000	\$10,000 TO \$10,000	\$25,000 TO \$25,000	\$50,000 TO \$50,000	\$100,000 TO \$100,000	\$250,000 TO \$250,000	\$500,000 TO \$500,000	\$750,000 TO \$750,000	OVER \$1,000,000	TOTAL	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Prior	205	426	95	70	39	29	13	8	3	2	1	891
2010	3	8	0	3	0	0	1	0	0	0	0	15
2011	6	7	1	5	4	0	1	0	0	0	0	24
2012	8	5	2	2	1	1	0	0	0	0	0	19
2013	15	5	2	5	1	0	0	1	0	0	0	29
2014	4	8	2	1	1	0	1	0	0	0	1	18
2015	6	4	2	0	0	0	1	0	0	0	2	15
2016	10	4	0	1	0	0	0	0	0	0	0	15
2017	12	6	0	1	0	0	0	0	0	0	0	19
2018	4	11	0	2	0	1	1	0	0	0	0	19
2019	2	8	3	5	3	4	5	0	0	0	1	31
TOTAL	275	492	107	95	49	35	23	9	3	2	5	1,095

REPORTED LOSSES

ACCIDENT YEAR*	\$0.01 TO \$0	\$5,000 TO \$5,000	\$10,000 TO \$10,000	\$25,000 TO \$25,000	\$50,000 TO \$50,000	\$100,000 TO \$100,000	\$250,000 TO \$250,000	\$500,000 TO \$500,000	\$750,000 TO \$750,000	OVER \$1,000,000	TOTAL	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Prior	(\$3,263)	\$670	\$703	\$1,079	\$1,431	\$2,178	\$2,211	\$2,932	\$1,845	\$1,665	\$1,437	\$12,889
2010	0	16	0	48	0	0	164	0	0	0	0	229
2011	0	16	7	65	138	0	142	0	0	0	0	367
2012	0	9	16	24	30	53	0	0	0	0	0	132
2013	0	10	14	95	36	0	0	254	0	0	0	409
2014	0	19	14	23	34	0	196	0	0	0	4,078	4,365
2015	0	7	18	0	0	0	184	0	0	0	2,766	2,976
2016	0	6	0	19	0	0	0	0	0	0	0	24
2017	0	10	0	19	0	0	0	0	0	0	0	29
2018	0	38	0	35	0	100	183	0	0	0	0	356
2019	0	26	26	140	155	395	1,005	0	0	0	2,000	3,747
TOTAL	(\$3,263)	\$828	\$798	\$1,546	\$1,823	\$2,726	\$4,085	\$3,186	\$1,845	\$1,665	\$10,281	\$25,522

Notes:

Per STATE OF ALASKA.

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF DISCOUNT FACTORS
AS OF JUNE 30, 2019
WORKERS' COMPENSATION

PAYMENT YEARS	CUMULATIVE PAYMENT PATTERN	INCREMENTAL PAYMENTS	REMAINING PAYMENTS AT THE BEGINNING OF PERIOD	DISCOUNT FACTOR	PRESENT VALUE OF REMAINING PAYMENTS	PRESENT VALUE DISCOUNT FACTOR
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	25.2%	25.2%	100.0%	0.985	86.1%	0.861
2	48.8%	23.6%	74.8%	0.957	63.1%	0.844
3	57.5%	8.7%	51.2%	0.929	41.1%	0.802
4	62.7%	5.3%	42.5%	0.902	33.5%	0.787
5	66.4%	3.6%	37.3%	0.875	29.1%	0.782
6	69.5%	3.1%	33.6%	0.850	26.3%	0.783
7	72.2%	2.7%	30.5%	0.825	23.9%	0.785
8	74.7%	2.5%	27.8%	0.801	21.9%	0.788
9	76.7%	2.1%	25.3%	0.778	20.1%	0.792
10	78.6%	1.8%	23.3%	0.755	18.6%	0.798
11	80.3%	1.8%	21.4%	0.733	17.3%	0.806
12	82.0%	1.7%	19.7%	0.712	16.0%	0.813
13	83.6%	1.6%	18.0%	0.691	14.7%	0.821
14	85.3%	1.7%	16.4%	0.671	13.6%	0.829
15	87.0%	1.7%	14.7%	0.651	12.2%	0.835
16	88.7%	1.7%	13.0%	0.632	10.9%	0.840
17	90.3%	1.6%	11.3%	0.614	9.5%	0.843
18	91.6%	1.3%	9.7%	0.596	8.2%	0.844
19	92.7%	1.1%	8.4%	0.579	7.2%	0.848
20	93.8%	1.1%	7.3%	0.562	6.2%	0.851
21	94.6%	0.8%	6.2%	0.546	5.3%	0.853
22	95.4%	0.8%	5.4%	0.530	4.7%	0.858
23	95.9%	0.6%	4.6%	0.514	4.0%	0.861
24	96.3%	0.4%	4.1%	0.499	3.5%	0.869
25	96.7%	0.4%	3.7%	0.485	3.3%	0.883
26	97.1%	0.4%	3.3%	0.471	3.0%	0.897
27	97.5%	0.4%	2.9%	0.457	2.7%	0.912
28	97.9%	0.4%	2.5%	0.444	2.3%	0.928
29	98.3%	0.4%	2.1%	0.431	2.0%	0.945
30	98.7%	0.4%	1.7%	0.418	1.7%	0.963
31	100.0%	1.3%	1.3%	0.406	1.3%	1.000

Notes:

- (2) - Per STATE OF ALASKA's historical loss patterns .
- (3) - Cumulative Payment Pattern for current year less Cumulative Payment Pattern for prior year.
- (4) = 1 - Cumulative Payment Pattern for prior year.
- (5) & (6) - Per AMI calculations.
- (7) = (6) / (4).

Assumptions:

Rate of Return: 3.0%
Starting Year: 0
Ending Year: 31

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF DISCOUNT FACTORS
AS OF JUNE 30, 2019
GENERAL LIABILITY

PAYMENT YEARS	CUMULATIVE PAYMENT PATTERN	INCREMENTAL PAYMENTS	REMAINING PAYMENTS AT THE BEGINNING OF PERIOD	DISCOUNT FACTOR	PRESENT VALUE OF REMAINING PAYMENTS	PRESENT VALUE DISCOUNT FACTOR
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	2.4%	2.4%	100.0%	0.985	87.7%	0.877
2	10.0%	7.6%	97.6%	0.957	87.9%	0.900
3	27.1%	17.1%	90.0%	0.929	82.8%	0.920
4	52.7%	25.5%	72.9%	0.902	67.9%	0.932
5	68.9%	16.2%	47.3%	0.875	44.0%	0.930
6	77.3%	8.4%	31.1%	0.850	28.9%	0.928
7	84.5%	7.2%	22.7%	0.825	21.2%	0.934
8	90.5%	6.0%	15.5%	0.801	14.5%	0.937
9	94.1%	3.6%	9.5%	0.778	8.9%	0.934
10	95.9%	1.7%	5.9%	0.755	5.4%	0.930
11	97.1%	1.2%	4.1%	0.733	3.9%	0.933
12	98.1%	1.0%	2.9%	0.712	2.8%	0.940
13	98.6%	0.5%	1.9%	0.691	1.8%	0.943
14	99.1%	0.5%	1.4%	0.671	1.3%	0.955
15	99.6%	0.5%	0.9%	0.651	0.9%	0.966
16	99.8%	0.2%	0.4%	0.632	0.4%	0.971
17	100.0%	0.2%	0.2%	0.614	0.2%	1.000

Notes:

- (2) - Per STATE OF ALASKA's historical loss patterns .
- (3) - Cumulative Payment Pattern for current year less Cumulative Payment Pattern for prior year.
- (4) = 1 - Cumulative Payment Pattern for prior year.
- (5) & (6) - Per AMI calculations.
- (7) = (6) / (4).

Assumptions:

Rate of Return: 3.0%
 Starting Year: 0
 Ending Year: 17

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF DISCOUNT FACTORS
AS OF JUNE 30, 2019
AUTO LIABILITY

PAYMENT YEARS	CUMULATIVE PAYMENT PATTERN	INCREMENTAL PAYMENTS	REMAINING PAYMENTS AT THE BEGINNING OF PERIOD	DISCOUNT FACTOR	PRESENT VALUE OF REMAINING PAYMENTS	PRESENT VALUE DISCOUNT FACTOR
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	34.7%	34.7%	100.0%	0.985	95.0%	0.950
2	62.0%	27.3%	65.3%	0.957	62.6%	0.959
3	85.6%	23.6%	38.0%	0.929	36.7%	0.968
4	94.3%	8.7%	14.4%	0.902	13.9%	0.967
5	97.1%	2.9%	5.7%	0.875	5.6%	0.967
6	99.2%	2.1%	2.9%	0.850	2.8%	0.978
7	100.0%	0.7%	0.8%	0.825	0.7%	1.000

Notes:

(2) - Per STATE OF ALASKA's historical loss patterns .

(3) - Cumulative Payment Pattern for current year less Cumulative Payment Pattern for prior year.

(4) = 1 - Cumulative Payment Pattern for prior year.

(5) & (6) - Per AMI calculations.

(7) = (6) / (4).

Assumptions:

Rate of Return:	3.0%
Starting Year:	0
Ending Year:	7

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF DISCOUNT FACTORS
AS OF JUNE 30, 2019
MARINE

PAYMENT YEARS	CUMULATIVE PAYMENT PATTERN	INCREMENTAL PAYMENTS	REMAINING PAYMENTS AT THE BEGINNING OF PERIOD	DISCOUNT FACTOR	PRESENT VALUE OF REMAINING PAYMENTS	PRESENT VALUE DISCOUNT FACTOR
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	34.1%	34.1%	100.0%	0.985	95.1%	0.951
2	61.4%	27.3%	65.9%	0.957	63.4%	0.962
3	85.8%	24.3%	38.6%	0.929	37.6%	0.974
4	99.2%	13.4%	14.2%	0.902	14.0%	0.983
5	99.7%	0.5%	0.8%	0.875	0.8%	0.971
6	99.9%	0.2%	0.3%	0.850	0.3%	0.976
7	100.0%	0.1%	0.1%	0.825	0.1%	1.000

Notes:

(2) - Per STATE OF ALASKA's historical loss patterns .

(3) - Cumulative Payment Pattern for current year less Cumulative Payment Pattern for prior year.

(4) = 1 - Cumulative Payment Pattern for prior year.

(5) & (6) - Per AMI calculations.

(7) = (6) / (4).

Assumptions:

Rate of Return: 3.0%
Starting Year: 0
Ending Year: 7

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF DISCOUNT FACTORS
AS OF JUNE 30, 2019
AVIATION

PAYMENT YEARS	CUMULATIVE PAYMENT PATTERN	INCREMENTAL PAYMENTS	REMAINING PAYMENTS AT THE BEGINNING OF PERIOD	DISCOUNT FACTOR	PRESENT VALUE OF REMAINING PAYMENTS	PRESENT VALUE DISCOUNT FACTOR
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	25.7%	25.7%	100.0%	0.985	93.9%	0.939
2	47.7%	22.0%	74.3%	0.957	70.6%	0.950
3	71.5%	23.7%	52.3%	0.929	50.4%	0.963
4	90.1%	18.7%	28.5%	0.902	27.8%	0.974
5	98.1%	7.9%	9.9%	0.875	9.7%	0.980
6	100.0%	1.9%	1.9%	0.850	1.9%	0.985
7	100.0%	0.0%	0.0%	0.825	0.0%	1.000

Notes:

(2) - Per STATE OF ALASKA's historical loss patterns .

(3) - Cumulative Payment Pattern for current year less Cumulative Payment Pattern for prior year.

(4) = 1 - Cumulative Payment Pattern for prior year.

(5) & (6) - Per AMI calculations.

(7) = (6) / (4).

Assumptions:

Rate of Return:	3.0%
Starting Year:	0
Ending Year:	7

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
CALCULATION OF DISCOUNT FACTORS
AS OF JUNE 30, 2019
PROPERTY

PAYMENT YEARS	CUMULATIVE PAYMENT PATTERN	INCREMENTAL PAYMENTS	REMAINING PAYMENTS AT THE BEGINNING OF PERIOD	DISCOUNT FACTOR	PRESENT VALUE OF REMAINING PAYMENTS	PRESENT VALUE DISCOUNT FACTOR
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	32.9%	32.9%	100.0%	0.985	96.3%	0.963
2	90.8%	57.8%	67.1%	0.957	65.8%	0.981
3	98.7%	7.9%	9.2%	0.929	9.1%	0.981
4	99.9%	1.3%	1.3%	0.902	1.3%	0.984
5	100.0%	0.1%	0.1%	0.875	0.1%	1.000

Notes:

(2) - Per STATE OF ALASKA's historical loss patterns .

(3) - Cumulative Payment Pattern for current year less Cumulative Payment Pattern for prior year.

(4) = 1 - Cumulative Payment Pattern for prior year.

(5) & (6) - Per AMI calculations.

(7) = (6) / (4).

Assumptions:

Rate of Return: 3.0%
Starting Year: 0
Ending Year: 5

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
ANALYSIS OF NET UNDISCOUNTED RESERVE CHANGE
ALL COVERAGES COMBINED
(\$AMTS IN THOUSANDS)

1. Estimated net undiscounted reserves at 6/30/2018	\$183,573
2. Loss payments during 2019 for accident years 2018 and prior	(\$25,564)
3. Change in estimated ultimate losses for accident years 2018 and prior due to re-evaluation at 6/30/2019	(\$5,460)
4. Estimated ultimate losses for accident year 2019	\$32,223
5. Loss payments during 2019 for accident year 2019	(\$4,719)
6. Estimated net undiscounted reserves at 6/30/2019	\$180,053

Notes:

- (1) - Per 2018 Actuarial Report.
- (2) - Total from Appendix C, Column (3).
- (3) - Total from Appendix D, Column (3).
- (4) - Total from Exhibits I to VI, Page 1, Column (5) for accident year 2019.
- (5) - Per STATE OF ALASKA.
- (6) = Sum of (1) through (5).

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
ANALYSIS OF NET UNDISCOUNTED RESERVE CHANGE
AS OF JUNE 30, 2019
WORKERS' COMPENSATION
(\$AMOUNTS IN '000s)
UNLIMITED

1. Estimated net undiscounted reserves at 6/30/2018	\$157,989
2. Loss payments during 2019 for accident years 2018 and prior	(\$13,191)
3. Change in estimated ultimate losses for accident years 2018 and prior due to re-evaluation at 6/30/2019	(\$13,423)
4. Estimated ultimate losses for accident year 2019	\$22,436
5. Loss payments during 2019 for accident year 2019	(\$4,176)
6. Estimated net undiscounted reserves at 6/30/2019	\$149,635

Notes:

- (1) - Per 2018 Actuarial Report.
- (2) - Total from Appendix D, Page 1, Column (3).
- (2) - Total from Appendix C, Page 1, Column (3).
- (4) - See Exhibit I, Page 1A, Column (5), for accident year 2019.
- (5) - Per STATE OF ALASKA.
- (6) = Sum of (1) through (5).

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
ANALYSIS OF NET UNDISCOUNTED RESERVE CHANGE
AS OF JUNE 30, 2019
GENERAL LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

1. Estimated net undiscounted reserves at 6/30/2018	\$22,857
2. Loss payments during 2019 for accident years 2018 and prior	(\$12,782)
3. Change in estimated ultimate losses for accident years 2018 and prior due to re-evaluation at 6/30/2019	\$9,777
4. Estimated ultimate losses for accident year 2019	\$6,440
5. Loss payments during 2019 for accident year 2019	(\$453)
6. Estimated net undiscounted reserves at 6/30/2019	\$25,838

Notes:

- (1) - Per 2018 Actuarial Report.
- (2) - Total from Appendix D, Page 2, Column (3).
- (2) - Total from Appendix C, Page 2, Column (3).
- (4) - See Exhibit II, Page 1A, Column (5), for accident year 2019.
- (5) - Per STATE OF ALASKA.
- (6) = Sum of (1) through (5).

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
ANALYSIS OF NET UNDISCOUNTED RESERVE CHANGE
AS OF JUNE 30, 2019
AUTO LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

1. Estimated net undiscounted reserves at 6/30/2018	\$401
2. Loss payments during 2019 for accident years 2018 and prior	(\$223)
3. Change in estimated ultimate losses for accident years 2018 and prior due to re-evaluation at 6/30/2019	(\$9)
4. Estimated ultimate losses for accident year 2019	\$350
5. Loss payments during 2019 for accident year 2019	(\$69)
6. Estimated net undiscounted reserves at 6/30/2019	\$449

Notes:

- (1) - Per 2018 Actuarial Report.
- (2) - Total from Appendix D, Page 3, Column (3).
- (2) - Total from Appendix C, Page 3, Column (3).
- (4) - See Exhibit III, Page 1A, Column (5), for accident year 2019.
- (5) - Per STATE OF ALASKA.
- (6) = Sum of (1) through (5).

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
ANALYSIS OF NET UNDISCOUNTED RESERVE CHANGE
AS OF JUNE 30, 2019
MARINE
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

1. Estimated net undiscounted reserves at 6/30/2018	\$950
2. Loss payments during 2019 for accident years 2018 and prior	\$1,124
3. Change in estimated ultimate losses for accident years 2018 and prior due to re-evaluation at 6/30/2019	(\$1,301)
4. Estimated ultimate losses for accident year 2019	\$473
5. Loss payments during 2019 for accident year 2019	(\$20)
6. Estimated net undiscounted reserves at 6/30/2019	\$1,226

Notes:

- (1) - Per 2018 Actuarial Report.
- (2) - Total from Appendix D, Page 4, Column (3).
- (2) - Total from Appendix C, Page 4, Column (3).
- (4) - See Exhibit IV, Page 1A, Column (5), for accident year 2019.
- (5) - Per STATE OF ALASKA.
- (6) = Sum of (1) through (5).

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
ANALYSIS OF NET UNDISCOUNTED RESERVE CHANGE
AS OF JUNE 30, 2019
AVIATION
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

1. Estimated net undiscounted reserves at 6/30/2018	\$360
2. Loss payments during 2019 for accident years 2018 and prior	(\$215)
3. Change in estimated ultimate losses for accident years 2018 and prior due to re-evaluation at 6/30/2019	\$169
4. Estimated ultimate losses for accident year 2019	\$208
5. Loss payments during 2019 for accident year 2019	\$0
6. Estimated net undiscounted reserves at 6/30/2019	\$522

Notes:

- (1) - Per 2018 Actuarial Report.
- (2) - Total from Appendix D, Page 5, Column (3).
- (2) - Total from Appendix C, Page 5, Column (3).
- (4) - See Exhibit V, Page 1A, Column (5), for accident year 2019.
- (5) - Per STATE OF ALASKA.
- (6) = Sum of (1) through (5).

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
ANALYSIS OF NET UNDISCOUNTED RESERVE CHANGE
AS OF JUNE 30, 2019
PROPERTY
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

1. Estimated net undiscounted reserves at 6/30/2018	\$1,016
2. Loss payments during 2019 for accident years 2018 and prior	(\$276)
3. Change in estimated ultimate losses for accident years 2018 and prior due to re-evaluation at 6/30/2019	(\$673)
4. Estimated ultimate losses for accident year 2019	\$2,316
5. Loss payments during 2019 for accident year 2019	\$0
6. Estimated net undiscounted reserves at 6/30/2019	\$2,383

Notes:

- (1) - Per 2018 Actuarial Report.
- (2) - Total from Appendix D, Page 6, Column (3).
- (2) - Total from Appendix C, Page 6, Column (3).
- (4) - See Exhibit VI, Page 1A, Column (5), for accident year 2019.
- (5) - Per STATE OF ALASKA.
- (6) = Sum of (1) through (5).

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
COMPARISON OF ESTIMATED ULTIMATE LOSSES
AS OF JUNE 30, 2019
WORKERS' COMPENSATION
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	ESTIMATED ULTIMATE LOSSES		INCREASE OR DECREASE
	@6/30/2018	@6/30/2019	
	(1)	(2)	(3)
Prior (Reserve)	\$6,041	\$6,764	\$723
1994	8,062	8,119	58
1995	15,520	15,317	(203)
1996	12,588	12,505	(83)
1997	12,647	12,646	(1)
1998	10,586	10,498	(88)
1999	13,953	13,988	35
2000	17,376	17,556	180
2001	20,918	20,812	(106)
2002	21,365	21,579	214
2003	20,637	20,999	362
2004	23,255	23,015	(240)
2005	23,125	22,133	(992)
2006	21,642	21,292	(350)
2007	24,254	24,138	(116)
2008	20,667	20,285	(382)
2009	22,769	22,359	(410)
2010	32,470	31,965	(505)
2011	31,541	31,475	(66)
2012	26,802	25,838	(965)
2013	31,072	31,089	17
2014	27,328	26,261	(1,067)
2015	25,709	25,330	(379)
2016	25,753	24,108	(1,645)
2017	23,130	21,308	(1,822)
2018	26,543	20,950	(5,592)
TOTAL	\$545,754	\$532,331	(\$13,423)

Notes:

(1) - Per 2018 Actuarial Report.

(2) - Per Exhibit I, Page 1A, Column (5).

(3) = (2) - (1).

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
COMPARISON OF ESTIMATED ULTIMATE LOSSES
AS OF JUNE 30, 2019
GENERAL LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	ESTIMATED ULTIMATE LOSSES		INCREASE OR DECREASE
	@6/30/2018	@6/30/2019	
	(1)	(2)	(3)
Prior (Reserve)	\$0	\$0	\$0
1994	4,976	4,976	0
1995	5,410	5,410	0
1996	5,965	5,965	0
1997	2,841	2,841	0
1998	4,724	4,724	0
1999	5,327	5,327	0
2000	7,453	7,453	0
2001	4,494	4,494	0
2002	3,060	3,103	43
2003	4,369	4,424	55
2004	7,603	7,603	0
2005	6,997	6,965	(32)
2006	8,238	8,952	714
2007	6,217	6,148	(69)
2008	6,255	6,140	(115)
2009	2,662	2,875	212
2010	1,493	1,362	(131)
2011	10,734	10,333	(401)
2012	7,558	7,511	(48)
2013	3,248	3,248	(0)
2014	5,096	5,494	399
2015	4,277	3,836	(441)
2016	6,011	8,932	2,921
2017	3,104	4,726	1,622
2018	6,390	11,436	5,047
TOTAL	\$134,503	\$144,280	\$9,777

Notes:

(1) - Per 2018 Actuarial Report.

(2) - Per Exhibit II, Page 1A, Column (5).

(3) = (2) - (1).

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
COMPARISON OF ESTIMATED ULTIMATE LOSSES
AS OF JUNE 30, 2019
AUTO LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	ESTIMATED ULTIMATE LOSSES		INCREASE OR DECREASE
	@6/30/2018	@6/30/2019	
	(1)	(2)	(3)
Prior (Reserve)	\$0	\$0	\$0
1994	614	614	0
1995	1,078	1,078	0
1996	245	245	0
1997	657	657	0
1998	1,630	1,630	0
1999	1,594	1,594	0
2000	857	857	0
2001	2,363	2,363	0
2002	1,737	1,737	0
2003	445	445	0
2004	965	965	0
2005	329	329	0
2006	510	510	0
2007	309	309	0
2008	418	418	0
2009	322	322	0
2010	2,813	2,813	0
2011	666	666	0
2012	1,949	1,891	(57)
2013	426	425	(1)
2014	488	621	133
2015	287	284	(3)
2016	241	220	(21)
2017	221	186	(34)
2018	353	328	(26)
TOTAL	\$21,518	\$21,509	(\$9)

Notes:

(1) - Per 2018 Actuarial Report.

(2) - Per Exhibit III, Page 1A, Column (5).

(3) = (2) - (1).

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
COMPARISON OF ESTIMATED ULTIMATE LOSSES
AS OF JUNE 30, 2019
MARINE
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	ESTIMATED ULTIMATE LOSSES		INCREASE OR DECREASE
	@6/30/2018	@6/30/2019	
	(1)	(2)	(3)
Prior	\$0	\$0	\$0
1994	961	961	0
1995	2,768	2,768	0
1996	1,185	1,185	0
1997	3,264	3,264	0
1998	1,711	1,711	0
1999	1,982	1,982	0
2000	3,170	3,044	(126)
2001	3,531	3,531	0
2002	3,514	3,514	0
2003	2,943	2,943	0
2004	1,603	1,408	(195)
2005	667	667	0
2006	965	965	0
2007	1,936	1,936	0
2008	596	596	0
2009	1,332	1,332	0
2010	133	133	0
2011	660	660	0
2012	642	642	0
2013	814	814	(0)
2014	120	120	(0)
2015	196	266	70
2016	1,652	647	(1,005)
2017	347	248	(99)
2018	830	884	55
TOTAL	\$37,524	\$36,223	(\$1,301)

Notes:

(1) - Per 2018 Actuarial Report.

(2) - Per Exhibit IV, Page 1, Column (5).

(3) = (2) - (1).

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
COMPARISON OF ESTIMATED ULTIMATE LOSSES
AS OF JUNE 30, 2019
AVIATION
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	ESTIMATED ULTIMATE LOSSES		INCREASE OR DECREASE
	@6/30/2018	@6/30/2019	
	(1)	(2)	(3)
Prior (Reserve)	\$0	\$0	\$0
1994	239	239	0
1995	370	370	0
1996	61	61	0
1997	130	130	0
1998	461	461	0
1999	165	165	0
2000	109	109	0
2001	795	795	0
2002	251	251	0
2003	100	100	0
2004	15	15	0
2005	96	96	0
2006	392	392	0
2007	26	26	0
2008	486	486	0
2009	864	864	0
2010	37	37	0
2011	395	395	0
2012	412	412	0
2013	324	324	0
2014	14	12	(2)
2015	570	548	(22)
2016	45	10	(35)
2017	316	646	330
2018	140	37	(103)
TOTAL	\$6,813	\$6,982	\$169

Notes:

(1) - Per 2018 Actuarial Report.

(2) - Per Exhibit V, Page 1, Column (5).

(3) = (2) - (1).

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
COMPARISON OF ESTIMATED ULTIMATE LOSSES
AS OF JUNE 30, 2019
PROPERTY
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	ESTIMATED ULTIMATE LOSSES		INCREASE OR DECREASE
	@6/30/2018	@6/30/2019	
	(1)	(2)	(3)
Prior	\$0	\$0	\$0
1994	65	65	0
1995	853	853	0
1996	52	52	0
1997	823	823	0
1998	1,104	1,104	0
1999	122	122	0
2000	388	388	0
2001	583	583	0
2002	183	183	0
2003	229	229	0
2004	229	229	0
2005	1,577	1,577	0
2006	89	89	0
2007	1,300	1,300	0
2008	1,090	1,090	0
2009	438	438	0
2010	229	229	0
2011	367	367	0
2012	132	132	0
2013	409	409	0
2014	1,286	1,286	0
2015	2,210	2,209	(1)
2016	27	24	(3)
2017	60	32	(27)
2018	1,013	370	(642)
TOTAL	\$14,860	\$14,187	(\$673)

Notes:

(1) - Per 2018 Actuarial Report.

(2) - Per Exhibit VI, Page 1, Column (5).

(3) = (2) - (1).

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
COMPARISON OF PAID LOSSES
AS OF JUNE 30, 2019
WORKERS' COMPENSATION
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	PAID LOSSES		INCREASE OR DECREASE
	@6/30/2018	@6/30/2019	
	(1)	(2)	(3)
Prior			
1994	\$7,879	\$7,849	(\$30)
1995	13,271	13,433	161
1996	11,546	11,594	48
1997	11,290	11,497	206
1998	9,815	9,875	61
1999	12,290	12,494	205
2000	14,294	14,697	403
2001	17,563	17,746	183
2002	17,896	18,234	338
2003	17,609	17,868	259
2004	19,643	19,813	170
2005	18,942	19,173	232
2006	17,386	17,485	99
2007	18,729	19,191	462
2008	15,863	16,190	327
2009	17,366	17,661	295
2010	21,642	21,836	194
2011	23,502	23,795	294
2012	20,143	20,382	239
2013	20,802	21,491	688
2014	17,199	17,826	627
2015	16,241	17,412	1,172
2016	12,647	13,527	880
2017	9,609	11,160	1,551
2018	4,598	8,726	4,129
TOTAL	\$387,765	\$400,956	\$13,191

Notes:

(1) - Per 2018 Actuarial Report.

(2) - Exhibit I, Page 1A, Column (6).

(3) = (2) - (1).

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
COMPARISON OF PAID LOSSES
AS OF JUNE 30, 2019
GENERAL LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	PAID LOSSES		INCREASE OR DECREASE
	@6/30/2018	@6/30/2019	
	(1)	(2)	(3)
Prior			
1994	\$4,976	\$4,976	\$0
1995	5,410	5,410	0
1996	5,965	5,965	0
1997	2,841	2,841	0
1998	4,724	4,724	0
1999	5,327	5,327	0
2000	7,453	7,453	0
2001	4,494	4,494	0
2002	3,049	3,071	22
2003	4,369	4,380	11
2004	7,603	7,603	0
2005	6,964	6,965	1
2006	8,238	8,912	674
2007	6,148	6,148	0
2008	6,140	6,140	0
2009	2,662	2,690	27
2010	1,362	1,362	0
2011	6,094	9,306	3,212
2012	7,175	7,179	4
2013	2,606	2,641	35
2014	3,345	4,099	755
2015	2,214	2,629	415
2016	1,851	4,950	3,099
2017	197	507	310
2018	440	4,656	4,216
TOTAL	\$111,646	\$124,428	\$12,782

Notes:

(1) - Per 2018 Actuarial Report.

(2) - Exhibit II, Page 1A, Column (6).

(3) = (2) - (1).

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
COMPARISON OF PAID LOSSES
AS OF JUNE 30, 2019
AUTO LIABILITY
(\$AMOUNTS IN '000s)
UNLIMITED

ACCIDENT YEAR*	PAID LOSSES		INCREASE OR DECREASE
	@6/30/2018	@6/30/2019	
	(1)	(2)	(3)
Prior			
1994	\$614	\$614	\$0
1995	1,078	1,078	0
1996	245	245	0
1997	657	657	0
1998	1,630	1,630	0
1999	1,594	1,594	0
2000	857	857	0
2001	2,363	2,363	0
2002	1,737	1,737	0
2003	445	445	0
2004	965	965	0
2005	329	329	0
2006	510	510	0
2007	309	309	0
2008	418	418	0
2009	322	322	0
2010	2,813	2,813	0
2011	666	666	0
2012	1,883	1,891	8
2013	425	425	0
2014	464	618	154
2015	278	278	0
2016	207	210	2
2017	144	158	14
2018	162	207	45
TOTAL	\$21,118	\$21,341	\$223

Notes:

(1) - Per 2018 Actuarial Report.

(2) - Exhibit III, Page 1A, Column (6).

(3) = (2) - (1).

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
COMPARISON OF PAID LOSSES
AS OF JUNE 30, 2019
MARINE
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	PAID LOSSES		INCREASE OR DECREASE
	@6/30/2018	@6/30/2019	
	(1)	(2)	(3)
Prior			
1994	\$961	\$961	\$0
1995	2,768	2,768	0
1996	1,185	1,185	0
1997	3,264	3,264	0
1998	1,711	1,711	0
1999	1,982	1,982	0
2000	3,170	3,044	(126)
2001	3,531	3,531	0
2002	3,514	3,514	0
2003	2,943	2,943	0
2004	1,603	1,408	(195)
2005	667	667	0
2006	965	965	0
2007	1,936	1,936	0
2008	596	596	0
2009	1,332	1,332	0
2010	133	133	0
2011	660	660	0
2012	642	642	0
2013	814	814	0
2014	120	120	0
2015	185	265	80
2016	1,497	539	(958)
2017	195	195	0
2018	199	274	75
TOTAL	\$36,574	\$35,450	(\$1,124)

Notes:

(1) - Per 2018 Actuarial Report.

(2) - Exhibit IV, Page 1A, Column (6).

(3) = (2) - (1).

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
COMPARISON OF PAID LOSSES
AS OF JUNE 30, 2019
AVIATION
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	PAID LOSSES		INCREASE OR DECREASE
	@6/30/2018	@6/30/2019	
	(1)	(2)	(3)
Prior			
1994	\$239	\$239	\$0
1995	370	370	0
1996	61	61	0
1997	130	130	0
1998	461	461	0
1999	165	165	0
2000	109	109	0
2001	795	795	0
2002	251	251	0
2003	100	100	0
2004	15	15	0
2005	96	96	0
2006	392	392	0
2007	26	26	0
2008	486	486	0
2009	864	864	0
2010	37	37	0
2011	395	395	0
2012	412	412	0
2013	324	324	0
2014	12	12	0
2015	544	544	0
2016	0	2	2
2017	169	382	214
2018	0	0	0
TOTAL	\$6,453	\$6,668	\$215

Notes:

(1) - Per 2018 Actuarial Report.

(2) - Exhibit V, Page 1A, Column (6).

(3) = (2) - (1).

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
COMPARISON OF PAID LOSSES
AS OF JUNE 30, 2019
PROPERTY
(\$AMOUNTS IN '000s)
LIMITED TO RETENTION

ACCIDENT YEAR*	PAID LOSSES		INCREASE OR DECREASE
	@6/30/2018	@6/30/2019	
	(1)	(2)	(3)
Prior			
1994	\$65	\$65	\$0
1995	853	853	0
1996	52	52	0
1997	823	823	0
1998	1,104	1,104	0
1999	122	122	0
2000	388	388	0
2001	583	583	0
2002	183	183	0
2003	229	229	0
2004	229	229	0
2005	1,577	1,577	0
2006	89	89	0
2007	1,300	1,300	0
2008	1,090	1,090	0
2009	438	438	0
2010	229	229	0
2011	367	367	0
2012	132	132	0
2013	409	409	0
2014	1,286	1,286	0
2015	2,209	2,209	0
2016	24	24	0
2017	29	29	0
2018	32	308	276
TOTAL	\$13,844	\$14,120	\$276

Notes:

(1) - Per 2018 Actuarial Report.

(2) - Exhibit VI, Page 1A, Column (6).

(3) = (2) - (1).

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
SELF-INSURED RETENTIONS BY FISCAL YEAR
AS OF JUNE 30, 2019
WORKERS' COMPENSATION
(\$AMOUNTS IN '000s)

ACCIDENT YEAR*	STATUTORY WORKERS' COMPENSATION SELF-INSURED RETENTION	AMHS CREW WORKERS' COMPENSATION SELF-INSURED RETENTION
1994	UNLIMITED	N/A
1995	UNLIMITED	N/A
1996	UNLIMITED	N/A
1997	UNLIMITED	N/A
1998	UNLIMITED	N/A
1999	UNLIMITED	N/A
2000	UNLIMITED	N/A
2001	UNLIMITED	N/A
2002	UNLIMITED	UNLIMITED
2003	UNLIMITED	UNLIMITED
2004	UNLIMITED	UNLIMITED
2005	UNLIMITED	UNLIMITED
2006	UNLIMITED	UNLIMITED
2007	UNLIMITED	UNLIMITED
2008	UNLIMITED	UNLIMITED
2009	UNLIMITED	UNLIMITED
2010	UNLIMITED	UNLIMITED
2011	UNLIMITED	UNLIMITED
2012	UNLIMITED	UNLIMITED
2013	UNLIMITED	UNLIMITED
2014	UNLIMITED	UNLIMITED
2015	UNLIMITED	UNLIMITED
2016	UNLIMITED	UNLIMITED
2017	UNLIMITED	UNLIMITED
2018	UNLIMITED	UNLIMITED
2019	UNLIMITED	UNLIMITED

Notes:

Per STATE OF ALASKA.

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
SELF-INSURED RETENTIONS BY FISCAL YEAR
AS OF JUNE 30, 2019
GENERAL LIABILITY
(\$AMOUNTS IN '000s)

FISCAL YEAR*	GENERAL LIABILITY SELF-INSURED RETENTION	MEDICAL MALPRACTICE SELF-INSURED RETENTION
1994	5,000	5,000
1995	5,000	5,000
1996	5,000	5,000
1997	5,000	5,000
1998	5,000	5,000
1999	5,000	5,000
2000	5,000	5,000
2001	5,000	5,000
2002	UNLIMITED	UNLIMITED
2003	UNLIMITED	UNLIMITED
2004	UNLIMITED	UNLIMITED
2005	UNLIMITED	UNLIMITED
2006	UNLIMITED	UNLIMITED
2007	UNLIMITED	UNLIMITED
2008	UNLIMITED	UNLIMITED
2009	UNLIMITED	UNLIMITED
2010	UNLIMITED	UNLIMITED
2011	UNLIMITED	UNLIMITED
2012	UNLIMITED	UNLIMITED
2013	UNLIMITED	UNLIMITED
2014	UNLIMITED	UNLIMITED
2015	UNLIMITED	UNLIMITED
2016	UNLIMITED	UNLIMITED
2017	UNLIMITED	UNLIMITED
2018	UNLIMITED	UNLIMITED

Notes:

Per STATE OF ALASKA.

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
SELF-INSURED RETENTIONS BY FISCAL YEAR
AS OF JUNE 30, 2019
AUTO LIABILITY
(\$AMOUNTS IN '000s)

FISCAL YEAR*	SELF-INSURED RETENTION
1994	2,000
1995	2,000
1996	2,000
1997	2,000
1998	2,000
1999	2,000
2000	2,000
2001	2,000
2002	UNLIMITED
2003	UNLIMITED
2004	UNLIMITED
2005	UNLIMITED
2006	UNLIMITED
2007	UNLIMITED
2008	UNLIMITED
2009	UNLIMITED
2010	UNLIMITED
2011	UNLIMITED
2012	UNLIMITED
2013	UNLIMITED
2014	UNLIMITED
2015	UNLIMITED
2016	UNLIMITED
2017	UNLIMITED
2018	UNLIMITED
2019	UNLIMITED

Notes:

Per STATE OF ALASKA.

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
SELF-INSURED RETENTIONS BY FISCAL YEAR
AS OF JUNE 30, 2019
MARINE
(\$AMOUNTS IN '000s)

FISCAL YEAR*	PROTECTION & INDEMNITY SELF-INSURED RETENTION	HULL & MACHINERY SELF-INSURED RETENTION	AMHS FERRY DOCKS SELF-INSURED RETENTION
1994	1,000	1,000	250
1995	1,000	1,000	N/A
1996	1,000	1,000	N/A
1997	1,000	1,000	N/A
1998	1,000	1,000	N/A
1999	1,000	1,000	N/A
2000	1,000	1,000	N/A
2001	1,000	1,000	N/A
2002	1,000	1,000	N/A
2003	1,000	1,000	N/A
2004	1,000	1,000	N/A
2005	1,000	1,000	N/A
2006	1,000	1,000	N/A
2007	1,000	1,000	N/A
2008	1,000	1,000	N/A
2009	1,000	1,000	N/A
2010	1,000	750	N/A
2011	1,000	750	N/A
2012	1,000	750	N/A
2013	500	750	N/A
2014	500	750	N/A
2015	500	750	N/A
2016	500	750	N/A
2017	500	500	N/A
2018	500	500	N/A
2019	500	500	N/A

Notes:

Per STATE OF ALASKA.

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
SELF-INSURED RETENTIONS BY FISCAL YEAR
AS OF JUNE 30, 2019
AVIATION
(\$AMOUNTS IN '000s)

FISCAL YEAR*	SELF-INSURED RETENTION
1994	250
1995	250
1996	250
1997	250
1998	250
1999	250
2000	250
2001	250
2002	250
2003	250
2004	250
2005	250
2006	250
2007	250
2008	250
2009	250
2010	250
2011	250
2012	250
2013	250
2014	250
2015	250
2016	250
2017	250
2018	250
2019	250

Notes:

Per STATE OF ALASKA.

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
SELF-INSURED RETENTIONS BY FISCAL YEAR
AS OF JUNE 30, 2019
PROPERTY
(\$AMOUNTS IN '000s)

FISCAL YEAR*	SELF-INSURED RETENTION
1994	1,000
1995	1,000
1996	1,000
1997	1,000
1998	1,000
1999	1,000
2000	1,000
2001	1,000
2002	1,000
2003	1,000
2004	1,000
2005	1,000
2006	1,000
2007	1,000
2008	1,000
2009	1,000
2010	1,000
2011	1,000
2012	1,000
2013	1,000
2014	1,000
2015	1,000
2016	1,000
2017	1,000
2018	1,000

Notes:

Per STATE OF ALASKA.

* All Accident Years are 12-month periods ending 6/30 of the stated year.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
LIST OF LARGE LOSSES
LOSSES GREATER THAN \$1,000,000
WORKERS' COMPENSATION

CLAIM NUMBER	EVENT DATE	ACCIDENT PERIOD	UNLIMITED PAID LOSSES @ 6/30/2019	UNLIMITED CASE RESERVES @ 6/30/2019	UNLIMITED INCURRED LOSSES @ 6/30/2019
(1)	(2)	(3)	(4)	(5)	(6)
400001894-1	7/20/1983	1984	\$1,128,151	\$240,879	\$1,369,030
400008295-1	9/28/1986	1987	1,359,470	559,797	1,919,267
400005920-1	7/27/1987	1988	1,189,689	805,266	1,994,955
400006005-1	8/27/1987	1988	1,131,036	676,221	1,807,257
400008108-1	7/11/1988	1989	1,159,404	0	1,159,404
400008929-1	2/9/1989	1989	627,884	668,751	1,296,635
400009346-1	5/15/1989	1989	1,719,171	0	1,719,171
400009368-1	7/25/1989	1990	1,232,712	167,304	1,400,017
400010072-1	2/8/1990	1990	1,497,299	923,814	2,421,112
400023764-1	7/5/1994	1995	1,367,632	1,152,449	2,520,081
400024859-1	12/22/1994	1995	803,296	398,428	1,201,724
400026116-1	2/12/1996	1996	741,724	552,456	1,294,180
400026211-1	3/27/1996	1996	776,227	308,899	1,085,126
209701180-1	9/12/1997	1998	757,989	429,129	1,187,118
209901880-1	2/22/1999	1999	879,861	359,538	1,239,399
209901885-1	3/13/1999	1999	1,386,713	62,849	1,449,563
202000071-1	6/23/1999	1999	528,476	670,776	1,199,252
202000164-1	7/13/1999	2000	861,437	563,589	1,425,026
201000011-1	1/5/2000	2000	2,577,281	922,375	3,499,656
4400100562-1	6/28/2000	2000	1,227,219	499,656	1,726,875
4400100727-1	2/2/2001	2001	1,142,515	892,891	2,035,406
1100011146-1	6/25/2001	2001	728,224	906,812	1,635,036
4410005200-1	8/3/2001	2002	632,896	381,504	1,014,400
4410005844-1	12/20/2001	2002	821,017	414,710	1,235,727
4410005800-1	12/25/2001	2002	1,447,000	669,632	2,116,632
4410006674-1	6/6/2002	2002	832,179	1,371,670	2,203,849
4410007091-1	8/31/2002	2003	1,128,186	887,794	2,015,980
2003053062	3/17/2003	2003	771,436	304,996	1,076,432
2003054127	6/24/2003	2003	1,091,006	334,491	1,425,497
2003054926	12/21/2003	2004	940,838	1,298,520	2,239,357
2004055647	5/10/2004	2004	767,936	741,319	1,509,255
2004056815	12/12/2004	2005	1,860,351	182,275	2,042,626
2005057729	6/13/2005	2005	1,076,083	1,304,849	2,380,932
2005058474	9/1/2005	2006	800,538	937,397	1,737,935
2006058933	2/21/2006	2006	1,059,517	1,036,751	2,096,267
2006059115	3/31/2006	2006	865,472	743,607	1,609,079
2006060349	12/29/2006	2007	439,606	858,227	1,297,833
2007060961	5/29/2007	2007	2,002,715	1,473,253	3,475,968
2007061176	6/30/2007	2007	514,298	735,704	1,250,002
2007061178	7/17/2007	2008	1,152,228	405,239	1,557,467
2007061612	10/12/2007	2008	730,952	1,026,767	1,757,719
2007061791	10/22/2007	2008	431,695	1,008,961	1,440,656
2008063136	10/6/2008	2009	1,028,318	1,490,539	2,518,857
2009063549	1/22/2009	2009	753,079	482,677	1,235,756
2009064282	7/13/2009	2010	1,841,923	5,287,959	7,129,882
2009064429	8/3/2009	2010	685,258	686,298	1,371,556
2009064619	9/17/2009	2010	169,316	1,546,216	1,715,532
2010066250	10/12/2010	2011	1,256,191	53,474	1,309,665
2010066411	11/18/2010	2011	1,667,745	2,868,600	4,536,345
2011066879	3/10/2011	2011	849,884	1,127,335	1,977,219
2012069646	10/5/2012	2013	800,274	975,337	1,775,611
2013-WC000057	3/9/2013	2013	537,355	970,981	1,508,336
2013-WC000078	3/11/2013	2013	268,714	2,239,747	2,508,461
2014-WC001830	4/28/2014	2014	539,406	1,092,934	1,632,339
2014-WC001849	5/1/2014	2014	323,241	977,583	1,300,824
2014-WC001850	5/1/2014	2014	324,298	861,842	1,186,140
2015-WC003465	7/6/2015	2016	1,080,818	1,604,225	2,685,043
2015-WC003765	9/4/2015	2016	273,638	2,170,703	2,444,341

Notes:
(1) to (6) - Per STATE OF ALASKA.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
LIST OF LARGE LOSSES
LOSSES GREATER THAN \$500,000
GENERAL LIABILITY

CLAIM NUMBER	EVENT DATE	CLAIM PERIOD	UNLIMITED PAID LOSSES @6/30/2019	UNLIMITED CASE RESERVES @6/30/2019	UNLIMITED INCURRED LOSSES @6/30/2019
(1)	(2)	(3)	(4)	(5)	(6)
200863096-1-1	6/22/1985	1985	1,208,630	0	1,208,630
100860192-1-1	5/9/1986	1986	565,061	0	565,061
200901138-1-1	8/26/1986	1987	721,941	0	721,941
200863439-2-1	12/9/1986	1987	1,520,567	0	1,520,567
200901554-1-1	3/25/1987	1987	516,088	0	516,088
400476287-1-1	5/12/1987	1987	562,315	0	562,315
202890724-1-1	9/27/1987	1988	891,799	0	891,799
200880295-1-1	1/23/1988	1988	2,315,899	0	2,315,899
200880486-2-1	1/23/1988	1988	1,502,101	0	1,502,101
200880295-3-1	1/23/1988	1988	660,000	0	660,000
200880486-5-1	1/23/1988	1988	556,926	0	556,926
200880486-3-1	1/23/1988	1988	556,819	0	556,819
200901568-1-1	7/12/1988	1989	3,845,499	0	3,845,499
202880467-1-1	9/2/1988	1989	1,771,066	0	1,771,066
200910570-1-1	2/9/1991	1991	1,565,608	0	1,565,608
200913910-1-1	2/24/1991	1991	515,157	0	515,157
1100001036-1-1	8/8/1991	1992	684,730	0	684,730
100920287-1-1	9/17/1991	1992	2,926,293	0	2,926,293
100920313-1-1	5/23/1992	1992	1,164,961	0	1,164,961
100930307-1-1	5/31/1993	1993	624,120	0	624,120
100940264-1-1	12/30/1993	1994	931,432	0	931,432
100940423-1-1	2/8/1994	1994	1,286,997	0	1,286,997
100940367-1-1	3/19/1994	1994	507,232	0	507,232
100950502-1-1	9/9/1994	1995	601,262	0	601,262
100950459-1-1	12/22/1994	1995	2,415,599	0	2,415,599
100960430-1-1	6/2/1996	1996	2,610,360	0	2,610,360
100980217-1-1	8/27/1997	1998	548,325	0	548,325
100980209-1-1	11/26/1997	1998	576,741	0	576,741
100980154-1-1	12/23/1997	1998	869,526	0	869,526
1998061780-1	3/1/1998	1998	740,425	0	740,425
1998065647-1	9/18/1998	1999	965,742	0	965,742
1100002029-1-1	5/14/1999	1999	950,024	0	950,024
1100002012-1-1	7/24/1999	2000	503,673	0	503,673
100200011-1-1	7/29/1999	2000	864,518	0	864,518
202990829-1-1	10/7/1999	2000	1,006,803	0	1,006,803
1100011149-1-1	12/17/1999	2000	2,464,936	0	2,464,936
2000069903-1	8/1/2000	2001	1,196,403	0	1,196,403
1100002002-1-1	4/12/2001	2001	739,298	0	739,298
1100002116-1-1	10/21/2001	2002	554,891	0	554,891
2002053240-1	12/18/2002	2003	827,155	0	827,155
2002055381-1	12/30/2002	2003	527,381	0	527,381
2003052611-1	1/6/2003	2003	540,243	0	540,243
2003054387-1	9/29/2003	2004	701,572	0	701,572
2004054968-1	1/21/2004	2004	1,947,576	0	1,947,576
2004055097-1	2/4/2004	2004	2,934,012	0	2,934,012
2004056729-1	3/1/2004	2004	551,055	0	551,055
2004056944-1	7/24/2004	2005	656,303	0	656,303
2004056526-1	10/22/2004	2005	798,646	0	798,646
2004057095-1	11/5/2004	2005	2,192,926	0	2,192,926
2005-GL007079	7/15/2005	2006	674,250	0	674,250
2005061954-2	8/5/2005	2006	1,072,841	0	1,072,841
2005058899-1	8/12/2005	2006	622,402	0	622,402
2005058456-1	10/27/2005	2006	2,354,932	0	2,354,932
2006059400-1	6/14/2006	2006	654,796	0	654,796
2006060521-1	9/2/2006	2007	1,521,097	0	1,521,097
2006069838-1	12/5/2006	2007	815,619	0	815,619
2006-GL001728	12/5/2006	2007	551,410	0	551,410
2007064855-2	1/15/2007	2007	580,910	0	580,910
2007064322-1	9/11/2007	2008	717,500	0	717,500
2008066617-3	1/1/2008	2008	1,193,571	0	1,193,571
2008065717-1	6/13/2008	2008	524,789	0	524,789
2011067509-1	1/15/2011	2011	998,694	0	998,694
2011070034-1	2/3/2011	2011	1,240,551	0	1,240,551
2011067170-2	5/1/2011	2011	4,791,280	0	4,791,280
2011-GL007085	5/1/2011	2011	49,889	1,150,111	1,200,000
2012068864-1	4/6/2012	2012	5,225,509	0	5,225,509
2012-GL002978	9/18/2012	2013	624,429	0	624,429
2013-GL001549	4/1/2013	2013	588,484	0	588,484
2013-GL003008	12/6/2013	2014	75,807	474,193	550,000
2014-GL003162	3/13/2014	2014	507,803	192,197	700,000
2014-GL001779	4/4/2014	2014	752,547	0	752,547
2014-GL004441	5/11/2014	2014	666,484	0	666,484
2017-GL005794	8/1/2014	2015	551,323	0	551,323
2015-GL004006	1/28/2015	2015	550,189	0	550,189
2015-GL005993	8/8/2015	2016	2,071,730	78,270	2,150,000
2015-GL005096	8/14/2015	2016	168,959	581,041	750,000
2015-GL004090	11/14/2015	2016	751,705	0	751,705
2016-GL004212	1/10/2016	2016	698,866	701,134	1,400,000
2016-GL007340	6/27/2016	2016	8,530	591,470	600,000
2017-GL006156	5/10/2017	2017	35,042	739,958	775,000
2017-GL006995	7/3/2017	2018	28,527	521,473	550,000
2017-GL006317	8/11/2017	2018	4,099,339	68,661	4,168,000
2018-GL007228	3/3/2018	2018	116,231	433,769	550,000
2018-GL007233	7/1/2018	2019	260,016	739,984	1,000,000

Notes:
(1) to (6) - Per STATE OF ALASKA.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
LIST OF LARGE LOSSES
LOSSES GREATER THAN \$500,000
AUTO LIABILITY

CLAIM NUMBER	EVENT DATE	ACCIDENT PERIOD	UNLIMITED PAID LOSSES @6/30/2019	UNLIMITED CASE RESERVES @6/30/2019	UNLIMITED INCURRED LOSSES @6/30/2019
(1)	(2)	(3)	(4)	(5)	(6)
200903434-4-1	11/25/1990	1991	\$975,000	\$0	\$975,000
202980936-1-1	10/25/1998	1999	670,708	0	670,708
100990052-1-1	12/24/1998	1999	668,442	0	668,442
1100002071-1-1	1/8/2000	2000	593,077	0	593,077
1100001060-1-1	1/7/2001	2001	2,000,360	0	2,000,360
2208020594-1-1	3/27/2002	2002	1,372,427	0	1,372,427
2009064385-1	8/3/2009	2010	2,322,715	0	2,322,715
2012068624-1	3/15/2012	2012	1,052,695	0	1,052,695
2012068744-1	3/31/2012	2012	570,511	0	570,511

Notes:

(1) to (6) - Per STATE OF ALASKA.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
LIST OF LARGE LOSSES
LOSSES GREATER THAN \$500,000
MARINE

CLAIM NUMBER	EVENT DATE	CLAIM PERIOD	LIMITED PAID LOSSES @6/30/2019	LIMITED CASE RESERVES @6/30/2019	LIMITED INCURRED LOSSES @6/30/2019
(1)	(2)	(3)	(4)	(5)	(6)
100920028-1-1	7/13/1991	1992	\$529,977	\$0	\$529,977
300001505-1-1	10/29/1991	1992	578,476	0	578,476
300002140-1-1	5/12/1995	1995	989,131	0	989,131
300002627-1-1	8/12/1997	1998	577,705	0	577,705
300002856-1-1	8/12/1998	1999	522,606	0	522,606
300002895-1-1	10/31/1998	1999	637,524	0	637,524
100200136-1-1	6/6/2000	2000	1,125,892	0	1,125,892
300004299-1-1	10/1/2000	2001	606,843	0	606,843
300004919-1-1	4/12/2002	2002	565,556	0	565,556
2003052615-1	1/4/2003	2003	531,481	0	531,481
2004055580-1	5/10/2004	2004	1,194,857	0	1,194,857
2006058859-1	1/27/2006	2006	782,276	0	782,276
2006059907-1	9/25/2006	2007	649,138	0	649,138
2009063544-1	1/30/2009	2009	782,014	0	782,014

Notes:

(1) to (6) - Per STATE OF ALASKA.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
LIST OF LARGE LOSSES
LOSSES GREATER THAN \$250,000
AVIATION

CLAIM NUMBER	EVENT DATE	CLAIM PERIOD	LIMITED PAID LOSSES @6/30/2019	LIMITED CASE RESERVES @6/30/2019	LIMITED INCURRED LOSSES @6/30/2019
(1)	(2)	(3)	(4)	(5)	(6)
200921995-1-1	7/2/1992	1993	\$622,162	\$0	\$622,162
100930378-1-1	11/12/1992	1993	2,986,710	0	2,986,710
100950042-1-1	10/11/1994	1995	400,000	0	400,000
100980097-1-1	12/5/1997	1998	472,500	0	472,500
2208015622-1-1	1/23/2001	2001	285,301	0	285,301
1100002008-1-1	7/19/2001	2002	386,750	0	386,750
2006059175-1	4/21/2006	2006	333,193	0	333,193
2008062288-1	4/10/2008	2008	375,246	0	375,246
2009064104-1	5/12/2009	2009	271,765	0	271,765
2009064043-1	5/13/2009	2009	394,686	0	394,686
2013-HU000140	3/30/2013	2013	253,861	0	253,861
2015-AP006153	1/31/2015	2015	1,216,990	0	1,216,990
2016-AI005684	10/28/2016	2017	657,496	0	657,496

Notes:

(1) to (6) - Per STATE OF ALASKA.

STATE OF ALASKA
ACTUARIAL REVIEW OF SELF-INSURANCE PROGRAM
AS OF JUNE 30, 2019
LIST OF LARGE LOSSES
LOSSES GREATER THAN \$250,000
PROPERTY

CLAIM NUMBER	EVENT DATE	CLAIM PERIOD	UNLIMITED PAID LOSSES @6/30/2019	UNLIMITED CASE RESERVES @6/30/2019	UNLIMITED INCURRED LOSSES @6/30/2019
(1)	(2)	(3)	(4)	(5)	(6)
100850096-1-1	11/13/1984	1985	\$746,362	0	\$746,362
100850075-1-1	11/22/1984	1985	298,037	0	298,037
100880105-1-1	2/26/1988	1988	337,624	0	337,624
100900053-1-1	11/21/1989	1990	335,406	0	335,406
100910126-1-1	4/2/1991	1991	284,894	0	284,894
100950171-1-1	1/13/1995	1995	539,933	0	539,933
100970126-1-1	12/22/1996	1997	385,454	0	385,454
100980082-1-1	11/22/1997	1998	849,207	0	849,207
1100001054-1-1	12/16/2000	2001	471,008	0	471,008
2004056657-1	11/20/2004	2005	558,612	0	558,612
2005057236-1	2/12/2005	2005	495,664	0	495,664
2007060413-1	1/20/2007	2007	1,436,848	0	1,436,848
2008062249-2	4/2/2008	2008	815,898	0	815,898
2009064247-1	6/22/2009	2009	323,527	0	323,527
2013-PR000041	3/11/2013	2013	254,000	0	254,000
2014-PR001579	3/4/2014	2014	4,078,137	0	4,078,137
2014-PR002322	8/25/2014	2015	1,513,667	0	1,513,667
2014-PR002338	8/30/2014	2015	1,252,800	0	1,252,800
2018-PR007745	11/30/2018	2019	0	2,000,000	2,000,000

Notes:

(1) to (6) - Per STATE OF ALASKA.

IV. GLOSSARY OF TERMS

Glossary of Terms

<i>Accident Year</i>	Attributing to a given year the total cost of losses which occur in that year.
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<i>Bornhuetter-Ferguson Approach (BFA)</i>	Approach which combines reported and paid losses with the expected unreported and unpaid losses to estimate ultimate losses.
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<i>Case Reserve</i>	Estimate of unpaid loss on reported claims.
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<i>Discount Reserve</i>	The present value, calculated at selected interest rates and payout patterns, of the payment of outstanding losses.
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<i>Expected Loss</i>	Exposures multiplied by the pure premium.
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<i>Exposure</i>	Extent of risk and/or possibility of loss (for general liability the exposure is expenditure in thousands, and for auto liability it is the number of vehicles).
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<i>Incurred Loss</i>	Paid loss plus the case reserve.
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<i>IBNR Reserve</i>	Reserve for claims incurred but not reported and for future changes to the case reserves.
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<i>Loss Adjustment Expenses (LAE)</i>	Loss adjustment expenses may be broken down into: Allocated and Unallocated loss adjustment expenses (ALAE and ULAE). ALAE expenses are expenses (other than in-house administrative) for claims handling which can be identified as pertaining to a specific claim (such as outside legal expense). ULAE expenses are general administrative expenses such as salaries of employees.
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<i>Loss Development Approach (LDA)</i>	Methods under which historical claim data are recorded and used to estimate the future development of existing claims. Loss development is the change in value of a body of claims from one valuation date to another valuation date.
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Glossary of Terms
(continued)

Paid Loss Amount paid on open and closed claims.

Pure Premium The value of losses per unit of exposure.

Ultimate Loss The incurred loss plus the IBNR reserve. The ultimate loss is the estimate of the total cost to settle all claims in the accident year.
